

VOLUME 1 - 2008

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YEARBOOK OF IDIOGRAPHIC SCIENCE

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 **FIRERA & LIUZZO**
PUBLISHING

Firera & Liuzzo Publishing is an imprint of Firera & Liuzzo Group

© 2010 - Firera & Liuzzo Group
Via Boezio, 6 - 00193 Roma
www.fireraliuzzo.com

ISBN: 978-88-6538-004-8

Firera & Liuzzo Group is a member of

 **Knowledge Consortium**
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YEARBOOK OF IDIOGRAPHIC SCIENCE

Volume 1/2008

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IDIOGRAPHIC SCIENCE ON ITS WAY: TOWARDS MAKING SENSE OF PSYCHOLOGY

*Sergio Salvatore** and *Jaan Valsiner***

When a new branch of science reaches a state where its growing knowledge can be systematically investigated, celebration of an important milestone of development is in order. This first *Yearbook of Idiographic Science* is such milestone. Since the beginning of the *International Journal of Idiographic Science* in 2005, the work that has reached the public audience has constantly been growing. This is no surprise since studying our phenomena of interest in their uniqueness of singularity—yet with goals of generalization-- makes perfect sense for both science and for practice.

To set the stage for this Yearbook, we identify key issues on which further advancement of the idiographic science depends. Each issue is a knot of various conceptual tensions whose clear definition lays the foundation for a scientific program. Here we will deal with three main issues. Each of them entails very general questions for any science:

- What does depicting sense-making mean and how does it work? Sense is idiographic by its nature—yet science operates with generalizations. Our goal is to show that such opposition is an artifact—there is always generality in the particulars and from the specific single cases we can arrive at generalizations that do not require the use of the notion of sample or population. The generic notion of a triangle is present in each and every triangular shape in the world—and to retrieve it we do not need to know what the “population of triangles” is like (nor do we need a “sample” of triangular forms to arrive at a triangle)
- As soon as one acknowledges the co-constructive circularity between sense-making and the sense-maker-- what is the conceptual status of the individual and which basic theoretical goals one can assume as fundamental anchoring in the production of knowledge about subject-system transaction?

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- What does development mean? What are the aims-- and the syntax—in our efforts to understand it? This question has been a stumbling block for developmental psychology over the past 150 or so years—and its general solution is still nowhere in sight. Science that fails to chart out its basic coordinates fails in its knowledge construction task.

All these issues are crucial for the advancement of idiographic science, as it suffers from the outset from the stigma of social representation coming from the term *idiographic*. We do not see any reason for such stigma—as we are addressing the basic science issue of generalization—yet the social perceptions of our efforts need not concur.

The ambivalent status of the notion of *idiographic*

The ambivalence about the notion of *idiographic* is with us all our way. In the initial phases of talking with various publishers about establishing the *International Journal of Idiographic Science*—before the final decision to “go solo” and deprive the publishers of the chance to co-build this new science—we heard constant dismay about this term. “If *idiographic*—whatever is meant by it-- it cannot be *science*!”—was the quintessence of these discussions. Mundane suggestions for re-labelling it “single-case analysis” were made—well in line with the empiricist and methods-dominated state of affairs in contemporary psychology. And, finally, after the Journal materialized—much to the applause of many who happily declared “it is very much needed!”—we encountered the paucity of contributions. While liking the idea of systemic presentation of singular examples of systems, our interlocutors failed (with few exceptions) provide such examples. The art of scientific writing in contemporary psychology is clearly focused on the samples-through-populations inductive generalization domain. Thus, writing up an idiographic example with adequate generalization potential is a task of writing in a foreign language—never mind that psychology’s classics such as Sigmund Freud, Jean Piaget, B. F. Skinner, Lev Vygotsky, Gordon Allport and others managed that task admirably decades ago.

Nothing will be farther away from the goals of this Yearbook than to concentrate on “the idiographic *method*.” We do not need (yet) another potpourri of “promising methods” (taken out of their theoretical and phenomenological contexts), or ideological statements about how this newly labelled branch of science is going to increase the social capital of empirical researchers in their institutional research assessment exercises. Science cannot be guided by administrative rules and regulations, but is a by-product of human minds. Hence the need to set the programmatic stage in this Introduction—to see where the field could develop further, given what has already happened in the recent years.

Depicting sense-making

The nomothetic foundation of idiographic thought

The root of our conceptual problem is in the notion of democracy—as it is applied to the data in the social sciences. *Science* has been made—by social convention building in the last 50 years-- to relate to the **SAMPLE (average) → POPULATION (generic model)** pathway of arriving at generalized knowledge. This is fortified by appealingly labelled research orientations that rhetorically glorify the notion of *evidence* as if that required the amassing of large quantities of data, followed by inductive generalization through the means of statistics (e.g. “evidence-based medicine”). The fascination with “evidence-based-X” has been monopolizing the meanings to force only sample-based generalizations to fit the *nomothetic* kind of science. Such monopoly falsely presents the generalization to be available only by numbers—rather than by understanding of the processes that make such numbers possible.

The focus on evidence-as-sample-based constitutes a mis-projection of a central notion of Western recent forms of social systems—liberal democracy operating by majority rules—to the enterprise of science. If evidence equals some average obtained from the study of a large sample it reifies the value of democracy (of the dominance of the majority—reflected in the average) and makes a single specimen closed for any generalized knowledge construction. The single specimen matters as little as a single vote in establishing democratic majority—the rare case of the vote that breaks a 50%/50% deadlock in an election. As a consequence, knowledge in the social sciences is made into that of the power of homogeneous accumulated classes—those of “men”, or “women”, or “6th graders”, etc. Each of these classes is treated as if they are homogeneous—under which condition the average indeed would be applicable to individuals.

Yet by the uniqueness of each person’s life course we are not the same, merely similar. Each of us can tell our life story—and as it is uniquely ours, it is the reality of the psychological phenomena. At the beginning of the 21st century such idiographic depiction might be accepted as a realm for mystique left for poets, artists and other undisciplined meaning-makers, while the “real science” marches on under the banner of applicability of averages to individual cases. As our Yearbook series is set to demonstrate, the overlook of the idiographic cases is actually a travesty of that very same “real science”—replacement of knowledge about phenomena by social consensus of how the phenomena can be left at a comfortable distance from the knowledge makers and their audiences. Indeed there is some rationale in that self-defensive stand-- psychology might risk the fate of the *Satanic Verses* if such distance were not in place.

Generality in the specific: Historically unique structured events are generalizable

Against widespread simplified opposition between idiographic and nomothetic approaches, we need to make a distinction between uniqueness and immanence of the sense-making. Immanence means that every sense-making process is an auto-regulated

dynamic product of itself. Hence it can only be studied in the unique, individual case—that occurs only once, yet the knowledge derivable from that one-time event is general. The French Revolution of 1789, the birth of Albert Einstein and the first step by a man on the Moon are all unique events that entail generality in precisely the particulars that unfold as the event takes place. There is no “sample” of such events that can be used to generalize about such generalities. Just the contrary—to send the first vehicle to land on Mars to explore that mysterious planet—for the first time—requires engineering knowledge of general kind that antedates any accumulation of “evidence” that the Mars lander would send back to Earth. Generic idiographic knowledge is a device for pre-emptive adaptation efforts to new circumstances. Generalization is needed before any evidence can occur, not after.

Uniqueness is often used as in a metaphoric sense, as a way to evoking the contextuality/immanence of the sense-making, but often as a specific property of sense-making's product. This entails a paradox which at the same time suggests a general assertion. The paradox is: in order to say that something is unique one needs a frame of reference defining the distribution of variability so that assertion of uniqueness is possible. But this means to have put the object a_i of the assertion in a class A containing other objects a_k respect of which a_i is asserted as “unique.” In other words: *uniqueness always entails assimilation to a more general class* that is in its nature fuzzy (a fuzzy set, rather than a crisp set) and is being constructed as the process of encountering similar (never the same!) unique versions of the phenomena unfolds.

From this the assertion follows the claim that idiographic thought is located within a nomothetic ground—the two operate in unison, not in opposition. Sense-making is local, but it is such according to some universalistic a-contextual way of working. Since all local happenings are linked by the flow of irreversible time—or form a historical sequence—the ongoing history creates the continuity of unique cases within the framework of generalized classes.

Sense-making: a dynamic process

In psychology there exist differences between those scholars who see sense-making as the product of conscious thought and others who approach it in terms of affective/unconscious thought. Most of authors do not explicitly deny the dimension they do not deal with, but consider it as marginal. Thus, we find cultural psychologists who - not differently from cognitive psychologists - consider the emotion as a source of motivation/distortion of sense-making (rather than its constitutive part) and psychoanalytically oriented authors that think along the lines of the Freudian idea of the unconscious as the “true psychic reality.” Going beyond this split, a general model of the mind could enable us to understand conscious and unconscious dimension of meaning as autonomous and at the same time reciprocally regulating process.

Sense-making is a dynamic phenomenon that unfolds over time yet in which time has an organizational role. We need to overcome a static representation of sense-making, focused on the product of it and implicitly thinking of reconstruct the dynamic in terms of linear sequence of static descriptions of states located in different moments

of time. But this means to treat the time as a parameter of observation, instead of a constitutive component of the phenomenon.

From a complementary point of view, dynamicity is implied in irreversibility. As the theory of complex systems specifies, what happens dynamically is a function of time. The system undergoes subsequent differentiations given by the emergence of new structures of order. Psychology has not yet elaborated models of analysis enabling to grasp not only what happens, but also how-- according to which conditions-- it happens. The microgenesis of sense-making is a catalyzed, not directly causal, process. The use of the notion of catalysis—study of conditions under which something happens, rather than asserting causality—is still not widespread in psychology.

Models of validation

Nomothetic approaches can refer to a rooted tradition concerning the validation of the conceptual productions. This tradition relies on the assumption of invariance of the way of functioning of the phenomena, according to which it assimilates the variabilities among and within the context of observation, treating them as the generalized terms *a quo* for the description production. Moreover, nomothetic approaches can derive from the assumption of invariance a kind of “constant principle” asserting that the procedures of validation work always in the same way on the phenomena under scrutiny, therefore they carry out but do not affect the validation.

Idiographic science cannot rely on these two simplifying assumptions. On the one hand, it can not unify the source of variability because in its definition it is bound to conceive just the variability within context (being the among one equivalent as a changing of object). Furthermore—all open systems amplify variability, rather than reduce it (Maruyama, 1963). On the other hand this means that the validation-- before it becomes a methodological problem-- is an epistemological matter. As matter of fact, the issue is the relationship between the discourse about the object (D_O) and the discourse on the discourse about the object ($D_{(D_O)}$) and more precisely-- between the two objects to which such discourses refer. The constant principle allows nomothetic approaches to treat the linkage between D_O and $D_{(D_O)}$ as taken for granted-- that is, to assume the equivalence of the two objects. But the assumption of the contextuality of the sense-making leads to recognize as a fundamental logical bond the non-equivalence between the two objects. As a matter of fact, they are parts of different discursive practices, therefore they are different objects. Moreover, there is the radical problem of the hierarchical order between the levels of discourse (nobody-- and no logical model-- guarantee that from the point of view of the sense-making the $D_{(D_O)}$ is a product/epiphenomenon of D_O rather than a projection of it onto a superordered level of discourse.

Idiographic approaches have been striving for coping with these issues, proposing various way of dealing with it (e.g. the criteria like utility, accountability, implication of the participants). Each of these endeavours seems more a tactic of avoiding the epistemological issue than a way of facing it. Yet, as a whole, they raise a further problem: should idiographic science have a general and widely shared – even articulated - model of validation or (for definition, for aim, for necessity) has to be characterized by a proliferation of local criteria of linkage between D_O and $D_{(D_O)}$?

Strategies of transferability

We have created a distinction between two “axis” of the idiographic science. It is the abductive logic that characterizes idiographic generalizations. Abductive logic starts as the inductive one—moving “upwards” from the experiential flow (and “the data”). Yet, while the inductive thought transforms the phenomena into the data, the abductive thought uses the rule in order to identify/discover new perspectives upon the phenomena-in-transition. According to this distinction, we can distinguish between the **axis of the identification** (AI) of the phenomenon (axis 1) and the **axis of the development** (AD) of the rule (axis 2). This distinction allows two different ways for viewing idiographic science. From a side, idiographic science can be thought in epistemological terms, as a model of the aim/nature of the knowledge, asserting that the object we think can be but local. From another side, idiographic science can be thought as a methodological model of making knowledge, asserting that in order to understand the sense-making, its way of working, we have to model it merely locally.

The two axis are not necessarily in contradiction-- yet are not automatically complementary either. In fact, practical approaches tend to privilege one over the other. Obviously, transferability is an issue belonging to the axis 2 (AD). As matter of fact, from the point of view of the axis 1 (AI), the knowledge of a local phenomenon of sense-making is an end in itself not requiring to be connecting to other activity of understanding. Nevertheless, just through such self-referential operation of making local knowledge it is possible to develop model of the rule that such operations need to follow. Transferability is the issue of managing such dialectic between axis 1 and axis 2.

Here history of psychology --and more generally that of the science-- shows various way of cope with the issue of unity of AI and AD. In some extent, the tendency of psychoanalytic movement to transform itself in a system of belonging can be seen as a direct consequence and a way of dealing with such problem: like the making the socio-cultural conditions grounding a principle of authority by means of which the local patterns of knowledge, each of one made inside and concerning the particular case, could be joined together and projected onto the level of the meta-psychological assertions on the mind.

For a long time the clinical method – in its Piagetian as well in the psychoanalytic interpretation – has practiced a strategy of transferability turning to the semiopoietic¹ power of the analogy. Recent applications of the meta-analysis in the clinical research adopting single case method is another strategy of transferability. The formal description opportunities offered by the mathematic of the dynamic system seems to be a further promising path of development. In any case, every strategy of transferability encounters the fundamental problem of defining the superordinate frame according to the relationships among the assertions concerning the various local phenomena. Here the use of meta-analysis entails statistical construction of such frame, thought to find a solution in terms of distribution of probabilities. Instead, mathematical models that entail a

1 Semiopoietic= sign-constructive

purely theoretical construction of the frame—based on the conceptual construction of the object²—would preserve the idea of psychology as a model-building science.

Person and semiosphere

Identity as sign, person as reference

A very basic issue is—what kind of a conceptual status is attributed to the person. Sense-making is understandable in so far as one postulates the role of actors who are involved in activities of meaning's co-construction. Yet the question is-- can such actors be given an autonomous, ontological status (even if deeply affected by their embeddness within the social context), or are they a result of the activities of sense-making that they are involved in? Can I be “an I” *outside of my own act* of sense-making?

This issue has deep implication for the idiographic science of sense-making. As matter of fact, if identity is thought as a *reference* (that is as a piece of the world starting from and upon which sense-making comes, but not a product of it), then actor's self-representations are in last analysis usable as criterion of validity. Thus, the issue moves to the methodological level – how to control the reliability of the self-representations. In the contrary, if one thinks of identity in terms of a sign, this means that every form of sense of self as to be understood as a rhetorical and performative act that unfolds within a local social activity, in order to regulate it.

Levels of sense-making

Sense-making entails different level of analysis. A full analysis can not give up to the idea of shared meaning working as superordinate device of sense-making. Cognitive ecological psychology, social representation theory, socio-cultural psychology provides much evidence about this direction. Otherwise, this very general assumption would lead to conceptual consequences and problems. As a matter of fact, such level of sense-making is not sufficient, because it does not cover the process of constantly and redundant negotiation of meanings that the actors are engaged in.

The socially shared meanings are not ready-made entities-- for “packaged” use -- but open sign “frames” that are activated inside and by means of the communication transaction that at the same time mediate. Such double level of sense-making raises the issue of how the superordered meanings are activated by the local social transaction

2 As an example—the structure of a coin that is tossed on a hard surface guarantees us the 0.5/0.5 split of probability of either outcome without a single tossing of the coin. If we arrived at the same result through inductive generalization, we need N (large number) of actual tossings of the coin-- only to verify on a large “sample” that is granted by the structural analysis of the coin-tossing setting.

and of how the product of such local social transaction come back on the superordered meanings.

Consensus versus conflict

We want here refer to two complementary issues concerning the depicting of sense-making. First, the problem is how to deal with the fact that sense-making is at the same time the shared ground of the social linkage and the source of the differences between persons from varied social backgrounds. Psychology's theories have often privileged one of the sides of this dialectic over the other, ending to bear out a consensual vision of the sense-making or a vision exclusively focused on the conflict as (socio-cognitive) source of it. Idiographic science has as aim the development of models of sense-making that are able to take into account the parts->whole dialectic.

Secondly, the issue of the conflict-consensus entails the problem of modelling the relationship between the process of reproduction of the sense-making and the pressures/perturbations the social environmental make on it. This issue is concerned with the conception of the relationship of sense-making and social environment. That is: in which way (under which condition) something that happens in the environmental is signified as a rupture? Under which condition is such rupture able to produce novelty, that is to deeply transform the process and the outcome of sense-making?

Contents and act in sense-making: autonomy versus contextual dependence of the interpretative work

Sense-making does not coincide with the content of the text produced. As matter of fact, every unfolding sign --if viewed from a side-- is a way of carrying out a representation in the terms of a given significance. From another side, it is a further sign—a part in the performative act of sense-making. Everyone is usually able to recognize, within a given social situation, the role played by the content component or the performative aspect of the sense-making.

The distinction between the content and the act is relevant for its methodological implications. As matter of fact, according to such distinction, every text can not be treat as significant in itself, but it also raises the question of understanding what does the fact that it has been produced in that specific circumstance - by these actors, in that moment - mean. Finally-- recognizing the performative level of sense-making leads to take into account the indexicality of the sense-making - that is the strong specificity-localism of the performed sign at the context of its performance.

Life trajectories

Need for a theory of observer

The dialectic between the internal-external positioning of the observer is part of the history of the idiographic approaches, coming up in different terms (i.e. *emic* versus *etic*). The issue here at stake is the relationship between the actor's self-representation of his/her life trajectories and the representation of the observer: how are these representation cross-validating each other? Insofar as one assumes hierarchical organization of the sense-making, then he/she has to recognize how sense-making entails different levels of representation, each of them treatable as the source as well as the object of the hierarchically higher one. This means that both the observer and the participant to the setting under scrutiny can activate different levels of depicting/self-depicting of life trajectories. They operate within different extents of reflexivity. At the present we do not have a model to make the idiographic analysis informed of this relevant parameter.

Models of Knowledge: Semiotic/Functionalism

The topic of the development/change raises the related question of the general model of explanation idiographic science has to assume as its frame of reference. Both cultural and clinical psychology generally adopts a mix of two fundamental approaches: the functionalist and the semiotic ones. According to functionalist approach the meaning lies in the function the act of producing a sign that performs a task-- and such function can be identified by means of the goal it is aimed at. The semiotic approach considers instead the acts of producing sign as signifiers conveying significances, fed by other significances and in turn eliciting further significances, in a process of unlimited sense-generating semiosis. This approach focuses on the circularity between the micro and macro levels of co-construction of meaning. It assumes, as its central heuristic criterion, recognition of the circularity that is established in contexts of dialogue and activity between already existing symbolic forms, situated processes of activation of these forms, the capacity of the meanings, activated in this way, to generate discursive positioning.

A solution to this central problem is not to choose between such approaches. Rather, the point is in recognizing the specificity and not automatically combinability of such frames, each of them requiring coherent syntax and methodology of analysis.

The transition-transaction problem

The problem of transition is a central topic for idiographic science. However, according to what was said above, it raises a methodological problem: how to distinguish the dynamic of sense-making – the results of which are never identical to previous results (due to irreversibility) – from the transition? This topic has evident linkage with the issue of the relations of two processes --development and learning. Psychology—as

mostly built on non-developmental axioms-- has not given a satisfying answer to the question of learning/development distinction. Usually, the shift between transaction-transition is made according to the point of view of the observer, generally rooted in the common sense. Thus, some processes of sense-making are seen as transitional just because their content is socially perceived as discontinuous (e.g., in terms of values, institutional routines, or cultural models). However, what looks discontinuous from the perspective of an outside observer need not be that from the perspective of a developing person. Likewise, developmental transitions within a system may look perfectly continuous when seen from outside (Zittoun, 2007). The developing idiographic science is linked to the capability and the way of overcoming such issue.

Idiographic science between desire and epochè

Does idiographic science have a social goal of changing unfolding trajectories of development? It is true that different approaches informed to idiographic logic –critical psychology, clinical and community psychology – pursue intervention aim and analyze individual and systemic trajectory in order to introduce change in them. Idiographic science aspires to the status of basic science—from where there are many ways of turning its general know-how into various applications-oriented implementations. Yet in and by itself it keeps distance from the widely cherished applied perspectives. Before anything can be applied the know-how needs to be developed in its generalized, abstract forms.

This raises two important issues. First of all, the perspective of an idiographic theory of psychological intervention becomes relevant at some specific time of development of the science. A theory that assumes the intervention as the product of the local sense-making among the expert and the participant - starting from the interpretation itself of the request as an act of meaning – may not be ready for application. Secondly, the focus on intervention reveals the epistemic role played by the goals of the scientists. Insofar as the idiographic science intervenes—and possibly it cannot avoid it-- it inevitably entails a project, a system of value working as promoting sign orienting the selection of goals and modalities. But this means a potential conflict with the need of *epochè*, that is the need of avoiding of having a normative model on the phenomenon under scrutiny in order to encounter it in its dimension of otherness. From this point of view idiographic science is caught inside an antinomy, pushed at the same time to stand in front to the life of others “without memory and desire” and with the glaze of the desire.

The end is a new beginning

Books are written and read by individuals, but are made of discussing communities. The triggering of new ideas is the goal of our *Yearbook* series. The developing of the idiographic science is an open building site proposing exciting intellectual challenges. In the next pages the reader will find contributes addressing in variable and

creative ways some of the issues here marked. Commentaries have been added in order to promoting the dialectic circulation of the ideas. We wish that Yearbook 2009 will host further discussions, triggered by the reading of this starting with the volume of 2008.

Worcester—Lecce September, 2008

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Biosketches

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SECTION I
DEPICTING SENSEMAKING

HOW GENERALIZATION WORKS THROUGH THE SINGLE CASE: A SIMPLE IDIOGRAPHIC PROCESS ANALYSIS OF AN INDIVIDUAL PSYCHOTHERAPY

Peter C. M. Molenaar and Jaan Valsiner***

Abstract. We demonstrate that there are two alternative trajectories to the same end—generalized knowledge—in the social sciences that operate on two kinds of variability (IAV and IEV). Each of these trajectories maps on different questions of general knowledge construction—at the level of individual cases in contrast with the level of populations. Contrary to the widely accepted assumption that the levels are interchangeable we argue that these need to be kept strictly separate. An illustration of generalized nature of psychotherapy effects based on time-series analysis of one case is provided.

Each person is unique in all respects-- genetically, physiologically and psychologically. Moreover, each person follows his/her own unique path in life in that (s)he matures, develops, learns, adapts, behaves and experiences in idiosyncratic ways. Yet, at the same time, within the range of inter-individual and intra-individual (temporal) variability, generic processes of life organization are in operation. It can be said that these generic processes make the high variability possible. As the livelihood of all species depends upon their flexibility of adaptation to ever-unpredictable conditions of the environment, it is not surprising that variability is the “name of the game” in biological and psychological research.

Thus, detailed synchronic, as well as diachronic, structures characterizing each individual person will almost surely never be realized again in this world after it has occurred for the first time. True, similar (but not the same—see Sovran, 1992) forms may be detected—and are meticulously classified into categories by empirical researchers who *de facto* recognize their intra-category variability (in any case where inter-coder agreement is less than 100%). By forcing a variant of category X into that category by coding it “X” like all other imperfectly fitting specimens eliminates precisely that

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aspect of the phenomena that psychology needs from further consideration. Psychology's research traditions have become established so as to disallow their own access to the crucial phenomenon—that of case-specific uniqueness as a representation of generic, universal processes that make this uniqueness possible (Poddiakov & Valsiner, in press).

Where psychology fails: the nomothetic versus idiographic distinction

The dominant scientific approach in psychology has been labeled *nomothetic*—as that term is interpreted as the flow of generalization from samples to populations. Roots of that interpretation are partly in the socio-administrative discourse about homogenized social groups such as army recruits, Alzheimer patients, company employees, or N-th grade children. Such discourse treats all members of the class as if they formed a crisp (rather than fuzzy) set, glancing over the obvious intra-class differences as if these are theoretically unimportant. Indeed, when a socially mono-functional role—such as soldier's—is expected to act as a collective unit, the issue of inter-soldiers differences is socially irrelevant. Yet social irrelevance is not equal to theoretical irrelevance. Psychology has failed to clearly see that—and its tradition has become to find general laws that hold equally for all subjects in some homogeneous population. Scientific inadequacy of this assumption has been at times noted (Lamiell, 1987, 2003; Molenaar *et al.*, 2003; Valsiner & Sato, 2006).

How is the homogenization technically accomplished? This happens by representing the behavior of each subject *by the same statistical model* (e.g., a linear regression model). Hence, at the level of theoretical assumptions, the researcher operates with the generic single case model (which may be suggested by common sense or everyday language—Valsiner, 1986) that is assumed to be testable on empirical data that make use of the quantitative variability between sample members while maintaining the assumption qualitative homogeneity of the “core” (or “hidden”) layer of the issue in question. Only a severely limited degree of heterogeneity between different subjects in such a population can be accommodated (e.g., allowing for subject-dependent regression coefficients in a linear regression model). In such search for nomothetic laws, invariant statistical models are employed that necessarily abstract from the various sources of structural heterogeneity characterizing individual human persons.

Perhaps this strategy satisfies the social uses of psychological data and gains rewards in the form of large epidemiological research grants or journalistic interests, but it adds little to our knowledge of basic psychological functions of particular persons. As soon as the focus is on a particular person P, it becomes important to employ theoretical models—both quantitative and qualitative-- that include all relevant unique aspects of P's synchronic and diachronic organization (Valsiner, 2004). Furthermore, these models need to include time as a central organizing concept—since any talk of processes implies time.

So, in sum—there are two paths to generalized knowledge—the traditional (mis-labeled nomothetic) that generates knowledge by the sieving of abstract representations from samples to populations and the idiographic—which emphasizes the time-based variability within each unique case. Behind that uniqueness are basic universal processes that have to be discovered. Hence, we emphasize the new brand of universal science that deals with single, autonomous, context-dependent systems in biology, psychology, sociology and anthropology. Single cases—analyzed systemically—are the primary empirical objects for arriving at generalized knowledge.

The relevance of idiographic knowledge exists with at least equal force for practice. If P is seeking psychotherapeutic treatment, then P is not so much interested in the general effects of this treatment in some population of homogeneous subjects—who are surely different from P. Instead, P is first and foremost interested in the treatment effects on P's own individual situation, given the individual life-course history. To answer the latter question, an idiographic approach has to be employed. That approach needs to succeed both at the practical level of treatment in psychotherapy and at the level of idiographic science as it generates understanding on how psychotherapy works in general. Such a general model is subsequently applicable to new particular cases. In idiographic science, general knowledge is produced by constant abstraction of central features of the systemic function of a concrete case to its abstract model, with subsequent testing of the model on further particular cases.

The idiographic general model

To capture the manifold sources of uniqueness characterizing persons in a scientifically fruitful way, each single person's life is idiographically conceived of as the evolution of a high-dimensional dynamic system in time. The component processes making up this dynamic system ideally consist of all possible repeated measurements (physiological, behavioral, etc.) that can scientifically be obtained with the person. Let the high-dimensional time series of measurements characterizing person P be denoted by $\mathbf{y}_p(t)$, where t denotes time. Then a schematic outline of the idiographic statistical model for P is:

$$(1) \mathbf{y}_p(t) = \mathbf{F}_p[\mathbf{x}_p(t), \varepsilon_p(t), \mathbf{t}]$$

In this general model, the time-dependent evolution of $\mathbf{y}_p(t)$ is explained by a (time-varying) *person-specific* function $\mathbf{F}_p[., ., \mathbf{t}]$ depending on (time-varying) independent variables $\mathbf{x}_p(t)$ and residual influences $\varepsilon_p(t)$. The details of this model do not matter; suffice it to note that (1) includes as special cases all known statistical techniques such as analysis-of-variance, regression, factor analysis, etc. What matters, however, is that the function $\mathbf{F}_p[., ., \mathbf{t}]$ explaining P's evolution in time is person-specific. The function $\mathbf{F}_p[., ., \mathbf{t}]$ is known in the engineering sciences as the system function. Hence the essence of the idiographic model scheme (1) is that the system function characterizing person P, $\mathbf{F}_p[., ., \mathbf{t}]$, may differ in arbitrary ways from the analogous system function $\mathbf{F}_Q[., ., \mathbf{t}]$ characterizing another person Q.

In contrast to the idiographic model scheme (1) involving system functions specific for each person, the analogous nomothetic model scheme essentially involves a system function that is invariant across a population of homogeneous persons $i=1, 2, \dots$:

$$(2) \mathbf{y}_i(t) = \mathbf{F}[\mathbf{x}_i(t), \varepsilon_i(t), t] ; i=1, 2, \dots$$

Notice that in the nomothetic model scheme (2) the system function $\mathbf{F}[\cdot, \cdot, t]$ lacks any dependence upon the person-index i and hence this system function is assumed to be invariant across the persons named $i=1, 2, \dots$ in some homogeneous (sub-)population. Again, the details of the nomothetic model scheme (2) do not matter; it includes all known statistical techniques such as analysis-of-variance, regression analysis, factor analysis, mixed modeling, etc. What matters, however, is that the system function $\mathbf{F}[\cdot, \cdot, t]$ characterizing each person i belonging to some population of interest is *invariant* for all arbitrarily chosen different persons P ($i=P$) and Q ($i=Q$).

The dynamic systems interpretation of persons implied by the idiographic model scheme (1) is very abstract and quite indefinite without further specification. But it has the immediate merit that it leads to principled ways to study the unique aspects of a person, namely by focusing on the dynamical structure of repeated measurements obtained with this particular person (cf. De Groot, 1954). For instance, to study the effects of psychotherapeutic treatment on a given individual person P , one has to focus on the relevant ways in which P 's life path, $\mathbf{y}_p(t)$ in (1), changes as function of the sequence of therapeutic sessions. This idiographic approach involves a combination of the case study method (e.g., Scholz & Tietje, 2002) and statistical time series analysis.

Two kinds of variation: IAV and IEV

The necessity to use time series analysis of Intra-individual Variation (IAV) in order to arrive at valid results concerning individual assessment, prediction and control of single subjects has been shown in a number of publications (e.g., Molenaar, 2004; Molenaar *et al.*, 2003). IAV pertains to the time-dependent variation *within* a given person P , hence it concerns the structure of variation of $\mathbf{y}_p(t)$ in the idiographic model scheme (1). In contrast, the currently popular nomothetic approaches to psychological and psychometric research, based on Inter-individual Variation (IEV), have been shown to be invalid for the purpose of applications at the level of individual persons. IEV pertains to the variation between persons I in a given population, hence it concerns the structure of variation of $\mathbf{y}_i(t)$ in the nomothetic model scheme (2).

To illustrate the fundamental difference between IAV and IEV, we will consider the distinct ways in which the covariance matrix of the observations is determined under the idiographic model (1) and the nomothetic model (2), respectively. The covariance matrix is a standard statistic in applied analyses of the structure of variation (e.g., in factor analysis, hierarchical modeling, etc.). Given an observed time series $\mathbf{y}_p(t)$, $t=1,$

2, ..., T, where T is the number of repeated observations obtained with person P, the idiographic covariance is estimated by:

$$(3) \mathbf{C}_p(\mathbf{y}) = T^{-1} \sum_{t=1, \dots, T} \mathbf{y}_p(t) \mathbf{y}_p(t)'$$

where $\mathbf{y}_p(t)'$ denotes the transpose of $\mathbf{y}_p(t)$. Hence the idiographic covariance matrix (3) is estimated by the cross-products $\mathbf{y}_p(t) \mathbf{y}_p(t)'$, summed over the measurement occasions $t=1, 2, \dots, T$ (denoted by $\sum_{t=1, \dots, T}$). $\mathbf{C}_p(\mathbf{y})$ is a measure of intra-individual variation (IAV). In contrast, given observations $\mathbf{y}_i(t)$ for a sample of persons $i=1, 2, \dots, N$ randomly drawn from some homogeneous population, the nomothetic covariance according to (2) is estimated by:

$$(4) \mathbf{C}_y = N^{-1} \sum_{i=1, \dots, N} \mathbf{y}_i(t) \mathbf{y}_i(t)'$$

Hence the nomothetic covariance (4) is estimated by the cross-products $\mathbf{y}_i(t) \mathbf{y}_i(t)'$, summed over the persons $i=1, 2, \dots, N$ (denoted by $\sum_{i=1, \dots, N}$). \mathbf{C}_y is a measure of inter-individual variation (IEV).

At this point, we have to address an important caveat. A common misunderstanding in the published psychometrical literature concerns the relationship between genuine time series analysis of IAV according to the idiographic model scheme (1) and longitudinal analyses (whether trend analysis, latent growth curve analysis, longitudinal factor analysis, or otherwise). All longitudinal analyses are instances of the nomothetic model scheme (2) and hence (neglecting inessential technical details) the longitudinal covariance matrix is computed according to (4), i.e., by pooling across different persons $i=1, 2, \dots, N$. Consequently, all possible variants of longitudinal analysis are based on and pertain to, analyses of the structure of IEV, *not* IAV.

The difference between the idiographic model scheme (1) in combination with (3) on the one hand and the nomothetic model scheme (2) in combination with (4) on the other hand, can now be clearly stated. The idiographic scheme (1) pertains to the time-dependent variation (IAV) within a given single person P, the structure of which is explained by a P-specific system function $\mathbf{F}_p[., ., \mathbf{t}]$, i.e., a system function that may differ arbitrarily between different persons P and Q. In this way, the uniqueness of each person is optimally accommodated in the statistical analysis. In contrast, the nomothetic scheme (2) pertains to the variation (IAV) between different persons $i=1, 2, \dots$, the structure of which is explained by a common system function $\bar{\mathbf{F}}[., ., \mathbf{t}]$ that is assumed to be invariant across different persons in the population. Obviously, this assumption of an invariant system function leads to a statistical analysis that neglects the uniqueness of each person in the population.

The nomothetic model scheme (2) is very dominant in current psychology. For instance, the standard test theory (cf. Lord & Novick, 1968), according to which almost all psychological tests are constructed, normed and validated, is based on analysis of IEV by means of the nomothetic model scheme (2). However, a psychological test thus obtained is often applied subsequently in individual counseling, assessment and prediction. Stated abstractly, one then uses the system function $\bar{\mathbf{F}}[., ., \mathbf{t}]$ in the nomothetic model (2) and applies it to explain the IAV structure of variation of a single person P.

However, the true system function of this person P is $F_p[., ., t]$. It can be straightforwardly deduced from general mathematical-statistical theorems (the so-called classical ergodic theorems; cf. Molenaar, 2004) that in general $F_p[., ., t] \neq F[., ., t]$! In fact, the system function $F_p[., ., t]$ characterizing a given person P seeking psychological advice may differ in arbitrary ways from the nomothetic system function $F[., ., t]$ characterizing the population to which P belongs. From this it follows immediately that, in order to obtain valid assessments and predictions for a given person P, one needs to know P's system function $F_p[., ., t]$. The classical ergodic theorems imply that the true person-specific system-function characterizing P (or any other individual person) can only be validly estimated in time series analysis of P's IAV. Generalization of the nomothetic system function $F[., ., t]$ to the individual case of person P (i.e., substitution of $F[., ., t]$ for $F_p[., ., t]$) is not warranted by the ergodic theorems.

Time series analysis

Modern multivariate time series analysis involves a highly developed group of advanced paradigms, including special statistical techniques to analyze nonlinear dynamical processes undergoing stage transitions (e.g., Molenaar & Newell, 2003). In most psychology departments, these time series analysis techniques are not taught in regular methodology courses and therefore will be unknown to most of our colleagues. Yet the idiographic approach necessarily requires the use of these time series analysis techniques in order to arrive at valid results at the level of individual persons and therefore may not be accessible to researchers that lack this technical knowledge.

In order to try to overcome this impasse, we report the results of a genuinely idiographic study of the effects of a psychotherapy with a single child C in which only the most simple statistical tools are used. The statistical tools that we use should be immediately transparent because they are based on straightforward heuristic reasoning. The results thus obtained will be seen to be of considerable importance, despite the simplicity of the employed statistical tools and therefore constitute an illustration of the power of the idiographic approach.

The empirical case: effects of individual psychotherapy

The psychotherapy concerned a young child C (boy; 5 years) who had typical problems associated with continued bed-wetting. The female therapist T successfully applied client-centered therapy (e.g., Axline, 1969) in a sequence of thirty-nine sessions, two sessions each week. In total, twenty-nine sessions were videotaped and subsequently scored. No videotapes are available of sessions 1, 8, 11, 12, 13, 14, 24, 27, 32 and 34. Each videotaped session was divided into an initial part, a middle part and an end part. An independent researcher (Alice Grannetia) observed the relevant parts of each videotaped session (e.g., initial part) and then rated the observed behavior of

C and T in terms of a slightly adapted version of Bales' Symlog scale (Bales & Cohen, 1979). This scale has been specifically constructed to assess behavior in small groups and has as additional asset that it is neutral with respect to theoretical psychotherapeutic interpretations (client-centered or otherwise). Inter-rater reliability was assessed to be satisfactory (cf. Grannetia, 1984). The 24 items of our version of Symlog are presented in Appendix A. To illustrate, the first item of Symlog is: "Active, takes initiative" and is scored with the categories "never" labeled 0, "rarely" labeled 1, "sometimes" labeled 2 and "often" labeled 3.

Raw data

Each item of Symlog is scored for the videotaped behavior of C as well as T in each part (initial, middle, end) of each videotaped session. This yields 24 (items) times 3 (parts) times 2 (C or T) univariate categorical time series of length 39 (sessions). Each univariate series in this set will be denoted by first indicating the actor (C or T), then the item number of Symlog (1-24) and lastly the code for the part of the sessions (initial = 1, middle = 2, final = 3). For instance, C1, 3 denotes the time series of ratings for C on the first Symlog item (Active, takes initiative) during the final part (code = 3) of each session. Notice that a number of observed univariate time series for C as well as for T shows no, or insufficient, variation across the sessions. For instance, for C the series associated with Symlog items 4 (Controls in demanding ways), 5 (Domineering, unfriendly) and 19 (Tries too hard) are uninformative for their initial, middle, as well as final parts. For T the uninformative series include the initial, middle and final parts of Symlog items 4 (Controls in demanding ways), 5 (Domineering, unfriendly), 6 (Provocative, egocentric, shows off), 7 (Emotional, expressive, dramatic), 12 (Negativistic), 13 (Irritable, won't cooperate), 18 (Adapts because of (dis-)approval), 19 (Tries too hard), 20 (Resentful), 21 (Withdraws), 22 (Afraid to try, doubts own ability) and 23 (Friendly asks for support and attention).

Predictions

The goals of a client-centered psychotherapy can be summarized as follows: a) To increase the client's self-reliance, b) To increase the client's openness and c) To restructure the client's self-image. For reasons of conciseness, we do not present a complete analysis of these goals, but will restrict attention to the first goal. More specifically, it is predicted that C will show increased self-reliance across the 39 sessions of this successful psychotherapy.

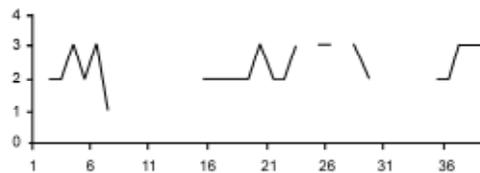
The next important step is to operationalize the theoretical variable self-reliance (S-R) in terms of the observed Symlog ratings. This can be accomplished in various ways. We base the following operationalization of self-reliance on the theoretical discussion of client-centered psychotherapy given in Grannetia (1984): S-R for C consists

of the sum of ratings on Symlog items 1 (Active, takes initiative), 3 (Determines course of events), 11 (Task-oriented), 16 (Trustful), 17 (Accepts directions cooperatively), 18* (Adapts because of (dis-)approval), 22* (Afraid to try, doubts own ability) and 23* (Friendly asks for support and attention). The starred Symlog items (18*, 22*, 23*) concern ratings that are inversely related to S-R in that they will decrease with increasing self-reliance. Hence the ratings on these starred items are reversed before adding to the total (never = 3, rarely = 2, sometimes = 1, often = 0). Self-reliance for T is defined as for C, but without Symlog items 18*, 22* and 23*. Hence for T, S-R is defined as the sum of Symlog items 1, 3, 11, 16 and 17.

Statistical analysis

To start with, we will investigate whether the univariate categorical time series of C's scores on the Symlog items defining self-reliance (S-R) show substantial trends across the sessions of the psychotherapy. To illustrate the details of the approach, consider C1, 3, the univariate categorical series of ratings for C on the first Symlog item (Active, takes initiative) during the final part of each session. The observed C1, 3 series is shown in Figure 1.

Figure 1



Although the C1, 3 series will be autocorrelated (i.e., sequentially dependent) between consecutive sessions, we decide to neglect this in the first instance because of the presence of several missing sessions dispersed throughout the observation period. Autocorrelation is an inverse function of the temporal distance between consecutive measurements and the presence of several missing sessions increases this temporal distance, hence decreases the effective autocorrelation present in the actual observations. Moreover, the limited number of repeated observations actually made (29 sessions) would not seem to warrant the use of more sophisticated statistical models accommodating the presence of autocorrelation. To determine whether the C1, 3 series shows the expected upward trend across sessions (i.e., C's ratings on the first Symlog item during the final parts of sessions are expected to increase during psychotherapy), this series is divided into two stretches: an initial stretch and a final stretch. The initial stretch starts at session 1 and ends at sessions n, while the final stretch starts at session

$n+1$ and ends at session 39. The session n that divides the complete observed series into two stretches is not fixed a priori but is determined by means of a simple search procedure (a sequence of statistical analyses is carried out while stepwise varying n between $n=15$ and $n=23$).

The likelihood ratio statistics associated with each (2 x 2)-table obtained by stepwise varying the cutting point n between sessions $n=15$ and $n=23$ are determined. Next, the session value yielding the maximum likelihood ratio statistic is selected. If this value has a small nominal probability of occurrence under the hypothesis that there is no trend in the C1, 3 series (smaller than $\text{Prob} = .05$), then this is interpreted as indicative of the presence of a trend in this series.

Results univariate trend analyses for child C

The test procedure described for the C1, 3 series has been carried out for all Symlog items that belong to the operationalization of Self-Reliance (S-R) of the child C. The operationalization of S-R for C (repeated here for the convenience of the reader) involves the Symlog items 1 (Active, takes initiative), 3 (Determines course of events), 11 (Task-oriented), 16 (Trustful), 17 (Accepts directions cooperatively), 18* (Adapts because of (dis-)approval), 22* (Afraid to try, doubts own ability) and 23* (Friendly asks for support and attention). The starred Symlog items (18*, 22*, 23*) concern ratings that are inversely related to S-R in that they will decrease with increasing self-reliance. Hence the ratings on these starred items are reversed before adding to the total (never = 3, rarely = 2, sometimes = 1, often = 0).

The following results are obtained (reporting only those series the likelihood ratio statistic of which has probability of occurrence under the hypothesis of no trend smaller than $p = .05$).

<i>Series</i>	<i>Description</i>	<i>Prob LR</i>
C1, 3	Active, takes initiative; final part sessions	.035
C11, 3	Task-oriented; final part sessions	.040
C16, 3	Trustful; final part sessions	.028
C18*, 1	Adapts due to (dis-)approval; initial part sessions	.020
C18*, 2	Adapts due to (dis-)approval; middle part sessions	.016
C18*, 3	Adapts due to (dis-)approval; final part sessions	.012
C22*, 1	Afraid to try; initial part sessions	.013

It appears that especially in the initial and final parts of sessions, the rating scores of C on the Symlog items making up our operationalization of self-reliance (S-R) change in the expected directions during psychotherapy. It appears that the initial and the final parts of each session allow for a more free expression of C's condition, whereas the middle part of each session is more structured according to treatment demands. This interpretation would imply that the therapist T's behavior during the middle, more treatment-determined part of each session will be most effective in realizing these changes in C. To further test this interpretation, we carry out a simple causal analysis linking T's self-reliance scores during the middle part of each session to C's self-reliance during the initial and final parts of each session.

Different forms of causal analyses

There exist various models of causality (Valsiner, 2000). Our causal analysis here is based upon a straightforward heuristic principle of physical (direct linear) causality: The realization of a cause has to precede in time the realization of its effect(s). First, the stone is being thrown, then after some interval of time the window glass is breaking. In terms of our dynamic systems point of view, a process $x(t)$ is causally related to a process $y(t)$ in case changes in the activity (magnitude) of $x(t)$ systematically precede in time changes in the activity of $y(t)$, but not the other way around. Hence if $x(t)$ is indeed causally related to $y(t)$, then the correlation between the activity of the cause at time t , $x(t)$ and the activity of the effect at the next time $t+1$, $y(t+1)$, should be high. That is, $\text{cor}[x(t), y(t+1)]$ should be high. However, importantly, the reverse correlation between the activity of the effect at time t , $y(t)$ and the activity of the cause at the next time $t+1$, should be negligible. That is, $\text{cor}[y(t), x(t+1)]$ should be negligible. If this pattern of lagged cross-correlations occurs between two (sets of) time series, then they are prime candidates for being causally related.

Our candidate dependent process is C's self-reliance (S-R) score, i.e., the sum of C's rating scores for Symlog items 1, 3, 11, 16, 17, 18*, 22*, 23*, adding over both the initial and the final parts of each session. Our candidate causal process is T's S-R score, i.e., the sum of T's rating scores for Symlog items 1, 3, 11, 16, 17, only in the middle part of each session. Thus defined, let $C(t)$ denote the time series of C's S-R scores across sessions $t=1, \dots, 39$. Thus defined also, let $T(t)$ denote the time series of T's S-R scores across sessions. $C(t)$ is depicted in Figure 2a; $T(t)$ in Figure 2b.

Figure 2a

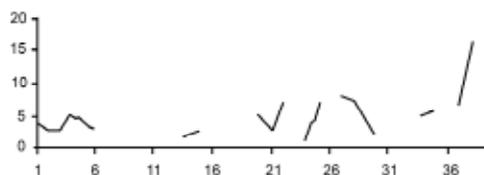
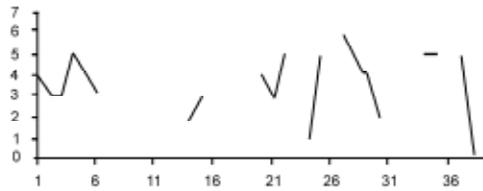


Figure 2b



We now estimate the following three cross-correlations:

$$\text{Cor}[T(t), C(t+1)] = .367$$

$$\text{Cor}[T(t), C(t)] = .277$$

$$\text{Cor}[C(t), T(t+1)] = -.290$$

In case changes in T's self-reliance indeed are causally related to changes in C's self-reliance, then the first cross-correlation, $\text{Cor}[T(t), C(t+1)]$, should be high or at least the highest of the reported cross-correlations. The second, inverse prediction deduced from the same causal hypothesis is that the third correlation, $\text{Cor}[C(t), T(t+1)]$, should be negligible. It is negative, perhaps not negligible. Finally, the instantaneous correlation $\text{Cor}[T(t), C(t)]$ in this causal analysis has a more indefinite status which does not require further discussion. We conclude, on the basis of the simple causal analysis reported above, that it yields very suggestive evidence for the presence of a repetitive "pushing role" of the psychotherapist's self-reliance expressed in the middle, treatment-regimented part of each session and the child's self-reliance expressed in the more casual initial and final parts of each following session. This is a noteworthy result, which might be interpreted as indicative of the importance of the therapist as implicit role model. The finding is strong-- made possible by our simple idiographic approach.

Of course, statistical results need interpretation. With respect to the evidence concerning relevant trends in the component series making up the $C(t)$ series, it is plausible to expect that these significant changes were at least partly caused by T's implicit role modeling. The important finding here is the continuity of the pattern of such effect from session to session, as our idiographic analysis reveals.

Discussion and conclusion

In the theoretical part of this paper we showed the necessity to use idiographic approaches in psychology, after which an empirical idiographic process analysis of psychotherapy was presented as illustration. In this closing section the discussion will proceed in reverse order.

We first discuss our empirical idiographic psychotherapeutic process analysis. The client-centered psychotherapy with the child was, according to the child, its parents

as well as the therapist, concluded successfully after 39 sessions. It is found with simple statistical tests that many of the univariate Symlog item scores making up the operationalization of Self-Reliance (S-R) for the child show substantial trends in the direction predicted by the theory of client-centered psychotherapy. This in itself is a noteworthy result, corroborating the theory concerned. The likelihood ratio statistics used in the trend analyses are based on the assumption that the data lack sequential dependencies. Although this is not the case with the univariate categorical time series making up the operationalization of C's S-R, it is expected that the amount of sequential dependencies actually present (autocorrelation) will be negligible because of the presence of missing values (gaps) in each series. Exact probabilities associated with the likelihood ratio statistics can be obtained by means of standard computer-intensive (Monte Carlo) testing methods.

In addition to the univariate trend analyses, a simple causal analysis has been carried out based on the rationale underlying the so-called Granger causality test popular in econometric time series analysis (Lutkepohl, 1991). This rationale derives from the physical interpretation of cause as necessarily preceding in time the effect. It implies that variation in the therapist scores at each time t (the cause) should be associated highest with the child scores at each following time $t+1$ (the effect). It also implies that variation in the child scores at each time t (the effect) should not be associated with the therapist scores at each following time $t+1$ (the cause). This causal pattern of lagged cross-correlations is found for the therapist characteristic "Self-Reliance during the middle part of therapy sessions" as cause and the child characteristic "Self-Reliance during the initial and closing parts of therapy sessions" as effect. The lagged cross-correlations between these two behavioral dimensions shows the expected pattern compatible with "therapist S-R during middle part" in each session being the cause of variation in "child S-R during initial and final parts" in each next session. Again, this is a noteworthy result in that it tentatively identifies a causal effective ingredient of the ongoing psychotherapeutic process.

Let $T(t)$, $t=1, 2, \dots, 39$, denote the time series of therapist S-R scores during the middle part of sessions and let $C(t)$, $t=1, 2, \dots, 39$, denote the child S-R scores during the initial and final parts of sessions. Then the Granger causality test boils down to a comparison of $\text{Cor}\{T(t), C(t+1)\} = .367$ (which should be high) and $\text{Cor}\{C(t), T(t+1)\} = -.290$ (which should be negligible). Formal statistical tests of this comparison require the availability of standard errors, which in the present application have not been determined. Given the small number of repeated observations and the presence of missing values, the latter could be best obtained by means of computer-intensive Monte Carlo methods.

Our idiographic process analysis of a successful client-centered psychotherapy with a young child provides noteworthy evidence that the child changes in the predicted direction along the important theoretical behavioral dimension called Self-Reliance. This expected trend occurs in many of the Symlog item scores operationalizing S-R for the child. Moreover, noteworthy evidence is found for the causal effectiveness of $T(t)$, i.e., the therapist's S-R during the middle ("working") part of sessions, in creating changes in $C(t)$, i.e., the child's S-R during the initial and final ("free") parts of sessions. These results only pertain to the particular child C figuring in this

idiographic process analysis. For instance, they could be used in eventual subsequent treatments of this child (e.g., optimal behavioral control; cf. Molenaar, 1987). However, the tentative finding about the causal role of therapist Self-Reliance in effecting changes in this child's Self-Reliance immediately suggests itself as a working hypothesis in replications of this idiographic process analysis with other children. In this way, a systematic empirical cycle can be initiated in which homogeneous sets of children are identified who all share the same structure (e.g., the same system function) of intra-individual variation (IAV). In short, this would constitute one possible variant of the scientific search for nomothetic laws about idiographic structures of variation (cf. Nesselroade & Molenaar, 1999, for an alternative approach to nomothetic generalization in idiographic designs).

In principle, the idiographic approach applies to the whole of psychological science. The idiographic process analysis of a client-centered therapy can straightforwardly be generalized to other kinds of psychotherapy (behavioral, psycho-analytical, etc.). Modern theories of personality such as those of Block (2002), Mischel (1999) and Carver & Scheier (1998), lend themselves excellently to modeling and analyzing according to the idiographic scheme (1). Hence these modern personality theories can provide additional support in the search for nomothetic generalizations of idiographic psychotherapeutic structures (cf. also Caprara & Cervone, 2000).

The necessity to employ idiographic paradigms in psychology derives directly from the classical ergodic theorems (and hence cannot be refuted). Idiographic process analysis requires the use of time series analysis techniques, an approach that is relatively unknown in psychology. In our empirical illustration we tried to show how idiographic process analysis can be carried out with simple statistical means and how the results thus obtained lend themselves to nomothetic generalization. This is a task that has to be undertaken for the whole of scientific psychology.

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Appendix A

Adapted version of Symlog

- 1: Active, takes initiative
- 2: Initiates positive behavior
- 3: Determines course of events
- 4: Controls in demanding ways
- 5: Domineering, unfriendly
- 6: Provocative, egocentric, shows off
- 7: Emotional, expressive, dramatic
- 8: Entertaining, sociable, warm
- 9: Friendly, interested
- 10: Works cooperatively with other
- 11: Task-oriented
- 12: Negativistic
- 13: Irritable, won't cooperate
- 14: Shows feelings and emotions
- 15: Shows affectionate feelings towards other
- 16: Trustful, looks up to other
- 17: Accepts directions cooperatively
- 18: Adapts because of (dis-)approval
- 19: Tries too hard
- 20: Resentful
- 21: Withdraws
- 22: Afraid to try, doubts own ability
- 23: Friendly asks for support and attention
- 24: Passive

THE DISCURSIVE DYNAMIC OF SENSEMAKING

*Sergio Salvatore**, *Claudio Tebaldi*** and *Silvia Potì****

Abstract. The aim of this paper is to propose a model of meaning-making based on the idea of the self regulating nature of communication. According to this model: a) the process of meaning-making occurs from the inside of the discourse dynamic, as an output of it; b) this means that in order to understand the meaning-making process one has to conceptualize communication as a self-organizing system, therefore meaning as an emerging property of its functioning. The second part of the paper is devoted to present a method aimed at empirically depicting the meaning-making process as a dynamic phenomenon. Finally, we use this model to test our model.

Introduction

According to the traditional way of thinking of the communication process (more generally: of the discursive dynamic), actors exchange ready-made meanings. In other words, communication entails pre-defined semiotic devices, resulting from previous stipulation. Therefore, intersubjectivity is based on a repertoire of shared meanings, pre-existent to the social exchange. To underline the quality of product of a meta-stipulation, we refer below to this general model of communication with the label: *contractual model*.

The socio-constructivist model of communication (below we use this label in a broad sense) proposes a different way of looking at intersubjectivity. This way underlines that meaning is a social construction that happens *within* and *by* the social exchange. Hence, meaning is not given prior to the discourse; rather, it is the communication dynamic that depicts the situated semantic value of the symbolic devices which the discourse unfolds (Billig, 1991; Bruner 1990; Vygotsky, 1934). The socio-constructivist conception is an alternative way of seeing meaning-making that reaps Wittgenstein's lesson (Wittgenstein, 1958). This approach underlines that meaning-

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making is not an autonomous process, but it always unfolds as a function of the social context. According to this point of view, the socio-constructivist model underlines that meaning devices (concepts, categories, codes, signs, scripts...) are not given and fixed entities - for this reason universal and independent of time - but *open signs*, that shape their significance in situation, according to the way the actors use them within the linguistic games they carry out.

On the one hand, the dialogic construction of meaning is accomplished at the level of the *communication content*. At this level, discursive actors regulate their reciprocal positioning in the shared activity; by so doing they negotiate some kind of agreement on sets of representation, stories and statements referring to the world they share. Thus, these sets of consensual social-made meanings work as *instituted* mediators of the social exchange (Berger & Luchmann, 1966). To give just one reference, a lot of studies on social representations deal with this level of significance (Farr & Moscovici, 1984; Jodelet, 1989). On the other hand, the discourse process operates in such a way that it entails continuous transformation of the semiotic devices. At this level, the focus is on the *structure* of the devices. Valsiner (2001) deals with this structural level (as we have labelled it) when he speaks about the *semiogenetics* of the sign.

“The present view is semiogenetic – signs are seen as emerging from the field of communication (...). Once emerged, the signs continue to differentiate and become hierarchically integrated in accordance with the general orthogenetic principle (Werner & Kaplan, 1956).” (Valsiner, 2001, p. 86)

In short, people use signs in order to reach some kind of consensual statements on the world they inhabit; in doing so they re-define continuously and recursively the semiotic value (that is, the domain of significance) of the signs. In this perspective, while it is true that the significances (concepts, systems of values, conceptions of the life, structures of knowledge, rituals, models of practices...) ground, steer and shape discourse – hence the actors’ mind (Edwards & Potter, 1992; Salvatore, Ligorio & De Franchis, 2005) – at the same time it is true that significances are subjected to an endless work of shaping. This leads to seeing thought as inseparable from socio-communication context (Cole, 1996; Valsiner & van der Veer, 2000)

The socio-constructivist model is a way of looking at communication among human beings that is far removed from common sense, because it regards semiotic devices not only as the given basis of the dialogical process, but also as the outcome of such a process. This way of seeing permits the logical paradox that arises with the contractual model to be avoided. The following question can highlight this paradox: if the dialogue needs to base itself on pre-defined semiotic devices, how have those devices been made? The fact is that the contractual model assumes as premise what it aims to explain. Nevertheless, the socio-constructivist model has another, no less difficult problem to solve. In fact, it has to elaborate a valid description of the dialogical process of meaning construction (both at content and structural level). In other words, the general theoretical principle of the social nature of sensemaking needs to be followed by an analytical model of *how* this happens. In the final analysis, the problem is to model the discourse dynamic that generates the semiotic devices that at the same time it unfolds.

Aim and general hypothesis

The aim of this article is to propose and to submit to initial testing a model of the discursive generation of meaning. Our thesis involves both a theoretical model and an empirical system of analysis. As a matter of fact, this thesis is a conceptual way of describing the meaning-making process translatable in an operative procedure of analysis. That allows the empirical description of the phenomenon, then the production of data to test the fitness of the conceptual model. Last but not least, this quality of the model is the premise for its formalization. This work does not deal with the mathematical formalization of the model, that we intend to develop in a subsequent paper. However the elaboration of a formal version of our model is the goal. We believe formalization has great importance in the field of semiotic analysis of discursive dynamic, not so much as a technical provision, but as a heuristic device that helps to focus on the logical ties among the components of the theory. Besides, formalization makes case study findings comparable with each other; for this reason, it increases the opportunity for accumulation of knowledge (Molenaar and Valsiner, this volume).

Conceptual premises: significance and sense, indeterminacy and hypersemia

Our hypothesis rests on some conceptual premises.

We share the cultural psychology idea that social practices are mediated by symbolic devices, available in the cultural environmental. Such mediators can be seen as signs: a state/thing of the world (an object, a word, an image, an event...) which, thanks to a given cultural connection with a content (significance), acquires the property of representing (of being in place of, hence, of being significant of) such content (Eco, 1975). From that perspective, signs are the fundamental elements of the human world: they shape human activities, the discourse processes regulating them, the ways of thinking and of communicating carried out by the subjects.

Symbolic mediators working in the environment are not ready-made tools, taken for granted and for this reason ready-to-use (Gergen, 1999). Rather, each of them should be seen as a *meaning-making potentiality*: a *significant* corresponding with a continuous spectrum of *significances*, rather than with a discrete, fixed and unique significance. In other words, signs are open, polysemic, flexible and they fix themselves in the terms of how they are used in the communication context.

Jakobson's distinction between paradigmatic and syntagmatic axis (Jakobson, 1963) allows us to identify (and to differentiate) two fundamental sources of the sign's semantic indeterminacy. On the paradigmatic side we find the indeterminacy reflecting the weakness of the inner sign's structure; that is, the not univocal linkage between significant and significance. In short, this property means that the discourse often employs significant each of which corresponds to various significances and vice versa¹.

1 For instance, the word: "to get" is a significant corresponding to a lot of different significances. Otherwise, significant like "utterance" "sentence", "phrase" refer to the same significance domain.

On the syntagmatic axis we find the indeterminacy that follows from the impossibility of univocally constraining the interpretation of the signs' combination from within the combination itself².

This double source of indeterminacy has led to the recognition of the openness of speech and more generally of communication, hence the inferential nature of decoding (*inter alia*, see Bruner, 1986; Johnson Laird, 1983; Neisser, 1987). Otherwise, both these two types of indeterminacy belong to a single linguistic conception of meaning, but discourse practices are not limited to the linguistic dimension. When a subject activates a sign (a combination of signs) within a communication field, in *so doing* he is performing a social act at the same time. The communication function of such an act constitutes the *value* that the sign gains for the actors involved in that communication field³. After all, this value is the *sense* that the sign accomplishes according to its way the discourse unfolds. Our point of view, then, entails a distinction between *significance* and *sense*: the significance is the semantic content of the sign (what the sign says about a given reference); the sense is the psychological-communicational value associated with the act of having produced just that sign, just in that intersubjective context, just under those discursive circumstances⁴.

Hence, the sense does not belong to the sign, but to the act of using it in the discursive context. A fundamental consequence follows from this: every sign *by definition* is a vector of infinite possibilities of sense, as infinite as are the discursive contexts. This means that the same word, the same sentence, can be used (hence, interpreted) with endless senses. So we conclude that from the point of view of the sense, the sign is *hypersemic*. With this term we mean the sign's capacity to be used in infinite modes. In a complementary way, we can say that hypersemia is the sign's property of defining its semiotic value only within - and as a function of - the discursive context.

In some recent works, one of us, with others, proposed defining the unconscious as the hypersemic power of signs, thus as the discourse property of being able to develop infinite possibilities of connections with other signs, hence of sense-making (Salvatore *et al.*, 2003; Salvatore, Ligorio & De Franchis, 2005). This thesis is based on a semiotic, socio-constructivist re-reading of the Freudian theory, made by contem-

2 For instance, consider the combination of signs corresponding with the sentence: "Mary is going to Alice's wedding. She believes she will like the present". From the inside of the sentences one can not understand who Mary believes will like the present: both Mary and Alice are the candidate. Otherwise, the reader will interpret the sentences as Mary believing that Alice would like the present that Mary is giving her. But to understand that the reader has to refer not only to the sentence, but also to his knowledge of cultural context (the social practice of taking a present to the spouses) (Sanford 1987).

3 Very useful here is Austin's distinction between phatic and rhetic act (Austin 1962). The phatic act is the action of uttering a combination of linguistic signs; the rhetic act is the action of using this utterance to tell someone something.

4 We can refer to Austin, to his distinction between meaning and force (Austin, 1962). In particular, what we have called "psychological-communicational value" is close to Austin's concept of illocutory force: what people do in and/or with saying what they say.

porary psychoanalysis, more specifically, the psychoanalytic line of thought that has elaborated a contextual and relational model of the mind (Hoffman, 1998; Modell, 1984; Mitchell, 1988; Schafer, 1992; Storolow, Atwood & Brandchaft, 1994). Such a re-reading replaces the structural model of the unconscious with a conceptualisation that depicts it as a *process of affective semiosis*⁵: an intersubjective mode of constructing the sense of the relationship, by applying emotional (affective) categories. Such categories are different from the significances used by normative/paradigmatic thought as they are polysemic and homogenising classes of meaning (Matte Blanco, 1975; Rayner, 1995) that connote the communication contexts in a global and generalizing way (for instance, in terms of *friend* vs. *enemy*). Developing such a perspective, one can come to see the signs' hypersemia as the reflection of the signs' property of conveying affective semiosis (since affective semiosis is the sensemaking process based on classes of emotional meanings). Thus, insofar as one agrees with the contemporary psychoanalytic definition of the unconscious in terms of this property, one is led to interpret the unconscious as the hypersemic property of the sign⁶.

With these general ideas as background, we can now put forward our model. We will present it in two steps: firstly, in a general theoretical format; then, we will introduce some further concepts in order to translate the qualitative model into an operative one.

General thesis: sensemaking as sculpting

Let us imagine a virtual condition: the very first moment of the beginning of a discursive dynamic among actors who have never been in contact before (i.e., actors who are absolute strangers⁷). Let us consider now the first sign put forward by the actors. It would not have a defined sense yet; rather, it would have maximum hypersemia; that is, it would be open to infinite possibilities of sensemaking (depending on what other signs follow it). In other words, the maximum hypersemia is the initial state of the discourse, that of a boundless field of communication (discourse time t_0).

To give an example, let's imagine a person meeting other people (never met before) for a work matter. He arrives at the briefing and says to the unknown people present: "Good morning." Then, turning his gaze outside the window, adds: "What a beautiful

5 Really, this processual (instead of structural) conceptualisation is typical of the first period of Freudian theorization (Freud, 1899). In particular, see the Freudian theory of primary process, as the way of working of the unconscious.

6 To digress, this interpretation leads to conceiving the unconscious as a property of discourse (a propriety of the signs that discourse unfolds), rather than the individual mind. Thus, such a conceptualisation of the unconscious entails a radically socio-constructivist re-reading of the fundamental psychoanalytic notion (Salvatore, Freda, submitted)

7 Actors being perfect strangers is only a virtual idea. Actors always share some cultural mediators, due to their membership of a social environment (first of all, a linguistic code). Perfect 'strangeness' has to be considered as an asymptote, that can be drawn near but not reached.

morning!.” At first analysis we can note that the significance of this sentence is not easy to determine: it expresses a positive evaluation (beautiful) of an unspecified reference. Nevertheless, the briefing participants will be able to reduce this indeterminacy, by the help of contextual markers. For example, the direction of the speaker’s gaze, the state of the weather and the quality of the outside landscape might lead them to understand that the speaker was referring to the climatic conditions. Thus, once they have specified the reference, they would have no difficulty decoding the significance of the sentence. In sum, at first the sentence appears with an indeterminate significance; this indeterminacy is not absolute, but circumscribed to a set of different decoding paths. The question is different as regards the sense. If the *significance* of the sentence has a certain degree of indeterminacy (though reducible by the reference to the context in which it is uttered), the act of making such an utterance in the presence of those listeners, at that moment, can have infinite *values of sense*. To recall some of them, it can be a way to communicate: |I am happy at this moment| or |I like my job| or |I am the one who is happy here|, or |I like to be here with you|, or, |I am angry to be here, wasting time with you, the time that I could enjoy in a very nice way| and so on. In sum, this utterance sets off a field of communication that can go on in a large number of directions; in other words, it could go on through infinite patterns of further sign combinations. That is what we mean by “hypersemia.”

The discourse unfolding fosters the reduction of the hypersemia. Such a process goes on until just a few possibilities of meaning remain active: in other words, till a *frame of sense* has crystallized⁸. This means that, once established, the frame of sense ties up the further direction of the actors’ coding and decoding practices⁹.

Before ending the presentation of our model, we want to highlight an issue involved in it. From our point of view, the establishing of a frame of sense is the final result of a process of reduction of meaning, rather than the effect of a consensual assertion. Using an image, sensemaking works like sculpting, rather than painting: it shapes meaning by its way of *taking off* rather than *putting on*.

8 In this work we will not look closely at the mechanism of hypersemia reduction, the subject of another article (Salvatore, & Freda, submitted). In that work the authors suggest seeing hypersemia reduction as the consequence of the associative linkages among signs that arise from the discourse flow. These linkages bound the hypersemic charge of the signs. Thus, the hypersemic charge of the first sign is reduced by the fact that it is associated to the second sign and so on. After all, according to that hypothesis, the meaning emerges from the bounds that the discourse’s metonymic structure imposes on its parts. However, the scope of the present work is to define and test the following more general thesis: a) the process of sensemaking occurs from the inside of the discourse dynamic, as an output of it; b) this process has some structural characteristics that can be described in an operative way.

9 For example, consider a group of friends engaged in a conversation. They are speaking ill of each other; but the frame of sense within which their interaction unfolds is well structured: |It’s a joke|, through which they can express their friendship. Given such frame of sense, if one of them said to the other: “You are very malicious, I don’t want to hear you any more!,” the listeners would interpret it as part of the joke, and would use the utterance as a further opportunity to carry on the game. In other words: the frame tends to bound the greatest number of paths of discourse that could follow the utterance (expression of excuses, mortification, emergence of aggressiveness, interruption of the conversation...).

A model of the sensemaking process. Discourse as dynamic system

The model of the sensemaking process proposed above entails a conception of discourse as an *self-regulated system*. As matter of fact, we consider what we have called “frame of sense” above as a process that fulfils itself *from within* the dialogical dynamic, as a product of the discourse’s own functioning, rather than as a consequence of an external intervention (in other words, as a consequence of a kind of meta-stipulation among the actors in the discourse about a set of assertions fixing the semiotic ground of the relationship). From this point of view, the frame of sense is the structure generated by the dynamic of functioning of the discourse; that is, the shape that the discourse’s self-regulation gathers through time of its unfolding.

The considerations just made lead us to conceptualise the crystallization of the frame of sense as a phenomenon of *emergence*, consisting in a new organizational structure (a new kind of order) appearing in – and acting on – the dynamic of the system (in our case: the system of the discourse).

However, the conceptualisation of the coagulation of the frame of sense as a structure’s emergence from a dynamic environment brings up a theoretical and methodological problem: the general qualitative definition of “sense” entailed in our previous discussion (sense as the psychological-communicational value) loses in validity. As matter of fact, it is a way of talking about sensemaking from *outside* of the system; instead, we need a model of sensemaking from the inner point of view of the system (Guerra, 2003; Maturana & Varela, 1980), that is, the point of view that fits with the assumption of the self-regulating quality of the discourse dynamic. For this reason, we propose the following definition of “(frame of) sense”: *the bounded domain of the admitted combination of signs which makes up the field of possibilities of discourse evolution over time*. Hence, the frame of sense is the set of communication patterns (i.e. sign combinations) at discourse’s disposal after the reduction of the hypersemia.

In the light of this definition, we can conceptualise the discursive dynamic of emergence of sense in the following way.

At the beginning, the discourse is in a chaotic state. This state corresponds to the hypersemic condition of the first sign produced by the actors at the (only virtual) very first moment of their encounter (the time t_0). According to previous considerations, this chaotic state is the unbounded domain of combination of signs, i.e. the infinite set that includes as its cases all the conceivable associations among all conceivable signs¹⁰. From the chaotic state, the dynamic of the system leads to the emergence of a structure of functioning, that can be represented, as we have already said, as the result of the activation of bounds on the domain of the admitted combinations among signs. By so doing, the system operates a differentiation between patterns of signs, dividing them into probable ones, possible ones, rare ones, non admissible ones.

10 Incidentally, this definition of hypersemia is very close to the formal definition of the unconscious proposed by Matte Blanco (1975).

In terms of dynamic system theory, such a domain can be described as an *attractor*: a region of the space of the system description¹¹ that holds the states of equilibrium towards which the system tends. From a complementary point of view, we can represent the emergence of the frame of sense referred to as the *slaving principle* (Haken, 1992). This principle comes from synergetic, a branch of dynamic system theory. It describes the system components that are subjected to (are enslaved to) an over-orderly principle of system functioning, generated by the system itself¹². The emergence of a frame of sense can be seen in such a way too: a structure (an order parameter in synergetic terms) to which the signs enslave their functioning (that is, the possibilities of their combination).

This last consideration gives us the opportunity to focus more clearly on the objective of this article. Here we want to test an operative model pointing out the emergence of the frame of sense from within the discursive process. Obviously, testing this model is also a way of testing the theoretical thesis it derives from, which we can summarise as follows:

1. The discourse is performable as a dynamic system that self-regulates its functioning.
2. The discourse generates the frame of sense rooting the dialogical exchange from inside.
3. One can interpret the frame of sense as the precipitate of the reduction of a sign's hypersemia, the effect of the discourse unfolding, i.e. the activation of bounds on the domain of possibilities of sign combination.
4. This reduction is representable as a phenomenon of emergence, a typical property of self-regulating dynamic systems.

11 The description space of the system (called "space of variables" too) is a geometrical way of representing the dynamic of the evolution of a system through time. One dimension of the space represents time. The other (or the other two) represents/represent a variable/two variables describing the characteristics of the state of the system in a synthetic way at a certain instant (t). Thus, every point of the space of description depicts one state of the system at a given instant.

12 Haken explains the slaving principle by referring to the laser light.

"1. A system of individual active elements can become entirely ordered in its action by means of self-organization, i.e. the order is not imposed on the system from outside. Instead, the change of a rather unspecific control parameter (in the laser case it is the size of the electric current), induces a self-ordering of the system (in the present case the motion of the electrons).

2. The huge number of individual variables or degrees of freedom of the individual electrons in the case of a lamp, where all the electrons act independently of each other, is replaced by a single variable, namely the order parameter, i.e. the laser light wave. We thus see that the behaviour of a complex system may be governed by only a few variables, namely the order parameters.

3. The order parameters become apparent when a system changes its macroscopic behaviour qualitatively, i.e. for instance, at the transition from the microscopically chaotic emission of a lamp to the highly ordered emission of a laser." (Haken, 1992, p. 36)

Method

Some assumptions as premises: the focus on verbal interaction

In order to represent operatively the emergence of sense from the discursive dynamic, we make some methodological assumptions that we want to clarify before going on.

First, we limit our analysis of discourse to interpersonal communication mediated by verbal language. We are well aware that conversation among people is just one of a wider spectrum of discourse forms (for instance, discourse processes mediated by mass media, by artistic products, by images; besides, the discourse practices embedded in acts, in rituals, in the forms of social participation, in the functioning of institutions, in consumer models and so on). We make this choice because – given the model of analysis we have – the micro-social context is the one that best allows to depict the dynamic of sense emergence as a continuous process that unfolds through time. As a consequence of our methodological choice, we know that our conclusions cannot be generalized to other kinds of discourse, but they refer to the specific discursive phenomena they are derived from.

Second, we focus our gaze on just *one* dimension of the interpersonal communication text: verbal interaction. We thus leave the paralinguistic and non-verbal component out of our analysis. Besides, we operate a further selection: within the linguistic dimension of the interpersonal communication, we limit our analysis to its phatic sub-dimension (to use Austin's definition). In other terms, our method is not interested in the communicative behaviour of the sign as a whole, but only in one of its components: *the plan of the significant*. That means we pay no attention to other relevant components of the linguistic dimension of the discourse, the semantic contents of the signs, the syntax rules of their combination, their pragmatic effects. All these limitations directly reflect the method of analysis whose focus is on the shape of the lexical distribution¹³. Obviously, we know that such limitations bring with them a lack of information. However, any method implies that. Moreover, we believe that the lack of information is not so relevant, because of the redundancy between the different components carrying the communication.

On the basis of the assumptions just discussed, our method poses the following methodological hypothesis: *the sense can be represented in terms of the variability of the lexical significant the text is composed of*¹⁴. That hypothesis draws directly from the

13 Actually, this methodological choice reflects some limitations of the methods of analysis focusing on other components of the language, in particular on syntactic and semantic dimensions. A discussion of such limitations would go far beyond the scope of this article. Thus, we just want to highlight how syntactic analysis entails a normative criterion as reference, by means of which to evaluate the observed combination/distribution of the elements of the text. Instead, semantic analysis requires interpretative schemas by means of which to decode the signs. In short, in both cases, the analysis entails a previous model of knowledge, to apply to the text that reflects the cultural premises of the analyser.

14 A vast number of multidimensional techniques of text analysis share this assumption. These techniques

above conceptual definition of the sense as the domain of possibilities of sign combination. As a matter of fact, from an operative point of view, we can define sign combination as a pattern¹⁵ of distribution of word occurrences, each of them associated with a probability value.

For instance, let us consider a hypothetical combination of signs: x , y , z (say, x is for “interest”, y for “friendship”, z for “pleasure”; such a discursive combination of signs could depict a sense of happiness connected to a warm interpersonal experience). In operative terms, such a combination corresponds with the following pattern of the distribution of occurrences throughout the text:

- high rate of co-presence of x , y and z in some segments of the discourse;
- low rate of presence of x , y or z alone;
- possibility of high rate of presence of other combination in the segments of text where x , y and z are absent.

In short, we propose to see the discourse as a *movement of significans*: the distribution of a word through time, with the structure of such a distribution (which words and when they occur) depicting the frame of sense.

The operative model: the description hyperspace of the dynamic of discourse meaning

Our methodological hypothesis justifies the adoption of an operative method of description of the discursive dynamic in terms of lexical variance throughout the text.

For the aim of analysing the lexical variance, the method adopts a statistical multi-dimensional technique of analysis (*Factorial Analysis of Lexical Correspondences*, FALC; Lancia, 2002). Generally speaking, FALC breaks up the whole lexical variability of the text into discrete units (namely factorial dimensions) each of them corresponding to the behaviour of one or more lexemes¹⁶.

have the purpose of identifying and analysing lexical variability and words' combinatory/oppositional behaviour, of which lexical variability is an expression (Lebart, Salem, & Berry, 1998; see also Salvatore, Grasso, & Tancredi, 2005)

15 Note that this pattern has to be understood as a dynamic one. In other words, it has to be represented as having a temporal dimension. Hence, the distribution has to reflect the redundancy of the sign combinations. For instance, a pattern of distribution composed of the signs α , β , χ with probability 0, 4 means that throughout the text (thus, through time) signs α , β , χ tend to be present together and that such a trend concerns 40% of the total occurrences of such signs.

16 Note that the FALC does not apply to the single lexical forms as they appear in the text. As a matter of fact, before applying FALC, each word is transformed into its lemma. Lemma is the word label that indicates the class of lexical forms, each of them produced as the class syntactic declination (Pottier, 1974); for instance, the lexical forms “go”, “goes” “went” are transformed in the single lemma: “to go”. The lemmatisation brings a reduction of the lexical variability, functional to the FAMC.

What follows are the logical and operative steps of the FALC we have applied.

First, the analysis works on the verbatim transcription of a communication interaction¹⁷.

Second, the text is transformed in a digital matrix¹⁸. To do so, at first the text is broken up in segments (namely *Elementary Context Unit, ECU*), each of them corresponding to one of the whole amount of sentences the text is composed of. Each sentence represents a row of the matrix¹⁹. Then, FALC singles out all the lexical forms of the text and it subjects them to lemmatisation (cfr. Note 16). The lemmas obtained in this way become the columns of the matrix. Each cell of the matrix can assume one of a binary code: 1 for presence, 0 for absence. In this way, the matrix represents the distribution of presence/absence of the lemmas throughout the text: each cell (ij) shows whether in the sentence corresponding to row (i) the lemma corresponding to column (j) is present or not. In such a way, the matrix is a digital representation of the lexical variability of the text (cfr. Tab. 1).

Third, *Factorial Analysis of Multiple Correspondences* (FAMC) is applied to the matrix. Factors taken out by FAMC represent the units of lexical variability in which the text is broken up. Generally speaking, each of these dimensions can be seen as a meaning sub-component active in the text (insofar as it is associated to a quote of variability of the signs²⁰).

Forth, the FACM provides a description of the relation of each ECU-row with each factorial dimension, in terms of a factorial coordinate (i.e. an index of association between ECU and factor). In mathematical terms, each ECU can be represented as a vector having as many linear²¹ components as there are factorial dimensions. In geometric terms, the *n* factorial dimensions depict a *hyperspace* of *n* dimensions. Each ECU represents a point of this hyperspace, defined by the coordinates on factorial dimensions (i.e. the values of the vector).

In conclusion, on the basis of this geometrical interpretation, we adopt the factorial hyperspace produced by FACM as the *description (hyper)space of the meaning's discursive dynamic* (below: *description hyperspace*) (cfr. note 11). Each dimension of the description hyperspace represents an axial sub-component of the semiotic field that shapes the discourse meaning. Each point of the space (corresponding to the sin-

17 More generally, the FALC works on a textual corpus. We apply FALC to the text of a novel in our study too (see below).

18 We carried out this and the further steps by means of the support of a specific software of text analysis: T-LAB (version PRO. XL1) (cfr. www.T-lab. it).

19 Note that the ranking of the row reflects the temporal sequence of the ECU. For this reason, the row of the matrix can be seen as representing the temporal dimension.

20 Note how the FAMC can take out a very high number of factors (T-lab PRO. XL1 can get up to 500 factorial dimensions). So, the degree of inertia (i.e. variability) associated to each factorial dimension is very low (maximum 3-4%). For this reason we prefer to speak of meaning sub-component).

21 Keep in mind that the factorial dimensions are orthogonal among them.

gle ECU) represents the state of the meaning at a given instant of discourse time, as defined by the coordinates on the axial sub-components. Then, the line that links the points of the space corresponding to the states of the meaning through time draws the developmental trajectory of the unfolding of the discourse.

Table 1. A digital matrix representing a text

	LEMMA 1	LEMMA 2	LEMMA 3	LEMMA n
ECU 1	0	1	0				
ECU 2	0	0	0				
ECU 3	0	0	1				
....							
....							
....							
ECU n							

This model makes possible to represent the concepts of our general thesis in operative terms. As we have already said, one can view hypersemia as the (virtual) beginning of the inbound domain of possibilities of combination among signs. Hence, hypersemia could correspond to *the maximum dispersion of the lexical variability throughout the factorial dimension*. In geometrical terms, that means one needs a description hyperspace with a huge number of dimensions to depict the dynamic of the discourse (in other words: its lexical variability). In complementary terms, this geometrical condition is depicted by a dispersive distribution of the inertia explained by factorial dimensions. In other words: in hypersemia each factor gives a minimum contribution to the statistical explanation of the whole inertia; moreover, if one prefers, to explain a given quote of this inertia more dimensional factors are needed (than in the absence of hypersemia)²².

In accordance with the same logic, the emergence of a frame of sense corresponds to an increase of the capacity of the factorial dimension to explain lexical variability (that is, the increase of the quote of inertia associated to any factorial dimension). In geometrical terms, such an increase entails a *reduction of the dimensionality of the description hyperspace*: fewer dimensions of description hyperspace are needed to draw the discourse dynamic.

22 To understand this issue it may be useful to remember that a factorial dimension corresponds to a pattern of presence/absence of certain signs. Hence, the more unique such a pattern is (that is, the sign components of the pattern occur only together), the higher the degree of lexical variability produced by them is covered by the corresponding factorial dimension. In contrast, the more hypersemic a sign is, (in other words, each sign of the pattern also occurs in association with signs other than the ones of the pattern), the lower the quote of that sign's lexical variability covered by the corresponding factorial dimension.

Above we have said that the frame of sense emergence can be represented in terms of a process of slaving. Our operative model may describe such a process. To see how, we have to take into account that according to the synergetic theory, when an individual element of a behaviour system is enslaved to a group of other elements, its functioning becomes attuned to that of the others. This means that the individual element just keeps a specific pattern of functioning, giving up other patterns it expressed before being enslaved. In other words, when a slaving process happens, the enslaved element develops a bond with the pattern of system global behaviour and at the same time it loses the previous partial linkages with the other individual elements. Thus, in our case what happens could be described as something like a *form of specialization of the meaning's micro-components*. Now, within our model one can consider the single factor dimension as the individual element of the discourse's dynamic system. Hence, we reach the conclusion that the emergence of an enslaving process should be pointed out by *the reduction of the number of correlations between factorial dimensions*.

Operative hypothesis

On the basis of the last consideration, we can now translate our general thesis on sensemaking as a dynamic of emergence into an operative hypothesis.

- A. Given a verbatim transcript of the verbal content of an interpersonal communication and supposing that such interpersonal communication is as close as possible to the virtual model of discourse characterized by the starting condition (t_0) of reciprocal perfect 'strangeness' among actors²³, we hypothesize what follows.
- (Hp1) A reduction of dimensionality of the description hyperspace through time (i.e. alongside the first time-segment of the discourse and the further segments)²⁴. This means that we expect that if we compare the first (in temporal order) segment of discourse and the following ones, the latter will show a bigger amount of inertia explained by the first factorial dimensions.
- (Hp2) A decrease in the number of significant correlations among factorial dimensions through time. This means that we expect that if we compare the first (in temporal order) segments of discourse to the following ones, the latter will show a lower number of significant correlations among the factorial dimensions²⁵.

23 Obviously, this condition involves actors who have never met before; but this condition is not enough. Perfect "strangeness" means a relationship between actors who do not share any kind of symbolic mediator.

24 This hypothesis entails the discourse dynamic usually moving from the initial condition of almost-'strangeness' to a shared symbolic state among the actors. In other words, we assume that the communication among unknown actors implies the emergence of and atonement to symbolic codes, used as mediators of the dialogic exchange.

25 The factor dimensions are in orthogonal relation. Nevertheless, in our analysis the computation of the correlation rate is applied at a subgroup of the rows of the matrix used for the computation of the FACL. This allows the possibility of correlation among factors.

- B. We also hypothesize that Hp1 and Hp2's findings are specific to the process of interactive communication. As a matter of fact, as we have already asserted, it is this kind of discourse that suits being modelled as a self-regulated dynamic system, as such characterized by emergence phenomena. Consequently, we expect that: (Hp3) we will not find Hp1 and Hp2's findings in comparable analysis carried out on kinds of texts different from the verbatim transcripts of an interactive communication.

Procedure of analysis

Texts used as data

We have selected as a sample of discursive interaction the verbatim transcription in Italian of an expert psychotherapist carrying out successful cognitive psychotherapy with a young woman for four years²⁶. Psychotherapy represents a *sui generis* case of discursive interaction, holding all the following desired characteristics:

- it is an interpersonal exchange lasting quite as long time, in a documentable and representable way;
- it is a minimal communication structure, played just by one dyad, always made up of the same subjects;
- it is a social practice so one can identify a point of origin, the t_0 moment: the first instant of the first session;
- it is a micro-social context which is quite autonomous compared to the external contingences; it can therefore be seen as a self-regulating dynamic;
- it is an intersubjective transaction that can be tested by means of independent criteria (i.e. the clinical effectiveness); in this way one can check that it does have the properties of good communication presumed by our formal model²⁷

The Italian language transcript of the psychotherapy is composed of 124 sessions. Each session represents the verbatim transcription of a weekly one-hour psychotherapy session. All the sessions are of a similar textual length. The whole text is composed of 738.017 occurrences, corresponding to 22696 lexical forms²⁸, distributing in 16702 ECUs.

26 Process and outcome analysis of such psychotherapy (Case K) are presented in Dimaggio (Dimaggio, Fiore, Salvatore & Carcione, 2007), and in other articles, some of them collected in Nicolò and Salvatore (2007). We want to thank the psychotherapist (dr. Giancarlo Dimaggio) and the III Centro di Psicoterapia Cognitiva di Roma (III Center of Cognitive Psychotherapy, Rome) that have put the transcript of the psychotherapy at our disposal.

27 In other terms, we assume that successful psychotherapy entails the meaning emergence process that we want to model.

28 Obviously, the same lexical form can occur various times in the text.

We have used as a *sample of interactive text* an classical Italian novel (*I Promessi Sposi - The Betrothed*, by Alessandro Manzoni, last version published in 1840). We have chosen this novel because it is very well-known and easy to find in electronic format; besides, it is a good sample of classical Italian language style. The novel is composed of 38 chapters of quite similar length. The whole text counts 218.402 occurrences, corresponding to 20188 lexical forms, distributing in 4812 ECUs.

For both texts, we have selected 4 three-session blocks (cfr. Tab. 2):

- the first 3 sessions,
- the first 3 sessions of the second decile ranked sessions;
- the middle 3 sessions;
- the last 3 sessions of the ninth decile sessions²⁹.

Table 2. Psychotherapy's and Novel's part of text used for analysis

		Block 1	Block 2	Block 3	Block 4
Psychotherapy	Sessions:	1-3	13-15	60-62	110-112
Novel	Chapter	1-3	4-6	18-20	33-35

Analysis

We have subjected both texts to two different kinds of analysis:

1. Study of the inertia associated to the factorial dimensions
2. Computation of the significant correlation among the factorial dimensions

1. Study of the inertia associated to the factorial dimensions

We have applied the AFCL procedure (see above) to each of the 8 blocks (4 of psychotherapy text and 4 of novel text).

To assure the comparability among blocks, we have used the same procedure for building the digital matrix from the original text. To this end, we have implemented

²⁹ We have left out the last sessions because (particularly in the case of psychotherapy) it could be very specific – and therefore non comparable with others. That could be because of the intervention of the termination/separation issue. We have hypothesized that the representation of imminent conclusion generates disorganization in the accomplished discourse order, thus a weakening of the frame of sense (in other words: a burst of hypersemia). This hypothesis finds confirmation in our other data: the last 3-session block shows similar trends to the first blocks.

T-Lab software (version PRO. XL1). To break up the text in segments (ECU, the row of the digital matrix) T-Lab adopts a double criterion: the length of the segment (max 400 characters) and the presence of punctuation marks³⁰. The combination of these two criteria usually enables T-Lab's segmentation procedure to generate ECUs that are quite similar to the sentences of the original text.

The definition of the words to put under analysis (that is, the analysed forms constituting the columns of the matrix) is the output of two operations. First, T-Lab operates the lemmatisation³¹. The function of this operation is to class each lexical form in its syntactic category (that is: the lemma). Second, T-Lab defines a threshold for the selections of the lexical forms to submit to the subsequent analysis. T-Lab computes automatically an optimal frequency threshold, covering the whole distribution of the lexical form in the text³². We have slightly varied the T-Lab threshold (1 unit higher or lower than that of the T-lab, cfr. Tab. 3), in order to assure the same number of lemmas in analysis (206). As a matter of fact, this condition makes it easier to interpret the comparison between the block's inertia distributions³³. Lemmas with higher frequency than the threshold are used as columns of the matrix.

Table 2 reports the main income and output parameters of each of the 8 analysed blocks.

For each block's matrix we have calculated:

- 1a) The distribution of the inertia among the 205 (number of lemmas in analysis less 1) factorial dimension.
- 1b) The number of factors corresponding to 10, 30 and 50% of explained inertia.

30 More specifically, T-Lab defines the end of an ECU and starts with the following: everytime it encounters a full stop marking a new paragraph; if not after the 200th character, when it encounters another kind of punctuation (the search follows a hierarchical procedure; i.e., first of all it looks for exclamation and question marks, then it looks for a semicolon or a colon, then for a comma); if not at the word following the word where the 400th character falls (equivalent to an average of about 30 words). (Lancia, 2005)

31 The T-Lab has a own dictionary containing the main lemmas of the Italian language (170.944 forms corresponding to about 21.000 lemmas, selected by the means of frequency dictionaries). For each lemma the dictionary has practically all the different declinations that are connected to it. We have integrated this dictionary with another, constructed by us on the basis of an analysis of a large textual corpus collected from a wide spectrum of textual sources (newspapers, novels, transcripts of verbal interactions, scientific essays).

32 To do this T-lab adopts a statistical criterion. It defines as threshold the frequency corresponding to the first or second decile (depending on the volume of the corpus) of the list of the lexical forms ranked by frequency. In other terms, T-Labs chooses as threshold the frequency in reference to which one selects 80 or 90% of the lexical forms.

33 Note that to arrive at number of 206 lemmas in analysis, in the case of some blocks we have deselected few lemmas even if they had a frequency above the threshold. The deselected lemmas have been randomly chosen among the ones with the threshold frequency (cfr. Tab. 2).

Table 3. Quantitative characteristics of blocks

	Psychotherapy				Novel			
	Block 1	Block 2	Block 3	Block 4	Block 1	Block 2	Block 3	Block 4
N. of occurrences	23698	11926	15734	17837	15862	15171	14909	18921
N. of lexical forms	3245	2117	2396	2502	4117	3874	3613	4241
Total N. of lemmas	2174	1408	1597	1685	2815	2639	2455	2836
N. of lemmas selected for the analysis	206	206	206	206	198	198	198	198
N. of ECUs	1033	557	274	326	373	367	328	421
Frequency used as threshold	7	4	4	5	6	6	6	7
Lemmas over threshold omitted	1	18	13	35	10	14	11	4
N. of Factorial dimensions	205	205	205	205	197	197	197	197

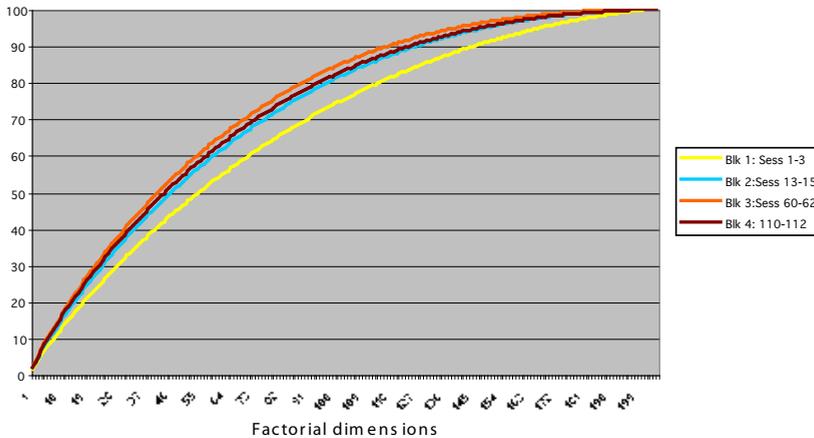
2. Study of the significant correlations among the factorial dimensions

For each of the 8 blocks, we have selected the matrix of the factorial coordinates (obtained as output of the FALC) corresponding to the ECUs of the first session. Then, on this matrix, we have computed Pearson's rates of correlation among the factorial dimensions for each of these 8 samples³⁴. Then, we have used the number of significant rates of correlation among factorial dimensions ($p > .01$) as comparative criterion among blocks. We have also analysed the distribution of the significant correlation on the correlation matrix.

Results

Figure 1 compares the 4 distributions of explained inertia among the dimensional factors, each of them corresponding to one of the 4 analysed blocks of psychotherapy text. The distribution is depicted in terms of cumulative percentage.

³⁴ Remember that each ECU is defined by a set of coordinates, one for each factorial dimension. Besides, note that the matrix of factorial coordinates is the output of the FALC applied on the whole 4-session block. In other words, in so doing we have used the hyperspace of description corresponding to the 4-sessions text as context of analysis for the ECUs of the single session.

Figure 1. Cumulative percentage of explained inertia by factorial dimensions

As one can see, the distribution curve moves toward the left as time goes on (i.e. from the first to the other blocks, ranked as a temporal criterion). This means a progressive increase in the quote of inertia explained by the first ranked group of factors throughout the blocks of sessions. Besides, note that the main difference occurs between the first block (sessions 1-3, yellow line) and the others. The other blocks show very similar tendencies among them. In the case of the first block of sessions, the inertia spreads in a more diffusive way among the factors; in other words, the cumulative percentage increases less quickly than as it does in the case of the other blocks. Otherwise, the trend of the inertia to be concentrated on the first ranked factors does not follow a perfect linear temporal tendency. As matter of fact, the concentration increases from the first block (session 1-3, yellow line) to the second one (session 13-15, blue line), but the highest concentration is depicted by a middle block (block 60-62, red line).

If we take a look at the shape of the lines, we can observe that the difference between the first block and the others concerns the first 80-85 factorial dimensions. More precisely, the largest difference between block 1 and block 2 is on the 84nd factorial dimension (difference: 7, 13 percentage points); the largest difference between block 1 and block 3 is on the 79nd factorial dimension (difference: 10, 92 percentage points); the difference between block 1 and block 4 is on the 78nd factorial dimension (difference: 8, 71 percentage points).

Figure 2 depicts the same trends from a complementary point of view. It shows the number of factorial dimensions corresponding to three different degrees of explained inertia (10%; 30%; 50%). As one can see, differences among blocks are not dramatic in the first 10% of inertia. But they increase if one take as reference the 30% level. The differences are still larger (only in absolute, but not in relative terms) in the case of the 50% level. Besides, one has to note that the difference concerns mainly the comparison between block 1 and block 2; between these blocks the number of factors corresponding to 30% of inertia passes from 30 and 25; it passes from 56 to 47 in the case of 50% inertia. Instead, between the second and the other blocks the differences in the number of blocks are lower (respectively: 25 *versus* 22 and 23; 47 *versus* 43 and 45).

Figure 2. Number of factors corresponding to quotes of explaining inertia. Psychotherapy text

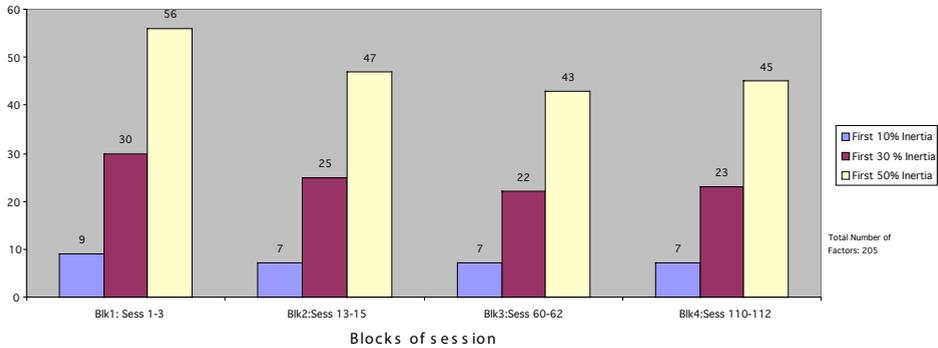


Figure 3 reports the corresponding findings related to the novel's 4 blocks. In this case the 4 lines are very close. In the case of the first three blocks (chapter 1-3; chapter 4-6; chapter 18-20) they are found to be overlapping, One can also note that in the case of the novel, there is no relation between the rank of the block and the position of the corresponding line on the Cartesian space. More particularly, as regards the concentration on the first group of factors, the increasing rank of the blocks is: in first position block 3 (chapter 18-20, orange line), followed by block 2 (chapter 4-6, blue line), then by block 1 (chapter 1-3, yellow line), with block 4 (chapter 33-35, brown line) in last position. Besides, one can observe an inversion between the two texts: in the case of the psychotherapy text the last block (the 4th one) shows the most concentrated distribution, while in the case of the novel text the last block shows the least concentrated one.

Figure 3. Cumulative percentage of explained inertia by factorial dimension. Novel text

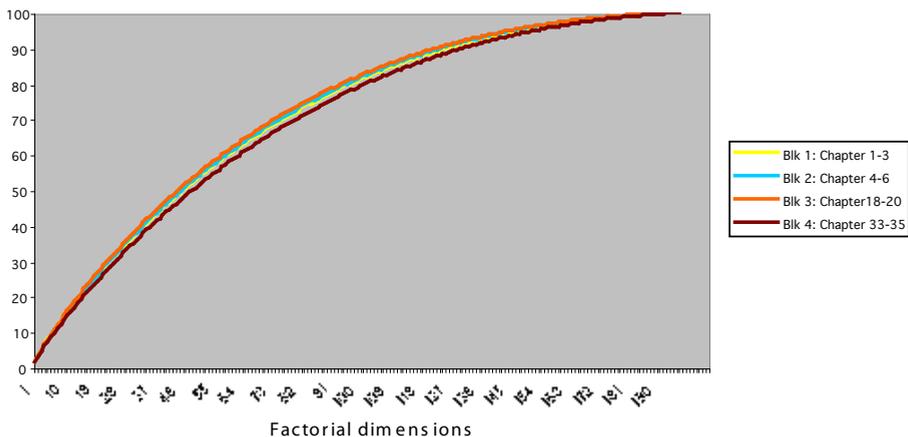


Figure 4 offers further data showing the substantial equivalence of the distributions of inertia corresponding to the four blocks of novel text. Among the blocks, the number of factors corresponding to the first two cut offs, (10% and 30% of explained inertia) is the same or almost the same (respectively 7-8 and 24-26 factors). Also in the case of the 50% cut off the differences remain low (range 45-49).

Figure 4. Number of factors corresponding to levels of explaining inertia. Novel text

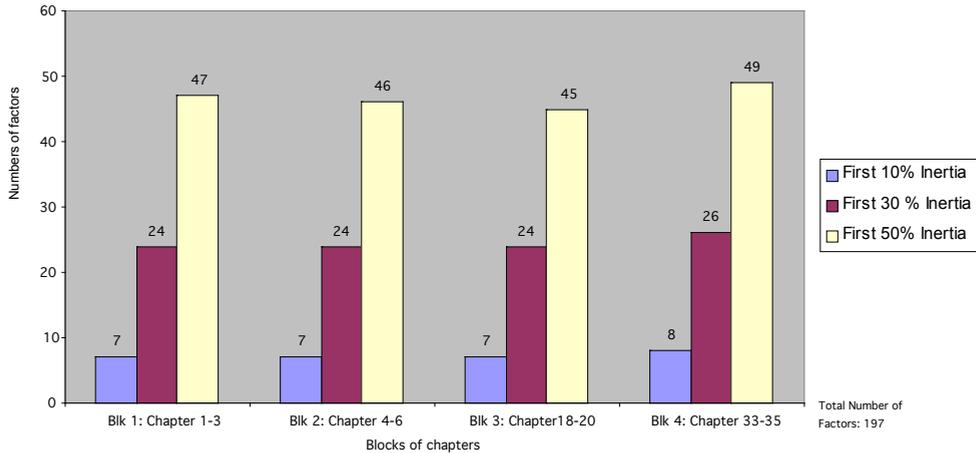


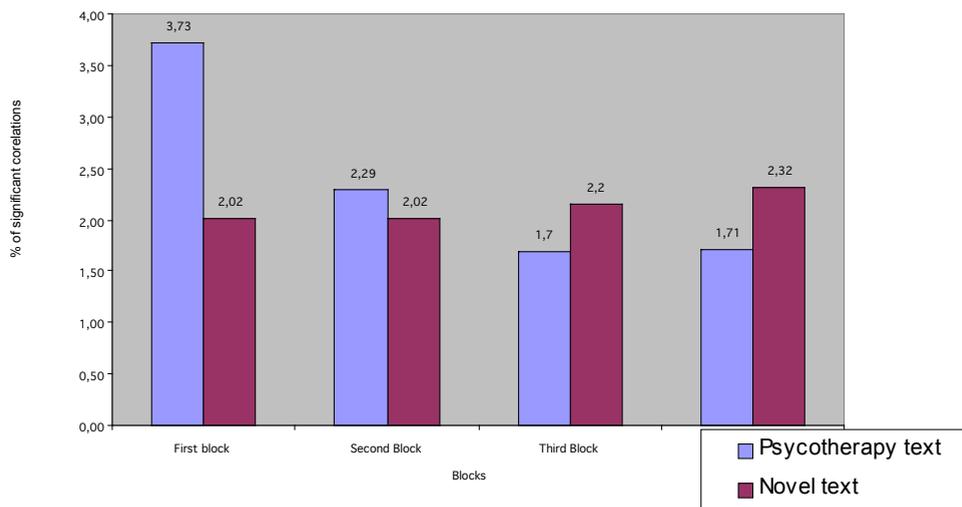
Figure 5 reports the percentage of significant correlations among factorial dimensions for each correlation matrix corresponding to any of the 8 analysed blocks. In accordance with the hypothesis that the enslaving process entails the strengthening of just some bounds and the corresponding weakening of the linkages with other, more numerous elements, we have adopted a threshold of $p > .01$ as criterion of significance. Besides, the figure presents the data in percentage format (i. e. in terms of a ratio between the significant correlations and the total number of correlations among factorial dimensions³⁵).

As one can see, in the case of the novel text the percentage of significant correlation does not show a large difference among the blocks (range: 2, 02%-2, 32%); furthermore, the tendency is to an increase, though very slight, in the amount of significant correlations alongside the ranked blocks (from 2, 02% of the block 1 to 2, 32% of the block 4). The psychotherapy text's inter-block distribution is quite different. First, its tendency is towards a progressive decrease in the number of significant correlations alongside the ranked blocks (from block 1's 3, 73% to block 3-4's 1, 7%). Second, one can observe a quite dramatic difference between the first and the second block (cor-

³⁵ Total number of correlations is calculable as follows: Number of factorial dimension x (Number of factorial dimensions-1)/2

responding to a decrease in the number of significant correlations of more than 38%: from 3,73 to 2,29). After such a dramatic decrease, the percentage remains on similar levels in the subsequent blocks. However, if one compares the percentage of the first and the last block, the decrease is more than 50% (from 3,73% to 1,71%).

Figure 5. Percentage significant correlations among factors (on total number of correlations)



Comments

The data just presented show a good coherence with our hypothesis. Comparing the blocks of text ranked by the temporal dimension, we have found *all* and *only* the expected results:

- the increase in the concentration of the inertia explained on the first group of the ranked factorial dimensions;
- the decrease in the number of significant correlations among the factorial dimensions;
- the specificity of these two findings, that concern only the text corresponding to the discursive interaction (i.e. the psychotherapy transcript), but not the novel text.

Moreover, one is struck by the evidence that in both analyses (i.e. inertia distribution and significant correlations) the differences are fundamentally concentrated between the first and the other blocks of psychotherapy text. After block 1 – i.e., after the first temporal segment of the discourse dynamic corresponding to this block - all the analysed parameters became stable. This pattern is strongly coherent with two main properties characterizing the dynamic of frame of sense emergence: a) the emergence

comes in the first temporal moment of the interaction, when the actors define the “rules of the game” of their intersubjective transaction; b) the emergence comes suddenly, as a discrete transition to a state of equilibrium, rather than as a continuous and incremental process of change.

As we have already noted, the outcome of the novel text’s analysis offers further support to our hypothesis on the dynamic and emergent character of the sensemaking. As a matter of fact, in the case of the novel, we have found just minimal differences – therefore conceivable as irrelevant fluctuation - among the blocks, both in the case of the inertia distribution analysis and in the case of the computation of significant correlations among the factorial dimensions. We are inclined to interpret this absence of difference among the temporally ranked blocks as the expression of the specificity of the structure of a written text. In fact, in the case of a written text like a novel, the frame of sense is already inherent to the text itself, as a pre-condition - and at the same time the criterion - of its interpretability. In other words, a written text is a *given* object that does not unfold over time; thus, it does not imply the process of sense emergence, simply because it already holds a structure of sense in itself³⁶.

With this latter consideration as background we can focus another interesting issue: in both analyses performed on the psychotherapy text, parameters of the blocks subsequent to the first one show a very similar trend to that of the novel text. Insofar as one assumes that the novel parameters’ trend reflects the already given structure of sense of that kind of text, the similarity between this trend and the psychotherapy trend (after block 1) is a further finding going to the direction of the description of the discourse in terms of a dynamic system; that is, in the direction of the idea that at first the interactive communication generates a structure of order working as a state of dynamic equilibrium becoming the self-regulating principle of system operation (Haken, 1992; Maturana & Varela, 1980). In sum, these findings allow us to depict the discourse dynamic as a process with an initial *framing*³⁷ phase from which an equilibrium state (i.e. the frame of sense) emerges and stabilizes the further unfolding of the intersubjective exchange.

We decided do not introduce statistical tests of such difference, preferring to stay on a qualitative plane of analysis, because of the limitation of the amount of data,

36 That is not in contradiction with the hermeneutic and dialectic conceptions of the relationship between text and reader proposed by contemporary semiotic theory (Eco, 1979). In fact, this conception concerns the process of reading, that is the interaction between the text and who is reading it, while our considerations focus on the text as such. Otherwise, the fact that the semiotic theory underlines the inferential, dynamic and co-constructive character of the reader’s interpretation implies in the final analysis that the text has already its own structure, in relation to which the dialectical process of decoding can develop (here the debate on the literary genres as psychological and hermeneutic frame of the dialectical relation between text and reader is pertinent; Bruner, 1986).

37 The concept of an framing phase has been examined in depth by Carli, in a series of works in Italian (Carli, 1987; Carli, & Paniccia, 2003; see also Paniccia, 2003). From a complementary point of view, this concept refers to the conceptualisations proposed by French psychosociological theory (Lapassade, 1967).

which does not allow reliable computation. However, this report has been designed as a first step, aimed more to present our theoretical thesis and to start up the analysis of the operative model deduced from it, than to produce conclusive assertions. Anyway, even if just on the basis of a qualitative overview, the synoptic of the shapes of the data obtained from the lexical analysis of the two texts leads us to think that the trends showed by the psychotherapy interaction dynamic are not casual but meaningful, worthy of being taken into consideration. At the same time, we are aware that the current level of development of our data analysis does not allow us to exclude a set of alternative hypotheses according to which our results are the expression of other factors, related to some idiosyncratic characteristics of the case analysed (i.e. as an expression of just that dyad, or of just that kind of psychotherapy) and/or to some systematic motive, different from the supposed one (i.e. as an effect of the syntactic-semantic structure of the Italian language, or of the psychotherapeutic dialog, or of the transcription format; as well as even the procedures of analysis).

Future steps of our analysis will deal with these alternative hypotheses. Meanwhile, we can focus on further issues found in the findings presented, that we consider able to open other paths worth reflection.

1. The results concerning the number of significant correlations among factorial dimensions converge with the other findings to give substance to our hypothesis about the way the emergence process of the frame of sense happens. As matter of fact, such results depict how the frame of sense arises as a consequence of the weakening/disappearing of connections among the micro-components of meanings, as the synergetic theory describes. That leads us to our definition of frame of sense as the bounded domain of sign combination. A definition that in its turn refers to the general idea that discourse generates sense by taking off, in the style of sculpture, rather than putting on, in the mode of painting.
2. In the case of the psychotherapy text, we have already highlighted the progressive concentration of explained inertia on the first factorial dimensions throughout the temporal ranked blocks (see in particular fig. 2). And we have interpreted such finding as an indicator of the process of hypersemia reduction. We can now observe that this process follows a temporal trend, though not perfectly linear. The trend keeps a linear course on the temporal dimension for 3 out of 4 blocks, from the first to the third, whereas the last block works in the opposite direction, showing an increase in hypersemia, thus coming back to a condition similar to block 2, the state of the discourse just after the frame of sense emergence. In our opinion this countertendency does not go against the assumed idea of a temporal trend in the discourse dynamic of hypersemia reduction. As matter of fact, we think that one has to extend to the block 4 psychotherapy session the same observation made on the last psychotherapy session, left out of the analysis (cfr. note 29): block 4 is made up of sessions that, while not being the last ones, do belong to the conclusive phase of the relationship between therapist and patient, when both the actors know that they are going toward an imminent separation. Therefore, it is at least plausible that the effect of disorganization and of increasing of hypersemia was active in those sessions too.

In the light of this consideration, the findings depict a dynamic that can be interpreted as follows. In the initial stage of the relation between therapist and patient a frame of sense emerges; the further cooperative unfolding of the clinical exchange brings with it a cumulative, but slight reinforcement of such a frame³⁸; in the conclusive stage of the clinical relationship, the separation perspective introduces/catalyses new references (i.e. the issues related to the life after and beyond the psychotherapy) and in so doing activates relevant elements of meaning in therapist-patient dialogue. This implies a pressure on the discourse, in the direction of a weakening of its order; an event that our data depicts in terms of the reduction of concentration of explained inertia, that is as a countertendency of the hypersemia to increase. However, this increase in hypersemia is not catastrophic; the discourse comes back just to the post-initial level: the lack of organization concerns only the progressive reinforcement taking place after the emergence of the frame of sense at the framing stage, but does not touch the frame of sense, as if this structure was by now an unquestionable fact.

3. In the previous discussion about the reduction of hypersemia (in the case of psychotherapy) we referred to the concentration of explained inertia on the first ranked factorial dimensions. Actually, to be more precise, the factorial dimensions involved in the concentration are not the very first ones (the ones that explain the biggest single quote of inertia), but the ones immediately subsequent. With some approximation, one can identify these dimensional factors in the range between the 10th and the 80th. This finding is in part depicted by figure 3, which shows how the differences among the blocks (in particular between block 1 and the others) does not concern the first 10 factorial dimensions but the later one. Besides, we have already underlined that the differences of explained inertia among the blocks increase till about the 80th factorial dimension.

It is plausible to consider the first dimensional factors as the expression of a central meaning sub-component. In other words, those sub-components coming from the therapist and patient belonging to a common cultural framework³⁹; for this reason they are the first to become active in the discourse and the ones that hold

38 That is in accordance with the specificity of psychotherapeutic dialogical exchange. Generally speaking, the aims of the psychotherapy (in particular, the model of psychotherapy involved in our analysis) is to enable a process of re-elaboration of the meanings (beliefs, mental schemata, interpersonal attitudes...) that organize the patient's inner and intersubjective world. To do that, psychotherapy exchange has to work as a solid and resistant interpersonal context (so to create the safety conditions that permit the patient to accept the risk of revising his deep-rooted convictions and beliefs, cfr. Weiss, Sampson *et al.*, 1986), but at the same time as a never fixed or closed semiotic space (to permit the production of new and divergent meanings; Gill, 1984; Salvatore, Grasso, & Tancredi, 2005). Hence, we can expect that the psychotherapy relation is different from other kind of human dialogues, because the frame of sense that it produces tends to be (should be), metaphorically speaking, lighter, never reified in taken-for-grant beliefs/assumptions, but always open to further developments.

39 Just to give a hypothetical example of this kind of meaning: the value given to mental disease or to professional intervention.

the largest unitary degree of the shared communication sense⁴⁰. From a different but complementary perspective, we can interpret this first central sub-component, as the expression of the stereotypical element present in the semiotic field of the daily social thought.

Insofar as one accept this general interpretation of the ranking of the factorial dimensions, one can conclude that the emerging of sense happens as a result of the synergetic dynamic of peripheral (but not extremely marginal) sub-components of meaning, maybe the ones on which the conformist pressure of cooperative communication rules, pushing to take the culturally shared meanings for granted, is weaker⁴¹.

4. In this work we have proposed a vision of the emergence of sense as a consequence of the selective combination of micro-components of meaning, generated by the definition of bounds to the combinatory possibility of the discourse. This vision opens an interesting possibility of linkage with the PDP model of the mind (Rumelhart & McClelland, 1986). The PDP model sees meanings as emergent patterns of connection among sub-symbolic micro components (represented in terms of network nodes). When a definition of bounds to the network connectivity is made, it carries with it the possibility of concentrating the linkages on the relatively fewer combinations satisfying the bound criterion; this process generates redundancy; in other terms a pattern of learning emerges from the inside of the network.

Conclusion

This study has set itself a twofold objective. First, the presentation of a conceptual model of sense making, based on the fundamental socio-constructivist principle underlining the immanence of the meaning in the discourse dynamic (that is, the meaning does not pre-exist the discursive exchange, but it generates itself within and through the exchange itself).

Starting from these assumptions, our model proposes viewing sense making as the emergence of a frame (namely a *frame of sense*). This frame enables interpretation to be

40 In other words, the first factorial dimensions correspond with the meaning components pre-existing the psychotherapy relation itself, expression of semiotic devices that patient and therapist however share even if they have never met before, just as the effect of their belonging to the same symbolic environmental. In that sense, we can consider those factors as an index of the stereotypical aspect of the discursive meaning, one that is not produced from within the communication itself, but rather that is re-produced by the communication. In sum, this aspect represents the limit to the perfect 'strangeness' between therapist and patient: what in any case they share and have to take for granted in order to be able to come into contact.

41 This conclusion leads us to advance a further operative hypothesis, good for future analysis: the more similar the initial condition is to perfect 'strangeness' among actors, the more the first ranked factorial dimensions are involved in the reduction of hypersemia (as a result of the decrease in "stereotypical" factorial dimension).

made and orients the discourse participant. More in particular, our model depicts the emergence process as a defining of limits to the virtually infinite combining capacity of signs; this boundary setting entails the strengthening of the combinations of selected signs and therefore the development of specific discursive paths.

In the first part of this work we have highlighted some theoretical consequences of our model that we believe make it worthy of consideration. In particular, we have underlined that depicting sense making as an emergence dynamic resulting from a restricting process allows a logical paradox to be avoided, that is to hypostatize the meaning, treating it as something that pre-exists the discourse.

However, we believe that the most significant merit of our model is its capacity to establish a method of empirical analysis of the discursive dynamic. As matter of fact, the empirical representation of sense making is a very controversial issue. As we have discussed, the principal solutions of this theoretical and methodological problem are not satisfactory, because in one way or another they entail the reference at an external observer with a normative model (i.e. the list of significances used in the content analysis). For this reason, this solution clashes with the principle of the indexicality of meaning (that is, meaning is always local, depending on the discursive context).

To avoid this conceptual problem we have proposed depicting meaning in terms of lexical variability. In other words, in terms of how words combine amongst themselves so as to carry out specific distributions of combinations recurring throughout the discourse. This way of representing the discursive dynamic of meaning offers theoretical and methodological advantages over other methods.

From the theoretical standpoint, our method does not use external normative models, but it represents meaning from the inside, in the terms of one of its immanent properties (lexical distribution).

From the methodological standpoint, our method allows for an operative description of the meaning dynamic while at the same time avoiding the observer's inferential intervention. As matter of fact, lexical variability can be described by means of specific multidimensional statistical techniques. We have dedicated a specific section of this paper to presenting the technique we have used (*Factorial Analysis of Lexical Correspondences*). This technique breaks down lexical variability (in technical terminology: *inertia*) into micro-dimensions (*factors*), each of which corresponds to a quota of variability/inertia expression of a specific combination of co-occurrences. One can interpret these factors as the *operative representation of the semantic micro-components of meaning*. On the grounds of these technical assumptions, we have been able to represent the discursive dynamic in terms of the temporal evolution of the semantic micro-components of meaning (and of their combinations).

Our empirical method enabled us to test our model of the sense-making process. To this end, we have used two parameters of lexical variability:

- the distribution of inertia among the factors (consider that the number of factors and the amount of inertia associated with each factor changes from one analysis to another);
- the relation - measured by means of the correlation coefficient - among the factors.

The most relevant findings of these two paths of analysis are the following.

Passing from the initial phase of the discursive process to the subsequent ones (that is from block 1 to block 2, 3, 4), the lexical variability (inertia) tends to be reduced and concentrated on only some of the factors.

Again between the first and the subsequent phases of the discursive dynamic, the number of significant correlations among the factors decreases.

These two processes are not active throughout the whole time of the discourse. Both of them only occur at the starting up phase; after this initial phase both parameters settle down to the levels reached.

The findings presented here are not universal proprieties of any text; in fact, we have found them in the verbatim transcription of a psychotherapy session (which we have considered an example of dialogical exchange), but not in the text of a novel.

We think that these general findings show the principal issues that our theoretical model underlines on the conceptual level.

Inertia reduction between block 1 and blocks 2-4 (p. 1) shows how after a starting up phase discourse restricts the possibilities for the signs to combine with each other; in other words, an asymmetry arises among probable, possible and non-allowed sign combinations. The reduction of the number of significant correlations (p. 2) shows the same process of sign specialization from a complementary point of view. One has to take into account that a significant correlation between two factors means that the two factors (thus, the two patterns of sign combination) behave in a partially linked way (i.e. one is present when the other is too; or one is present when the other is not). Thus, a smaller number of significant correlations means that signs bind themselves to a selected repertoire of signs, weakening the linkages with the other signs. We have interpreted these two findings as the empirical depiction of a process of *discursive developing of a frame of sense*. As matter of fact, our model conceptualizes the frame of sense as the binding of the sign's combination capability. That binding reduces the hypersemia of the signs, giving order to the discourse.

The fact that this process of developing shows itself in a single, discrete moment (p. 3) is consistent with the assumption in our model underlining that *the frame of sense is an emergent property* of the discursive dynamic. In other words, the frame of sense is the outcome of a transitional phase: the passage from one equilibrium state to another (recall that after block 1 the parameters remain stable). The possibility of representing the developing frame of sense as an emergence leads to viewing discourse as a dynamic system, which is therefore analyzable by the conceptual and formal devices of the mathematical theory of dynamic systems

Finally, we have shown that the dynamic patterns now discussed are specific to discursive exchange, rather than being universal proprieties of any text (p. 4).

This paper is an initial study, focusing on a single case analysis, that we have developed on the base of the theoretical model of discursive dynamics introduced in the first part of the article. Therefore it is useless to emphasize the preliminary and temporary character of our observations and conclusions. Other studies (in particular with other types of texts) and modality of analysis (in particular, the analysis of temporal series) are necessary to be able to ground our concepts on more solid bases. In any case, the results presented above seem encouraging to us. Regardless of their specific merit, on

which, as we already said, caution is strictly required, they give us positive feedback of the heuristic validity of our theoretical model, that is of its ability to generate operative procedures of empirical analysis.

As regards the merit of the results discussed above, generally speaking we feel ourselves in a condition to affirm that the findings discussed above fit into the vision of discourse as a self-regulating dynamic system unfolding alongside the temporal dimension. The data is quite consistent with the model proposed in the first part of this work, which sees sensemaking as an emergent process, produced from the inside of the system in terms of an enslaving dynamic whose outcome is a reduction of the sign hypersemia (in other words: a definition of bounds to the virtually infinite possibilities of sign combination). In a complementary way, the empirical textual analysis performed is a first test of the validity of our operative model, based on the idea of representing the discourse dynamic in a geometrical-formal way, in terms of a hyperspace of description, generated by the factorial dimensions depicting the lexical variability of the text. From this point of view, the findings show how the emergence of what we have called “frame of sense” can be represented in terms of a reduction of the dimensionality of the hyperspace. This result is relevant not only because it supports our model. As matter of fact, the reduction of dimensionality that we have been able to point out represents a conceptual bridge both towards the theory of dynamic systems and towards the contemporary psychodynamic theory of the mind, in particular its area interested in modelling the unconscious dimension of thought and intersubjectivity.

Furthermore, our model has implications both of a theoretical and methodological order.

From the theoretical point of view it is a peculiar formulation of a more general socio-constructivist model of the relation between social context and thought that underlines how meaning is a social construction that is accomplished *within* and *by* the intersubjective practice, as a function of how the semiotic devices are used in it. In sum, such a model moves the mind from the inside of the individuals’ heads to social and situated transactions. We have seen how this model leads to thinking of communication as a self-regulating system with the capacity not only to exchange sense but also to generate it from within, insofar as communication, in a recursive way, shapes the symbolic devices that at the same time carry it.

The possibility that our findings give to model sensemaking as a dynamic system characterized by an emergent process entails a relevant conceptual issue. As matter of fact, this possibility means that the discourse dynamic can be formally represented by means of the mathematical theory of dynamic systems. A first step in that direction is represented by the adoption of the concept of *description hyperspace*, that we have used to depict the reduction of hypersemia in terms of reduction of dimensionality. Further analyses will serve to deepen this perspective. In particular, the point is to test whether discourse works as that specific type of dynamic system defined by chaos theory. In fact, we have some qualitative and general analogies leading in such direction. First, the unstable and continuously variable character of the equilibrium constituted by the frame of sense; in other words, the fact that the shared sense is not a static structure, but it is continuously subjected to redefinition. Therefore, from this point of view, discourse is an irreversible construction unfolding through time; besides, a construction

that moves within a consolidated frame of sense, but that never recovers a state identical to the one it had at a previous moment. Now, this is a typical property of a chaotic system: a system characterized by its leaning towards complex and counterintuitive conditions of equilibrium (strange attractors), that one can define as regions (instead of points) of the description space (thus a subset of points at the same time bound and infinite) that holds all the possible point-states that the evolutionary line of the system can accomplish, with the impossibility for such line to pass more than once through the same point, however long the time range is.

A last theoretical consideration regards the linkage among some of the statements made above and a theory of the mind that implies the rule of the unconscious. In particular, the model of sensemaking in terms of reduction of dimensionality has quite intriguing analogies with Matte Blanco's psychoanalytic theory of mind, which models the unconscious as the dimension of thought working by generalization and homogenisation of signs, standing in opposition to the operative and reality- anchored thought that works to progressively reduce unconscious generalizations and, in so doing, to extract/define relations among signs. Now, Matte Blanco himself speaks of the possibility of representing this unconscious process of generalization and homogenisation in geometrical terms, as a hyperspace of infinite dimensionality (Matte Blanco, 1975). For instance, the fact that from the perspective of unconscious thought a significant can stand for an infinite number of significances (e.g. a lover, carried away by his/her feelings - that is the most dense of unconscious kind of thought - can interpret the loved one's slap as a sign of love), is not contradictory if one admits that semantic space has infinite dimensionality. If so, the same significant can stand for different (also apposite) kinds of significance, which are far from each other on one plane, but near on one or more of the other infinite planes of semantic space.

From a methodological point of view, we consider our study as an example of how the rationale of an analysis based on a single case but able to produce transferable findings is practicable and useful.

However, using the single case methodology is a logical necessity that derives directly from the acknowledgement of the self-regulating property of the discourse dynamic. This acknowledgement makes it indefensible to adopt the approach of description from outside the system, based on normative models introduced by the observer (i. e. average population behaviour; the assumption of normality in last analysis rooted in the analyser's values)⁴². In opposition to this external and hetero-normative modality, the acknowledgement of the self-regulating property allows us to assume the way of working of the observed system itself as the frame (thus the hermeneutic criterion) for the analysis of the local performances of the system (or of its subsystems). From this

42 Most of the methods of speech analysis propose readings from the outside, based on interpretive schema/criteria defined by the observer beforehand. In this sense one can think of the classic analysis of the content, or of the use of the interview method followed later by the interpretation of the contents collected. In the last analysis, the fundamental limitation of this form of discourse analysis is that it leads to decoding the texts by means of codes other than those used by the speakers to encode the text; Salvatore, & Pagano, 2005; see also Hong, 2004).

point of view, our analysis is an example of the possibility of producing interpretative hypotheses from the inside and related to the single case (the discourse text). As a matter of fact, our method implies a description of speech on the basis of its own structure: the description space defined by the ACFL⁴³.

Another methodological issue concerns more specifically the operative model we have proposed. From this point of view, the meaningfulness of our findings is a point in favour of this operative model of representing discourse, based on the use of the AFCL, in its turn based on the interpretation of the factors extracted as dimensions of the description hyperspace. The aspect that seems to us to characterize this model is its capability to operate according to standard algorithms (presented in the methodological section of this paper), applicable in an automatic way, with a relatively low employment of time and computing resources. We see numerous, interesting opportunities for applying such a model of discourse description. One of us currently is engaged in using it both for analysing the professional training process (Salvatore, 2005) and the psychotherapy process (Salvatore, Grasso & Tancredi, 2005). Yet, actually the method can be useful in all cases of patterns of activities that imply the mediation of interactive discourse processes (to give some examples: in domains such as educational practices, health care, organizations, cultural and inter-group transactions...). Moreover, this constitutes the premise for a formal analysis of discourse dynamics, an operation that we consider necessary in particular in order to further the development of our fundamental thesis on the chaotic character of speech.

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⁴³ It is useful to underline that all the techniques of Analysis of Correspondences have descriptive and not inferential functions. That implies that they are quite free from the analyser's previously made hypothesis.

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COMMENTARIES

NOMOTHETIC AND IDIOGRAPHIC APPROACHES: CONSTRUCTING A BRIDGE

Maria Teresa del Rio and María Elisa Molina***

Abstract. In this paper, two articles are commented on: Salvatore and colleagues (this volume) aiming at catching discursive dynamics in an exchange between interlocutors and Molenaar and Valsiner (this volume) intending to display high variability present in any generic process. Both studies offer creative and unique approaches to work on single cases from different perspectives having a common focus: the expression of psychological phenomena as an idiographic process that generates scientific knowledge in a unique manner. From this departing point we discuss the concepts of hypersemia reduction and meaning emergence proposed by Salvatore *et al.* and propose a tacit inclusion of a constraining process of meaning that enables the individual to make sense of the exchange with context. From Molenaar and Valsiner, we comment on the value of generalization as a means to make science from an idiographic perspective. Finally a reflection is drawn from both studies and their contribution to research in psychology.

Introduction

We intend to comment on two articles from this volume: Salvatore and colleagues (this volume) and Molenaar and Valsiner (this volume). Salvatore and colleagues (this volume) aim at catching discursive dynamics in an exchange between interlocutors while Molenaar and Valsiner (this volume) discuss the high variability present in any generic process. Both of these papers offer creative and unique approaches to work on single cases from different perspectives but have in mind a common issue, namely that

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the expression of psychological phenomena is an idiographic process that generates scientific knowledge in a way that cannot be comprehended otherwise.

The phenomenon that they point at is a relational one in the inter subject process between two interlocutors that depart from starting point and explore meaning. In the case of Salvatore, Tebaldi and Potì (this volume)'s study, a frame of sense for meaning-making is co-constructed with the other and in Molenaar and Valsiner (this volume)'s study, they deal with the effect of the therapeutic – patient relation in self-reliance development as a self manifestation in a therapeutic context. In other words, psychological processing takes place in relationship with another that reacts, responds, helps and/or evaluates. The time-based variability within unique cases emphasized by the idiographic approach is highly related to the dialogical nature of the psychological phenomenon.

The conceptualization of the nomothetic and idiographic methodological approaches and the differences between the two are an interesting frame of reference for scientific research in psychology. It is not a matter of the difference between qualitative and quantitative methodology, but of the way in which we can capture the expression of the phenomenon of interest in psychology.

The authors refer to these two main areas of research to which methodological approaches can be identified: nomothetic research and idiographic research. Molenaar and Valsiner (this volume) defy this distinction and propose that the idiographic approach may be applied to the whole of psychological science. The authors challenge the traditional scientific method in psychology that focuses on representative samples with the assumption of a generic single case model. They support the idea of research with unique cases as the main way to approach psychological phenomenon. Even more they sustain that scientific research for nomothetic laws can be carried out and applied to idiographic structures of variation. They state that the idiographic process can be carried out with simple statistical analyses. What Molenaar and Valsiner (this volume) and Salvatore and colleagues (this volume) manage to accomplish in their studies are examples of a complex methodological analysis of psychological processing as time evolves that is not possible by usual repeated measurements in time.

It is very challenging to react to the proposed arguments as they deal with a basic issue in the making of scientific knowledge: how to approach a phenomenon for its study? We think that to accomplish this task always implies a nomothetic logic that in some way leaves aside variability since it must obtain regularities of phenomena expression in spite of its uniqueness. Therefore, variability, movement and temporality are dynamics that are difficult to grasp. When using nomothetic methods, as in the studies of Molenaar and Valsiner (this volume) and Salvatore and colleagues (this volume), we register behaviour displayed as a recorded data. Then we apply a scale to the behaviour we had observed and we categorize the observed behaviour hopefully in fixed intervals. The act of categorizing behaviour and applying an instrument that labels the variability of psychological expression enables the researcher to capture regularities expected. That is to say, there are two methodological steps that are important here; one is labelling and the other is the application of fixed intervals scaling. These two procedures are designed to capture regularities for a nomothetic purpose.

The problem that remains to be solved is that the analyses proposed in these

studies still do not deliver an answer to the issue that whatever may be going on at the moment of a measurement of a certain phenomenon and coexisting with it, cannot be taken into account completely. What we aim to point out is the systemic nature of any behavioural manifestation and the complexity of everyday life. Taking an example from the Molenaar and Valsiner (this volume)'s study, coming to Session 5 for the child is not the same as coming to Session 15 not only because of the different situations that occur in those different instances, but also because life events have changed between that period of time and there is no way to capture such variability. We could try to do it in a rather detailed and comprehensive approach, as if an anthropologist disguising him or herself as a member of a group and being able to observe without disturbing by his/her presence. We intend to point out the difficulty in doing research in which statistical measurements are not intrusive and do not artificiality add variation that may modify what is intended to be comprehended.

Notwithstanding, we need to approach psychological phenomena and, to accomplish that goal we have to deal with both its expression of variability and regularity. Finding regularities in a unique case challenges those who think that the uniquely valid way of making research in psychology is through inter-individual comparisons. In those contexts we can appreciate the effort to apply nomothetic analysis to single cases.

If we introduce the concept of intra-individual regularity, as theories of personality propose, we may consider that to a certain extent we could propose that the psychological phenomena can also be explained through regular occurrences in single cases. We must also bear in mind that these regularities are necessarily semiotically mediated, that is to say that a single case is not an isolated case. There are meanings culturally shared that contribute to construct notions like self, self-esteem (Valsiner, 2007), self-reliance, identity and so on. These notions allow viewing personal experience from a paradigm of stability but also consider variability as the cultural encounter between individual and social context generates a permanent construction and re-construction.

Is that enough to propose that we can build nomothetic laws? We could propose that the beginning of any nomothetic law is an idiographic origin. Also we can state that nomothetic propositions are abstractions of data. What is at stake here is that the devices constructed between the particular analysis of a single case and the nomothetic construction of a concept may misread the phenomenon. The option of using nomothetic devices, idiographic ones or both has to be a decision making process in which a clear theoretical advantage can be accomplished as an outcome of the methodological choice. The proposal of using both approaches as an integrated methodology is an interesting but a complex challenge. We agree with the basic proposal that intra-individual and inter-individual levels cannot replace each other. A key issue here is that Intra-individual Variation (IAV) highlights the temporal nature of human expression as the main characteristic of the idiographic methodology. It points out at the variability of the psychological phenomenon. On the other hand, the cultural nature of the psychological phenomena expresses itself through regularities that are shared by communities and can be assessed through inter-individual comparisons. Part of culture expresses itself in an idiosyncratic way, but also a part of it imprints individuals allow-

ing the expression of similarities.

Temporality in research

Salvatore and colleagues (this volume), in order to approach the concept of sense in its dynamic and evolutive dimensions propose the following definition: sense is the *domain of possibilities of sign combination*. Taking this definition they position themselves as researchers from the variability of the psychological phenomenon. Together with the concept of *frame of sense*, another concept is considered that takes temporality into account. It is the notion of *emergence*. The emergence of sense is viewed as a process of hypersemia reduction as they assume that it comes at the first temporal moment of an interaction when the actors define the rules of the game of the transaction. In the meaning construction model they start from a maximum level of hypersemia, that is to say a maximum level of ambiguity, vagueness and ambivalence in meaning. From then on there would be a decrease of hypersemia. If we consider the psychological phenomena as in continuous transformation, each new expression will provide novelty which brings information and understandability to the researcher. In this sense the hypersemia reduction seems to question the continuous reconstruction of novelty. We think that the concept of social constraint helps to understand this issue.

We can consider the theoretical proposal of meaning emergence implying a tacit inclusion of a constraining process. With the reference to a process of semia reduction the constraining of meaning enables the individual to make sense of the exchange with context. The constraining devices are present in every exchange between individuals that can be seen as sign mediating processes. Frame of sense is a common ground on which a dialogue takes place. Sharing culture, language or a socially regulated exchange such as a therapeutic encounter is an ongoing remaking of frame of sense.

Extending on this issue, we could also consider the problem of focused meaning as opposed to pletorization of experience. Then hypersemia is there to be apprehended in any ongoing action that triggers a focusing meaning process, which is a frame of dialogical convention shared by participants in a particular dialogue. That is to say, from a different perspective, hypersemia is present at every present moment of the micro genetic process of meaning making offering variability and granting continuous frame of sense emergence. Semia reduction can be understood as a constraining and focused meaning process.

Going from a state of hypersemia to a state of semia reduction is possible to be captured by a clever methodological design applied on the observable exchange between individuals. However, a part of the hypersemia could be not captured. As an example we can consider simultaneous multiple dialogues between or/and within individuals that may not appear at a particular moment. This is what remains out of the focused meaning.

We can also discuss another issue concerning the evolutive nature of personality construction. The authors view emergence as a starting point in a certain interaction: a discrete action rather than a continuous process. This approach intends to highlight the transition from a point of disequilibrium to a state of equilibrium in a dialogical in-

teraction. Doing so, they point at a different perspective of meaning construction that can be described as change versus processing. Through their methodological choice they identify in developmental process the occurrence of transitions. We would ask the authors whether transition means the change of one stage to another or one state to another as opposed to small, continuous, ambiguous and ambivalent meaning making.

A basic assumption underlying the proposal of both articles deals with the human behaviour as time evolves is the issue of generalization. Can we consider that when we assess a behaviour the outcome will remain being valid for variable amount of time? Or, to be able to understand a phenomenon; should we find regular patterns in order to make predictions? If it is so and we expect regularities and repetitions in time, we could construct explanatory models that can account for multiple particular situations developing in time. This could lead us to a complex situation. As an example we could keep producing explanatory models for the endless questions arising as we make them. In addition, we could intend to adjust the phenomenon we try to understand to the model, in an attempt of apprehending it and hence loose touch with the actual experience.

Valsiner and Molenaar (this volume) state that generalization is reached through replications of idiographic analysis with different single cases. We can resort to Baldwin's definition of generalization as a temporal phenomenon that adapts certain specific circumstances from the past to a generic model in the present that will be used to create expectations towards the future (Baldwin, 1901). Pierce (1935) points out a similar proposal stating that in the search of understanding of the psychological phenomena every single case is an instance of reconsideration of what has just been said. Generalization is a generic model that is scrutinized with each new appearance in the next moment.

What kind of patterns must a researcher look for in psychology to apprehend and understand the object of his/her interest? Which qualities should those patterns possess? At least we know that they should not be static, that they cannot be replicated in time without undergoing modifications and that they enable linking past and future. Then, any attempt at generalizing is very valuable and both studies are fine examples of this. We welcome these proposals and many others to come on such a basic issue for science makers in psychology. Lastly, generalization is the main goal of scientific endeavour, the path to do it is on the making.

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Biosketches

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UNDERSTANDING NARRATIVE ROLE IN DEPICTING MEANING AND CLINICAL INTERVENTION

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Abstract. The past 10 to 15 years have seen a rapid increase in interest in the study of narrative across all social science. This paper is a contribution to the discussion on depicting sensemaking, such contribution will take narration as the analysis unit and will move along two axis: a) on the first axis narration is considered a structure of signs. The nature of this structure is connected to the structure of the relation between teller, text and listener; b) on the second axis narration is discussed as a semiotic device of intervention and intervention will be differentiated in models that adopt the narration construct as definition of the intervention text, as a narrative reading of key moments of the therapeutic and/or diagnostic clinical relation, or as a device of an intervention narrative setting orientated to produce narrative resources of sense.

Introduction

The past 10 to 15 years have seen a rapid increase in interest in the study of narrative across all social sciences. While in the fields of linguistics and literary criticism is possible to find traces of attention to the study of narrative since the period of Aristotle's *Poetics*, it was only recently that interest in narrative spread to other disciplines. Although some psychologists might think that their study has always involved the study of narrative, it was only in the late 1980s that a series of publications made the narrative perspective in psychology more self-conscious. The narrative turn can be associated with many other scientific turns to participant research, to biographical and qualitative methods, to reflexivity and to interest in meaning and sensemaking. Within the discipline of psychology, the discovery of narrative became apparent through a set of books proclaiming that people construct and communicate their actions and their

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experiences through storytelling. Among these publications were *Narrative Psychology: The storied nature of human* conducted by Theodore Sarbin (1986) in which is developed the idea of narrative as an alternative root metaphor to psychology and *Acts of meaning* by Jerome Bruner (1990) in which he developed the idea that narrative represented a fundamental “way of Knowing.”

At around the same time leading figures of the clinical and psychodynamic fields began to explore ways in which narrative concepts might be applied within therapy (Corrao, 1991; Ferro, 1999; Luborsky, 1977; Polkingorne, 1988; Schafer, 1983, 1992; Spence, 1982). This narrative turn provided a link with researches in other disciplines: anthropology, linguistics, literature and semiotics. At the same time, the narrative turn provided a heuristic link between two different sub-fields within psychology, both interested in processes that enable the person to give meaning to the constant changes in his or her life and to bring order to disorder. The publication of these books generated important discussions, because they seemed to provide an alternative conceptual framework; stories operate in different areas of the discipline like a Trojan horse, carrying meanings in the domain of social research and psychological intervention.

This paper is a contribution to the discussion on depicting sensemaking, such contribution will take narration as the analysis unit and will move along two axis. On the first axis narration is considered a structure of signs. The nature of this structure is connected to the structure of the relation between teller, text and listener. Different positioning of the knowing subject differentiates various kind of knowledges: nomothetic, idiographic and local. On the second axis narration is discussed as an intervention instrument and the field will be differentiated in models that adopt the narration construct as definition of the intervention text, as a narrative reading of key moments of the clinical relation, or as an intervention device orientated to produce narrative resources of sense. I think that these topics can contribute to the reflection on sensemaking processes, on their deep idiographic nature and on how the use of specific settings can help a local understanding and transformation of such processes. The thesis I will defend is that the meaning of narration is not objective, or subjective or intersubjective in itself, but it will take such connotation in function of the reciprocal positions of teller, text and listener (Murray, 2000).

In psychology the word narration has a diversity of meanings. Narration is a frame that organizes the meaning of experience and orientates actions and emotions (Bruner 1990; Sarbin, 1986). Narration is a performance of cultural discourse that is negotiated in concrete social interaction (Gergen, 1999) and narration is also the process of changing interpretation and of giving new meanings to the past, meanings that provide a sense of vitality to the present (Shafer, 1992). In terms of method, narrative is the study of whole lives, part of lives, or sequences of discrete past events. In this paper we use a narrative method to understand a “non narrative” problem about the process of sensemaking. A problem that I define “non narrative” only because it is the widest class of topics that narration can explore and help to develop. Beyond different definitions, narrative psychology cannot set aside three fundamental issues: meanings, intentionality and interaction between teller and listener (Schiff, 2006). Somehow we can consider narration as the mental act used by people to inform them-

selves and other people on the meaning of experiences and on the sense of their actions. Narrative text production represents a realization of the meanings produced in the experience field, a realization not only because it makes meanings a concrete part of the exchange, but also because this makes it possible to become aware of meaning by making them real to the mind.

First axis: narration and sensemaking

The most frequent use of the word “meaning” is to designate the contents of a linguistic construct. According to this use of the word such linguistic constructs call forth the presence of objective contents from the mind of the teller. The objective nature of this representation is systematically confirmed by the high consensus on the meaning of words in one linguistic community. From this perspective the association between form and content is independent from subjectivity and from the interaction between teller and listener. This content associated with the linguistic form takes its semantic meaning from its conceptualization in various psychology fields. This conceptualization of meaning is in deep conflict with a constructivist view of knowledge (Neisser, 1987) which states that the linguistic meaning should result from a subjective interpretation of reality. A subjective interpretation emerging from how the subject actively constructs his experience so that nothing is meaningful in itself.

In the first part of the last century, Ferdinand de Saussure (1922) proposed a fundamental distinction between language (*langue*) and individual speech (*parole*). De Saussure intended the *langue* as a superindividual system of signs, coherent and self contained, independent from the teller. This code should be distinguished from the *parole*, the real use of language by specific individuals in specific context of communication. De Saussure explicitly limited the linguistic object of study to *langue*. The idea of the objectivity of the meaning has its origin in the structuralist legacy: ascribing the linguistic signs to the *langue* system. In this way structuralism assumes that the relations between linguistic form and semantic contents are socially fixed at a superindividual level. Every linguistic sign is a two sided entity - signified and signifier – where the two sides are arbitrarily linked, metaphorically represented as a spatial link that locates the signified *behind* or *under* the signifier. Arbitrary does not mean subjective, since for de Saussure language is a social act not an individual one. The value of the sign is defined in relation to its position in the language structure of a specific historical moment and a particular community. Since the identity of a sign is differential, to be recognized a word must be different from other words, therefore language is a system of differences organized by relations. From this perspective the meaning of narration is the literal meaning of the text, the other side of a sheet of paper. Meanings are by definition independent of the subject’s experience, since in the structuralist view the linguistic object of study ends where actual individuals start using language in real contexts. The tension between an objectifying perspective and subjectivizing one became more significant going from the study of the linguistic structure to the study of the use of language in communicative contexts.

From the writings of Wittgenstein (1958), Austin (1962) and others emerged the idea that the description of the linguistic structure did not advance the issue of language use. This division of the study of language in its structure and in its use signals the emergence of a new linguistic sub-discipline called pragmatics. Pragmatics concerns itself with the aspect of meaning that is derived from language use and not from its semantic structure. Language use always occurs in a specific context, by a specific teller, with a given communicative goal. From a pragmatic point of view, when we consider the context and the use of the sign we are referring not to a “meaning in itself” but, rather to the subjective experience of meaning. Actually even pragmatic studies had often to measure up with an objectivistic vision of the meaning. The conceptualization that the use of language always happens in a specific situation, by a specific teller, with a given communicative goal, often has been described as a battle between two objective meaning or between two different interpretation of subjective meaning.

In other studies, interactive experience of meaning is described as a fusion of two elements belonging to different logical realm: the “meaning in itself” – independent from the interaction and from the subject and the pragmatic inference – dependent on both the subject and the context (Cornejo, 2004). Cornejo thinks that the

“pragmatic theory’s mixture of elements belonging to different logical domain seems to be the result of overlooking the fact that the study of language use requires abandoning the basic theoretical assumptions that allow us to legitimately talk about “meaning in itself.” (Cornejo, 2004, p. 12).

When we pay attention to the language’s context of use we are no more looking to the semantic content of an expression or of the linguistic sign, but we are looking at the intersubjective experience of the meaning based on the reason of communication. Cornejo speaks of the “meaning for somebody” and distinguish it from the “meaning in itself.”

In this volume, Salvatore, Tebaldi and Poti tell us about the difference between signified and sense:

“The significance is the semantic content of the sign (what the sign says about a given reference); the sense is the psychological-communicational value associated with the act of having produced just that sign, just in that intersubjective context, just under those discursive circumstances. Hence, the sense does not belong to the sign but to the act of using it in the discursive context.” (p. 42).

The authors from this difference and considering the tie of the sign to the context, consider again an hypothesis of infinite possibilities of unfolding sense:

“every sign *by definition* is a vector of infinite possibilities of sense, as infinite are the discursive context. This means that the same word, the same sentences, can be used (hence interpreted) with endless senses. So we conclude that from the point of view of the sense, the sign is hypersemic.” (p. 42).

This proposal follows a shift in the study of meaning from a sign analysis perspective, of linguistic tradition, to a study perspective of signification processes based on a new discipline: semiotics. Semiotics is the science studying signification processes, that is how we give sense to the world. The category of signification moves the attention from the structural analysis of signs to the process that produce signs; the sign is the result of a cultural, social and psychological process and the semiotic task is to investigate and understand it. In the opinion of Peirce (1931-1958) the entirety of thought can be conceived as sign because life is semiosis. Life is an uninterrupted production of signs that opens up infinite possible interpretations. If there are infinite potential uses of a sign, then infinite are the possible interpretations. From this conception the sign is defined each time as something that can take the place of something else for certain aspect, and such choice is based on the perceived relevance. Signs are not made of a specific material and do not have a fixed signification; signs have an identity made by the process, by the context and above all by the interpretation. According to this view, the definition of linguistic meaning is a result of the fact that meaning is always a psychological construction, a “meaning for somebody.” Signs exist when the interpreting subject defines a point of view used to establish a correlation between a significant and a signified. In Peirce’s opinion, the interpreting subjects are infinite; each one selects a different aspect of the sign making relevant one quality instead of another.

This proposal of Peirce lets us highlight two central points of this discussion. The first point is the polysemy of the sign and its infinite possibilities of production and interpretation. This polysemy let us interpret the relation between *langue* and *parole*, as one between potentiality and realization. In other words, it lets us interpret the relation between the infinite potentiality of a code and the finite concrete material of the discourse. The second point is the definition of the point of view that puts a sign in place of something else for certain aspects of a mind interpreting it (positioning of the interpreting subject). For what we have said until now, the same conception of meaning that differentiates between an objective and content centered vision of the sign and a subjective one and both of them from a intersubjective and contextual vision of signs production, can be read as the selection of a point of view, as the construction of a discursive context and above all as the assumption of reciprocal positioning between teller, text and listener.

Cornejo (2004) goes on saying

“Thus we have two concept of meaning, depending on whether we situate ourselves inside or outside the speaker/listener’s experience of meaning. If we are situated outside this experience, meaning is objective, social, transversal, nomothetic and it resides in words. If we take the perspective from inside the phenomenological experience, meaning is a subjective, idiographic and contextual construction and it resides in the mind in the form of an intentional content of consciousness.” (p. 14).

Going on with our reasoning, if we take a contextual and intersubjective perspective then the meaning is dialogic, local and resides in the structure of interdependence between teller, text and listener.

This perspective appears very interesting for the study of narration (Freda 1999, 2001, 2004) because it lets us treat an organized system of signs as a process of signification that produces the text of the narration, marking the passage from an objective logic to a subjective and intersubjective logic for the study of the narrative text. Therefore narration does not exhaust its role as a sign that transports hidden meaning behind, or under, the text, but it is a semiotic device that, through various components, various levels and various function construct connections between a significant – the narrative text – and a meaning still to be defined for some aspect in reason of a *purpose oriented interpretative collaboration* (Eco, 1979). A narrative text once created reveals its delimitation and structure, or the coherence of its internal organization, an organization made of levels, of contiguity and nearness, of hierarchically organized signification frames (Greimas & Courtes, 1979) and of functions (Jakobson, 1963) and the modes of required interpretative collaboration (Eco, 1979). The meaning therefore changes its nature in reason of the analysis levels, of the utilization functions and of the interpreting subject's positioning. A meaning analyzed from an outside positioning is inscribed in the text; from a subjective positioning is generated in the field of conscience of its author and is defined by the unfolding of the narrative process; from a contextual point of view is generated by the discursive field. In fact the discourse is a field connecting in an interdependency frame the teller, the listener and the communication process motivations. To work with narrative texts and/or through narrative texts implies the need to disjoint these different dimensions to individualize the various level of sense organization useful to read the complexity of the narrative process.

In this paper we find useful to briefly recapitulate the distinction proposed by Benveniste (1966) between story and discourse to illustrate as an example the various organization levels of the narrative expression sense. We decided to recapitulate this articulation of narrative text levels because the author defined it from the teller self positioning in the text and the teller self adopted temporal perspective instead that from the quality of the sign analyzed. In fact, Benveniste distinguished *story* from *discourse*, adopting the criterion of pronoun use, distribution of inflectional forms of verbs and by highlighting the objective logic of the story from the subjective logic of the discourse. With the story Benveniste refers to a typology of narrative texts that are free from the traces of their producer and act as a fact report: the story is the kind of narrative expression that leaves out every autobiographical linguistic form, where the pronouns I and you are expressed in third person, to present the most objective report of fact in a past time perspective. The story, or story narration, masks itself behind an impersonal subject, with no direct intervention of the teller and refers to the contents of experience: sequences of events defined as past events in a determinate time frame. Benveniste thinks that story acts the opposite of discourse because the discourse acts on the assumption that there are two interacting individuals and that the tellers is intent in influencing the listener. The discourse must directly put on scene its subject because it must presuppose the need that originated it, the discourse moves in a temporal perspective favouring the present discursive field where past and future can be integrated.

Second axis: narration and psychological clinical intervention

Walter Benjamin as soon as 1955 stressed the practical orientation of narration: each story openly or implicitly involves a gain, each story is a place of advice for the teller or the listener. With the term advice the author does not mean an exhaustive answer to a question but a proposal for the story prosecution. The teller take the elements of his narration from his experience and transform them in a shareable experience with the listener or listeners. The relation between the teller and his story is artisan-like: his task is to work the raw material of experiences in a solid, useful and unique way. The possibility for an individual to open up to advice is in his capacity to let the situation speak, in other words to be able to receive advice is necessary to know how to tell the story. The story becomes a place where meanings are promoted both as the shift from fragmentation to connection and as the originators of new hypothesis, different angles to observe the experience.

The connection between narrative and psychological intervention find its roots in Freud's initial writings where he implicitly advances the thesis that personal experience can be organized into a narrative construction by the psychotherapeutic method of the "talking cure" and that "memory raw material", unknown in his original form, can assume a psychic relevance in narrative form thanks to analytical work (Ammaniti & Stern, 1991). Freud's work is anchored to a narrative model both in the methodology of clinical practice and in the methodology of knowledge production: it is indeed well known how Freud rendered his thoughts by writing of clinical cases and how these cases had the narrative structure of a novel.

In recent years, starting from what we have defined as a narrative turn in the discipline, we can identify at least three separate ways of considering narrative influences in the psychological intervention, even within a psychodynamic perspective. In this paper these three approaches have been defined as follows: a) Narrative structure in the intervention; b) intervention narrative constructions and interpretations; c) narration as a semiotic device of the intervention. As for the differentiation between story and discourse they are methods that conceptualize differently the reciprocal positioning between teller, text and listener and use differently the temporal perspective. In this paper for reason of space we will not develop the various ways in which these methods cogitate over the unconscious concept and its relation with the narrative process (Angus & McLeod, 2004; Barbieri, 2007; Freda, 2004).

Narrative structure in the intervention

It is a method that uses narration as a structural criterion for the analysis of intervention discourses. In this approach narration is treated as a text where the structures are comparable in different phases of the intervention and between various interventions. In this approach the text structure is analyzed to find the styles and methods of relation between the narrator and his internal and/or external reality. This search is

based on methods of text segmentation associated with interpretation criterions defined from a chosen theory of reference. These kinds of models have been used in the clinical field for the verifying of psychotherapy, treating the structure of the subject's linguistic production as an indication of the intervention efficacy. The most influential work within the first approach to psychotherapy intervention has been the Core Conflictual Relationship Theme (CCRT) model developed by Luborsky (1977).

The key idea of this method is that the psychological problems experienced by individuals during therapy are expressed in repetitive patterns of dysfunctional relationships and that these patterns can be observed in the stories that the individual tells during therapy. The CCRT method involves transcribing therapy session, differentiating the stories of the patient from the ones of the therapist and analyzing the first in terms of *person's wishes*, *response of others* and *response of self*. Still following this approach other researches have used the text structure as an indication of the subject's internal world. Among these researches, some studies make reference to the conception of internal operational models proposed by Bowlby. Bucci (1997) has identified sequences of shifts in narrative processes as indication of forms of non-verbal elaboration of the relational experience. By this model (PDP) the unconscious non-verbal prototypical patterns have a fundamental role in word selection and into their syntactical organization. The structural method analyzes the "text as it is" with no consideration for relations and contexts in which it was produced. This is a narratological approach that tries to discover the constitutive elements of a text. It is different from a narrative approach, typical of the next method, that instead tries to understand the meaning of the stories for the narrators.

Intervention narrative constructions and interpretations

A second method tries to read from a narrative point of view models of therapy processes that were already well established; in this method, narratives concepts become explanatory metaphors of pre-existing psychological theories. Narrative is therefore used to supplement individual and relational psychoanalytical theories. By this category of models, text construction is the way through which everyone elaborates experiences, represents events to himself and in other words thinks. Shafer's books (1976, 1983, 1992) offer a comprehensive re-interpretation of psychoanalytic approach to psychotherapy from the perspective of constructivist narrative. His re-reading of Freud is organized around the idea that the client's discourse can be globally viewed as a self-narrative. The therapist seeks to identify, from this self-narrative, the key storyline around which the person organizes his or her personal reality. A storyline can be deduced from symbols, metaphor, images, dramatic scenes, or some combination of these. Schafer (1983) thinks that each report of the past is a reconstruction driven by a narrative strategy that dictate how to select between a multitude of possible detail the one that can be reorganized and transformed to fit into a logical story that can express the point of view on the past as desired by the teller. The narrative plot of a text has a knowing function exactly because it does not only report past events, but organizes what could have happened and what can happen following a principle that is not one

of truthfulness, but one of verisimilarity and necessity: narrations gain, in this sense, a fundamental function of narrative self definition (Spence, 1982).

By this approach it is very interesting to assume a logic that considers truth as a property of the narrated experience rather than as a property of the events objectivity. This is at his essence an idiographic logic that makes his own the subjective and intersubjective characteristic of truth. In real life stories do not exist, humans create them by connecting some facts chosen between infinite others. In the world uncountable facts happen continuously, the number of events are so wide that a point of view is needed to isolate a story from this formless magma. In other words are the human beings that make stories, even when they report something that really happened they create a tellable story connecting only some facts chosen between infinite others. Besides, the inclination to create connection between events, making stories out of them, is not only a novelist privilege, everyone does it, in fact we can easily say that we cannot act differently. Once a narrative work starts, the events plane is completely transformed, because the real events are presented through a frame that includes some facts in the horizon of sense and keeps others out. To recall events and facts through the creation of stories make for a paradoxical temporal perspective because the story must allow to understand the present in reason of the past but also to understand the past in reason of the present (Corrao, 1991). Furthermore, stories not only have a text and a plot but they are always within a relational context: between text and context a relation of interdependency is always created in connection to the symbolic cultural system of the teller and the listener. The next methodology make use of this context.

Narration as a semiotic device of the intervention

The central idea within this approach is to consider intervention as a construction of a transforming discourse and narrative as a setting. A narrative perspective of the psychotherapeutic setting that became a process of construction and sharing of a discursive field, a web of meanings, between the therapist and the client, geared to recognize and think the narrative generated resources of sense and uses them to produce new narrative paths. It is a way to be in a therapy session where both the therapist and the client participate to the construction of sense in a discursive way, as if they were actors engaged in editing and developing unpredictable and fresh plots of a theatrical piece that are promoted and developed by the discursive field. In other words the fulcrum of clinical work is a co-narration process emerging from a participative and interactive experience of client and therapist in a discursive field: the terms of *co-narrative transformation* or *transformative co-narration* point to a real dialogical cooperation that realize a transformative process in the psychic situation of the patient (Ferro, 1999).

According to this perspective, the value of a narration analysis criterion is not in its correspondence to the characteristics of the text or to that of the interior world of the client: the value of a narration analysis is in its capacity to open up new narrations and to keep transforming narratively the sense of experience. Within this typology

of narrative approach to the intervention have found position both psycho-social and cultural perspective of the narrative clinical intervention (Freda, 2004; McLeod, 2004, 2006). This perspective takes the lead from the assumption that the relation between narrator and story, mind and text, is always within relational practice. Narration is a social process always anchored to a context, implying a positioning. People's narrative can be understood in terms of how they position themselves relatively to the experiences they narrate and to the listener (Harré, 1993; Hermans, 2001). According to Gergen (1999), stories take their meaning from how they are used in the relational context where they are narrated. On the other hand, narrations are in itself social acts that by their unfolding create a relational context connecting a teller and a listener. Intervention moving from this perspective primarily uses a group setting where the storytelling takes on the function of connection between the specific and the generic, text and intertext, personal and community history. It can be supposed that through the narration of experiences and by using a setting designed to receive and transform this narration the individual not only can redefine the self but also gain access to new connections between self and context, subjective and culturally shared symbolic system.

During psychotherapy, going on by a few months, a young woman narrated to her analyst a recurrent episode of her infancy: during vacation car journeys she asked her father to drive at full speed for few seconds. Her father met such requests – or so she believed when she was little – and these brief car races were called “the flights” in family speech.

During a support intervention with a team of physicians involved in taking care of children with serious organ pathologies and their parents, a physician narrated a problematic experience he had, a few years before, with a couple and their relatives. It was already a few years that this family was followed in this hospital ward after they had abandoned another hospital, in a Northern Italian town, guilty of not giving any hope for the survival of their son.

During a critical episode of the disease the family went in a towering rage and addressed the physician with furious words, blaming him of never telling them of the true seriousness of their child's condition. The physician narrated this story passionately, telling over and over again the episodes where he had clearly informed the relatives of the critical health conditions of the child. More than once he kept asking himself how it was possible that his words were never understood.

During a formative intervention, a group of social operators were asked to think up a collective narration based around their professional experiences. They told the story of an apprentice named Ciccio who was always scolded from senior colleagues because he spent too much time speaking with a lonely and abandoned old woman instead of cleaning the floors and making the beds.

Infinite examples of narrative text from psychological interventions could be made, but making them would not help us in defining the different levels of the text in

which it is possible to determinate the meanings. The meaning and the clinical use of each text can be understood only in reason of the point of view we take for reading it and how we conceptualize the relation between narrative production and intervention. The narrative experience in an evolving phase of the intervention and of the relation, cannot be and must not be, considered the final or definitive version of the events, because each personal history is always constructed and reconstructed in reason of the present and in reason of the structure taken by the relational field. Different narratives, personal histories and structure of the context cannot be separated, but cannot be understood through the same looking glass, at the same moment and from the same point of view.

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Biosketch

Maria Francesca Freda, is Professor of Clinical Psychology in the Department of Relational Sciences "G. Iacono" at the Italian University of Naples Federico II, she is Specialist in Clinical Psychology and she belongs to the directive team of the Italian Association of Health Psychology (Sipsa). Her scientific interest, expressed in numerous research works and publications are focalized on the study of Action-Research methodology, oriented to clinical and psycho-social model of intervention; from a socio-constructivist and semiotic perspective, the exploration of meaning's construction and transformation processes. In order to study the experience meanings, she has employed the narration as meaning analysis unit and as specific methodology for training and clinical intervention, she has focalized the narrative thought in a Cultural and Psychodynamic theoretical prospective and she made a broad use of complex analysis methods of narrative discourse in relation to story's referential dimension, textual coherence and structure, functions of narration within social context. Her predominating application areas are the psychological intervention in educative organizations and the action/research within social systems.

IDIOGRAPHIC SCIENCE: EXPLAINING OR UNDERSTANDING?

*Alberto Rosa**

Abstract. This paper discusses the contrasts between nomothetic and idiographic knowledge by relating these terms (1st) with the issue of studying individualities or samples, either of participants or phenomena; (2nd) with the notion of explanation and understanding; and (3rd) with *meaning* and *sense*. Nomothetic and idiographic forms of knowledge are taken to be two moments of interpretation in dialectical relationship.

The title of this volume looks at first glance as a contradiction in terms. *Idiographic* is usually taken to mean the study of individuals and *Science* to the knowledge of general regularities, rules, laws – something which often is labeled as *nomothetic*. Idiographic studies are supposed to be addressed to unrepeatable entities, such as life events, individual lives, or particular moments in history. In contrast, Science searches for permanence, for what is always the same in spite of appearances; it looks for the rules governing observable phenomena and it does so by abstracting the principles hidden behind the often apparent variegated observed diversity. In addition, both terms usually appear coupled with two other words: *understanding* and *explanation* – as if the general could be explained by abstract principles and laws, while the particular could only be understood.

Both approaches seem, at the same time, irreconcilable and unsatisfactory. It is impossible to abstract general regularities from individual observations, as much as it is useless to understand a particular life event by resorting to one (or a set of) general explanatory law(s). There seems to be an unbridgeable gap separating both types of knowledge, or so we have been told. These two ways of approaching experience have often taken to be the unavoidable epistemological result of the ontological abyss separating the natural and the human realms, which resulted into the separation of two types of knowledge: Science and the Humanities. This separation, however, is far from being clear-cut, not only because Social Sciences are somehow hanging around this abyss, but also because the Human phenomenon is also a part of nature. And last, but not least, because the knowledge of any Science (either Natural or Social) is grounded

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on personal experiences and shaped in socially generated discourses.

Hardly anyone would deny that experience and discourse are among the most human of the phenomena studied by both the Humanities and the Social Sciences, as well as also being natural phenomena that are a result of natural evolution - as culture, the cradle where they nourished, also is – and therefore they are a matter for the scrutiny of Science too. There is little doubt that experience and discourse can be approached either by examining them in individual instances in order to reach their understanding, or to look for regularities of their development in order to explain the processes upon which those phenomena result.

Individuals or samples?

I do not think that the main issue separating idiographic and nomothetic approaches is whether samples are used or not. I believe that samples are always necessary. One cannot observe happenings in bulk: they have to be separated in individual phenomena. Since there is no way in which one could observe every single event, one has to choose which are to be taken as relevant or irrelevant and, depending of the resources at hand, devise a way in which to select some of the relevant ones for careful observation, while others have to be discarded. The relevant question then is what to sample. Something that I think depends on defining what the subject matter of inquiry is.

If one wants to survey what the state of public opinion is *vis-à-vis* a particular matter in a moment of time, one should carefully sample the population and ask the selected individuals how they think and feel about that particular issue. On the other hand, if one is interested in finding out how an engine endures use and abuse throughout time and work, one does not need to choose a representative sample of individual engines of that brand and series, one is enough, but then that particular engine is subjected to a sample of temporally distributed careful observations.

In the case of a survey the opinion of each individual is a phenomenon and the subject matter of study is “the public opinion.” In the second case, each temporal observation is a phenomenon and how the engine performs throughout use and tear is the object of inquiry. However, the number of participants being observed does not make the first study to be nomothetic and the second idiographic. In both cases there are samples of observations. In the first case the sample is chosen in order to produce a desired synchronic image and in the second the sample of observations is chosen in such a way as to allow producing a description of change – a diachronic process.

Each of these strategies serves a purpose. If one wants to find out what the most efficient people in their jobs are like (students, doctors, prison wardens, coroners), one may look for what characteristics they share. If then one chooses among fresh job applicants who have those characteristics and they happen to perform significantly better in their jobs than other people chosen at random, then that is a useful strategy for those interested only on improving the efficiency of the production and selection systems. However, if one wants to find out how an individual carries out his or her job duties (in order to learn from her/him, for improving his/her performance, for providing better tools for their tasks, or whatever), then one should examine each individual separately, trying to figure out a model of how he/she performs his/her duties. Afterward, one may

perhaps compare the individuals, looking for similarities and differences, advantages and disadvantages, etc. It goes without saying that the strategies for validating the knowledge gathered when following one or another strategy are very different. The first is not interested in how people work better, but on what characteristics are typical of more efficient workers. Whether this results in being unfair to efficient workers who do not fit into the standard pattern is not a matter of concern for the researcher. The main concern here is to save money in a selection process. In the second case, the interest is in figuring out how the process is carried out. The issue of the method to follow is then a consequence of the purpose of the study and what to sample results from the decision taken.

What does not make very much sense is to mix both research strategies when studying processes. However, sometimes it is useful to sample both individual systems and phenomena distributed in time. This is done in order to deal with measurement errors, or as an attempt to deal with deficiencies in the control of *caeteris paribus* conditions, so that the effects of unidentified influences get somehow watered down, assuming that the relevant phenomena for the description/explanation of the targeted process will survive as significant results. Obviously this is a useful and legitimate option, but it pays the cost of leveling some phenomena which in turn get ignored. What appears then is a model arising from the observed communalities that explain a part (sometimes a big part) of the variance of observations, but at the cost of leaving aside elements which may play a part in some particular systems (and playing an important part in their performance) but that are not shared by the sufficient number of co-participants.

As Salvatore and Valsiner (this volume) and Molenaar and Valsiner (this volume) say, when one is looking for the explanation of a process, the strategy of studying the behaviour of one particular system throughout time seems to better fit the purpose of producing a model of how that system works. Fortunately enough, we already have available some methods which make that possible (cfr. Molenaar & Valsiner, this volume; Salvatore, Tebaldi & Poti, this volume). Once the model is produced, then one can go into the task of researching whether that model is only appropriate for the explanation of the behavior of the particular system studied or it may also be of use for the explanation of other systems that share some characteristics. What is going on when this is done is the well known procedure of producing situated explanations from which general hypothesis are abducted and then put them to test in other particular systems. Something which is very familiar not only to students of philosophy of science, but also to biologists and psychologists, who for a long time, have been talking of functional circles (von Uexküll's *Functionkreis*, Kull, 2001) or circular reactions (Baldwin, 1906) in order to explain how individual organisms (both non-human and human), try to make sense of their experiences to produce some kind of general knowledge, in order to get some stability in their understanding of the world and so reduce the uncertainty about what to do before any new experience (Valsiner, 1997).

When one chooses to study processes, one samples phenomena going on within the working of a particular system along time. This system is *one* individual system, but it may also include *one or many* individual organisms, objects or devices. And this is so, because what is of interest is how the system works throughout time and that working involves the relationship of the different elements which make out the system. Systems

may be of very different nature. There are individual human systems, social systems, man-machine systems, ecological systems, or mechanical systems, to mention just a few. This makes the kind of phenomena in each case to be of very different natures. Sometimes they are phenomena that happen in an individual person, in the interaction of an individual dyad made of two different persons (see Molenaar & Valsiner, this volume), or in the discursive productions appearing from an on-going dialogue between a pair of individuals (Salvatore *et al.*, this volume). In any case, the interest is in studying a particular system, irrespectively of the number of individuals or objects involved in the functioning of the system.

Working with a particular system may then produce general knowledge about the working of that system. This does not mean that the model so produced would be valid for any other system sharing some similarities with the studied system. However, this is not a feature particular to the Human Sciences, it also happens in the most natural of the sciences – Physics. Models in Astronomy have been produced by straining generalizations from observations of particular systems for many generations.

If the argument so far developed is not mistaken, the issue at stake is what one means when referring to *general knowledge* and whether general knowledge refers to regularities of the working of *one* system or the working of *one kind of systems*. One could hardly dispute that a model of *the* Solar System is general knowledge, but that particular model could not include all the elements necessary to explain a cosmological model of the Universe. The issue then is not whether general (nomothetic) knowledge refers to an individual system or to many systems of a kind - although nobody would deny that the second is a superior kind of general knowledge, the key issue is what makes general knowledge.

Explaining regularities or understanding particularities?

To my understanding what makes nomothetic knowledge is the capability of the discourses that convey it to explain a process, irrespectively of whether the explained process happens in one system or in many. The key issue for the consideration of nomothetic knowledge is in the identification of relevant phenomena and in their linking by rules, in producing models made out of series of rules: i.e., the production of discourses made out of symbols linked among themselves by a particular kind of grammar. In other words, what makes nomothetic knowledge is the structure, the form of describing and explaining sets of phenomena and the validity of the knowledge it provides.

Nomothetic knowledge cannot exist unless it describes or explains something and describing and explaining are the result of communication between agents in communication – a discourse. It is only when the agents share a common interest on a particular issue, when they collaborate in their examination, when they share the symbols and the syntax of the discourse, when they use their instruments in the same way and when they agree in having their actions restrained by the social norms of their guild (methodology and protocols) and then direct their actions to the observation of the

phenomena so characterised, that they can agree that they have the same experiences about the subject matter under study. For this to happen the agents must have reached a degree of attunement that sometimes requires years of higher education and practical training. It is only then when it can be said that some kind of objective general knowledge has been reached and that what the discourse says can be validated. It is then when such a discourse can become a kind of guide for a common depiction of experience and for the representation of a part of the world, because the conditions for the establishment of some kind of intersubjectivity have been fulfilled. This requires the existence of a social organization, as well as rituals, protocols of actuation, instruments, symbols, notation systems, etc. – i.e., all the elements that make a culture. The result is the development of social representations of reality shared within a socio-cultural group – sometimes very elaborated models shared by a group of scientists and some other times folk-theories about reality held by the general public.

In other words, nomothetic knowledge (Science) could not exist unless some kind of *contractual model* of communication (Salvatore *et al.*, this volume) is in operation. I believe that the expertise needed for the understanding of the papers included in this volume, the very existence of the volume and the kind of readers that go into the pains of trying to understand its contents, could be taken at least as some kind of proof of the explanatory capabilities of that model of communication. However, this does not make this model of communication able to explain all kinds of meaning-making processes. It could only account for communication of decontextualised ready-made discourses to be approached as authoritarian texts (Bakhtin, 1930s/1981); i.e., to be understood, to be decoded as to find out their *real meaning* and to use them as suggestions (sometimes even as guides) for the regulation of actions. What this model does not explain and cannot, is how nomothetic knowledge can come to be, how discourses can be interpreted in divergent ways, or even how meaning gets produced out of action and experience – in other words, how meaning can evolve from *sense*.

Vygotsky (1934) distinguished between *meaning* and *sense*. Meaning is something fossilized, it comes from the past, it is what a symbol has been used for so that one already knows what to do with it, either to understand how to use that symbol for communication, or to understand what is meant by someone else when using that sign. The dictionary then is a sort of burial ground of meanings of words. Sense is how some particular aspect of meaning comes to life in a particular context. While meaning is dead, sense is always alive, is in movement and emerges as a result of the appearance of the sign within a stream of communication. One of its possible uses gets instantiated in a particular context. However, when this happens new unexpected senses may appear, as happens when irony is used, when metaphors are produced, or when some compositional rules are violated. Symbols then suffer new uses, produce novel senses and so the meaning of the symbol can also eventually get enriched. So viewed, meaning is a product of sense, a product that is produced in communication. And communication is a form of action carried out by actors performing on a scenery.

When Vygotsky made such a distinction, he was referring to symbols in general and in particular to words. Leont'ev (1978) transported this distinction to the realm of behaviour, action. All actions are goal-oriented and so have a sense. But sense can

change when actions are interpreted from different outlooks (going to war as responding to an aggression to one's own country, or as a threat to one's own comfort and life). In this case, the sense of an action is a result of the orientation of the individual within his/her environment, something which is a consequence of the state of the individual system, of the elements in the environment and how both of them get related, so that the objects of environment may have some value for the organism. Emotion and feeling are psychological functions for arousing the organism to act and for the appraisal of the elements of the environment. They make possible actions to have a sense. The organism orients itself to parts of the environment and so starts acting for something. Features of the environment and feelings then become signs (are for something else) of what may happen afterwards. Feeling is a way of presenting and valuing elements of the environment and so it simultaneously plays cognitive and conative functions, making possible sense to appear (see Rosa, 2007a, 2007b for a more detailed explanation). In this sense, arousal produces feelings and movements; and feelings, in turn, make simultaneously present features of the objects and internal states of the organism that must be discriminated one apart from the other, as signs of objects or as signs of the agency of the acting body. Slowly feelings of movement, sensorial qualities, states of activation and perceived changes, become signs of something that sometimes in the past have appeared following these events, which become "signs" of what may come afterwards. New functions then appear, learning, generalization, discrimination, all them mediated by actions. Means and ends become differentiated and mediation and understanding start to develop, as ambivalence foregoes the appearance of primitive forms of enactive deliberation.

The argument just sketched aims at pointing out that functional and semiotic approaches do not have necessarily to be taken as alternative approaches, as Salvatore and Valsiner (this volume) seem to suggest. On the contrary, I believe they complement each other. Nothing could be a sign without playing a function, without being for something else still not present. Signs are a result of functions, but a semiotic analysis of functions is also possible, since semiotics (at least from a Peircean point of view) is not something different than a set of formalisms which may be of use for the explanation of sense (see Rosa, 2007a). However, it is true that *quasi-semiotic* and *semiotic* phenomena (the ones mediated by conventional signs, rather than naturally occurring regularities) should not be considered as identical in their functionality (Liszka, 1996). Conventional symbols mark the border between quasi-semiotic processes and proper semiosis and with them, the possibility of going beyond the understanding of what is present. Conventional symbols can re-present entities that are not currently felt. The absent can be evoked by resorting to a sign (a movement, a noise or a token) signaling to what is not present. Signs could then be taken to re-present entities, which have no material substance, such as time, hope, love, flogiston or God and these entities can then be made to appear so that they are of use in making sense of some experiences, irrespective of whether they are taken to be real, or just a construct or a figment of imagination. The very notions of regularity, rule, norm or law could then be conceived. When this happens, the senses can be shared through the use of signs and meaning appears; and together with it, normative ways of acting and speaking, which make possible to have socially shared representations of "reality", of how reality works and of what to do in order to reach desired outcomes.

Sense makes possible the understanding of individual experiences, but communication of regularities, of knowledge, can only happen through the use of signs capable of attuning actions, feelings and senses to produce shared meanings. I believe that the distinction between *understanding* and *explanation* is related to that of sense and meaning and the latter two are not totally foreign to the notions of the idiographic and the nomothetic.

Developing meaning (nomothetic knowledge) from the study of particular instances of development of sense (idiographic studies)

Sense is something that happens in particular instances of action, but it is also something that can only be glimpsed when one instance of its emergence is differentiated from others and when variations of the ways in which this kind of phenomenon appears can be considered apart, described and explained. This requires treating them as instances of a kind of process – *sense-making*. This is what makes the sense-making process to be a subject matter to study, what makes it possible to produce epistemic discourses about the regularities of its development throughout time, thereby producing nomothetic knowledge able to be meaningful for social communication among researchers.

What the papers by Molenaar and Valsiner (this volume) and Salvatore and colleagues (this volume) do is to show how one can produce meaning about the development of sense. They do so by studying temporal series of particular instances of sense-making *as they* change along time. As I see them, they are studies that do not attempt to understand each instance of sense-making, instead, they describe and explain some particular features of the sense-making processes in the concrete systems they study. They report results of research projects that depict some facets of the sense-making process by applying some clearly stated rules. So, they are on the one hand studies about the process of sense-making, but on the other instances of the conditions within which it is possible to create share meanings about the experienced phenomena. They are nomothetic studies about how a process works. In addition, they also point out how the models they produce are only fitted for the description and explanation of the particular processes under study and the need to proceed with more studies of this kind in order to produce more general models (i.e., not only fitted to the particular systems studied, but also to other similar systems and eventually to the general characteristics of sense-making processes).

The construction of shared meanings is not an easy task. It requires attuning the sense-making processes of the participants and focusing their attention over the same phenomena and the discourses addressed to describe and explain them. This is also what this volume does by presenting some research reports and promoting discussion about their findings, their methods and their theoretical assumptions and conclusions. By disciplining the production of discourses, by following rules of the

scientific trade of Psychology and the Social Sciences, all participants in the on going discussion show some agreement to a kind of contract that makes it possible to reach some degree of common understanding. The on going communication processes also make it possible to develop a “frame of sense” (Salvatore *et al.*, this volume), which develops along the volume and the further uses it may receive, so that the common knowledge about the processes focused on may change. However, this understanding cannot ever be complete. Some meanings could be shared, but surely there are many parts of the individual understanding of the texts that are particular to each reader. The texts may make sense to most of them, but the sense they make in each individual cannot be identical. Each reader approaches each text from a particular situation and with different purposes.

Discourses are made of signs and, as Salvatore and colleagues (this volume) say, signs have hypersemic capabilities. It is this capability that makes it possible to be freed from the tyranny of presence, so that other possible sceneries and realities could be imagined. As Salvatore and colleagues (this volume) point out, one of the features of sense-making processes is the progressive trimming of the hypersemic possibilities of signs, so that their uses get progressively bounded to the conventions arising from the communication process. However, this increasing bounding of sense is a property developing within the system in which communication goes on. Once participants in the join activity of the system join other activities within different systems, new senses will appear from the use of the same elements. This is one of the reasons why meanings are always in the making and the construction of discourses for the production and communication of nomothetic knowledge is a never-ending process. The only way of stopping such a process would be by creating such bounding restrictions to the ways of interaction within systems that a sort of compulsory intersubjectivity could be imposed on the participants. If such an attempt is successful, then *noise* could be minimized and *signals* could be made to appear loud and clear. But this, rather than being a consequence of reaching objective knowledge, would be a consequence of following protocols, either conventionalized or imposed and certainly not any kind of end-point of the endeavour of unveiling the laws of Nature, of reaching any kind of true meaning.

Windelband (1893), the author of the distinction between nomothetic and idiographic knowledge, took *value* and *form* as key features of cultural sciences and idiographic knowledge. Science is itself a cultural product and as a result is always laden with value. I believe the attempt to outcast value from experience is a contradiction in terms, since it would be something such as reaching meaning without sense. It is true that sometimes values seem to be absent from scientific discourses, but when this happens is because they have been abducted behind the binding conditions for the creation of “objectivity.”

Sense is the shape in which values show in individual experience. Semiotics provides formalisms for the description and explanation of individual sense-making, but it is not the only possible way of producing formalizations about the sense-making processes. The studies here explore ways in which particular social systems of interaction develop particular frames of sense, which are capable of affecting the behavior of the individual participants. Perhaps the most valuable contribution they offer is the

production of new *formalisms* for the description and explanation of the development of the contextual conditions in which sense-making takes place.

Final remarks

In contrast to meaning, sense cannot be but an individual phenomenon. The studies in this book focus on how the processes going on in particular systems frame conditions for the production of sense in particular moments of time. As Salvatore and Valsiner (this volume) say, there is no way in which the nomothetic and the idiographic can be separated. This is something difficult to dispute. Understanding individual instances and explaining processes are “relative moments of a complex phenomenon that could be called interpretation” (Ricoeur, 1977, p. 127). Individual phenomena of sense-making can only happen within binding processes, but I do not believe that the dynamic of the processes within which sense-making happens can exhaust the explanation of the sense of each individual act.

Acknowledgment

Preparation of this paper was supported by the grant SEJ2005-09110-C03-01/PSIC from the Spanish Ministry of Education and Science.

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Biosketch

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SECTION II
PERSON IN THE SEMIOSPHERE

THE IDENTITY CONSTRUCTION PROCESS OF A WOMAN INVOLVED IN DRUG TRAFFICKING: A SYSTEMIC APPROACH

*Mariana Barcinski**

Abstract. The present study investigates the process of identity construction of a woman who has a past history of 15 years working for the drug trafficking in Rio de Janeiro, Brazil. This particular woman had an extensive and unusual trajectory in the drug business. The goal is to analyze the processes through which she constructs her identity and defines her space within a criminal activity. From a systemic perspective (Falmagne, 2004), the analysis attempts to understand the processes through which this woman constructs her identity simultaneously as a woman and a criminal. Through a process of constant negotiation between distinct discourses on womanhood, she constructs herself in different (and often opposing) ways during her social encounters. Because drug trafficking is never defined as female territory, the experiences of this woman do not fit conventional notions of the feminine. Hence, the constitution of a criminal woman's identity must involve a constant balance between compliance and resistance to prescribed dominant discourses.

Introduction

Women and identity

The understanding the process of women's identity construction starts from a close appreciation of the broader societal frame within which their experiences take place and within which such experiences acquire their meanings. Such a perspective involves both the investigation of the material conditions that structure and constrain social relations and the discursive arrangements that sustain and legitimize these relations

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(Foucault, 1982). Materially, social locations are defined through the division of labor and differentiated access to resources. Discursively, symbolic representations and ideologies regulate social practices, sustaining and reproducing relations of power (Falmagne, 2000). Relevant for this study is the investigation of how both material realities and cultural discourses of womanhood (involving the social prescription of female roles) shape the process of identity formation of a woman participating in a criminal activity.

Arguing for a materialist analysis of social locations, Standpoint theorists state that the position of women is structurally different from that of men and, consequently, their lived realities are profoundly different (Hartsock, 1983; Smith, 1990). Their standpoint investigation of women's oppression begins with the sexual division of labor understood as a material activity of concrete human beings. From this perspective, gender, as much as class and race, is a social organizer, an element that influences women's lives beyond their ordinary everyday interactions. Rather than a mere discursive construction, sexual differences and inequalities are based on and sustained by material realities. More than a question of meaning and interpretation, dominance and oppression are the result of different structural positions occupied by men and women. Materialist analysis focuses on the concrete aspects that organize social life, such as the different groups' access to material resources.

However, the exclusive focus on material realities in order to account for women's positions has been highly criticized in recent scholarly writings. The claims of materialism, especially the privilege assigned to economic relations has left unrecognized the importance of meaning and discursive constructions in the constitution of subjectivities. In theorizing about the a possible paradigm shift (from 'things' to 'words') in feminist theory, Barrett (1992/1999) argues:

"Many feminists [...] have traditionally tended to see 'things'- be they low pay, rape or female foeticide¹ – as more significant than, for example, the discursive construction of marginality in a text or document." (p. 18)

A shift in focus, from the structural determinism of materialist approaches to an appreciation of the constitutive power of 'words', exposes the way the broader societal frame is also constituted by discursive formations, i.e., hegemonic discourses that regulate social relations, justify groups' access to material resources and position subjects within specific social locations.

Drawing from concepts such as hegemony and ideology, discursive approaches show how normative discourses legitimize the position of certain groups, while marginalizing and subordinating the position of other groups (Billig, 1991; Connell, 1987). Such a perspective focuses on the constitutive character of discourses. For issues of identity formation, the relevant aspect is the ways in which hegemonic discourses become the privilege resources individuals use to identify themselves. As dominant

1 Foeticide is a legal term that designates the act by which criminal abortion is produced.

discourses, they simultaneously construct the norm and the margins, naturalizing and sustaining relations of power. Such discourses reflect particular ideologies and are translated as a set of prescriptive social norms that orient and organize social relations. In Smith's (1990) words:

“[Ideologies] are referenced when people talk, when they reflect on their own and others' actions, and provides that kind of general resource in interpreting behavior and events that build it into the organization of social reality.” (p. 171)

Still focusing on the constitutive power of discourse, Wetherell (1998) points to the way subject positions are constructed by discourses that get sedimented in the form of “interpretative repertoires.” These culturally familiar repertoires become habitual lines of argument, resources individuals draw upon in order to naturalize the dynamics of social relations. Wetherell defines “interpretative repertoires” as a set of cultural resources which people can use to make sense of their social realities. By focusing on the underlying structures of intelligibility that organize social relations and on the common arguments used by people, she recognizes that there is very little new in people's talk. Interpretative repertoires are the common sense that organizes accountability and serves as resources for the management of local positions. They consist of individuals' methods for making sense of the social world and themselves.

For the purpose of this study, it is relevant to recognize the particular institutional discourses this woman enacts in her interactions, often expressed as the result of her recent affiliation to particular institutions like the church, or her work place. In addition, analysis focuses on how she appropriates dominant cultural discourses in order to make sense of herself as woman, mother, daughter and partner. Such an approach to data considers identities to be constructed through the appropriation of different available hegemonic discourses, or masternarratives.

The need to consider gender, race and class as interdependent axes in the constitution of subjectivities becomes clear in the particular case of women involved in criminal activities. An investigation conducted along gender lines only obscures the centrality of relations of class and race in determining the participation of individuals in criminal activities more generally. There is something to be said about the fact that drug trafficking in Brazil is not only considered a male activity, but also performed mainly by low-class black men.

Of particular interest are the interpretative repertoires this criminal woman draws upon in order to make sense of her experiences. Considering the fact that she had subverted prescribed social expectations regarding her position in a gendered society, how do hegemonic social and cultural discourses regarding female roles shape the construction of her identity? In what ways does a criminal woman appropriate and transform these discourses in the process of her identity construction? What are the specific processes through which such discourses are transformed in the construction of *counter discourses* regarding the female participation in criminal activities?

The relevance of counter discourses is traditionally emphasized by both critical psychologists (Harris, Carney & Fine, 2001) and feminist thinkers (Hooks, 1996), as they are mainly produced in the margins as a response to dominant discourses. Questioning master narratives, counter discourses capture the complexities of people's

everyday lives, rejecting simplistic and reductionist dominant accounts.

Along with the macro-social constituents described above, the process of identity construction involves a complementary level of analysis, namely the particular ways in which individuals make sense of their societal and material contexts in their everyday lives (Falmagne, 2004). The attempt to describe female identities as the mere product of material conditions and discursive formations necessarily neglects the individual's active participation in the constitution of her subjectivity.

Relevant to this micro level of analysis is the effort to preserve agency and the uniqueness of experiences in the process of identity construction. Such an approach assigns special status to personal choice and individuality. From a somewhat different perspective (focused on people's intrapsychic strategies and practices), Chodorow (1995) makes a similar claim, namely the need to consider the individual and her personal processes in the construction of subjectivity. Dealing with the individual construction of gender, she argues: "Individual feeling tone, sense of self, and unconscious emotionally imbued fantasies are as constitutive of subjective gender as language or culture." (p. 219).

In this study, analysis focuses on the importance of agency, creativity and individuality in the construction of identity. For instance, the particular trajectory of this woman in the drug trafficking, including her motivations to join or drop the business, constitutes essential element in the analysis. Analysis refers, at all times, to her social and economic background. Implicit in such an investigation is the belief that personal histories shape unique trajectories.

Essed (1994) states that the attempt to integrate the study of macro and micro levels of domination in the constitution of women's identities has been continuously carried out by feminist scholars, especially those investigating the experiences of women of color. Collins's (1990) explanation of 'multiple levels of domination', for instance, emphasizes the need for black feminist theory to consider simultaneously three levels as sites of domination and potential resistance: the macro level of social institutions, the intermediate community level and the local level of personal biographies. From a similar perspective, Essed's concept of "everyday racism" intends to link women's local experiences to structural and ideological contexts within which they take place.

By adopting a systemic view of the process of identity construction, one can say that material conditions, societal discourses and personal meanings are jointly constitutive of subjectivities. Material conditions organize access to economic resources, while discursive formations legitimize material arrangements. In Falmagne's (2004) words:

"Societal discourses [of gender], material conditions, the attendant social and institutional practices and local discursive practices and individual subjectivity are intertwined and support one another in a systemic manner." (p. 828)

It is through the dialectic among societal-level, local, and "personal" constituents that identities are produced.

Falmagne (1998) points to the theoretical dangers involved in not taking a systemic perspective on the constitution of subjectivity. When the dialectic between the

societal order and individual agency is ignored we run the risk of either building an individualistic account or loosing the person entirely. Psychology has traditionally relied on individualistic accounts of subjectivity. Conversely,

“social constructivist models in which societal constituents are given the overarching explanatory weight for explaining subjectivity can ignore the complexity and distinctiveness of each person’s context and history, and his/her agency in self-definition.” (Falmagne, 1998, p. 142)

Efforts to integrate the macro and the micro level of analyses in the investigation of the process of identity formation have also been made by studies in the field of Discourse Analysis (Edley & Wetherell, 1997). Although the field has been traditionally divided into top-down and bottom-up approaches, represented respectively by Critical Discourse Analysis and Conversation Analysis, some scholars believe that an integrated approach is possible and needed for a more accurate account of identity construction. Such an approach would consider both the ideological and normative aspects of language (Billig, 1999) and the rhetoric local work done by speakers within social interactions.

Hence, an adequate account of identity formation has necessarily to include an examination of both structure and meaning. It should consider the ways in which people are the products of material realities and social pre-existent discourses and the producers of new, original local forms of discourses. In Edley and Wetherell’s (1997) words, it should “study the ways in which people are simultaneously the master and the slave of discourse.” (p. 206). It should consider the ways in which people simultaneously reproduce and resist available societal discourses.

The investigation proposed in this study involves both a macro level of analysis of the societal, historical and material conditions within which this woman’s experiences are crafted and a micro level of analysis that takes into account the experiences of this particular woman, in her specific ways of making sense of herself. Adopting an approach that considers the broad range of elements involved in the process of identity formation, the research question can be defined as: How does the woman in the study negotiate her contradictory position as both woman and criminal? What are the cultural discourses she appropriates in order to construct her identity as woman involved in a typical male criminal activity? And what are the counter discourses she constructs in the process?

Women and crime

the exercise of including women on the criminological agenda is still in the relatively early stages. In the literature, the experiences of female offenders are either ignored or analyzed according to a supposed universal culture, class and history-free feminine nature. Traditional theories restrict the understanding of female criminality to the biological or psychological realms, ignoring the economic, social and political realities of female offenders (Carlen, 1993; Gregory, 1993; Heidensohn, 1985; Schram

& Koons-Witt, 2004).

The absence of research on women is usually accounted for by traditional studies in terms of both their lower crime rates and the perception that the crimes in which they are involved are minor. Typically their crimes are not perceived as a social threat or as a problem in which research funds should be invested. As Smart argued already in 1976, “the underdevelopment of this particular area of study seems to be in part a consequence of the pervasiveness of the belief in the relative insignificance of female criminality.” (p. 1). The few theories that made women visible have tried to explain the lower rate of female crimes compared to male crimes. From different perspectives, these theories have addressed the question of why women are so less likely to offend than men. The low incidence of women’s crimes has been associated with biology, prescriptive social roles and the assimilation, from both male and female, of a patriarchal ideology (Walker, 2003). Feminist Carol Gilligan (1982) provides a somewhat more positive view, suggesting that women’s “ethic of care” – centered on responsiveness in an interconnected network of needs, care and prevention of harm - makes them less likely to offend. Regardless of the explanation provided, women’s crimes were always considered an anomaly, an aberration from normative gender behavior.

Feminist theorists are trying to fill the gap in criminology studies, by investigating the specificities of women’s crimes. Still according to Heidensohn, they “have tried to show that both the paradigms of deviant behavior and the methods of study of modern sociologists led to the exclusion of women as a central topic.” (p. 313). The study of female criminality is, in many ways, subordinate to the study of male criminality.

However, it is known that when women break the law they do it in circumstances that are very different from those in which men become lawbreakers. Steffensmeier and Allan (1996) point to the relational character of women’s crimes. The role of men in initiating women into crime, they argue, is a consistent finding across research. Women involved in criminal activities seem to emphasize their role as caretakers and their involvement is often characterized as protective of relationships. Hence, there are questions to be addressed that are specific to women’s involvement in criminal activities. In Goodstein (2001) words, “there are some very substantial differences between male and female criminality that virtually scream out for interpretation.” (p. 3).

Analyzing such differences is the first step towards recognizing the role played by gender in prescribing male and female behaviors in society.

The full understanding of female criminality has to involve a broader level of analysis, one that includes an understanding of the control and oppression of women in different spheres, from the family and work to the public space. In Heidensohn’s words:

“their [women’s] social roles and positions are essential to all explanations of crime, since they depend on assumptions about ‘masculine’ and ‘feminine’ behavior, on the nature of the family and women’s role in it and even on variations on the Victorian doctrine of separate spheres for men and women.” (p.314)

Among other reasons, to explain women’s lower criminality rates is to recognize

the importance of gender as prescribing male and female behaviors. Along the same lines, Goetting (1988) suggests that the lack of attention to violent female offenders might be related to the fact that traditional female role expectations recognize women as victims but not as perpetrators of violence.

Gilfus (2005) points to the lack of studies based on a direct appreciation of women's perceptions, experiences and motivations to join criminal activities. Rather than engaging in figuring out the reason for the gender gap in crime rates, the author believes that we need more in-depth information about women who engage in crimes. Hence, the main contribution of the present study is its focus on the trajectory of a particular woman in drug trafficking, as well as the personal meanings she assigns to her experiences.

Women and drug trafficking in brazil

in Rio de Janeiro, drug trafficking, as an organized activity, is mainly concentrated in the favelas. Because of its specific geographic location and political situation, the favela provides a fertile terrain for the development of the activity.

The Rio de Janeiro Master Plan, ratified in 1992, defines favela as “an area, predominantly of housing, characterized by the occupation of land by low-income populations, precarious infrastructure and public services, narrow and irregular layout of access ways, irregular shaped and sized plots and unregistered constructions, breaking with legal standards.”

In terms of their social representations, favelas are traditionally defined as places marked by absence: of basic urban infrastructure, of official and political investments, of law and order. In summary, the favelas are negatively defined for what they do not have (Souza & Silva, 2004).

The “favelado”, the one who lives in the favelas, is usually characterized in opposition to the ‘civilized man’, the one living in the cities. It is an interesting opposition that claims the favelas to be separate and independent from the cities. Interestingly, such an opposition is not solely drawn in terms of spatial locations; it also involves the assessment of people’s moral conducts. Accordingly, the term “favelado” carries a pejorative connotation, signaling a person’s inclination to engage in immoral activities. In reality, the dualism has always characterized the definitions that contributed to locate the favelas and the favelados in the margins.

In Rio de Janeiro the favelas spread throughout the whole city. For this reason, they constitute more of a social problem in this city, since the problems represented by the favelas are much more visible to the population in general. It is a common term to hear that the favelas in Rio are “invading the city”, given the proximity between the hills (where the favelas are located) and the asphalt (where middle and upper classes live).

Drug trafficking made its entrance in the favelas in the 1980s. The absence of the official authority, the lack of governmental investment and the poverty of its population created the perfect scenario for the development of crime and violence in the favelas.

Drug trafficking is considered a male activity, probably because men are not only

the main users and sellers of drugs, but also the main target of the violence characterizing the activity (Zaluar, 1998). Statistical facts point to a major participation of men in the business and in the violence resulted from it. In Brazil, 80% of all violent crimes involve young men, who are simultaneously the main victims and the main agents of the crimes (Cecchetto, 2004).

From this perspective, the nature of the activity seems to support the accounts of traditional criminology, where women's involvement is either underreported or completely absent. The fact that women's participation in criminal activities in general and especially in the drug trafficking in Brazil is reportedly increasing in the last 10/15 years has not been enough to produce a more extensive interest in the topic.

The few accounts of women directly involved in the business are told as anecdotes. There is a tone of fiction surrounding the stories involving these characters. During studies in poor neighborhoods in Rio de Janeiro, Zaluar (1993) mentions only three women involved in criminal activities. Old Dadá owned a marijuana drop-off point since the 1960s; Sueli Brazão, who once fought for her men at knifepoint and Dona Erinis, who assumed the drug selling after her son was convicted. These women became legends in the favelas, mainly because of their audacity to occupy roles traditionally performed by men. "They were referred to by people from the neighborhoods as special cases, out of ordinary." (Zaluar, 1993, p. 179).

Ilgenfritz, a criminology professor in Rio de Janeiro, started to develop a project in 1999 with the objective to draw a more complete picture of the population of inmates in the state correctional institutions. According to the research, the number of women incarcerated increased 132% since 1988, a much higher increasing rate than men's incarceration in the same period (Musumeci & Ilgenfritz, 2002). One crucial finding is the alarming number of women convicted for their involvement in the drug trafficking, either as consumers or as traffickers. Actually, 65% of women convicted in 2000 were involved in this kind of crime.

The analysis of the specific political and economic contexts that contributes to the increasing number of women in the business was not the focus of Ilgenfritz's project. However, the author calls attention to the necessity to investigate the conditions within which women get involved in a traditional male activity. It is her belief that any analysis of the potential reasons for the female involvement in the activity would be incomplete without an investigation of the structural (political, social and economic) factors that made possible their entrance and acceptance in this male world.

Despite the increasing number of women involved, the presence of typical patriarchal values in the drug business is evident when we investigate the roles played by the women in it. As Zaluar (1993) argues, the activity reproduces the gendered system in different forms. Although drug trafficking can unarguably be described as a subversive activity, the ideology of gender is interestingly mirrored by its internal dynamics.

More than 50% of the women interviewed in Zaluar's studies referred to their roles as subordinate and secondary. Among the women who are directly involved in trafficking, they usually work selling drugs, or making little favors to the manager of the drop-off points. They rarely get to work as managers or owners of the drop-off points. The most lucrative and prestigious positions are still mainly occupied by men.

Traditional and hegemonic values are also found in the way male criminals refer

to the ‘ideal woman’ and the expectations about her. In Zaluar’s words, “an outlaw’s true woman is one who helps him in his hour of need, when he is in prison and needs money, a lawyer, clothing, food, and everything else.” (p. 181).

Despite all the suffering, she has to stand up for her man.

Participants in the larger study (from which the data analyzed here were extracted) talk about “the loyal”, the woman who has a partner incarcerated and has to remain faithful to him during his time in prison. Even when men have several lovers outside the prison (which, they tell, is true for almost all of them) they still have the right to demand their wives’ presence, money and favors to make their lives easier in the prison. According to the participants, women in this condition have no options; extremely violent punishments are commonly prescribed to women who do not fulfill their obligations when their partners are in such a situation.

The ‘woman of gangster’ is another character that appears in almost every participant’s account. She gets involved in the business – voluntarily or not – by virtue of her involvement with a gangster. Some of them chose to date a trafficker, because of the status (social and economic) she can achieve in the favela. Others find later that their partners are involved in criminal activities and have virtually no options other than complying with their crimes. The ‘woman of gangster’ and ‘the loyal’ are submitted to the informal rules that guide the relationship of people (especially between men and women) within the drug trafficking.

Personal and affective involvement with men (partners, husbands, boyfriends, or sons) already in the business is pointed as one of the main reasons for women to join illegal activities, along with financial difficulties and the lack of better opportunities to get a ‘real’ job.

There is an obvious gap in the literature regarding the specifics of women’s involvement in criminal activities. Almost no effort has been made in order to understand the motivation and the circumstances in which women get involved in illegal business, like the drug trafficking. Their stories in the business are either ignored or justified simply by their emotional involvement with criminal men.

Method

The site

The two interviews analyzed in this article are part of a larger study with eight women who have past stories in the drug trafficking. The study was conducted in five favelas in Rio de Janeiro, Brazil.

Given the nature of the activity I am investigating, it was crucial to have an official organization helping in the process of data collection. For this reason, participants were recruited by a non-profit organization working with children and adolescents involved in the drug trafficking. Its main project involves the attempt to draw a more realistic picture of this population, the provision of professional alternatives outside the drug business and the development of preventive actions.

The interviews I am analyzing for this article were conducted in the agency’s head-

quarters, located in a favela in Rio de Janeiro.

The participant

Denise is 30 years-old, black, living in a favela in Rio de Janeiro. She has three daughters (7, 11 and 16 years-old), all from different men. During the time she was working in drug trafficking, her daughters were raised by Denise's parents. Actually, the girls still live with their grandparents. Denise is currently married to a man who is incarcerated because of his participation in a robbery. She has no children with this man and their relationship (and its difficulties) seems to be central in Denise's life.

Denise represents an exceptional case, since she had occupied a very prestigious place within the drug business. She was the manager of a drop-off, taking care of all the products sold in there. Traditionally, this is a men's role. She worked for the drug trafficking for 15 years, from 13 to 28 years of age.

Denise currently has a job as a health agent in a public medical clinic in the favela she lives. She also works for the non-profit organization that helped me in the data collection process. In the agency she is known as a "mediator", because she mediates the relationship between the agency and the youngsters still working for the drug trafficking. Because of her past history in the activity, Denise has privileged access to people still there. For this reason, she applies the questionnaires and does the interviews that are part of the agency's work. Denise's insertion in this institution (as both a member of the staff and as a reformed person) proved to be very relevant in the process of her identity construction. She is very proud of both activities she performs, but complains a lot about the lack of money. As many people in the favelas, Denise struggles to support her family. She says it was very hard to make the decision to leave the business, especially because of the money she was used to having. Even though she is proud of her life as a reformed person, she misses the power and respect she used to get as a gangster.

Analysis

The data analysis reflects the systemic approach to identity formation adopted in this study. According to this approach, identities are constructed through a dialectical interplay between social discourses and local processes. In other words, such a perspective acknowledges the particular ways in which people appropriate hegemonic discourses in constructing their identities. The purpose of the analysis is to capture the complexity involved in the construction of identities, focusing on the interdependence between local discursive processes and macro-level processes.

Analysis investigates the masternarratives and hegemonic discourses upon which Denise draws in order to construct her identity. Relevant for such analysis are the ways in which she appropriates discourses regarding the constitution of womanhood, sustaining and transforming them in order to make sense of her participation in a criminal activity. It is expected that the appropriation of normative societal discourses in this par-

ticular context would involve a complex work of compliance and resistance. Compliance because such discourses function as *interpretative repertoires* (Potter & Wetherell, 1988), as commonly adopted ways of making sense. Resistance because the experience of this woman does not fit traditionally prescribed female roles. Hence, the overall analysis should capture the ways in which Denise simultaneously appropriates and resists hegemonic discourses when describing her experiences within a traditional male activity. Since her experiences as a criminal subvert hegemonic discourse regarding female roles, does she perceive this dual character of her identity as contradictory in some ways? If so, how does she negotiate the dilemma in the process of constructing her identity?

Following the systemic approach of the study, analysis tries to capture local meanings constructed by Denise. This analysis provides a rich and nuanced understanding of the ways in which a particular woman positions herself in relation to the criminal activities in which she was engaged. Central to this part is the investigation of particular instances in which hegemonic discourses are challenged and transformed in Denise's accounts. The purpose is to show how social resources are manipulated by the participant in her particular process of identity construction.

The specific focus on local meanings is of particular interest for the present study. As mentioned before, it is expected that the non-traditional aspect of the activity in which this woman was involved requires a complex transformation of hegemonic discourses to 'fit' her process of identity construction. Analysis takes her personal history, societal context and individual processes as main resources for such transformation.

Also relevant to the analysis is the interactional work done by the participants (Denise and myself as an interviewer) within interactions. Instead of focusing solely on the content of what is said in interactions, such an approach considers *how* participants rhetorically position themselves in interactions (Harré & van Langenhove, 1999). From this perspective, the role of the audience is central, since speakers are continuously arranging themselves vis-à-vis one another.

Without endorsing that identities are fully constructed in the course of social interactions, the overall analysis intends to be sensitive to the rhetorical work done by participants in the interviews. The focus will be on the rhetorical devices Denise uses in order to position herself in particular ways throughout the interview. At this level of analysis my role as an interviewer becomes central. The fact that I am a white woman, coming from an American institution and presenting myself mainly as a psychologist, triggered distinct speeches. For the purpose of her identity construction, Denise chose to position me in different ways at different moments. At times she emphasized my position as a woman and issues of gender brought us together. At other times, she put me in a somewhat more powerful position, when emphasizing my position as a psychologist, or as someone representing the agency.

The analysis investigates the different ways in which Denise presents herself in the interviews. Aligned with the dual mode of analysis described before, the focus will be simultaneously on the masternarratives she uses in order to construct her identity and on the unique ways in which she appropriates and transforms such narratives. Central to

the analysis are the moments marked by apparent contradictions and tensions in Denise's discourse. Rather than approaching such moments as reflecting a potential fragmented identity, the goal is to identify both compliance and resistance in the process².

Denise makes use of different cultural discourses in order to construct her identity as a woman. She also transforms these discourses in many ways, coming across as strong and assertive at times and as powerless and dependent at other times. The many ways she appropriates these master discourses serve to construct her identity in very distinct ways. For instance, she is simultaneously the weak mother, the strong gangster and the resilient wife.

One element that is very salient in the process of Denise's identity construction is her alignment with different groups. She often speaks as a member of a group, for instance the group of women, of gangsters, or of reformed people. As the analysis emphasizes, such alignments serve different purposes: it mitigates responsibility, it legitimizes her accounts and it brings us (women) together.

At different moments, Denise emphasizes different dimensions of her experience. The analysis below focuses on the different identity positions (mother, wife, criminal, etc) she assumes throughout the interviews.

Denise as a woman and partner

In the two interviews, Denise makes some general claims about women, especially about the ways in which women are supposed to behave. These claims are usually referred to women's behavior in relationship with men. Ideas of control, rationality and honesty permeate her speech.

In the following excerpt, Denise tells the story of her involvement with a guy who was a soccer player. After dating gangsters and traffickers for a long time, she had finally established a relationship with this guy. In the following excerpt, she blames herself for the end of the relationship.

"I was an obsessed woman, you know, I was very jealous and it didn't work. I think we should have a little bit of each thing, we shouldn't have anything in excess, right? I didn't know how to hold myself, I didn't know how to control myself. Then the relationship ended."

"Sendo que eu era uma mulher assim obcecada sabe, eu tinha muito ciúme e não deu certo. Eu acho que a gente tem que ter um pouquinho de cada coisa, a gente não tem que ter excesso de nada, ne? Eu não soube assim me conter, não sabia me controlar. Ai o relacionamento acabou."

The account provides not only information about her story, but a set of prescriptions for women. She blames herself for being jealous, obsessed and uncontrolled. Rather than an individual assessment, her account is constructed in the form of an

2 Along the same lines, Chicana feminists (Anzaldúa, 1987; Lugones, 1994) claim how tensions and conflicts hold the *mestiza*, or hybrid, identity together.

advice for women. As evidence she switches from the “I” to the “we.” *SHE* was too jealous, but *WE*, as women, should know how to balance our feelings (*I think we should have a little bit of each thing, we shouldn't have anything in excess, right?*). Jealousy is characterized as an excess, one that women should avoid in order to keep their relationships. In the end of the excerpt above Denise tells that after their split, she went back to dating gangsters.

In the excerpt above, Denise is part of a group. The use of “we” serves, at least, two functions: it legitimizes Denise’s behaviors as the behavior of a group and it has the potential to bring interviewee and interviewer together, as part of this same group. In this sense, the advice she provides is also addressed to me as a woman. Although analysis is not centered in the rhetorical work done in interaction with me, the fact that I am a woman may have the potential to shape Denise’s accounts in a very particular way. As mentioned before, analysis is sensitive to the contexts within which accounts are produced.

In the second interview Denise returns to the topic of her relationship with this “worker” (how she defines this man, in opposition to the gangsters she had dated before). Once more she blames herself for the end of their relationship. This time, however, she tells how dishonest she was in lying to him about a false pregnancy.

“I think if I had been honest to him, he would have not left me.”

“Eu acho que se eu fosse sincera com ele, ele não tinha me largado.”

After blaming herself for the failure of the relationship with this “nice guy”, Denise claims her ‘good essence’. In the following account, she excuses herself from having lied to him, making a general claim about the way people are: they are not honest all the time. With this move, Denise constructs her identity as a good person.

“Cause I’m a person of, of, of, of, like, with a good nature, I have a good character. I think in everybody’s lives there are ups and downs. Not everybody is honest in everything they make, right?”

“Que eu sou uma pessoa de, de, de, de, assim, uma pessoa de boa índole, eu tenho caráter. Eu acho que na vida de todo mundo, existem altos e baixos. Nem todo mundo é sincero em tudo que faz, tá?”

Denise’s account starts with a preface in which she states her “good nature.” The use of “everybody” mitigates her responsibility, inserting herself in a group. Like these people, she does not make things right all the time (despite her good nature). Central here is the assumption that behaviors are not necessarily reflecting one’s “true nature” or “true self.” Denise is intrinsically good, no matter what she does.

Denise follows the previous account by once more providing an advice. This time, however, the advice is explicit:

“I had made a lot of mistakes and now I advise people like, you know, who had passed through the same things I’ve passed, to not lie. I think honesty is more worthy.”

“eu já errei muitas vezes e hoje em dia eu aconselho as pessoas que, sabe, que passarem pelo que eu passei, pra não mentir. Eu acho que a sinceridade ela vale mais.”

As she does in the excerpt above, Denise positions herself as a model to other people throughout the interviews. Her character as a reformed person becomes salient in these moments. Being a member of a non-profit organization and having been through a lot in life, seem to give Denise the authority to speak as a model to other people. In the following excerpt, for instance, she talks about the role she plays in the non-profit organization as one of ‘rescuing’ people. I ask if she thinks the work she develops in the agency is important and she answers:

“it’s very important to me. I’m developing an action, I’m developing the true Denise, I’m trying to rescue, trying to build, to change the lives of people who are in the same hole I was one day, in the same abyss.”

“pra mim é muito importante. Eu tô desenvolvendo uma ação, eu tô desenvolvendo a Denise verdadeira, eu tô procurando salvar, procurando edificar, mudar a vida de algumas pessoas que se encontram no mesmo buraco que eu me encontrei um dia, no mesmo abismo.”

The excerpt above is interesting for different reasons. First, Denise makes use of a very “institutional talk”: she is ‘developing an action’, trying to rescue, to build and to change lives. These are all terms meaningful in experiences of recovery. Denise is not only experiencing recovery herself, but she is also working for an agency that tries to take people out of the drug trafficking. Second, Denise once more makes reference to her “true self”, “her true essence.” Being in the position of helping people seems to reflect the ‘true Denise.’ Finally, she positions herself as a model to people who are in the same situation she was in the past.

Denise complains a lot about her husband, who is incarcerated. According to her, he forces her to visit him every week and threatens when she does not show up. When I ask Denise if he is aggressive towards her, she once more blames herself:

“no. He is aggressive and is not, it’s just when I ask for. (...) when I call him gay, tell him to fuck himself, when I throw a cup on his face.”

“não. É agressivo e não é, só quando eu faço por onde. (...) quando eu xingo ele de viado, mando ele tomar naquele lugar, quando eu taco copo na cara dele.”

Blaming themselves for men’s aggression or placing the guilt on external circumstances seems to be a common way in which women describe the abuse they suffer. Through this strategy Denise protects both her husband and their relationship.

Denise as mother and daughter

Motherhood and mothering are recurrent topics in Denise's discourse. The comparison she often draws is between her as weak and absent to her daughters and her own mother and strong and resilient. She resents not having had the time to spend with her children during the time she was in drug trafficking. In contrast, her mom is this great person, who took care of Denise and raised her (Denise's) daughters.

However, Denise's accounts show a profound gap between the cultural discourses of motherhood she appropriates and her lived experiences as both a mother and a daughter. The relationship with her mother, as she argues in several moments, is far from perfect. In the same way, the relationship with her daughters is characterized by a constant and intense struggle from her part. She tells how she is just recently learning to be a mother. And, in a confessional tone, she assumes losing her patience and acting aggressively towards her children at times.

In the excerpt below, Denise blames her involvement in the drug trafficking for being the bad mother she had been:

"I didn't raise my children because I got involved too early, I had no moral support to give them, I thought it was all about money, material things, golden chains, motorcycle, money, expensive phones. I never stopped to analyze how much I was destroying my children's childhood, because I could never be a mom, you know?"

"Eu não criei meus filhos porque eu me envolvi muito cedo, eu não tive um apoio moral pra dar pra eles, tudo eu achava que era dinheiro, que eram bem materiais, é cordão de ouro, moto, dinheiro, telefone caro. Eu nunca parei pra analisar o quanto eu estava assim destruindo a infância dos meus filhos, porque eu nunca pude ser mãe, sabe?"

The account above follows Denise's description of her routine as a gangster. She explains how she had no privacy or tranquility in her life when she was a manager of the drug drop-off. In the account there seems to be an assumption that a drug trafficker cannot be a good parent because of the circumstances in which she is involved. In this situation, one simply does not have the time or the moral values needed in order to occupy this role. In such a description, Denise once more claims her 'good essence' by placing the blame in external factors. Along with the guilt associated with not being able to care for their kids, she provides an excuse for this behavior. No one living their life style would be able to care for their kids: "*I could never be a mom, you know?*" It is interesting to notice that she does not say "I was never a good mom", simply stating a fact about her status as a mother. The use of the term "could never" implies that something had prevented her from being a good mother.

Denise says that now that she is not in the drug trafficking she is able to understand and value the love of her daughters.

"They always loved me a lot and I wouldn't care. I used to think it was a normal love. But now I know that it is a very special love, important."

“Elas sempre me amaram muito e eu não ligava pra isso. Eu achava que era um amor normal. Mas hoje eu sei que é um amor muito especial, importante.”

In the following excerpts, Denise illustrates what she calls the “special love” she and her daughters have. The descriptions have some elements of the unconditional love commonly defined as the love between mothers and daughters.

“I learned something: that my true friends are my kids, because I know they are willing to do anything for me.”

“Eu aprendi uma coisa: que meus verdadeiros amigos são os meus filhos, que eu sei que elas tão dispostas a qualquer coisa por mim.”

Denise starts crying after the account above. When I asked the reason of her crying, she talks about the happiness of finally being able to express her “maternal feelings.”

“What made me emotional was to know that I am a mother, that I am like a dog, like a bird that wants to attack any person who approaches their children. I know I am willing to defend my children from any person, from anything that might happen (...)”

“O que me emocionou foi saber que eu sou mãe, que eu sou mãe, que eu sou como um cachorro, como uma ave, que qualquer pessoa que se aproxime dos filhos elas querem avançar. Eu sei que eu tô disposta a defender os meus filhos de qualquer pessoa, de qualquer coisa que for acontecer (...)”

According to the description above, being a mother means being ready to defend your children from anything. When comparing herself to animals that protect their babies, Denise appropriates the cultural discourse of a supposed biological readiness women have to take care of their children. Such a discourse is reflected in linguistic constructions commonly associated with the experience of being a mother, like the “maternal instinct” and “mothers’ sixth sense.”

Denise is very proud that her daughters had never followed her path. According to her, *they (her daughters) are big and none of them had diverted from the things her mother (Denise’s) taught them.*

In order to show her daughters’ strength in keeping themselves away from “wrong things”, Denise provides a description of them that is very aligned with traditional views on womanhood.

“She (her older daughter) doesn’t go out; she is a daughter that when I come home to have lunch, the food is ready.”

“Ela não vai na rua, é uma filha que quando eu chego pra almoçar, a comida tá pronta.”

“(...) she (the other daughter) is eleven, she cooks also, does everything. And there

is the seven year-old one, who makes- washes her underwear and is already learning everything.”

“(...) tem onze, também faz comida, faz tudo. E tem a outra de sete, que faz- lava calcinha, já tá aprendendo tudo.”

Denise's descriptions of 'the perfect daughter/woman' seem to be influenced by her position as a reformed person. Having deviated from the 'good path' herself makes her strongly aligned with traditional views on how women are supposed to behave. In her talk, the choices she had made in the past about her own life and behavior do not seem to be in conflict with what Denise claims to be 'a good daughter'. According to her account, being a good (or 'big', as she defines) daughter means to be obedient, to remain in the private space of the house and to do the housework (cleaning and cooking, for instance).

Although it may sound contradictory that Denise values a path from which she had clearly deviated in the past, we can make sense of her speech in terms of the cultural discourses available in her situation. Women in the favelas – those who are not involved in criminal activities – are responsible for the children and the house. Even when women do work outside the house (and most of them do), the private space is still women's responsibility. In informal conversations with women in the favelas, it is common to see traditional arrangements in terms of gender roles. In addition to the cultural discourses that legitimate these arrangements, the violence and the risks involved in living in a favela make the streets particularly a "male territory."

Denise's presentation of her children seems to reflect one of the (few) possibilities given the cultural discourses available. For women in the favelas, choices are made within very rigid social, cultural and economic constraints. Even her deviation from the expected path is marked by the same constraints. Denise mentions how she used to cook, do little favors and have sex with the leaders of drug trafficking in the beginnings of her life in crime. While she had subverted the expectations, by engaging in a traditionally male illegal activity, her transgression occurred within limited boundaries.

It is possible that Denise's constructions of good and bad behaviors are very polarized in part because of the lack of cultural discourses available. In addition, as already mentioned, her position as reformed person, doing what is expected from her as a woman in this specific context, seems to play an important role.

In contrast to her weakness as a mother, Denise positions her own mother as a strong woman, who raised her (Denise's) children and had never lost the hope of seeing Denise out of the business.

“And my mom always had this faith, this hope that I would recover one day, that one day I would I would screw my head on straight and would realize that this wasn't truly a life for me to live.”

“E a minha mãe sempre teve essa fé, essa esperança que um dia eu ia me redimir, que um dia eu ia botar a cabeça no lugar e ia ver que verdadeiramente aquilo ali não era uma vida pra mim viver.”

Denise's description of her mother and of their relationship, changes radically in the second interview. There, her mother is portrayed as a cold person, who always undermines Denise's attempts to take care of her. However, she undermines the negative description, attributing their bad relationship to incompatibilities between the two of them. Her mother is still a great person and mother, but they are just different people who do not get along. Once more, the good essence of mothers (in this case, of her mother) is preserved.

"look, my mom and I we get along very well, cause she is a wonderful mother, but we never had anything in common. I care more about my dad, I care a lot about my dad."

"olha só, eu e minha mãe a gente se dá super bem, que ela é uma mãe maravilhosa, mas nunca tivemos muita afinidade uma com a outra, tá. Eu já tenho mais carinho, muito forte mesmo, pelo meu pai."

Some minutes later, however, even her relationship with her mother is portrayed in a different way. When asked if she had had a good relationship with her mom in the past, Denise answers: *"I never had."* Denise provides the following account to prove how bad her mother has been to her:

"My daughter lost her baby, I was very sad, you know, I got really depressed, my mom had the capacity to say that I had made her abort. She told people that I was an assassin. Till today I wasn't able to recover."

"A minha filha perdeu o neném, eu fiquei muito triste, sabe, eu fiquei muito deprimida, a minha mãe teve a capacidade de dizer que eu que fiz ela abortar. Falando pras pessoas que eu era assassina. Eu até hoje não consegui assim me recuperar, sabe?"

Denise's accounts do not seem to support the first image she had constructed of her mother as a strong woman and a great person. At least, the positive descriptions do not prevent Denise from portraying their relationship as highly tumultuous.

The assessment of her mom as strong and resilient seems to be once more influenced by Denise's position as a reformed person. In contrast to her, her mother remained strong even in face of economic difficulties. While Denise had taken the "wrong path", her mom took care of her children and kept her faith in Denise's recovery. Even a close appreciation of her lived experiences with this mother does not change Denise's first description of her. The image of the loving and caring mother is absent in Denise's account. Rather, what seems to be salient in her description is the moral strength of her mother.

Denise as a gangster

Denise talks about her decision to join the drug trafficking as motivated by her desire to feel powerful.

“I also wanted to have power, I wanted to have people around me, kissing my ass all the time, you know?”

“eu queria também ter poder, queria ter as pessoas ao meu redor, me bajulando o tempo todo, sabe?”

Here she comments on the power she had when she was a manager of the drop-off:

“I had several employees, several employees to serve me”

“Eu tinha vários empregados, vários funcionários ao meu dispor”

Denise’s portrayal of a powerful woman, who had employees to serve her, who used to cause fear in people, is put into question when she describes her participation in the drug trafficking. The picture then is of a woman who had to perform secondary and risky tasks in order to gain men’s confidence. Her power was achieved mainly through her submission to men. I ask her in what circumstances she had entered the drug business; Denise mentions her long term involvement with gangsters that culminated with her direct participation.

“like, in the beginning I was the woman, you know, of some traffickers. The involvement (her direct involvement in the drug trafficking) came later, with favors: do this, do that, buy this, buy that” and I got involved very quick, because I made some crazy things.”

“assim, eu de inicio eu fui mulher, sabe, de alguns traficantes. O envolvimento veio depois, com favores: “faz isso, faz aquilo, compra isso, compra aquilo” e eu me envolvi muito rapido, porque eu fiz coisas absurdas.”

Then she describes the tasks she used to perform in the business:

“first I started making the food (for the traffickers), then I started like to get deeper involved, to look, I started having sex with the leaders, some leaders, right, from (name of the faction) and finally I was negotiating armament, pure cocaine, some kilos.”

“primeiro eu comecei fazendo comida, depois eu comecei assim a me envolver mais profundo, a olhar, comecei a transar com os lider, alguns lider né, do (nome da facção) e por ultimo eu fui negociando armas, cocaina pura, alguns quilos.”

Denise’s involvement in the drug trafficking is a consequence of her relationship

with male traffickers. Not only she got involved because of men, but she also started performing typical female tasks in the business: cooking, having sex and doing little favors for men. The “*crazy things*” she had later done, like negotiating armaments and buying cocaine, were very risky tasks. Denise and other participants explained that women are usually sent to perform these tasks because they raise less suspicion in the police.

Denise felt very strong and powerful when she was a drug trafficker. She mentions the respect she used to get from people who were not in the drug business. When telling me about a discussion she had had with the father of one of her daughters, Denise says that he does not respect her and that she should probably go back to drug trafficking in order to get the respect she deserves from him.

Denise as a woman of gangster

Denise is a woman of gangster. In her description of this role, she mixes pride and anger. For instance, she knows that her husband has many lovers, but she is proud that she had been chosen as the “loyal”, the one who gets everything from him. Actually, all the participants in the larger study tell stories of women who chose to date gangsters because of the status they achieve in the favelas.

In the next excerpt, Denise justifies her entrance in the drug trafficking by virtue of her attraction to traffickers:

“There was one, I don’t know if I told in the last interview, who was crippled, ugly, black, toothless and I was in love with him (...) just because he was a gangster”

“Tinha um, que eu nao sei se eu falei na entrevista passada, que era aleijado, feio, preto, sem dente, e eu era apaixonada por ele (...) porque ele era bandido”

In Denise’s stories, it is interesting to notice that both her entrance and exiting the drug trafficking has been motivated by her involvement with men. Within the field of criminology, authors point to the relational character of women’s crimes, emphasizing the role of men in initiating and ‘rescuing’ women from a criminal life (Steffensmeier and Allan, 1996).

In the next excerpt, Denise explains the role of “the loyal”, the woman who has to remain faithful to her gangster husband when he is in jail.

“we, women who have a husband deprived of his freedom, we have to be very humble, we can’t talk much and we can’t walk around much. The woman has to be locked at home, she doesn’t have freedom. Everybody knows everything she does and they tell him (her husband). He can even ask somebody to kill her from there (from prison). It’s very risky.”

“nós mulheres que temos assim um marido que se encontra privado da liberdade, a gente tem que ser muito pacata, a gente tem que falar pouco, a gente tem que

andar menos ainda. A mulher tem que viver presa dentro de casa, não tem aquela liberdade. Tudo que a mulher faz, os outros sabem, falam pra ele. Ele pode até mesmo mandar matar a mulher lá de dentro. É muito arriscado.”

Denise, in a similar strategy she had used before, talks as a member of a group: “*we, women who have a husband deprived of his freedom.*” The description is constructed in the form of a prescription to women in certain circumstances.

The expression “deprived of his freedom” serves a special purpose, mainly of mitigating her husband’s responsibility. Instead of saying that he is incarcerated, a statement that would place the blame for doing something wrong on him, Denise implies that somebody had deprived her husband of his freedom. The focus of the statement is shifted from her husband’s actions to his status as ‘deprived of freedom’.

Denise repeatedly states that she does not like her husband and that she cannot stand him touching her. However, according to the “trafficking law”, a woman has to remain faithful to his incarcerated man. Women can be punished and even killed for not obeying this rule. She often comments how powerless she feels in this position and says that she sees no possible way out of this problem.

As a woman of gangster, Denise is powerless and submissive. Such a position contrasts highly with Denise’s descriptions of herself as a gangster who used to be feared and have people to serve her. In these diametrically opposite situations of power is claimed to be the possession of different agents. In constructing her identity, Denise is simultaneously oppressed and oppressor, powerless and powerful. She appropriates different discourses in the construction of her identity as woman/wife and gangster.

Denise as a different person

In various ways throughout the interviews Denise claims to be a different person. The contrast is made between herself and other women, other gangster, or between herself in the past and in the present. In the latter case, *change* is emphasized as an important mechanism in her process of identity construction.

Denise as a gangster

Denise says she used to feel different from other women when she was working in the business. The difference in this case has a positive connotation: she was better than other women. The contrast between these accounts and the ones in which Denise portrays herself as a bad mother is remarkable. In the latter case, she was different (and worse) than other women because she could not take care of her kids the way mothers are supposed to. While she seems to make a clear connection between being in the drug trafficking and being unable to care for her kids, she tells with big pride how special she was as a gangster.

I asked Denise if there are more women in the drug trafficking now than it used to have in the past. She answers:

“With my leaving, with me stepping back, there were few women left. Because, like, be-

sides being a woman involved with the trafficking, I would make impossible missions.”

“Com a minha saída, com a minha recuada, ficaram poucas mulheres. Porque assim, eu além de ser mulher envolvida com o tráfico, eu fazia missões impossíveis.”

According to Denise, the dynamics of the whole activity are changed when she decides to drop the drug business. She was not only a woman, but a woman who used to do very unusual things (*impossible missions*). Because she has occupied a very high position in the drug trafficking, Denise feels superior to other women.

“I used to feel, feel superior. (...) They all need to be submissive to me”

“me sentia, me sentia superior. (...) Todas tinham que ser submissas a mim”

It is interesting how Denise positions other women as submissive to her. In telling her story in the drug trafficking, Denise was often in this same position, having to do little favors in order to gain men’s confidence.

Denise as a “good gangster”

Another instance where Denise claims her difference is when she describes the kind of gangster she used to be. She was tough, used to carry guns and use drugs. However, she had never hurt or killed anybody when she was in the business. There is a line that Denise had never crossed. Implicit seems to be the idea that she is a good person, incapable of doing some bad things (that other people do).

“Like, in the time I was in the crime, I had never hurt anybody, I never took lives (...) never, never, but I witnessed a lot of tortures and even deaths, I used to ask my friends not to do that (...)”

“Assim, no tempo que eu convivi no crime, eu nunca fiz mal a ninguém, nunca tirei vidas (...) nunca, nunca, mas já presenciei várias vezes torturas, até mesmo mortes, pedia aos meus amigos que não fizessem aquilo (...)”

Once more Denise’s different accounts sound contradictory. Even though she claims her difference in relation to other women in the drug business (mainly because she was more powerful and tougher), Denise preserves her identity as a ‘good gangster’.

She recognizes her uniqueness in occupying a very prestigious position in the trafficking hierarchy. Being a manager of a drop-off is definitely not recognized as a typical female task and Denise takes pride in her accomplishment. Hence, she often distances herself from other women who had not performed such an influential task. However, Denise also positions herself as a normal (good) person, when stating that she was never able to act with violence, even when she was a gangster. Denise was a gangster, but a good one.

Denise as a reformed person

Denise often compares herself in the present with herself in the past, as a gangster.

As a mediator, Denise incorporates a lot of the institutional talk characteristic of the agency she is working with. Since the agency works with the provision of alternatives to people working in the drug trafficking, the speech of recovery seems to be very pervasive among its participants. Denise enacts some of these speeches, especially when describing both her decision to drop the business and the work she is currently doing.

It is when Denise talks about her character as a reformed woman that my identity as someone who is representing the agency seems to be highlighted. She says, in different moments, how sure she is about her decision of dropping the drug business. Her emphasis seems to come from the assumption that I was, in some ways, embodying the agency's expectations towards her.

"I never stopped to analyze how much that made me feel bad. Then, I saw a light, it was when I was sure that that wasn't good for me, so I decided to change my life, I tried to get more involved with society, to communicate."

"Eu nunca parei pra analisar o quanto aquilo me fazia mal. Ai, eu tive uma luz, quando eu tive certeza de que aquilo ali não era bom pra mim, aí eu procurei mudar de vida, procurei me envolver mais com a sociedade, comunicar"

Denise's decision to drop the drug trafficking is described above almost as a magical turn. She has "seen a light", an image somewhat common in experiences of conversion. However, in other moments in the interviews Denise provides very concrete reasons for having dropped the activity: her daughter had asked her, her boyfriend has threatened to leave her and she had lost a very good friend.

In the excerpt below, Denise highlights her strong will as the reason for remaining in the "good life" she had chosen. This is also a very pervasive speech in conversion experiences: staying clean and sober is a matter of truly wanting to recover.

"I have a lot of reasons to rebel, but I had already chosen, I made a choice for this good, honest life and I will stick to it till the end"

"eu tenho vários motivos pra me revoltar, mas eu já escolhi, eu optei por essa vida boa, honesta e eu vou ficar nela até o fim"

Below Denise once more positions herself as part of a group. The strategy here serves to excuse the 'bad things' she had done in the past. Her life as a drug trafficker is defined as a 'slip of life', something that anybody could have done.

"then I started to analyze and I realized that we who are living beings, who are humans, we are vulnerable to make mistakes and to engage in some slips in life, right?"

"depois eu parei pra analisar e vi que todos nós que somos seres viventes, somos humanos, estamos dispostos a errar e a cometer alguns deslizes na vida, né?"

When talking about her 'recovery', Denise often makes use of a religious discourse.

The relationship between religious/spiritual experiences and delinquency has been extensively theorized (Johnson, De Li, Larson and McCullough, 2000). Like many other participants in the study, Denise attributes both her decision to drop drug trafficking and her strength to continue in the 'right path' to her faith.

"That was giving me strength (the fact that some religious people were helping her), I started to establish better in the church, I started believing in my change."

"Aquilo ali foi me dando força, eu comecei a me estabelecer melhor na igreja, comecei a acreditar mais na minha mudança."

When Denise talks about her plans for the future, she makes use of very typical, mainstream descriptions of a successful individual path.

"That's why I want to start my life, like, all over again, you know, I want continue from where I stopped, go back to studying, if there are ten different courses for me to take, I want to take these ten courses, I want to be in favor of the improvement."

"Por isso que eu quero começar a minha vida, assim, todinha de novo, sabe, quero continuar onde eu parei, voltar a estudar, se tiver dez cursos pra mim fazer diferentes, eu quero fazer esses dez cursos, quero ser assim em prol da melhora."

In the previous excerpt, Denise emphasizes the importance (and her desire) of studying in order to 'improve' one's life. In other moments in the interviews, however, Denise says how she does not have the patience to go back school. In addition, in Denise's economic and cultural contexts, it is very difficult that one could find the means to pursue this kind of path.

It is interesting to notice that the account above was constructed as a concluding statement. The interview was about to finish and I asked Denise if she thinks the work she does in the agency is important. She provided both a broader answer focusing on the social importance of the work done by the agency and a personal answer stating the importance of the work to her life as a reformed person. In this sense, the account reflects Denise's ideas of an appropriate concluding statement.

As mentioned earlier, my role as someone representing the agency seemed to play an important role in the construction of her account. Her plans for the future include studying, working, helping people, remaining in the project (the agency's project) and keeping clean and away from problems. It is possible that Denise understands the value of her stated plans to someone working for that kind of organization. The plans involve several alternatives (more socially acceptable and valued) to her past life in crime.

Discussion

As stated in the introduction, understanding the process of Denise's identity construction requires a close appreciation of the societal frame within which her experi-

ences take place. Analysis focused on the availability of cultural and social discourses and on the particular ways Denise makes sense of them. Such discourses function as repertoires, as habitual lines of argument, as resources for identity construction. As resources, they are not available for everybody; a person's social and economic positions simultaneously enable and constrain the access to particular discourses.

When constructing her identity, Denise's accounts are often marked by very polarized images. She is either the tough gangster who had occupied a very unusual position for a woman or the submissive wife who remains quite in the private space of her house. It seems that Denise draws from limited discourses when she constructs herself in the ways described above. In her case, one clear limitation is imposed by her current status as a woman of gangster. According to the informal rules of drug trafficking, a woman of gangster has to behave in certain ways. Denise, like any other woman in the same situation, knows that there is no possible negotiation of her role as a woman of gangster. From this particular position, there are few discourses available for Denise to construct herself as a woman.

Denise's process of identity construction is marked by several contradictory accounts. She used to feel powerful as a gangster, even though her power had been achieved by a constant submission to men. These two seemingly contradictory positions - oppressor and oppressed - do not figure as conflicting in Denise's construction of herself. In another apparent contradiction, Denise repeatedly states how sure she is about her decision to drop the drug business, while her accounts are marked by an intense struggle to learn how to remain a "nice person." Denise seems very proud that her daughters, despite her possibly bad influence, had become 'good girls'. Having diverted from the expected trajectory of a good girl, it is intriguing to hear Denise construct her daughters in highly conservative terms. She is proud because they cook, clean and do the housework. Finally, tensions are clear when Denise talks about her mom. She is defined as a great mother, even though Denise's lived experiences attest to their tumultuous relationship.

It is not surprising that Denise draws from different cultural and societal available discourses in order to make sense of her complex position as mother, wife, criminal and reformed person. Assuming these multiple positions requires an intense process of appropriation and transformation of masternarratives regarding womanhood and motherhood. As illustrated in the examples above, Denise seems to fully appropriate discourses of motherhood according to which mothers are intrinsically good and naturally driven to take care of their children. Such discourses orient both Denise's evaluation of herself as a mother and of her own mother. However, when talking about how she enjoyed the power she had as a gangster, Denise transforms cultural discourses that tend to define women's power as having the strength to care for and give to others. She defines power as carrying guns and having control over people.

Central to Denise's process of identity construction is her status as a reformed person. Even when she is not explicitly talking about her 'conversion' experience, her accounts are marked by her character as reformed. She often provides advice for youngsters still in the drug trafficking; in several instances she presents herself as a model for people. By doing this she simultaneously positions herself as someone available to help people and highlights her own recovery process. She is able to give advice because of

the special position she is now.

Focusing on the rhetorical aspects of identity construction, analysis was sensitive to the ways in which Denise constructs her identity in interaction with me. She positions me in several ways throughout the interviews. At times, I am a woman just like her and could easily understand her stories of oppression and submission. In this position, I am also the target of her many advices to women. In contrast, Denise often positions me as an outsider, someone who knows nothing about the stories and realities she narrates. Finally, I am a member of the agency, a recipient to all of Denise's stories of conversion and recovery.

Rather than searching for the truth behind Denise's accounts, or to theorize about a possible stable and fixed identity, the present study aimed to show the complexities involved in her process of identity construction. Tensions were interpreted as part of a dynamic process through which Denise negotiated the construction of different positions.

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Biosketch

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CONSTRUCTION AND INTERNALIZATION OF PRAYER PRACTICES TO COPE WITH TRANSITIONAL LIFE PERIODS

*Darren J. Peshek**, *Michelle L. Kraus*** and *Rainer Diriwächter***

Abstract. Prayer plays an important role during transitional periods of religious individuals. These transitions may occur when coming to college, leaving college, getting married, or other significant life events such as divorce and death of a loved one. The microgenetic process through which one develops during transitional periods is governed through semiotic mediation and bi-directional communication with social others and, in some cases, a personalized image of a deity. Internalized practices of various types of prayer come to serve as a source of comfort and clarity as well as a medium for interaction with the surrounding environment. Through examining the practices of prayer in college students who are undergoing transitional periods that may invoke anxiety, the experimenters investigated the processes of prayer and the degree to which the use of prayer helps one cope with the difficult life changes. Findings indicate that participants used internalized prayer practices to promote a healthy sense of well-being during difficult periods of transition.

Introduction

Prayer is a topic discussed within a wide variety of scholarly circles creating a breadth of viewpoints and opinions (Harris, Schoneman & Carrera, 2002). These deliberations often fail to demonstrate how the practice of prayer itself plays a significant role in a religious individual's unique microgenetic development. When the beliefs of these religious individuals are challenged during periods of difficult transitions, prayer serves as a

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valuable mechanism to cope with anxieties and stressors. Religious individuals that have strong spiritual health are better at coping with stressful situations than non-religious individuals (Graham *et al.*, 2001). These stressors typically arise when transitioning to a college atmosphere from home, from college to a career, or during other transitioning/intermediary stages such as marriage, divorce, or death of a loved one.

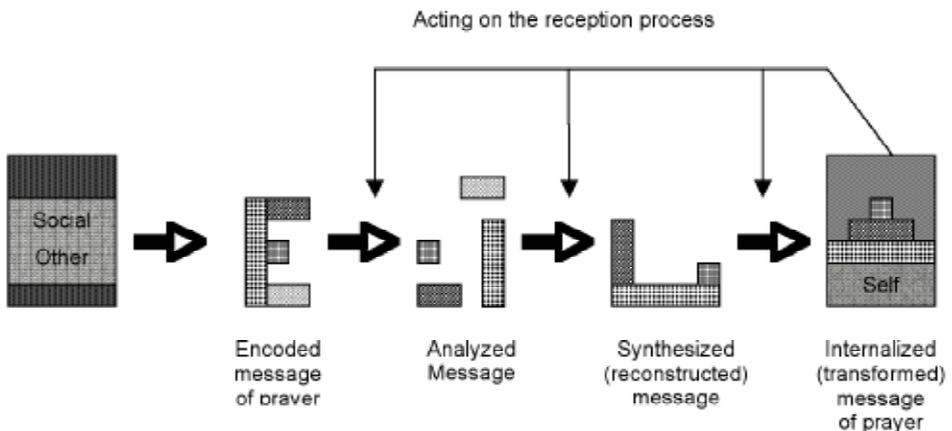
The dynamics of internalization and bi-directional transfer

Internalization plays a vital role in the development of the self and the understanding of one’s role within a constantly shifting collective culture. Jaan Valsiner describes internalization according to Lev Vygotsky as follows:

“The process of transfer of the psychological processes from the sphere of social relations to that of self-organization is internalization... Internalization is a constructive process – the person reconstructs the psychological functions that originally take place between him or her and others into their own self-regulating processes in forms that are not simple replicas of the former.” (Valsiner, 2000, p. 40)

The internalization of various behaviors demonstrates an individual’s ability to use the ideas of familial or authoritative figures to shape his or her unique beliefs. The construction process takes place through bi-directional interaction with a social other. This social other may be a peer or a parental figure passing down values and beliefs to a child. Amongst the many types of values and beliefs transferred between others and an individual is that of prayer behavior as illustrated below:

Figure 1. The bi-directional model for transfer of prayer behavior from a social other to an individual



Note: Derived from Valsiner (2000, p. 54) model of the bi-directional transfer of culture from one generation to the next

The encoded message of prayer created by the social other may be transferred either overtly by intentionally explaining prayer to an individual, or discreetly by which the individual sees the social other in the act of prayer. The social other's unique reasons for praying are communicated (overtly or discreetly) to another individual. Depending on the type of communication, the social other's reasons for prayer may be either explained in detail, or simply recognized as present by the other individual (self). While forming this transfer, the message is immediately encoded by the social other and is therefore different than, although often similar to, the original message. From this point on the self plays an active role in the reception process. The self analyses the meaning of the encoded message, creating a separate message by deconstructing its parts to be examined independently. These parts are then reconstructed into the self's understanding of the social other's message. The communicated message of prayer is transformed once more in order to fit with the personal belief systems of the self and become internalized.

The construction of internalized prayer behavior is bi-directional because the self is creating a novel message that consequently acts on the environment and the social others within it. In a bi-directional transfer of a message such as prayer practices, the social other and the self influence each other. By responding back to the original message each individual is able to influence the social other's beliefs, reshaping them to create novel messages. In a discussion between a parent and a child, for instance, each party acts upon the message communicated by the other. Boyatzis and Janicki (2003) studied diary-recorded accounts of bi-directional discussion between parents and children about religion. The following is a discussion between mother, father and their daughter that demonstrates the bi-directional construction process pictured in Figure 1.

Child: Did God have a wife? A baby? A son?

Father: He had a baby boy – Jesus

Child: But does God have a wife? (*looking and sounding concerned...*) If God wants Jesus to be born, he can't have eggs. Only baby ducks do! If God wanted Jesus to come, he couldn't cuz there was no wife around.

Mother: An angel came around, Gabriel, and said to Mary, "would you be Jesus' 'mommy?' So God put Jesus in Mary's tummy, and God was taking care of Jesus in Mary's tummy.

Child: He would actually come out with a cross on his forehead.

Mother: Why?

Child: Because he's special.

Mother: Special, why?

Child: Cuz everybody really loves him, and think's she's special. But God is so big. How could he fit in Mary's tummy? All squished up?

Mother: Because God wanted to be with us. That's why God came as Jesus, to see what it's like to be a person. God's not (*in deep authoritarian voice*) "I'm a God above everyone" but lives with the people. Do all these things – get sick, play – to know what it's like to be a person.

Child: God looks like – he has a big, like, thingie, like a trident, except it's not a trident, a stick like gold with a green thing. God is holding that now, a

red and sort of dark green and a gold jewel that's his hat. The costume he's wearing matches his hat (*pauses for several seconds*) Can we change the subject? Cuz I know a lot about God, and you told me things I already knew. (*Quiet for about 5 seconds, everyone else reading silently...*)

Child: Mom, does God have a house? Does he read books?

Mother: I don't think so. I'm not sure

Child: Is God a girl or a man?

Mother: I think both

Child: How can one side be a girl and the other side a man? (*Sounding excited...*) I know – sometimes God does boy things and sometimes girl things. (*Pause of several seconds...*) I think God is a girl.

Mother: You may be right.

Father: Why do you think God is a girl?

Child: I don't know. Girls might think God is a girl, and boys might think he's a boy. (*Exacerbated...*) Can we change the subject and fast forward to another thing?

Mother: OK.

(Boyatzis & Janicki, 2003 p. 262-236)

In this casual conversation between a child and her parents, the beliefs of the parents are first encoded through communicating their beliefs about God and Jesus to the child. The girl receives the encoded message from the parent which is then analyzed and internalized to be communicated back to the parents.

Boyatzis and Janicki make a distinction between bi-directional and uni-directional communication about prayer behavior by stating that uni-directional communication is of a quizzical nature in which the children have no opportunity to assert their own opinions. The findings of this study suggest that when the communication is bi-directional such as the conversation above, the children were more likely to continue religious behavior independently than children engaging in uni-directional conversation. However, an entirely uni-directional conversation cannot occur because each individual is continuously acting upon the transference process with unique opinions; otherwise the children would be unable to translate the encoded message from the parents. Therefore Valsiner (2000) suggests that all forms of interpersonal relations are bi-directional. Introducing the image of a supernatural being in place of a social other creates a more complex type of bidirectional communication - that which may occur between an individual and a deity. A goal of the present study is to investigate these communication dynamics between an individual and a deity and examine the nature of this bi-directional interaction.

The role of semiotic mediation and dialogicality in the microgenetic development of self

Going to college is one of the biggest transitions that an individual can make during his or her lifetime. It is a time when the values and beliefs of previous years are

tested and are either left behind or carried on in a new environment. When religion is part of one's upbringing it is important to consider how religious-related behaviors are used during the transition into a college atmosphere.

The practice of religious beliefs plays a large role in the development of a religious individuals' personal identity (Eliassen, Taylor & Lloyd, 2005) because such a person relates to the environment through the use of prayer. Through the use of signs – semiotics – an individual relates to a personal representation of God in times of transition. These semiotic constructions may be based upon actual objects used to enhance one's meaning of prayer, or they may be a ritualistic act that has been reinforced by others within the collective culture to increase the importance of prayer behaviors. Semiotic mediation is an active process through which one relates to the environment according to the meaning of the constructed signs. The related processes maintain a continuous state of sequential development which has come to be known as microgenesis (Valsiner, 2000). The behaviors or message of the social other are viewed by the self as a whole which must be differentiated for analysis. As part of microgenesis, the Ganzheit, or whole, goes through an unfolding process (Valsiner & van der Veer, 2000, p. 306-309) before becoming reformed for internalization into the self. The Illustration below demonstrates the role of prayer behavior in the microgenetic development of an individual over time.

Figure 2: The model of microgenetic development of the self and environment through the use of prayer

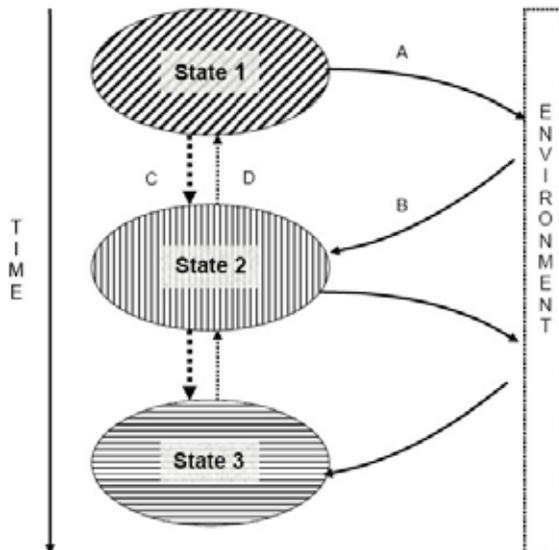


Figure 2 represents a bi-directional interaction between the self and the environment. The progression from State 1 to State 2 may occur within an extremely brief moment or day to day due to the continuous nature of microgenetic development. Each

of the arrows represents an opportunity for prayer. Solid lines represent opportunity for prayer about situations or social others in the environment. For example, one may pray to do well on a test (A). This action can change one's expectations of test performance which can essentially change the nature of the environment which would consequently affect the environment's influence over the self due to the bi-directional interaction. Or, one may pray for relief from a stressor in the environment (B) such as living with new roommates. Dashed arrows represent opportunity for internal personal reflection on past and/or future through prayer. These include issues of internalized values and belief systems. The most prominent form of reflective prayer is about the personal state of being in the future (C). Reflective prayers with a future-oriented focus pertain to the nature of the self in the future states; one may pray to be more godlike. Past-oriented reflective prayer (D) evaluates the current self by examining one's previous states and how the actions of that state – including prayer – continuously shape the current state.

The internal dialogue that develops with understanding of language allows for complex relations between the self and the environment. Working with semiotic mediation, dialogicality plays a vital role in determining how religious individuals relate to their environment and reflect upon themselves through the practice of prayer. The present study demonstrates the personal construction of the meaning and use of prayer during crisis periods. The God of most Christian traditions is similar to an ideal attachment figure (Kirkpatrick & Shaver, 1990). Therefore, the use of internalized prayer practice may serve as a transition to a substitutionary secure base in place of the more familiar and comfortable situations in which the prayer behavior was formed.

As the child raised in a religious household grows older, the reasons for prayer may begin to transform. What was first done out of habit in order to avoid punishment or gain reward becomes the means to its own end. When the prayer behavior itself is comforting, it can be used as a coping mechanism for the many stressors present in adolescence as well as in the transition to college life. Byrd and Boe (2001) demonstrated how the attachment styles of freshmen college students affect how they use prayer to cope with transition anxiety. It was found that the additional stressors of the transition to a college atmosphere prompted an increase in prayer. In times of struggle, people often turn to comfortable parental figures. This parental figure does not necessarily need to be an actual parent, but rather a secure base. Harry Harlow's infamous Rhesus monkey study demonstrated that organisms seek the comfort of a secure base in unfamiliar or threatening situations (Harlow, Rowland & Griffin, 1964). College students from a religious background turn to the secure base of God through prayer as a substitution for what may now seem to be more distant attachments (Harris, Schone-man & Carrera, 2002).

The role of semiotic mediation and dialogicality in the microgenetic development of self through transfer of secure base and attachments during transitional periods

Religiosity can play an important role in one's sense of well-being. Poloma and Pendleton (1991) suggest that, through practices such as going to church, attending bible studies and prayer, one is able to create a foundation for a healthy mental disposi-

tion. Prayers are said to be one way to cope with the many anxiety-provoking stimuli that often arise during the first year of college or during other crisis periods such as leaving college to begin a career or getting married. Students practicing prayer and other ritualistic religious behavior are less likely to suffer from various forms of psychosis such as depression and anxiety (Francis, 1997).

Although prayer is a reinforcer of religious beliefs, the practice of prayer itself is influenced by several other factors. Church attendance during adolescence may encourage prayer as a personalized extension of public worship. This reinforcement provides the opportunity for internalization of these practices according to the individual's understanding and acceptance of such behaviors (Figure 1). Church attendance and other religion-based rituals are reinforced by authoritative figures such as parents and grandparents (Smith, 1996). The common age at which most people enter college – late teens and early twenties – corresponds with a crucial period for the continuation of religiously-affiliated rituals (O'Connor, Hoge & Alexander, 2002). According to O'Connor, those who have internalized their practices within this crucial period are more likely to continue them in a college atmosphere in the absence of directed reinforcement.

Through bi-directional interaction with the environment and social others within the environment, a religious individual uses prayer to direct and reflect upon personal actions as governed by dialogical construction and semiotic mediation. The present study incorporates previous research investigating prayer into a comprehensive evaluation of the use of internalized prayer practices to cope with and relate to transitional periods.

Method

General method used in executing the study

Participants were recruited from several Psychology courses. Freshmen students of any religious background were offered the opportunity to participate in a study investigating how their prayer practices have changed since coming to college. Three female students responded and participated in a video-taped focus group with the researchers. The participants were encouraged to share details about their prayer practices and were guided by the experimenters using several open-ended questions (Appendix A). This allowed for the opportunity for the participants to actively construct ideas about prayer. No surveys were used to ensure that the participants could fully express themselves without restraints.

The discussion during the focus group was used to formulate questions for individual follow-up interviews. In these interviews, the researchers clarified some issues that had arisen in the focus group. These were issues that the participants either seemed reluctant to discuss, or topics that needed further explanation. The dialogue of the interviews was transcribed from a permitted audio recording. In addition to these three participants, another participant was recruited from an upper division psychology course. She was interviewed by the researchers and this dialogue was also transcribed.

Participants

The people who participated in the focus group were all freshmen and given the pseudonyms Molly, Nicole and Bri to protect their identity. All three girls are practicing Lutherans. Molly attends school in California but is from Washington. Nicole is from Oregon and Bri attends school 20 minutes from her home but lives on campus, as do Molly and Nicole. They are all completing their freshman year of college and have had seven months to adjust to the transition. In contrast to the participants from the focus group, Courtney, the senior recruited from an upper division class, was experiencing two major transitions at the time of the interview – graduating from college three weeks following and getting married shortly thereafter. She is a practicing Christian, but does not identify with a specific denomination.

Results and Analysis

General Reactions

The three participants in the focus group seemed somewhat reserved; they were initially hesitant to participate and required a fair amount of coaxing to interact. At first their tone was quiet and timid; however, further into the interview the participants became more animated and involved. This may be due to the intimidating situation they were in at the time of having to discuss their personal beliefs and practices with each other and the two experimenters. Data from the focus group was later clarified and expanded upon during individual follow-up interviews with each of the freshman participants. The data provided by Courtney's individual interview provided additional support for the models described.

The Lutheran Faith

Since all three participants in the focus group are Lutheran, in order to further our understanding of their perspective, a brief synopsis of the Lutheran faith is offered. The traditional Lutheran faith believes in the Triune God - Father, Son and Holy Spirit - and that Jesus Christ is Lord and Savior. The canonical Scriptures of the Old and New Testaments are the inspired Word of God. This church also accepts the Apostles' Nicene and Athanasian Creeds as declarations of the faith. (ELCA)

Results and analysis of transitional freshman: Molly

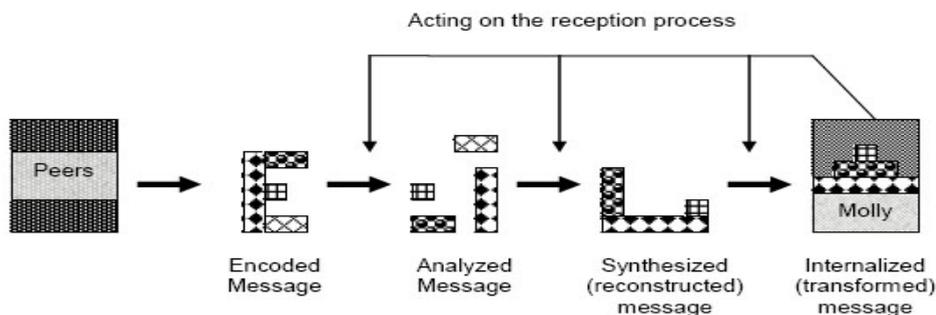
Molly's background of religion and private prayer practices

Molly was raised in a Lutheran household and said she was very involved in church. She taught Sunday school, was vice president of the youth board and was confirmed,

but felt like she was doing all of this without a lot of spirituality involved. She and her family attended church together regularly, but there was never open discussion about Jesus. Molly reports that this has become the opposite since coming to college; she is not as involved with church but has become more spiritual.

Before coming to college, Molly treated God as a “fair weather” God, only praying when in need or when something bad happened. However, since coming to college she finds herself praying more often during the day. These prayers are brief offerings of thanksgiving. She also engages in conversations with God lasting between thirty seconds and thirty minutes. During these silent discussions, she often pauses to listen for God’s response – she later described these pausing silences as a form of meditative prayer. Although Molly cannot recall conversations with her family about religion, her conversations with God are bi-directional because of these meditative pauses. Molly believes that these personalized prayers which take place outside of church are more meaningful than the structured prayers that she enjoys saying within church. When asked about formatted prayers outside of church (such as saying the Lords Prayer before bed) as a purely scheduled or ritualistic act, Molly responded, “Why would you pray if you have nothing to talk about...Prayer by default? That’s not what it’s about.” Molly also reported prayer helps her get things off her chest and clear her mind, demonstrating that the prayer ritual itself is reinforcing and that she recognizes the value of using prayer in this manner. This suggests that Molly’s prayer behavior has been internalized as a way for her to relieve herself of burdensome thoughts; she does not pray out of habit, but rather, when she has something to say.

Figure 3. The bi-directional model for transfer of prayer behavior from peers to Molly



Note: Derived from Valsiner (2000, p. 54) model of the bi-directional transfer of culture from one generation to the next

Molly’s discussion with others about religion and prayer

Molly found that it was easier for her to engage in religious conversation with her Jewish peers in high school than with her family at home. She found that these discussions did not involve “quizzing” but were rather bi-directional in nature as described by Boyatzis and Janicki (2003). Molly, in this situation, prefers that conversation between

herself and her peers consist of sharing knowledge about one another's religion, rather than testing each other on the right and wrong answer. Both Molly and her friends were open-minded about the others' beliefs and played an active role in developing each other's ideas. This corresponds with the model of microgenetic development in relation to the self and environment through the use of prayer (Figure 2), as well as the bi-directional model for transfer of prayer behavior from a social other (Figure 3). The nature of Molly's prayer behavior is influenced by social others (mainly peers) in the environment and she interprets the messages from the social others which are internalized according to her own values and beliefs.

At times these discussions challenged her beliefs, but she always came back to her Lutheran faith. She believes that this is likely because she was raised in the traditional format of the Lutheran rituals and that it "makes the most sense."

Opportunity for bi-directional communication between an individual and social others in a college atmosphere often arises from living with others who may not necessarily share the same habits and beliefs. Molly is a freshman living in an on-campus dorm in a suite with three other people. Her two roommates that are most often present are both Christian. Although she hasn't talked to these roommates about religion, she feels that it would be easy to do so because they share similar beliefs. In high school, however, the differences between Molly and her Jewish friends provoked conversation regarding their diversity.

"I had a lot of Jewish friends in high school and so uh, I was always like really interested in their side of things I guess. So I think it was also like where it's not just question and answer, its like, it's bidirectional, but it's not like there's a right answer for this question. So I don't I mean, it was always really like open, it was never like quiz kinda, they never like, uh made me feel bad about it."

This trend continued through high school and during college; only when interested in dissimilar beliefs did Molly begin to create a bi-directional dialogue.

Molly's reaction to challenges of faith

As part of the core curriculum at Molly's university, students are required to take an introduction to religion course. During this course, Molly encountered several parts of Christian history (particularly violent events such as the Crusades) that made her "want to be less Christian." However, these challenges to her faith encouraged her to pray more often and thus strengthened her beliefs.

Molly: He focused a lot on like, well, not focused. I guess I focused on a lot of like, the bad things Christians have done, so it made me sort of sad that *I was a part of it*. But there were also these graceful moments in the class...we read the gospels and whatever and I'd already read all those. So I did know like, a lot of it, I felt like, less...*I wanted to be less Christian after the class*. Just because like, I had no idea. I'd heard of the Crusades but I didn't know what they were, you know, so like, when I found out it was, like, murder, I was like "what?" It completely contradicted everything I'd been taught about Jesus and what God's message is. So

it was really hard for me, it was more challenging than anything. But *it also made my faith stronger.*

Interviewer: Do you think that that had an impact on or affected your prayer life I guess, at all?

Molly: Um, ya. Well, cause I would pray and just ask questions about like, “why did this happen, “is this going to happen again, “what should I do about it...*what am I supposed to believe,* “what do you want me to do as a Christian?” Ya. *It definitely spurred more prayer.*

These challenges are often a crucial factor in determining whether or not an individual in his or her late teens and early twenties will continue to attend church and practice other behaviors that strengthen the beliefs behind them (O’Conner, 2002). During challenges to her faith, Molly used prayer as a medium for creating meaning out of the messages being transferred to her. Although she was not directly contributing to the problems she referred to, she identifies with her religion as seen by her expression of remorse in response to the actions of other Christians. The strengthening of Molly’s faith and prayer behavior due to these challenges suggests that Molly has used prayer when faced with challenges and has learned that praying helps her deal with these difficult situations.

Public prayer practices

Public displays of worship are a regular part of Molly’s prayer practices. She regularly prays before meals in the school cafeteria. This is a ritual she practiced with her family at home and continues at school. During this prayer, she and her friend hold hands and pray silently for approximately ten seconds. Although this felt awkward the first few times, Molly believes that it is acceptable because she attends a Lutheran university and “no one will be offended.” The fact that her university is Lutheran creates a comfortable context for Molly’s prayer behavior similar to that which may be found in her church or family life at home. She reported that had she attended a public university, she may not have felt as comfortable with this public display of worship and therefore may have limited her prayer behavior accordingly. This dynamic is explained further in the following section by evaluating bi-directional communications between social others and God.

Bi-directional communication between the individual, God and social others with an ingroup / outgroup dynamic

The communication of Molly as well as any other religious individual can be represented by Figure 4 .

Each arrow represents opportunity to interact through prayer. The self is able to relate to social others through bi-directional communication. Communication with God is similarly bi-directional. Since the true nature of God cannot change, only one’s perception of God, the circle surrounding God is either solid or semi permeable depending on each individual’s beliefs. Communication towards God can be directed internally and individually or through communication with social others. However,

communication from God is indirect and occurs through a form of meta-communication (Valsiner, 2000). This meta-communication depends on the self's interpretation of what one may consider to be messages from God and how those messages are analyzed and internalized.

Figure 4: The model of bi-directional communication between social others and a deity (i. e. God)

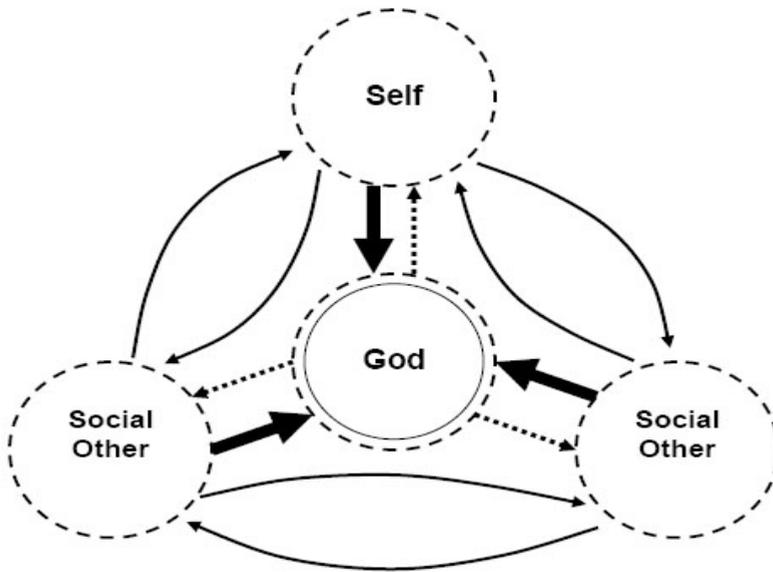
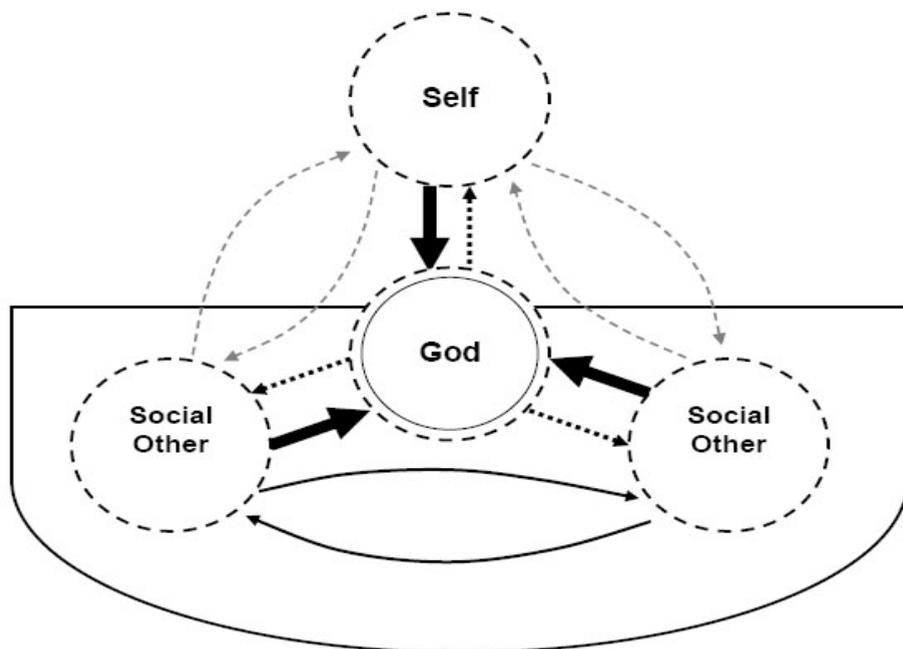


Figure 5 expands upon Figure 4 by introducing an in-group/outgroup dynamic.

Each of the arrows continues to represent opportunity for prayer. However, social others participating in a group prayer formulate a boundary between themselves and others outside their group. This does not limit the self's individual communication with God. The boundary does, however, limit the communication of the self with these social others and with God through these social others. The strength of this limitation is created by the self's familiarity with the religious practice of the others and environmental cues creating various restrictions on communication according to the collectively culturally controlled social norms. For example, if the self encounters multiple social others involved in a public display of worship and this ritual is familiar, the boundary will be less limiting than if the self was unfamiliar with the ritual being performed. Molly's experiences regarding prayer before meals discussed earlier (and the other participant's as seen later in discussion) become more understandable when related to this model. Molly says that she feels more comfortable praying in the cafeteria at a Lutheran school because others around her will be more accepting; she recognizes the difference in the strength of the boundary dividing the public and those she prays with.

Figure 5: The model of bi-directional communication between in-group / out-group social others and a deity (i. e. God)



Molly's conception of the internalization of prayer

Near the end of the focus group, the interviewers asked the participants specifically about their perceived internalization of prayer practices. Molly reported that she has begun to pray more often throughout the day and that these prayers have become more meaningful since coming to college. She says, "I do it more and it means more too." Given this explanation of prayer since coming to college, it can be seen that the influences of the college atmosphere and the transition to that atmosphere have actually strengthened Molly's internalization of prayer rituals she learned as a child so that she may use them in dealing with change, in particular, transitioning into a university.

"Well also, college is pretty hard and it's really, I mean it's a huge transition and I think that people don't make a big enough deal about that, like, I have a really difficult time transitioning and maybe that's just because I'm from out of state as well. I lived in Seattle before I came here...so I was there for all of high school. So it was kind of a culture shock. But I found that I was dealing with a lot more like, individually in college. I felt that turning to God was like an easy way out. But a good way out."

Molly mentioned that her transition was especially difficult and by using the practice of prayer she learned as a child, she was able to turn to God. Since she has inter-

nalized her faith through prayer, she is aware of the spiritual and mental benefits that prayer can provide and so has used these mechanisms to cope with challenges throughout her life. Particularly during the time of transitioning into college, she recognizes that she has used God (by means of prayer) as a secure base.

Molly's personal interview

During the follow-up interview, the experimenters clarified and expanded upon several issues that Molly mentioned briefly during the focus group. In regards to verbalized prayer, Molly explained that she feels more comfortable praying out loud when alone and that it cements what she says to God. This is because the conversation can take "a thousand turns" when done silently. Because her thoughts are not formulated into words, they are less concrete and so her mind may wander more easily, or jump from topic to topic. Although she says it is easier to pray aloud when alone, she finds that when doing so she focuses on formulating the thoughts into understandable sentences rather than on the actual prayer itself. Praying out loud with a structured ritual, as Molly enjoys doing in church, allows the focus to be turned towards worship rather than the formulation of prayer. The creation of an externalized, understandable dialogue to God is explained to be much more difficult (because of the need to take internal dynamic emotions and thoughts and formulate them into static verbal dialogue) than internal or directed prayer. The dialogical process that occurs during the construction of verbal prayer as well as during Molly's explanation of this prayer demonstrates how she relates to her semiotic representation of God and the prayer behavior that enhances that representation.

Another issue that was mentioned briefly during the focus group and elaborated on later during the interview was that of her parents' divorce when she was five. Since the divorce happened when Molly was very young, she described that she didn't remember a time when they were together. This divorce continues to affect her prayer behaviors in several ways. Not only did she stop praying aloud before bed after the divorce, but she continues to pray for the repercussions of the divorce even now.

"This is going to sound like, really self-centered. Not necessarily for my parents, but for me, because I'm still like sort of dealing with the divorce too, even though it was like, 14 years ago. So yea, I do still pray about it."

Although her parents were separated, Molly continued to visit each throughout her childhood. Each household strongly encouraged her to go to church, but did not reinforce independent prayer outside of church.

"Everything I knew about God or Jesus, I learned from church or Sunday school, not from my parents... I learned the background in church and then once I developed my relationship with Him, I wanted to continue it outside of church."

Since it was Molly's choice to initiate the conversational prayers, she created a very personal relationship with God that would continue through the challenges present during the first year of college.

Results and analysis of transitional freshman: Nicole

Nicole's background of religion and private prayer practices

Nicole's religious beliefs have developed continuously from a very young age. As a child, her grandmother "made us go" to church every Sunday. However, when Nicole was six, her grandmother had a stroke and could no longer enforce their church-going practices. Her family continued to attend church but only on Easter and Christmas—two days on which many Christians attend church due to tradition rather than spirituality.

Another major influencing figure in her spiritual life has been her sister, who is older by nine years. Although she lived out of town, she would encourage Nicole to attend church with her, but Nicole was unwilling to go unless it was to a Lutheran church. At this point, she was about eleven years old. Nicole said that the reason for her devotion to a Lutheran church in particular, is because that was where she and her grandmother went and so she was "more familiar with it." She also said that she wanted to put a restriction on where they went so she could let her sister know that she wouldn't just go anywhere. This suggests that Nicole was asserting her own internalized beliefs in the bidirectional communication about where they went to church in order to assert her personalized religious beliefs as well as unique sense of self. However, this also may be due to some type of sibling-related conflict such as a power struggle, causing Nicole to avoid certain churches simply because they are the choice of her sister. Although Nicole has a strong spiritual relationship with her sister, she also discusses the progress of her religious practices with another familial confidant, her father.

"I actually talk more about religion with my dad who was raised Methodist, but is not religious anymore. Because, you know it was kind of the opposite effect for him where he was religious when he was younger and then he moved away from it and I wasn't as religious when I was younger and I grew into it. So he is kind of confused about how that happened. And so um, I talk to him about that ... I kind of see him as testing my faith sometimes, because he's always questioning me or trying to contradict what I believe... I think he's starting to understand a bit more where I'm coming from and vice versa. I can see why he might not be religious anymore and I think he can see why I am."

Nicole says that because she feels like her dad is testing her she finds that "it's easier to talk to [her] peers." She felt that when speaking with her father, voicing an opposite opinion may lead to stressful conversation of questions and answers, whereas discussion with peers was more comfortable because there was no hierarchy of authority.

Encountering a new living situation at college

Nicole has one roommate and two neighbors with whom she shares a common suite; her roommate is a non-practicing Catholic, one neighbor is a non-practicing Christian and the other is Christian and the daughter of a Lutheran pastor. Nicole reported that she has discussed religion with her roommate but not with the pastor's

daughter because she feels intimidated. She feels that the daughter of the pastor would engage primarily in quizzical conversation because she, unlike Nicole, is not open to other people's ideas. She also mentioned that she is afraid to get into a debate which may be because of her fear to fail the unspoken quiz. Although she does not engage in conversation with this person, they attend worship services together affirming that they accept the validity of each other's faith.

Using prayer to deal with challenges to faith

The challenges posed by a religion course may oftentimes conflict with what one already knows about the religion; this may either strengthen or weaken one's faith. For Nicole, in the required Introduction to Religion class, she read some parts of the bible for the first time. What was learned about Christianity during this course was not seen as a threat to her faith as it was for Molly. Rather the messages helped Nicole orient her beliefs from a novel perspective. Reading these new passages of the bible provided new material for the content of her prayers and enhanced the communication between her and God. Also, learning new material about her own religion within a classroom setting provides support for her relation to culturally acceptable religious beliefs due to the surrounding peers.

Nicole's personal prayer practices

One of the themes during the focus group was structured versus personalized prayer. Nicole shared that her grandmother taught her the format of a bedtime prayer: a structured prayer followed by "a personal add-on at the end." Nicole used this ritualized structure of prayer until high school when she realized at a church retreat that "it didn't fit everyone else's." This implies that she was aware of and concerned about, prayer practices of her friends and perhaps what they thought about hers.

Currently, Nicole prays on average once or twice a day; these prayers are generally short - approximately "one and two minutes." Her prayers are no longer structured, except in church at the designated times. Outside of church, she usually practices personalized prayers; "almost always once in the evening at some point." The other prayer will typically be before a meal, in the morning, before a test, or at some other undesignated time. This demonstrates that the decision to pray is unscheduled rather than prompted out of habit, once again suggesting internalization. However, though unscheduled, it is evident that Nicole most often prays before a particular event, for example, a test or other difficult task. She understands the value she places upon prayer and uses prayer appropriately.

Concerning vocal prayer, Nicole was the only participant who did not find voicing her thoughts in private situations beneficial. Nicole has found that she does not have a need for it and she feels uncomfortable praying aloud even though she is "talking to someone else, technically (God)." She explained that "it just makes more sense to do it in my head." Nicole does not see a need for vocal prayer because she does not believe that actually verbalizing it would add any extra meaning to what she can say silently; she did state that she has not attempted to vocalize her prayers since she was a child. Therefore the behavior of vocal prayer was not internalized; she discontinued this practice because she did not find it beneficial when she was younger.

In accordance with the research of Harris (2002), Nicole's religiosity demonstrated through prayer serves as a coping mechanism for her anxiety. Throughout her life, she has had ongoing anxiety problems; it is understandable that these were exaggerated through the transition into college. As a way of dealing with this stress, she asserted that "learning to let go...and hand it over to God" has helped her deal with stress. She also mentioned that she sees the value in meditation, but it is "only a temporary fix." During difficult times of anxiety, Nicole finds that her prayers are more subjective in nature. Similar to Molly's idea of the "fair weather" God, (a god to whom one turns only during hard times and ignores when life is going smoothly), Nicole finds that when times are tough, her prayers tend to be less oriented around worship and more centered on her respective problems and her need of solutions for them.

According to Poloma and Pendleton (1991), there are two types of prayer: objective and subjective."Objective prayer focuses on the object of one's religious devotion (i.e., God)" (p. 72). As discussed earlier, through relating to that object, the use of semiotics becomes important in the development and construction of the individual's personal representation of God. Subjective prayer, on the other hand, "centers primarily on the needs of the person praying" (p. 72). Here, the focus is turned from worship and thanksgiving to petitionary prayer.

Nicole suggested that objective prayer may be said early on in the content of prayer in order to make the subjective prayer more justified. She notes that "this isn't what it should be, but that's how it turns out a lot of times." She believes that, one's own agenda should not be the primary concern of the prayer. Prayer enhances one's relationship with God and also functions as a way to praise and worship him. When praise and worship is the primary goal, then it should not focus on the materialistic desires of the self. Nicole recognizes the meaning in prayer and realizes when the meaning is not there. Prayer is defined by Easton's Bible Dictionary (1897) as, "a reverent petition made to God, a god, or another object of worship or an act of communion with God, such as in devotion, confession, praise, or thanksgiving." According to this definition of prayer, as well as Nicole's own construction of the use of prayer, the content of prayer cannot be entirely subjective or objective.

Concluding thoughts on Nicole's internalization

Nicole's prayer practices have been continuously internalized from a very young age. Although she feels there is a strong importance in following the traditions of the Lutheran faith, she practices these traditions according to her individual beliefs. Through the experiences Nicole has experienced while transitioning into college, she has maintained her association with the Lutheran faith and has used her internalized practice of prayer to deal with these situations.

Results and analysis of transitional freshman: Bri

Bri's background of religious communication

Bri was also raised in a Lutheran household. During her younger years, she did not consider herself particularly spiritual; the practices were "not forced, but like a

ritual.” It was not until high school when Bri began attending camps with her church that she began to feel like her faith was actualized. While in high school, she went to church regularly on Sunday’s with her parents; however she does not recall having conversations with her parents about religion. Conversations about religion that she did engage in took place more often outside of the home with friends that she described as “extremely religious.”

“more of ‘what do you think heaven is?’ and, it was more like, stuff like, questions like that that didn’t really have like, an exact answer, but it was just, like, each other’s opinions.”

From her explanation of religious discussions with family and friends, it appears that Bri has been interested in increasing her faith and practicing faith-enhancing behaviors such as prayer to support her beliefs. The fact Bri engaged in conversation with peers whom she considered to be more spiritual than herself in high school suggests that she was searching for the benefits of bidirectional conversation that were not given by her parents. She valued her religion enough to actively seek out new knowledge about her faith and attempted to broaden her comprehension of it.

Bri’s present prayer practices

Since attending college, Bri has continued to conduct her prayer practices in manner similar to her prayer during high school. During the focus group, she reported that she prays “whenever it comes to mind or when people need help.” This may be just a short prayer to thank God for a beautiful day or when someone is going through a hard time in life.

“I pretty much only pray when it comes to mind or when I think that maybe someone...I don’t know, I always pray when people need help. Like, every time I hear an ambulance I pray for whoever the ambulance is going for. Or when people tell me that something is going on in their life I’ll pray for them.”

While Bri’s prayers are not entirely objective, the majority of her petitionary prayers concern other people in her environment. In regards to Figure 2, Bri’s prayers are primarily directed or in reference to her environment (Figure 2: arrow “A”), rather than concerning herself (arrows “C” and “D”).

She also continues to use structured prayer at meals with her family (that lives approximately twenty minutes away from her university) and when attending church – the same church she attended regularly in high school. Bri also continues to find that these prayer behaviors – public, structured and personal – have not changed since coming to college. This was clarified later in the follow up interview. Since Bri remains geographically close to her family and friends that encouraged her religious rituals before coming to college, she is able to continue using these supports as a comfortable secure base and does not need to adapt her internalization of prayer practices to the same degree as the other participants during the transition to a university atmosphere. Since Bri lives close to home and frequently visits her family and friends, she continues to

be a part of a social support system which has been separated by a greater degree from the other two transitional freshmen. The familiar environment of home continues to provide a secure base which Bri may use as a coping mechanism during her transition to college. Molly and Nicole, however, have changed their use of prayer to create a substitutionary secure base through the behavior of prayer and attachment with God.

Bri's public prayer practices

Bri described that she feels prayer becomes more meaningful when verbalized. While she mentioned that she does not like to pray out loud, she does so at certain times.

“I feel like it means more and it feels like I'm more...it almost makes it more personal I think because it's like, nobody else hears you but God...it's harder...it takes more focus and more like, concentration; that's why do it when I really want it to mean something.”

Here, Bri's pauses allow time for microgenetic dialogical development. Bri relates that verbalizing her dialogical process of reflecting upon herself and her environment is more difficult, yet she believes that ultimately it is beneficial.

Using prayer to cope with daily problems

Similar to many other behaviors, prayer practices are likely affected by experiences that are unique to the university atmosphere. One such experience is that of having a roommate or roommates that do not always share similar beliefs. Bri's roommate, “who definitely isn't religious, has a lot of anxiety... it runs in her family.” Bri recalled one particular instance when her roommate was “freaking out before a test.” Bri described that prayer calms her and that she uses it as a way to cope with stressors rather than “freaking out.” Although Bri's roommate is not religious, she is very interested in religion, so Bri has not had to change anything about her prayer practices because of her roommate; she continues silent, discrete prayer in the presence of her roommate and verbal prayer while alone.

Another unique experience of college, particularly at the participants' small university, is class material provoking critical thought which may lead to reevaluation of religious beliefs and practices. A philosophy course directly affected Bri's prayer behavior by encouraging her to try meditation, which she found to be “really cool” and calming. A required Introduction to Religion course also affected her prayer behavior. She learned a lot about the various stories within the Bible. The assignments were motivated by personal interest rather than the objective of fulfilling a requirement. Therefore this course created a deeper understanding of the religion behind Bri's prayer. After learning the background of her religion, she, like Nicole, was able to incorporate this new information into her spiritual life.

Since coming to college, Bri has continued to grow in her spirituality and her prayer practices have been moderately affected by the transition process. She reported that she prays because she wants to, she never prays “just because it's the right time.” While with her nearby family and friends, her prayer behaviors remain the same be-

cause they are prompted by the context; they continue to pray when together at dinner. Although Bri doesn't continue to pray before meals while at college "because it isn't familiar anymore", her voluntary personal prayer behaviors demonstrate that these practices are internalized. In addition, her willingness to seek out conversations that may challenge her faith and her initiative to delay gratification by praying aloud suggest her commitment to her faith.

Results and analysis of transitional senior: courtney

Courtney is going through a vital transitional period in her life; within two months of the interview, she will have graduated from college and gotten married—two extremely momentous occurrences of one's life. She uses prayer as a means of dealing with these events.

A brief background of Courtney and her transition into college and a religious life

Courtney's childhood was deprived of religion. She classifies her current religious beliefs under Christianity presently, but has had much religious variation in her past.

"Before I came to this school about when I was 16 actually I went from having no religious affiliation to like, "oh there's kind of a god, maybe, " to like, being Mormon for a couple years."

She became a Christian soon after she transferred to her present school; she had met a group of people and began attending church with them.

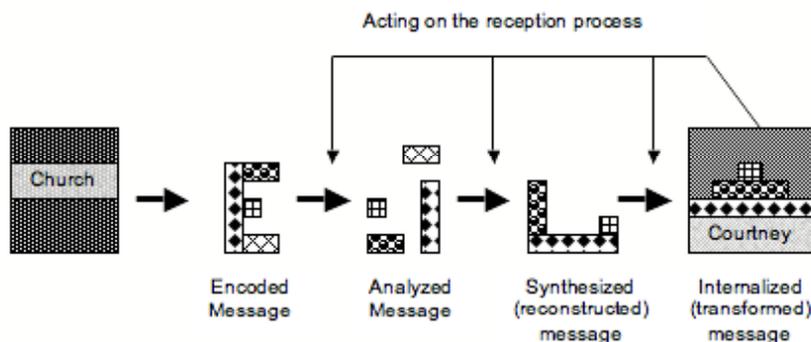
"What I liked about the church was like, at the time they were what I needed, like, something that was accepting. I just moved away from home and I was in a place where I didn't know anybody so it was some type of "come with us and hang out" like "we love you" like that type of thing."

People who are in a new and foreign environment often seek out familiarity and friendly people. The friends who introduced her to the church provided both of these; she got to know them through both school and church; furthermore, they were friendly, loving and welcoming. The church and its people provided Courtney with a new secure base from which she could construct and explore her new world, based on the abundance of information she learned regarding her faith.

"I received a bible and read it...and I soaked it up like a sponge...My prayer then was all the time constantly all throughout the day. Like I would say I would probably pray like 50 times a day...My prayers were intense and they were continuous."

Eventually, Courtney was at the point where she had established enough confidence in her reconstructed beliefs to evaluate the source of her religious teachings (Figure 6).

Figure 6. The bi-directional model for transfer of religious beliefs from the church to Courtney



Note: Derived from Valsiner (2000, p. 54) model of the bidirectional transfer of culture from one generation to the next

She compared her internalized message with the encoded message of the social other, in this case, the church and found that these did not coincide. The ideas the church was teaching clashed with her personal belief system and she found she was unwilling to internalize their teachings. She said that she “became more aware of what was outside of that small little church bubble [and]... the politics and corruption that [her] church had.” Due to these disagreements, she left her church. However, during the year she attended, she internalized several beliefs.

“But then, slowly, the people then the church went away, but I mean God’s still there. He is a loving God, but everything else...got kicked out.”

Presently, Courtney does not attend a church on a regular basis. She does, however, attend bible studies and practice prayer and meditation “but not on a really strict regimen.” She has recognized that her prayer has definitely decreased since she stopped regularly attending church.

Courtney’s current prayer practices: prayer and meditation

Presently, Courtney uses both meditation and prayer as a means of dealing with stress. Below, she differentiates between the two.

“But my prayers are more...like an internal dialogue with me and God. And I don’t really have a structured way of doing it...just whatever is on my heart and on my mind, like, it’ll start with like a thanks and a recognizing of like, what’s going on and then it usually turns into like questions and needs and um, asking for guidance and then at the end it’s, it usually goes around like thanking again...it just depends kinda what I’m feeling in my mood and what I’m feeling I need.”

Unlike Molly, Nicole and Bri, Courtney does not use structured prayer at all. She is not Lutheran and so was not exposed to those prayers in church, thus they do not appear in her private prayer life. She does, however, recognize the pattern of objective then subjective prayer discussed above. While her prayers consist of an unplanned dialogue, for her, meditation is a way to block out dialogue.

“Meditation can be without a dialogue and prayer is more of a communication and a dialogical process between you and the creator, or God. Meditation for me is...concentrating on my breathing and it's more of like, a *stress relief to me but at the same time when I'm doing that I feel closer to God.*” (Added emphasis)

Both Courtney and Molly provide excellent descriptions of the bidirectional meta-communication between the self and God depicted in Figure 4 and 5. The dotted lines in the diagram provided below allow for the opportunity for one to perceive interaction from God. This may be through thoughts, intuition, changes in the physical world, etc. Molly's meditative pauses during extended periods of prayer afford opportunity for her to perceive an intuitive message from God. During these times, Molly is waiting to feel suggestions from, or the presence of God. In contrast, Courtney does not listen for an answer because she never hears a response; however, this does not imply that God does not communicate with her. Rather, Courtney sees God communicating with her through the environment he has created around her.

Bidirectional meta-communication with God through semiotic mediation of the environment

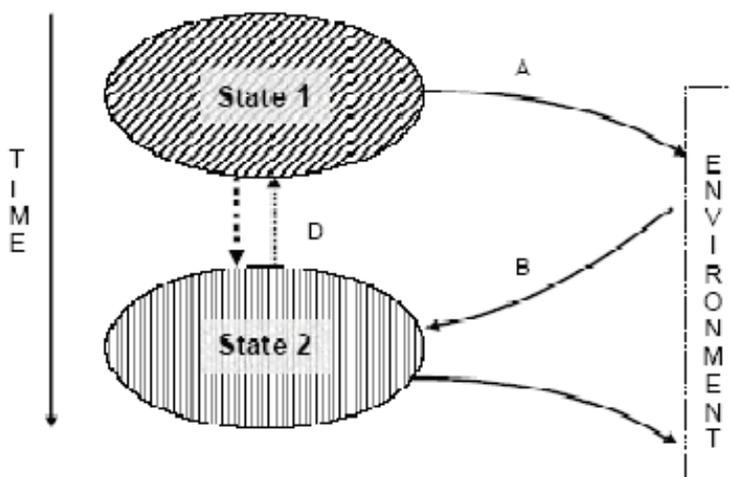
Although Courtney does not wait to receive an answer during meta-communication with God, she feels it perceived it in a different manner. Courtney mentioned a specific example in which she received an answer to a prayer.

“I wasn't praying for like, a really long time. Maybe like, three months or something and then one night I did pray and I prayed for Brandon and I and for our relationship to be glorifying to God and if it was supposed to be then to have Him continue it. And, that next day we got engaged...I believe that that prayer was answered.”

This is an ideal example of prayer being answered through meta-communication via semiotic mediation. Her relationship with Brandon functioned as a symbol of their love and their dedication to their faith. For their relationship to continue, it would have to glorify God. Through Courtney's interpretation, getting engaged the next day was an indirect way of God to communicate to her that she was on the right path in choosing Brandon. Though she did not receive a direct answer, she believed that God answered her prayer through the environment. In considering Figure 7, Courtney prayed for an occasion in the environment (arrow “A”). The following day, event “B” happened. In reflecting upon her previous state (state 1) through arrow “D”, the meaning of her original prayer was enhanced.

Thus, the meaning of prayer is enhanced through prayer itself. Through this bidirectional meta-communication with God via the environment, her desire to know if her relationship should continue was affirmed.

Figure 7. The model of dynamic bi-directional interaction of Courtney with her environment



Using prayer as a means of dealing with stress and transitions

Courtney mentioned a variety of transitional events all occurring sequentially within the next two months; these include graduating college, getting into graduate school, getting married and trying to find a job. She noted that she definitely needs some guidance and direction, so her “prayer has upped a little bit” because “you need to feel like someone does know what’s going on” during these times of transition and stress.

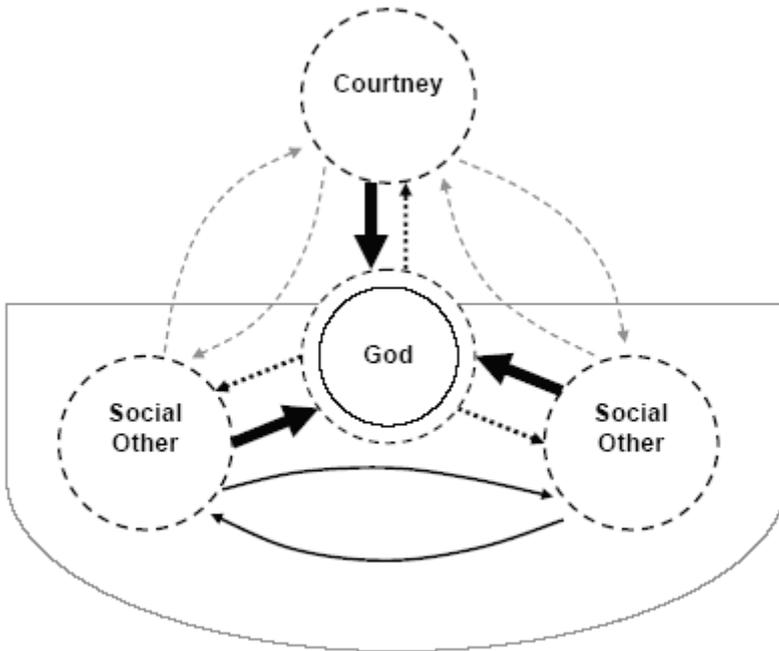
“Well, you’re stressed because you don’t know what’s going on and you’re stressed because you need guidance. So, yes, it’s correlated in a way...it’s more like, um...if I’m at a really low point, or, if I’m at this stage that um, I really don’t know what’s going on, I’ll pray...there’s two kinds of stress...not only two kinds, but stress can come when you’re anxious about something...or stress can come when you have to much going on.”

Here, Courtney is constructing her beliefs regarding stress and how it relates to her prayers. There are different types of stress and while they do not particularly pertain to whether or not she will pray, she does recognize that she will pray if she is at a predominantly low point in her life.

Ingroup and outgroup: interaction with others during prayer

Courtney is a server at a restaurant and so has been exposed to situations in which she accidentally interrupts prayer. This scenario represents the boundaries shown in Figure 8.

Figure 8. The model of bi-directional communication between Courtney and social others praying to God



If Courtney accidentally enters the presence of a group during their prayer, she reacts to their ritual in a specific way based on the particular group praying as well as the social cues of the restaurant environment. She recognizes the limited opportunity for communication between herself and the newly formed ingroup; she understands that she is now in the outgroup. In Figure 8 pictured above, Courtney is outside the group of social others praying to God; this group is inside an enclosed half circle. Because of Courtney’s familiarity with Christian prayer, she recognizes the ritual (the participants’ heads are usually bowed inwards forming a physical representation of their unification in their practice) and the circle is not as bold as it could potentially be if she did not recognize or understand the ritual.

Influence of social others on individual prayer

Courtney frequently participates in prayer groups which are often verbalized. In a situation where there are many individuals gathered, a prayer leader typically vocalizes prayer while others follow internally.

“I’m going along with what they’re saying, so obviously I’m consenting to yes, this is what I want too...But if, at times they say something that I really agree with, in my head, I’m like, “yes, yes, yes, please, “like I’ll emphasize it in my own head.”

In Figure 8, Courtney's individual prayer, represented by the thick arrow from self to God is being constructed through the communication represented by the thinner arrows. While communication directly with God is primarily personal, it may be influenced by any social others in the surrounding environment (including other members of the prayer group) or others that enter the minds of individuals practicing prayer during the dynamic microgenetic process of thought.

Conclusion

Each of the four participants in this study demonstrated that their practice of prayer is affected by transitional life periods. Through bidirectional communication with social others as well as bidirectional meta-communication with God, each of the participants used prayer as a substitutionary secure base to various degrees. The undergraduate freshmen moving away from home changed their semiotic mediation of prayer behavior to a greater degree than Bri, who continues to live close to home. Courtney also uses prayer as a substitutionary secure base; she does so during her transition from an undergraduate environment to a marriage environment.

The data from each of the participants provide support for the models represented in the figures described above. The internalization of prayer practices through bidirectional communication of encoded messages (Figure 1) takes place in all four participants. The major source of communication about prayer for all participants was not from social others as parents, but rather as peers. These peers offer their own opinions of religion; it seems that these messages are then analyzed and transformed according to the participants' own values and beliefs.

Figures 4 and 5 are representative of aspects of the communication dynamics of each of the participants. For instance, Figure 4 depicts Molly's individual prayer to God in relation to her communication with her Jewish friends. The illustration can also represent an inclusive prayer group using guided or non-guided, such as the interaction discussed by Courtney. Figure 5 introduces an ingroup/outgroup dynamic that can be demonstrated most clearly by data from Molly and Courtney. When Molly prays with her friend before dinner, she becomes part of an ingroup communication with a thin boundary line; the line is thin because she feels that others are comfortable with her group prayer. Courtney's example of seeing other's pray in a restaurant describes the perspective of an individual in an outgroup with communication with social others limited by a thicker boundary line. Due to the cultural cues of the environment, it would be more inappropriate for Courtney to participate in the ingroup than it would be for others to join Molly's ingroup.

Figure 2 is represented throughout the participants' data. Through subjective and objective prayer, the participants are using various opportunities for prayer to relate to the environment through microgenesis. Bri's prayer about her friends represent Arrow A. Naomi's prayer resulting from her religion course is representative of Arrow B. Courtney's prayer about her marriage demonstrates a process using several Arrows through which the meaning of prayer is enhanced through prayer itself.

Internalization of a particular behavior entails a personalized meaning and justification for that behavior. From analysis of the data as discussed above, it is demonstrated that the use of internalized prayer serves as a successful coping mechanism during times of transition when a familiar secure base is unavailable. Undergraduate freshmen in this study without the same degree of familial and social support present before coming to college shift their secure base away from the comfortable atmosphere of home and use internalized prayer to enhance their attachment with God. This is done through a process of microgenetic development in relation to the self and environment through the use of prayer.

The findings of this study can be applied to many situations beyond the specific transitional life periods discussed. For spiritual individuals, prayer is practiced not only at major turning points in one's life, but also daily, permeating extensive portions of the individual's life. Because of this, it is important to investigate the processes by which one relates to his or her deity through prayer. Through an understanding of the topics discussed above, one may reflect on one's personal religious practices and/or gain a better understanding of the practices of other spiritual individuals. Understanding how people of different religions communicate with their deity is a step towards a more comprehensive discussion about one of the most defining aspects of culture.

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Appendix A

Questions of the Focus Group

- What are your current religious beliefs?
- How did you develop those beliefs?
- How much impact did your parents have on your religious beliefs?
- How did you engage in discussion about religion with your parents?
- Do you pray out loud?
- As a child, how did you practice these beliefs?
- How has that practice changed over time? Since you've come to college?
- If you have noticed a change, what do you think has caused those changes and how?

SELF AND DIALOGICAL ARTICULATION OF MULTIVOCALITY: PROPOSAL OF AN ANALYSIS MODEL

*Catarina Rosa**, *Filipa Duarte*** and *Miguel Gonçalves****

Abstract. People are inevitably involved in the meaning construction, through an essentially relational and social process that allows, on one hand, to ascribe meaning to experience and on the other hand, to operate as the motor of the self-system self-regulation. Considering these assumptions, we propose a conciliation of Dialogical Self Theory foundations, developed by Hermans, with the analysis of the meaning making process recovered by Valsiner, in order to explore how the synthesis and hierarchization of *promoter signs* (while meanings with high levels of abstraction) can be considered as a strategy for the management of self's multivocality. According to the idiographic approach, knowledge starts from the understanding of a single case (that is, a theory of the case), which has to be tested against new cases. This process allows the theory to be changed and leads also to the understanding of its domain of application. Congruent with this approach, we developed a methodology to have access to the dialogical processes of meaning making. This methodology needs to be further tested to check if it has the potential for the understanding of these meaning making processes in other cases and also to identify its limits of application.

Introduction

“The [dialogical] self functions as a dynamic multiplicity of relatively independent parts that, as actions and counter actions, are organized and reorganized in close interaction with the social environment.”
(Hermans, pp. 414, 2003a)

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One of the great challenges faced by human beings is their ability to deal with the real experiential chaos that rises from the sensorial, emotional and cognitive stimulation and which has to be given sense and coherence. In the opinion of several authors, the construction of meanings, narratively organized and structured, constitutes the sine qua non condition of psychological survival, exactly to the extent that it endows us with an essential understanding of ourselves and of the surrounding world (Gonçalves, 2000; Gonçalves, Korman & Angus, 2000; Hermans & Kempen, 1993).

From a developmental perspective, the construction and reconstruction of meanings through symbolic tools like language, also constitutes a crucial element in the action of adaptation and it is viewed as an inseparable process from the flow of conscious experience (Valsiner, 1999). In this sense, considering the unpredictability of environmental conditions and the uncertainty of the future, meanings are created in order to control otherwise uncontrollable situations (Josephs & Valsiner, 1998).

According to the Dialogical Self Theory, this process is not only intrinsically plural, but also dialogical, in the sense that it occurs in the context of a multivocal self where the co-existence of various I-positions enables the elaboration of different personal meanings towards the very same experience (Hermans & Kempen, 1993). Those meanings arise, therefore, from the relational intra-personal and inter-personal space of the dialogical self, where dialogues between dynamic I-positions take place. These I-positions are continuously activated and brought to the foreground as relevant “voices” concerning the current experience.

The dialogical self operates both through the constant construction of relations among the various I-positions and through a permanent actualization and reconstruction of the very structure of those I-positions (Valsiner, 2002a; 2004). In order to regulate the fluidity of the structure of I-positions and to maintain their integrity, the dialogical self organizes itself through a hierarchical structure of meanings, regulated by signs and guiding meta-meanings – thus, the dialogical self is, simultaneously, a relational, self-organizing and semiotically self-regulated system (Hermans, 1996; Valsiner, 2004).

Assuming these assumptions, we intend to develop a methodology that allows, on one hand, deepening our understanding of the dialogical processes that underlie the management of identity diversity and on the other hand, to explore the construction process of semiotic tools that enable the self self-regulation. We present this methodology in the paper and explore its application to a case, illustrating its particular contribution to the clarification of the self’s role as an active agent in dialogical management of its diversity.

Theoretical elaboration of the empirical research question

The dialogical self and identity diversity

Although the self has been an omnipresent concept in the history of Psychology, the way this concept has been looked at and analysed has undergone some deep changes throughout the decades.

In fact, there's a growing conviction concerning the need of overcoming the individualistic and rationalist character of the western tradition and of considering the embodied nature of the self and the role of history and culture in the definition of the content and the shape of basic psychological processes (Hermans, Kempen & van Loon, 1992).

The notion of the self as the center of experience or as an isolated entity has been broadly challenged and replaced by a more dynamic, diverse and relational conceptualization of the self (Gonçalves, 2003; Josephs & Valsiner, 1998).

In its essence, the great change in how the self is viewed and conceptualized has to do with the basic unit of analysis, which is no longer the entity, but has turned out to be a duality in process (Hermans, 1996; Josephs & Valsiner, 1998).

This innovation is clearly reflected in the concept of a dialogical self, proposed by Hermans (Hermans & Kempen, 1993) through an elaboration of the concept of polyphonic novel, introduced by Bakhtin (1929). Hermans tried to understand the repercussions of Bakhtin's dialogical theory in the study of identity and, in cooperation with Kempen (Hermans & Kempen, 1993), rediscovered the grammatical analysis of the pronouns *I* and *Me*, developed by William James and George Mead. They have incorporated the re-elaboration of this analysis into Sarbin's narrative metaphor (1986), where the *I* was the narrative author and the *Me* was the actor or protagonist. Consequently, Hermans and Kempen (1993) propose a conceptualization of the self as a "decentralized variety" of I-positions, each having a voice to tell its own stories about the respective *Me*'s and searching for a dominant position relatively to the alternative voices.

This theory suggests that the self is essentially dialogical, in so far as the community of voices that constitute it relate through dialogue, resulting in a complex and narratively structured self (Hermans, Kempen & van Loon, 1992).

In parallel, dialogical self is also a deeply social self, once all the signification derives from a relational process, in which the internalized voices of social others occupy positions in this polyphonic decentralized self (Hermans, Kempen & Van Loon, 1992), considerably broadening the possible "arena" for dialogue.

We have, then, a self that is understood as a "dynamic multiplicity of I-positions in the landscape of the mind, intertwined as this mind is with the minds of other people." (Hermans, 2002, pp. 147).

Our model of analysis consists precisely in an effort of studying and comprehending both the way people manage this multivocality and the meanings that are ascribed to it. Deepening this issue implies the definition of a new dimension, corresponding to self's active role in managing the diversity of voices. Following Hermans and Gonçalves (1999) we designated this process as *dialogical articulation* (Hermans & Gonçalves, 1999).

Meaning Construction as Human Main Activity

Semiotic Self-regulation

In a remarkable effort for giving significance to the unceasing experiencing flow, people are constantly involved in a process of meaning construction, in order to regulate their relations with the environment (Valsiner, 1998). This need of regula-

tion of the exchanges with the environment derives from the indeterminacy of the immediate future; therefore the construction of signs and semiotic hierarchies constitutes a first level of pre-adaptation (Josephs, Valsiner & Surgan, 1999). Indeed, the coherence and integration demands of the psychological human systems are reflected in these stabilization efforts of the experiencing information flow through the synthesis of semiotic tools with abstraction power. These semiotic tools operate as self-regulation instruments that reduce the uncertainty of the immediate future (Valsiner, 2002b).

In Valsiner's (2002a) perspective, the dialogical self can be seen as self-regulating the ongoing action process while creating general personal sense of the kind "what is it that is going on?" (p. 262). Thus, the experiential information diversity gives rise to an increasing number of abstract meanings, organized into a hierarchical structure in that each higher level of signs regulates the functioning of the lower levels of signs. These self-regulatory processes both generate the richness of meaning of the experiential world and lead to the elaboration of meta-level meanings and to the rising of a hierarchical organization of the dialogical self (Valsiner, 2002a).

Through semiotic tools, highly elaborated and hierarchically structured, the self can endow each I-position with a "voice" that, in its turn, can interact with the "voices" of other I-positions, in a dynamic relation of dialogicality (Valsiner, 2004). In this sense, Valsiner (2002a) proposes that, according to a dialogical perspective of the meaning-making process, the creation of these hierarchical controlling structures through semiotic mediation emerges from dialogical relations within the self. The multivocal polyphonic nature of the dialogical self and the existing space for dialogue among the various discursive positions can be seen as powerful catalytic agents of the processes of meaning construction and structure. Thus, a narratively structured and semiotically mediated self emerges which, in parallel, is also involved in an ongoing flexible activity of actualization of the dynamic structure of I-positions (Valsiner, 2004).

Obviously, similarly to a society where a polyphony of voices co-exist, sometimes consonant, sometimes dissonant, the multivocal self faces the demand of managing incessant dialogical processes, full of tension, oppositions, agreements and disagreements, negotiations and integrations (Hermans, 2002). And that's exactly due to the richness and to the tension that characterize dialogical exchanges (in which new oppositions are always being made, developed and overcome by disappearance of one of the parts, or by new synthesis), that the multivocality of the dialogical self constitutes the basis for its own transformation (Valsiner, 2004). From this point of view, stability does not exist as a given, but it is, to a certain extent, an illusory process, that results from the relational dynamics between the organism and the world (Valsiner, 2002b). It seems evident that the actual self is, not only constantly open to the future and to the past, but also located in a large society of real others with whom it entails dialogues and mutual interactions, in an ever ending changing of meanings (Barresi, 2002). If, on one hand, the search for stability in the production of knowledge about us and the world follows a monologization and integration tendency, on the other hand, it is inevitably challenged towards dialogicality.

This leads to an interesting paradox: the human being does not tolerate the uncertainty towards the future and searches for stability using semiotic mediation, yet, "the

human meaning-making system does not tolerate monotony of being and tests out the boundaries of possible new becoming in the testing of the boundaries of the existing through novel inventions” (Valsiner, 2001).

Meanings as bipolar complexes

In a dialectic perspective, easily reconcilable with the dialogical approach, Valsiner and collaborators (Josephs & Valsiner, 1998; Josephs, Valsiner & Surgan, 1999) conceptualize the meaning-making in terms of dualities, arguing that this process occurs through the elaboration of bipolar meaning complexes. In their own words, the meaning complexes consist “of signs (meanings per se) that present some aspects of the world, their implied opposites, and qualifiers that are linked with either signs or their opposites.” (Josephs, & Valsiner, 1998, p. 70).

The origin of this reasoning goes back to Alexius Meinong, who established the foundations of Gestalt thought in Austria in the 1880’s, claiming the basic asymmetry between the two components of representation: the non-*A* operates as *negativum* in relation to *A* (Josephs, Valsiner & Surgan, 1999). By the light of this perspective, it is assumed that, whenever human beings construct meanings, a field of opposites is immediately and automatically implicated. This field is fuzzy and little defined, but it is established as a counterpart to the initial meaning. That is, two mutually related fields (*A* and non-*A*) are constructed, that, in their turn, become a meaning complex that is differentiated and foregrounded against the remaining universe of possibilities (not-*A*) (see Josephs, Valsiner & Surgan, 1999, for a more detailed elaboration). This means that, as soon as a meaning *A* is constructed, another field of meanings, non-*A*, is also created in parallel, defined by opposition to the first and equally implying a field of *meanings-to-be* or a *meaning potentiality* (Josephs, Valsiner & Surgan, 1999). In other words, each constructed sign, immediately co-constructs its opposite, this is, a counter-sign (Josephs & Valsiner, 1998).

Meanings arise, thus, as dual fields of unified opposites, which constitute, according to Josephs and Valsiner (1998), an essential condition for the existence of any transformation process or novelty emergence.

Oppositional relations between the two meaning fields can be tensional, but it is also perfectly possible that mutually contradictory meanings, from a logical perspective, could coexist harmoniously in a proximity space without challenging the integrity of the self. The critical issue to the understanding of these differences is to be found in the identification of the rules by which a given opposition is maintained or transformed into a new one. In other words, self’s dialogicality might involve, for example, several transformation forms of oppositions into new meanings (Valsiner, 2002a). This happens either when an opposition is solved by the integration of the two opposites into a new synthesized meta-meaning, or when the presence of a meta-meaning allows the dominance of one of the opposites.

The management of all these processes is reached, thus, on account of the hierarchical structure that distinguishes all the construction and operation of signs and meanings. This hierarchy allows, on one hand, the emergence of change and transformation and on the other hand, the conservative maintenance of some meaning complexes that remain functional (Josephs, Valsiner & Surgan, 1999). It is due to

this function that the role of semiotic regulators become manifest, while fundamental catalysts of the novelty rising and/or transformation blockaders. These regulators – or *promoter signs*, in Valsiner's terminology – are specific signs with the fair level of abstraction to operate as guides of the range of possible constructions in the future. The *promoter signs*, derived from the spatial structure of the dialogical self, offer it, in turn, a future-oriented temporal extension by circumscribing the possible variability of the meaning construction in future experiences with the internal and/or external environment (Valsiner, 2002b; 2004). In other words, these signs convey a fundamental requisite to human adaptation – its ontopotentiality – since “they have the potency to suggest states of being in the future” (Valsiner, 2002b, p. 56).

Concisely worded research question

The possibility of the idiographic knowledge results from the fact that each human being is simultaneously unique and similar to others. Every person has a developmental trajectory that is impossible to replicate (with his or her idiosyncratic experiences, adaptations, memories and so on), but at same time universal human patterns are present in this trajectory. To use an idea borrowed from White (2004), we are bound to an indeterminism (the multiplicity of trajectories) in the determinism (the human possibilities from development).

We are interested in clarifying the general processes through which the self organizes itself in the context of its multivocality. We think that one way to accede to this voice's multiplicity is through the detailed analysis of the role of promoter signs. Therefore, our goals consist specifically in: a) analyzing the arising of multivocality and self's diversity within the self-referential speech; b) understanding how people organize the self through processes of self-reflexive meaning construction, when they try to understand themselves and describe themselves to others; c) exploring how the meaning-making arises from the dialogical space made possible by multivocality; d) considering how the meaning-making and its hierarchical structure - specifically the semiotic regulators – permit the management of multivocality and dialogical exchanges. In our opinion, the only way to study these complex phenomena is through the intensive study of single cases, since its study in groups (even small groups, through *grounded analysis* or other qualitative methods) would precisely make invisible the processes that we are trying to research.

Description of the selection of the case

Kate is a 27-year old young woman. She is the youngest child (her brother is three years older) and she has always been the wonder girl of the family. In Kate's nuclear family people are very close to one another and only her brother has a more detached behaviour. Her father is extremely dedicated to his profession, which has a

priority role in his life. By renouncing to work and dedicating herself exclusively to the family, her mother has encouraged this professional investment of her husband. Kate's interaction with each parent assumes distinct forms. With her mother, she has an easy and very close affective relation, because she listens without judging, gives without expecting anything in return and avoids confrontation, choosing to solve her problems in other ways. Her relationship with her father is more difficult, but surely not less strong. Kate shares all doubts with her mother but she hardly makes a decision without her father's approval. An interesting metaphor to describe the way Kate thinks about her father is the comparison with a super-hero: "he can do anything but we don't know how"; "he's in everything we do, although emotionally distant"; "life contingencies end up pointing out his faults and showing that super-heroes aren't but human beings like us."

According to Kate, her childhood has had no relevant events and the first disappointments were reserved to her adolescence. In this period of her life, Kate decided to actively disagree with the authority of her father. However, she gave up soon, because she felt she did not have enough strength to confront him and also because she understood that her brother was not the partner she expected him to be. Nevertheless, Kate still keeps some level of unconformity, which could become a catalyst for a restructuring of her relationship with her father.

When she was 18, she began her architecture graduation in the same city where she was living with her parents. This fact had contributed to her present difficulty in becoming autonomous from her origin family. She got married soon after she graduated (three years ago) and she lived some time away from her parents. However, now she is 8 months pregnant of her first child and she has returned to her parent's city from where she doesn't want to leave.

She agreed to participate in this research because, in her words, "it's an opportunity to get to know myself better." The clearness, objectivity and dynamism of her narrative, as well as the interesting data that arise from the meaning-making analysis, lead us to consider this case as a good example of the kind of results that our approach might produce.

Methods/Procedures of investigation

It is irrefutable the enormous interest that the study of dialogical processes has given rise to during the last decade, which leads to another question – the need of new instruments and methods. The study of the dialogical processes that constitute the self is not an easy methodological task, once it inevitably raises the question of how to capture such dynamic complex processes. Many researchers have tried to explore the dialogical self from different perspectives (Hermans, 2001; Hermans & Kempen, 1993; Honos-Webb & Stiles, 1998; Leiman & Stiles, 2001; Ragatt, 2002; Wortham, 2001), but we are still in need of alternative and creative methodologies that may do justice to the innovative contributions of the dialogical approach (Gonçalves & Salgado, 2001; Salgado, 2004).

We have been developing a methodology that presents to the subjects a task that asks them to deal with the dualities of the dialogical self. This task allows us to study the way people think and construct meaning, both about the relations among their different discursive I-positions (Hermans & Kempen, 1993) and about the relations between those and the “voices” of significant interlocutors. This methodology involves the execution of a semi-structured interview, which includes the following steps:

- 1) Adaptation of Self-complexity Task (Linville, 1987) – it is intended to facilitate the identification and description of the most self-descriptive discursive positions (e.g., personal dimensions, social roles, interests, group membership). The task used here is a variant of the original Linville’s (1985, 1987) trait-sorting task, in so far as we ask the participants to reflect, not only about the way they describe themselves, but also their personal worlds, in order to include significant others. The self-description process is accomplished by presenting a set of thirty-three numbered cards, having each card a trait adjective printed on it. The meaning of each adjective is previously clarified with the participants, so that they know the positive or negative valence of each of them. The adjectives have to be sorted into groups, in order to describe aspects of them or their lives, as well as significant others. When participants choose generalized groups, such as Family or Work, we help them specify what exactly the group refers to, which may lead to group proliferation. For example, in the case of Family, we are interested in understanding whether the group refers to the voice of the father, mother, brothers, sisters or family legacy in terms of tradition and values.
- 2) Dialogical Articulation Task – it consists in exploring the dialogues between each discursive I-position and all the others, as well as between each discursive I-position and each of the previously referred significant others (interlocutors). The participant is asked to explain how the most usual interaction between them happens, while imagining that each of these I-positions is a character in a story or in a movie, which suddenly gets a voice. There is a set of questions that we try to clarify concerning each dialogue and that have to do with (1) the usual agreement or disagreement between the I-positions, (2) their ability to negotiate and synthesise shared meanings, (3) the eventual dominance and the kind of power exerted by some of the I-positions and (4) the affective impact of the interaction solution.

Our methodology invites participants to give an independent voice to different elements of their selves. These voices are conceptualized as discursive I-positions and the person is asked to perform the exercise of alternately moving between each of the positions and activate dialogues among them, as well as between them and the significant interlocutors.

Results

Self-complexity measure

Participant has identified 3 discursive positions, namely, *Me in the Family*, *Me at Work* and *Me with Friends*. Relatively to the significant interlocutors, Kate referred the “voices” of the *Father*, the *Mother*, the *Brother* and the *Husband*.

We would like to make it clear that we don't consider significant others “voices” as the external positions referred by Hermans (2001), once we have understood that when participants talk about the dynamics between these “others” and their internal positions, they are narrating their understanding of the actual relationship between them and they're not eliciting the “voice of the other in them.”

We are also conscious that the identification of the internal discursive positions is a demanding process, always and inevitably placed in a spacious-temporal context. Positioning and repositioning between different discursive positions is a process, not a result, which means that it is a never ending exercise and that it is open to change in each moment of the immediate future. The repertoire of I-positions is constantly re-invented while occurring the continuous internal and external dialogues in which people, while relational beings, are immersed. In this sense, we consider that the positions identified by the participants are the ones that, in an exact moment in time and space, emerge as the more significant or momentarily more activated to the person. In Hermans (2003) conceptualization, these positions would be closer to the nucleus of the dialogical self, perceived by the person as the center of its self-definition (“I am this”) – this way of thinking converges to the main question of the presented task.

Dialogical articulation measure

The process of data analysis is based on the analysis of the narrated dialogues, where we have tried to microgenetically identify the processes of meaning making that are happening at each moment. Once the entire presentation of this analysis would be too exhaustive and would exceed the scope of this article, we decided to expose only the more explanatory sequences.

We start by clarifying the existing relations between the three discursive positions of this self-system, departing from the notion of *symmetry* developed by Linell (1990, cit. in Hermans, 2003b) and trying to distinguish the relations in which the power equilibrium emerges naturally from the continuous reciprocity of dialogue (there's an alternation in power) from those in which a voice predominantly assumes dominance over the other.

In our view attending on asymmetries and power relations between the diverse discursive positions is one of the main questions in the analysis of the dialogical self, once this is one of its intrinsic and unavoidable characteristics. According to Hermans (2001; Hermans & Kempen, 1998), the I-positions are constantly subject to power differences, once their hierarchical organization gives place to a relative dominance of some of them over the others. This hierarchy can naturally silence some of the “voices”

and may represent a move toward a monological direction (Hermans, 2003b). As Hermans (1996) suggests, we need to maintain a dynamic vision of this dominance, as well as of any analysis relating to this kind of dynamics. This is a momentary construction of the participant relating to the most representative interactions, but does not exclude the possibility of other kinds of dialogue in different moments, even symmetric ones.

Thus, within the possible interactions between the three discursive positions, one interaction corresponds to a clear symmetric dialogue, while the other two reveal a dominance tendency, specifically of the position *Me at Work*.

At the present moment, Kate is a young architect that is beginning her career and she is willing to reveal competence and an exacerbated sense of responsibility, even under an excessive dedication. So, she clearly establishes a priority system between the three main dimensions where she moves herself: 1) *Me at Work*; 2) *Me in the Family* and 3) *Me with Friends*. This scale leads to an almost immediate understanding of interactions between the positions. The difficulty that the positions *Me at Work* and *Me with Friends* have in maintaining a symmetric dialogue results from the fact that they represent the opposite poles of this priority system. The devotion that both require from Kate, makes their harmonious co-existence impossible. This way, the priority position (*Me at Work*) ends up imposing herself and dominating the position *Me with Friends*. The last position takes this asymmetry peacefully because it links the other position with the promoter sign RESPONSIBILITY, as can be seen in this excerpt:

Kate: The work, damn work that always speaks louder! It is the sense of responsibility, I think that's essentially that and not being able to fail. Therefore, when there was confrontation, maybe more on occasion, not as effective as with the family because this one is much more present, work spoke louder.

Interviewer: And Me with Friends accepts?

Kate: Yes, even more easily than the family.

NOTE: Reporting to specific situations there's a re-emergence of the field CONFRONTATION, movement that is supported by the promoter sign RESPONSIBILITY.

The same dynamics is reproduced in interaction between the positions *Me at Work* and *Me in Family*. However, in this dyad, investment disparity between positions is not as easily accepted, as it is on the previous dialogue, due to the strong affective nature of the position *Me in the Family*. This discomfort makes Kate, in certain moments, to have the idea that she can harmoniously conciliate the two positions: "(...) Me in the Family can well adjust and conciliate both situations" (There's a move to NON CONFRONTATION, because opposition CONFRONTATION <> NON CONFRONTATION can be resolved by promoter signs ADAPTATION and CONCILIATION).

However, this process of meaning making is threatened by significant others' voices – *Mother* and *Husband* interlocutors. As family members, they agree on the asymmetrical quality of this interaction in detriment of the position *Me in the Family*, which leads Kate to redefine the management capacity and to assume an asymmetry, once

more advantageous to the position *Me at Work* and again explained by the promoter sign RESPONSIBILITY:

Interviewer: In short, when there is a discussion, the *Me at Work* ends up speaking louder. This situation causes distress? In other words, *Me at Work* is dominating, *Me in the Family* ends up accepting that the other is speaking louder, that has to speak louder and that's it?

Kate: Maybe, I think that she ends up admitting because it is a responsibility, because work implies a different responsibility, maybe, the *Me in the Family* probably ends up stepping back, she waits until the other position finishes her responsibilities and when the situation is over tries to compensate the time lost, but without great distress.

NOTE: There's a move to a new suggested opposition DISTRESS <> NON-DISTRESS, resulting in assessment of WITHOUT GREAT DISTRESS, after being subsumed under the promoter sign RESPONSIBILITY.

Finally, between positions *Me in the Family* and *Me with Friends* it is possible to identify a dialogue that has suffered a development, in parallel with Kate's life course and that lays on solid bases. Boundaries between these two dimensions, are clearly defined, but are also permeable to circulation of relevant information allowing a process of co-construction, that Kate has well defined on the meaning COMPLEMENTARITY.

Kate: They don't have too many conflicts because the space between them is well defined; I think there aren't many confronting situations.

NOTE: Dialogical relation CONFLICTS/CONFRONTATIONS <> NON CONFLICTS / CONFRONTATIONS, resulting in assessment of WITHOUT GREAT CONFLICTS OR CONFRONTING SITUATIONS, subsumed under the promoter sign DEFINITION OF SPACE.

Interviewer: It would be a dialogue that would allow different ideas to arise?

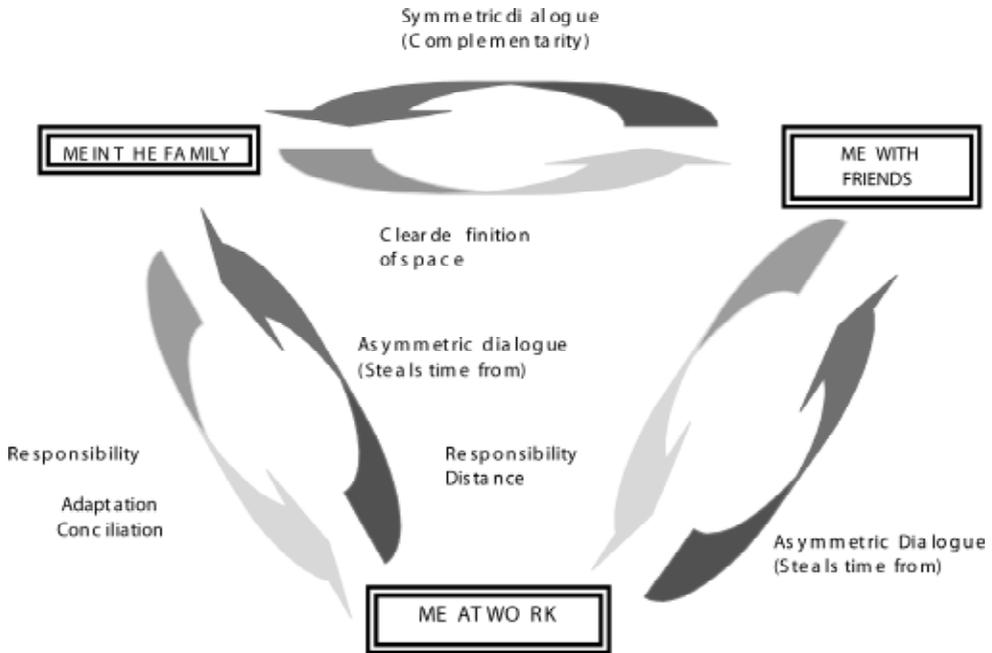
Kate: Yes, maybe, I think one would be the complement of the other, maybe because Kate in the Family is somewhat more mature than Kate with Friends. Therefore, they have a kind of older and younger sister relationship, being Kate in the Family the older one and Kate with Friends the younger, so they complete each other. It's a friendship; they know how to be in their own world.

NOTE: Constructive elaboration of COMPLEMENTARITY <> NON COMPLEMENTARITY, with growth of the field COMPLEMENTARITY (one is more mature than the other, it is a sisterhood relationship) and again the presence of the promoter sign DEFINITION OF SPACE.

Departing from this analysis that has allowed the visualization of the internal dynamics of Kate's self-system, we intend to carefully observe the interactions between each discursive position and all the interlocutors she has identified. One curious note lays on the fact that all the identified interlocutors belong to the family sphere. The

professional dimension, which Kate considers to be in first place, is a very individualistic dimension, characterized by the absence of significant relationships between co-workers or bosses (Kate is a free-lance worker).

Figure 1. Dynamics between participant’s I-positions



Our self-management ability of the processes implicated in the self-system is largely influenced by significant others that co-inhabit with our internal positions on the different areas of our lives. To understand their influence at the present, allow us to imagine how, in the future, they will challenge or support different promoter signs defined by Kate.

Considering the dynamics in which interaction dominance is obvious, this dominance is invariably translated on the excessive space hold by the position *Me at Work* - a characteristic that is clearly reflected in the dialogues with the *Mother* and *Husband's* voices. This power relation is supported, once more, by institutional RESPONSIBILITY associated with the position *Me at Work*. In the dialogue between the position *Me at Work* and the *Husband's* voice, for example, Kate says: "If there is a conflict or something, he ends up understanding because the sense of responsibility speaks louder and ends up excusing Kate at Work." (Opposition CONFLICT <> NON-CONFLICT, resulting in assessment of NOT A GREAT DEAL OF CONFLICT, is subsumed under the promoter sign RESPONSIBILITY).

This asymmetry is not activated when *Brother's* voice is considered, apparently because it is a voice that, toward the position *Me at Work*, has a protective and coopera-

tion attitude that doesn't raise many divergences. It is a clearly symmetric interaction, where dialogicality is not limited by power relations:

Interviewer: When they exchange ideas, do they usually agree?

Kate: Yes, when they exchange they agree or...If Brother has a different opinion, the Me at work listens, but the Brother doesn't do it in the sense of pointing out or wanting her to accept, because he knows that's her world. It's more to advise her, not so much to impose himself or draw her attention. For that very reason, I don't think there are great conflicts; it is more the support when it's necessary.

NOTE: Focus on the field NON CONFRONTATIONS is maintained, but with constructive elaboration of this field through a new opposition AGREEMENT <> NON AGREEMENT, in which a new constructive elaboration and synthesis of the promoter sign SUPPORT occurs.

Finally, the dialogue between the position *Me at Work* and the *Father's* voice, two relevant voices in this self-system, assumes interesting and curious nuances. As Hermans (1996) states

When (...) [a] person, however, enters into contact with a different, evenly influential other, this may result in a repositioning (...)." (p.45)

In this dialogue, there is, from both sides, an interest in listening to the other and even both knowing that the *Me at Work* always has the last word, this interaction has an asymmetrical pattern, but lays in an autonomous ability to make a decision.

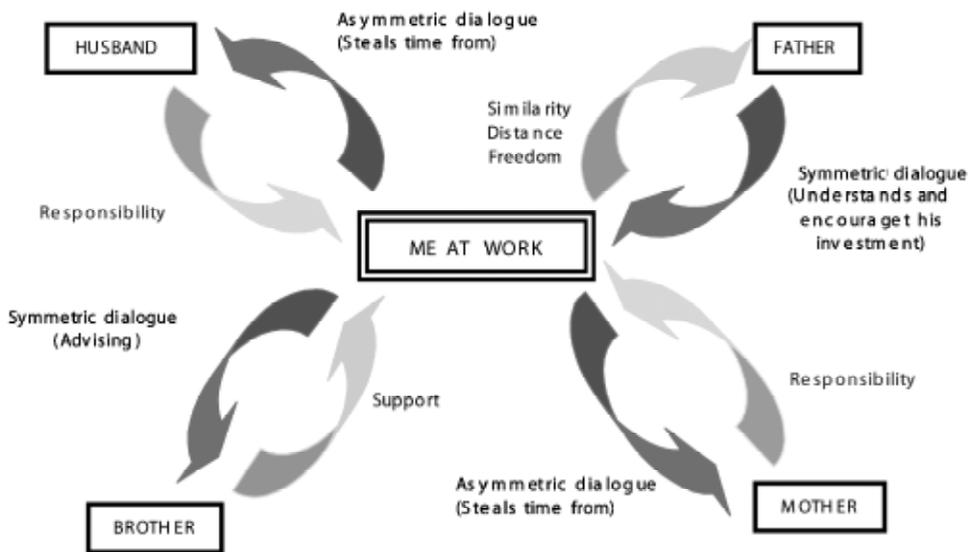
Symmetric dialogical exchange, in which the simultaneity of meaning dualities is clearly assumed (Josephs, Valsiner, & Surgan, 1999), is well shown in the excerpt:

Kate: There is a lot of dialogue, because the Father is interested in knowing how the Me at Work is. But, there aren't many confrontations, because Father is interested but there is also some distance, the Father gives freedom to Me at Work, in other words, doesn't invade her space.

NOTE: Move from opposition DIALOGUE <> NON DIALOGUE, mediated by the promoter sign INTEREST, to opposition CONFRONTATIONS <> NON CONFRONTATIONS, resulting in assessment of THERE AREN'T GREAT CONFRONTATIONS, then subsumed under promoter signs DISTANCE and FREEDOM.

The position *Me at Work* holds a kind of knowledge that gives it an expert status allowing it to make informed decisions. In this sense, the *Father's* voice accepts and admires, in some way, this investment and autonomy, probably because it seems to see in it some kind of reflection of him. It is curious to note that RESPECT, usually used to give power to the *Father's* voice, emerges inversely in this specific relation, allowing a symmetric dialogue. This fact can be perceived throughout their dialogue: "Because Me at Work ends up having more freedom, because work is more related to her, whereas in the family Father has more influence."

Figure 2. Dynamics between the I-position *Me at Work* and interlocutors



In the system composed by the interlocutors and the position *Me in the Family*, we can identify the repeated presence of the promoter sign RESPECT. Interactions characterized by the mediation of this promoter sign are asymmetrical – with *Father* and *Brother's* voices. *Father's* voice is clearly dominant in relation to the position *Me in the Family*, a dominance sustained by the argument of hierarchical superiority and by the notion of RESPECT inherent to this argument. However, this dominance is not accepted without some unconformity, which can be seen as a pathway to change and to a possible redefinition of this monologization tendency toward a greater dialogicality.

Interviewer: How would the dialogue between Me in the Family and the Father be?

Kate: Also without great confrontations, but Me in the Family respects the Father.

NOTE: Dialogical relation CONFRONTATIONS <> NON-CONFRONTATIONS, resulting in assessment of WITHOUT GREAT CONFRONTATIONS, then subsumed under the promoter sign RESPECT.

Interviewer: Wouldn't this create some distress in the Me in the Family?

Kate: No, I don't think so, not distress, unconformity maybe, but not distress, because that's how the Me in the Family sees the Father, the figure, that's why it wouldn't raise distress.

NOTE: Move from (suggested) opposition DISTRESS <> NON-DISTRESS, to the acceptance of DISTRESS <> NON-DISTRESS which is turned into opposition CONFORMITY <> NON-CONFORMITY, supported by the promoter sign RESPECT.

In the dyad *Me in the Family – Brother*, this asymmetrical interaction pattern is reproduced and is also justified by the promoter sign RESPECT. Yet, in this example the reported meaning “unconformity” is not activated, because there are already effective approaches toward a more symmetric interaction or at least a more alternating asymmetry. The difference in the asymmetry quality of these two dyads leads Kate to compare them:

Kate: It is more, maybe, the father’s role, in other words, the respect for being the eldest brother, but that listens more, let intervene more, there’s a higher exchange of ideas. It is a protective relationship, from Brother to Me in the Family.

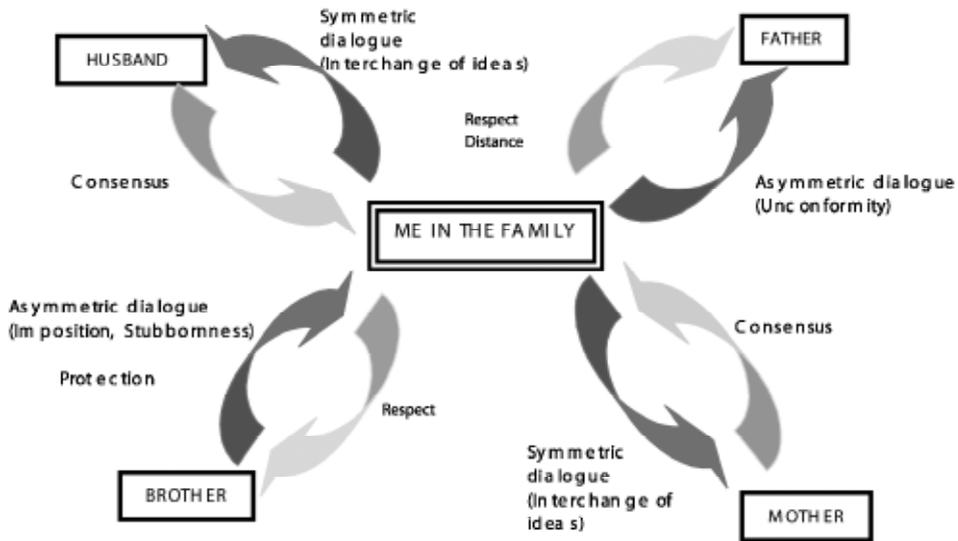
NOTE: Dialogical relation DIALOGUE <> NON-DIALOGUE, mediated by the promoter sign RESPECT, with growth of DIALOGUE. Move to another opposition PROTECTION <> NON-PROTECTION.

Kate: When there is an exchange of ideas, (...) maybe the Brother also always imposes his idea, what he defends, but he listens (...) it is not an obligation that the Brother is always right, but usually it is like that. Well, not always, but maybe it is more like that, because he is a little bit more stubborn, maybe. But he knows how to listen.

NOTE: Return to dialogical relation DIALOGUE <> NON-DIALOGUE, this time with growth of the field NON-DIALOGUE (imposition / stubbornness).

Interestingly, the two symmetric dialogues of this system are also mediated by a common promoter sign – the ability to reach a CONSENSUS. Dialogues between the position *Me in the Family* and the interlocutors *Mother* and *Husband* are felt by Kate as characterized by the presence of different opinions and “permeable to exchange of ideas.” This allows a dynamic and open process of co-meaning-making which final result is not defined at the beginning (unexpected) and is co-elaborated and negotiated in a compromise solution between the two elements. Kate’s words about the dialogues between the position *Me in the Family* and *Husband* “(...) when there is an exchange of ideas and dialogue, it is not necessarily one that is always right. I think the final result... it is more similar to the one with the Mother... on one hand, they end up reaching a result or idea that could be not the original one of any of them, it is the dialogue” and between this position and the *Mother* “They’re more like that, they exchange ideas and reach one that could be from any of them, they reach an agreement,” are good examples of the qualities of the activated promoter sign. Although these two dyads are equally characterized by symmetry of dialogue, Kate further elaborates its difference and states that the dialogical pattern can be a little different, once “basically it is with the Husband that Me in the Family establishes more dialogue and can further exchange ideas, in the sense of having a dialogue, of deeply exploring the conversation.” In this way, the ability of symmetry that characterize this dyad, can be used by Kate as a model to redefine other dyads in which these valued aspects are not present.

Dialogues between the position *Me with Friends* and interlocutors bring novelty because of the inclusion of four different promoter signs. However, this system, as the previous ones, is characterized by the parallel presence of symmetric and asymmetric relations.

Figure 3. Dynamics between the I-position *Me in the Family* and interlocutors

Dialogue between the position *Me with Friends* and the *Father* has always been limited and filled with distance. At the present, the *Father's* voice is not relevant to the position *Me with Friends* and there's no elicitation of this position in the sense of establishing a dialogue. However, in the past, the *Father's* voice was challenging:

Kate: At that time yes, there was more of a confrontation. Today they probably don't even talk. Perhaps the Father talks with Me in the Family about my friends. NOTE: Reporting to the past, specifically during adolescence, emerges another dialogical relation, again CONFRONTATION<>NON-CONFRONTATION and then moves in the present to the same opposition DIALOGUE<>NON-DIALOGUE, with assessment of DON'T EVEN TALK.

Based on the dialogues previously analysed between the *Father's* interlocutor and the other discursive positions, we risk to propose that this dyad, not being able to maintain an asymmetrical relation without distress (which was tried during adolescence), elaborated the promoter sign DISTANCE to break a dialogue that would always be conflictual. Nevertheless, the mediation of this promoter sign prevents this dyad from developing an integrative promoter sign that could re-establish the dialogue.

From all of the interlocutors that Kate has defined, the *Husband's* voice was the most recently integrated in Kate's self-system. That's the reason why the process of definition of this position in this self-system, is probably still occurring. In this sense, in the dialogue with the position *Me with Friends*, the *Husband's* voice seems to feel threatened by the eventual interlocutors activated by this position. This apprehension is materialized in the meaning of time - the time that is invested in that position and is "stolen" from him. In Kate's words "It is always the issue of the time spent with one position or the time that a position steals from another one." In a great number

of confrontations, the *Husband's* voice dominates the position *Me with Friends*, once "(...) many times Kate with friends chooses staying with the husband." When Kate tries to "conciliate" these two elements of her personal world, the dominance of *Husband's* voice is still present and confrontation can only be solved by the presence of the promoter sign COMPENSATION: "If by chance, the Husband doesn't agree, with her choosing her friends, there's no big quarrel, Me with Friends tries to compensate him in other ways afterwards... through dialogue or some little gift."

The symmetric dialogues of the system focused on the position *Me with Friends*—with the voices of the *Mother* and the *Brother*—have different specificities, though sharing the parallelism between the notion of temporality and conflicts resolution.

The position *Me with Friends* has always been able to dialogue with the *Mother's* voice, yet "exchange of ideas" between them hasn't always been the same and not as peaceful:

Kate: "This exchange of ideas was higher, a lot really, during adolescence, definitely. I think then was when Me with Friends was more... was more noticeable compared with these, Father and Mother, because then there was a bigger confrontation. Me with Friends wanted to be with her friends, wanted more freedom."

NOTE: Dialogical relation DIALOGUE <> NON-DIALOGUE at present is compared with the same relation in the past, resulting in the qualifier HIGHER reporting to adolescence. Yet about the past, there's a move to the opposition CONFRONTATION <> NON-CONFRONTATION, resulting in an assessment of THERE WAS A BIGGER CONFRONTATION, because the promoter sign FREEDOM didn't solve the duality.

At present, the promoter sign FREEDOM has been redefined in order to be shared by both elements of this dyad. So, the activation of this promoter sign allows the maintaining of a symmetric dialogue, characterized by the absence of conflicts:

Kate: "There's dialogue, there's conversation, there's exchange of ideas, but no conflicts. (They generally agree?) Yes, I think so, because Me with Friends has her position already, has her freedom already, she has already conquered it, she has her own space now and therefore there are no conflicts anymore, because they were more related to those things."

NOTE: At present, there's a move from the dialogical relation CONFLICT <> NON-CONFLICT to the DIALOGUE <> NON-DIALOGUE one, which is supported by the promoter sign FREEDOM.

Finally, in the dialogue between the position *Me with Friends* and the *Brother's* voice, as well as in the previous dialogue, there is a move toward the past. These moments, in which Kate "goes back in time", are important to clearly visualise the mediating role of the development of promoter signs in the management of conflicts and in the search for a great dialogical ability. Kate goes back, once more, to the adolescence period that was characterized by disagreement and confrontation:

Kate: "Maybe during adolescence there was also more confrontation because Me with Friends wanted freedom, was more open-hearted, wanted to grow up faster,

maybe, than she could. And, as her Brother was older, Me with Friends felt that he could use that fact, that he could stand up for her towards their parents. But the Brother was more discreet, he wouldn't seek so much for that freedom and because of that she felt she was penalized."

NOTE: Reporting to the past, the presence of a dialogical relation CONFRONTATION <> NON-CONFRONTATION, results in an assessment of MORE CONFRONTATION than in the present, because of the presence of the meaning FREEDOM.

The activation of the meaning FREEDOM during adolescence seems to have clarified Kate's reasoning about the fact that the position *Me with Friends* and the *Brother's* voice had very different characteristics and priorities, inevitably resulting in conflict. Nevertheless, the development process of both elements has allowed the dissipation and nullification of discrepancies leading to the edification of the promoter sign that supports the actual symmetry of this dialogue – SIMILARITY.

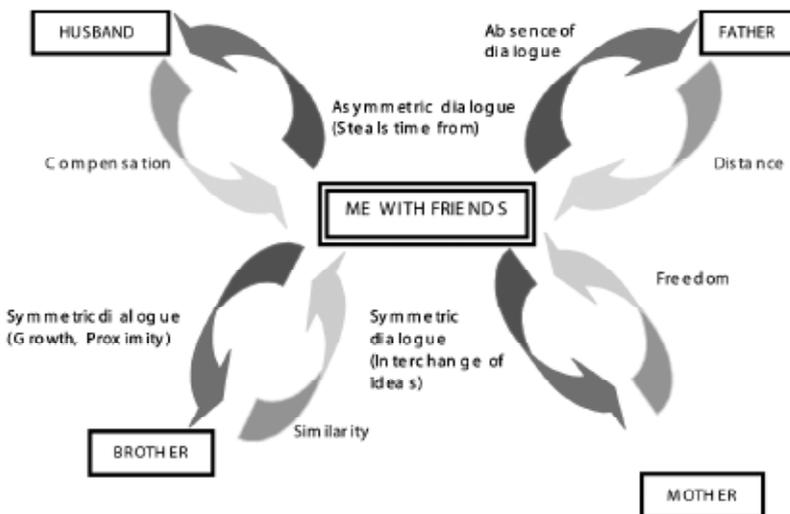
Kate: "Now there is dialogue between them, but there isn't confrontation because there's no reason for that. Even because Me with Friends behaves very much like the Brother, they're quite alike.

Interviewer: And do they now have similar ideas?

Kate: Yes, I think so, they have both grown up. Furthermore, perhaps some positions ended up coming nearer, even my attitudes in the various contexts have been more differentiated than now.

NOTE: At present, there's a move from the dialogical relation CONFRONTATION <> NON-CONFRONTATION to the DIALOGUE <> NON-DIALOGUE one, because the promoter sign SIMILARITY was developed.

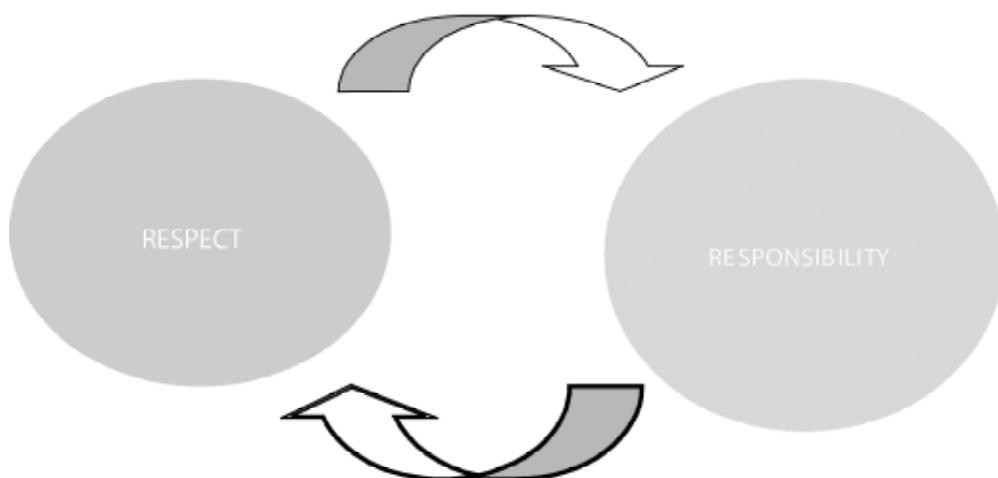
Figure 4. Dynamics between the I-position *Me with Friends* and interlocutors



After a full analysis of participant's discourse, it is noted that the management of dialogical relations between discursive positions and between these and the interlocutors is done through the development and subsequent activation of promoter signs. These macro-meanings can be divided in two types: promoter signs that support asymmetrical relations and promoter signs that support symmetric relations.

Due to their recurrent use and to their dogmatic strength, which results from their hierarchical position in the meaning system, we highlight two main macro-meanings or promoter signs – RESPECT (in dynamics between some discursive positions and interlocutors) and RESPONSIBILITY (in dynamics between some discursive positions and interlocutors, as well as in the exclusive dynamics between discursive positions). The activation of these two promoter signs prevents the total expression of the dialogical ability of this self-system, once they support the establishment of an asymmetrical dominance relation whenever the emergence of discrepancies between I-positions and between them and the interlocutors cannot be solved by negotiation. In this sense, the immediate activation of one of these promoter signs prevents the emergence of a distress state, justifying the power maintenance of one voice – this activation is, for that reason, essential for the survival of this self-system. However, the same activation prevents this self-system itself to find a more symmetrical resolution of disagreements, which could amplify the dialogical limits of the system. These processes seem to reflect what Hermans (2003) referred to as conservative forces, which seem to prevent the dispersion of the system that could be caused by an excessive and probably disintegrative dialogicality. In other words, we are before a self-regulation process.

Figure 5. Dynamics between two “dogmatic” promoter signs



At present, this system has reached some level of balance between its two organizing meanings; however, we assume that one of the main characteristics of dialogical self is its openness to innovation. This ability is widely promoted in the sense that each multiple internal position and significant other represented in the multivocal self has a remarkable constructive potential, due to the possibility of having disagreements, con-

flicts and confrontations (Hermans, 1996). Despite these forces being more inclined to conservatism (Hermans, 2003b), self has the inherent ability of self-actualization through many ways, which shows an innovation impulse that, in each moment, can confront and challenge this precarious equilibrium.

Within the range of possible changes in the structure of I-positions proposed by Hermans (2003b), the introduction of a new position in the system and the “rebellion” of relevant voices that aren’t heard (Hermans, 1996), are enhanced. In this sense, it is interesting to note that even being 8 months pregnant, the participant totally silenced the *Mother’s* and *Child’s* voices in the task. It seems that the absence of these positions may result from an excessive focus on the origin family. Considering the forthcoming birth of Kate’s child, we can risk to hypothesize some different moves:

- Considering that the existing and established positions can, in low resistance conditions, learn from recently introduced positions in order to begin a repositioning process (Hermans, 2003b), how will the system manage the integration of the new *Child’s* voice once it is still absorbed with the unfinished integration process of the recent *Husband’s* one?
- Seeing that two or more positions can support each other or develop some kind of cooperation, in order to create a new sub-system in the self (Hermans, 2003b), would the emergence of the *Child’s* voice immediately induce the integration of the position *Me as a Mother*? And furthermore, will this new position be a powerful strength in the system?
- Considering that one position can move itself from the back to the foreground, becoming more available because of a structural reorganization (Hermans, 2003b), would it be possible that the *Mother’s* voice, may gain a prominent placement thanks to the expertise power (in relation to the child) that is inherent to her?
- Finally, assuming that positions should not be seen as stable centres of knowledge (Hermans, 1996), how would the *Father’s* voice react to the challenges that these changes placed on him?

This external interference and the formulated repercussions, due to the challenges they bring, might be able to lead to distinct processes concerning the system management of its own multiplicity. On one hand, the new position *Me as a Mother* will probably involve a great deal of responsibility, raising the question of how will this be articulated with the position *Me at Work* the current personification of responsibility within the system. The promoter sign RESPONSIBILITY currently manages all the inferior levels of meaning in the system and it is the main organizer of the priority system. Consequently, the emergence of a new discursive position that can personify a new kind of responsibility will challenge the whole structure of the I-positions.

On the other hand, power gaining from *Mother’s* voice, might trigger a focus change in the meaning respect from the voice of the *Father* to that one. By the analysis carried out, we clearly understand that the *Mother’s* voice has always tried to keep symmetric dialogues, characterized by exchange of ideas and co-construction. Consequently, this link of the RESPECT to this new voice can trigger the redefinition of this promoter sign to a less hierarchical and more dialogic pattern.

Regarding these possible movements, the system can simply proceed to the transference of the two base meanings to other positions, leading only to a new rigidity of the structural architecture of the interaction dynamics, resulting in something that Valsiner (2002c) had already stated

“(...) the move from one opposite to another may actually be no change at all. (...) Maybe one extreme is merely a displacement of the other – rather than a truly new form of organization.” (p. 185)

However, when facing a critical threat situation to the system’s stability, a greater flexibility might be triggered, allowing these two meanings to circulate between different I-positions according to each moment’s demands, quitting their present dogmatic and unquestionable power.

We believe that following this last pathway, the system will evolve to an increasing flexibility and probably to a greater ability to cope with change. This process might allow the construction of an integrating meta-meaning, only embryonic present in the system – the ability to decide between different forms of responsibility or respect.

Discussion. Focus in the generalized knowledge emerging from results

As mentioned before, positioning and constant repositioning between different discursive positions is a process that is constantly changing. That’s the reason why its analysis through more or less dynamic, or more or less qualitative methodologies, would never reach fully the richness and complexity of the phenomenon. Still, we think this exercise is an interesting opportunity to observe the emergence of the self’s multivocality and diversity within an auto-referential sphere, establishing the bases for a more informed understanding of its dialogical dynamics and articulation. Through the detailed analysis of the way each participant describes and organizes their different self-positions, the dialogues that occur between them and the significant other, we can understand the general processes of construction and hierarchization of meanings, which are necessary for the coherency of the self and also for its transformations.

Through microgenetic analysis of participant’s narratives, it was possible to demonstrate that the discursive space, made possible in a multivocal and dialogical self, constitutes an excellent basis for the investigation of how the process of human significance takes place through an extremely relational exercise. Self’s dialogical bases offer a promising field to meanings synthesis, frequently challenged and threatened by other distinctive meanings, sometimes incompatible, in a never-ending dynamic play for survival. By proceeding to this analysis of the meaning-making process from the assumption of a multivocal dialogical self, we could observe how distinctive and concurrent meanings may sometimes arise, associated with two or more different I-positions. In Kate’s case, for example, in describing the dialogue between her position *Me in the Family* and the *Father’s* voice, she makes clear that, during adolescence, two meanings

were present – RESPECT and FREEDOM – which, as they are constructed within this dialogical relation, become incompatible. In this case, the high level of conflict caused by the opposition of these two meanings was solved through the construction of another new shared meaning – DISTANCE – that mediated this relation, also guaranteeing the survival of both initial meanings.

In short, the multiplication of I-positions within a dialogical self amplifies the opportunities for oppositions and divergences between individual meanings to emerge, since different I-positions assume their own meanings, which may easily oppose to the meanings constructed from other I-positions. We believe that this dynamic of challenges and negotiations constitutes the vital force of dialogical self in its ongoing effort to be constantly updated.

The development of meanings with enough abstraction ability to regulate self's openness to new future construction possibilities – in other words, promoter signs that organize the dialogical dynamics of self-system - is a central element for adaptation and self-regulation. Indeed, the hierarchical organization of these semiotic instruments, which parallels a similar vertical structure of discursive positions, allows the management of the infinite micro-dialogues that are uninterruptedly developing in this vocal society. The dynamic stability that characterizes the system at every moment is guaranteed by the activation of the macro-meanings, leading both to the dialogical avoidance of conflicts and to the sustenance at a bearable level of the tension between I-positions. As can be observed in this case, the activation of these macro-meanings often allows the possibility to solve the apparently incompatible dialogical divergences between two I-positions. When the demands of the two I-positions become opposed and can't be negotiated (e.g., *Me in the Family* and *Me at Work* compete for primacy in terms of investment, represented by the meaning TIME), the activation of a meta-meaning, recognised and valued within the meaning system, can solve the divergence in support of the I-position that personifies it (e.g., *Me at Work* personifies the meta-meaning RESPONSIBILITY, so it dominates over the demands of the position *Me in the Family*). Since it seems to occupy a high hierarchical place within the system structure of meanings, this macro-meaning “justifies” the highest authority attributed to the position that vindicate it and avoids the level of tension to increase, which could lead to a distress causing conflict.

In fact, from the analysis of Kate's discourse, two fundamental semiotic regulatory fields emerge that result from the internalization and abstractive generalization of two affectively important values - Responsibility and Respect. These two promoter signs are associated with two I-positions that are also especially valued - *Me at Work* and *Me in the Family* – and establish the boundaries of meaning that constitute the negotiation bases of the multiple dualities that are continuously occurring at the microgenetic level. Any concrete decision of the everyday life is negotiated within the realm of the boundaries limited by these two crucial and hyper-generalized values.

The promoter function of these semiotic tools becomes evident in Kate's discourse when we clearly observe the process of abstractive generalization of the sign Responsibility, through which she defines the range of possible concrete actions in the future – the encounters-to-be – obeying to the boundaries of the field of meanings previously established. Kate is aware that whenever she faces circumstances in which other de-

mands confront her affective and moral need of being responsible at work, her actions will always privilege the value Responsibility.

Thus, the affective generalization that is conveyed by the role of the promoter sign while informant of the actions to assume in the future, offers the self a continuity character, despite the unceasing polyphony taking place microgenetically.

Thus, it seems that the self-system is able, as part of its self-regulation process, of continuously making and developing new macro-meanings (or promoter signs) that constitute central mediators of the dialogical processes occurring between I-positions. These macro meanings or promoter signs help electing future actions concerning encounters-to-be and make the self more skilled to respond readily to environmental demands.

Hence, the positions that in a specific moment in time, personify the more abstract meanings – promoter signs – prevail over the others, which accept this dominance because of their powerful arguments. However, this power is dynamic and the vertical re-organization of position's structure is always possible: as other semiotic tools are being synthesized; when new positions are integrated in the self-system or when new alliances are formed between existing positions. In this sense, another interesting aspect of the results is the clarification of how promoter signs can work, now as transformation and changing catalysers, then as stability bastions, in an effort of dynamic equilibrium between innovation and conservative strengths that guaranty self's regulation. Thus, in a given moment, as it seems to happen presently in Kate's case, the kind of constructed promoter signs may be sufficient to achieve, as meta-level organizers, some level of balance in the management of dialogical processes among I-positions (e.g., the promoter signs RESPECT and RESPONSIBILITY are now able to satisfactorily manage the tensions of the system, while regulating the existent asymmetrical dialogues). In this case, promoter signs, as mediators of tension, are responsible for the maintaining of (temporary) stability. The eventual occurrence of any little change in the internal or external setting of the self system can, nevertheless, trigger a doubt or questioning "wave" that will undermine and challenge the present dynamic stability. In this case, the promoter signs can be catalysers of novelty, since there can be a transference of these promoter signs to other I-positions that request them or a synthesis of new, more inclusive and conciliating meta-meanings, that will be able to respond to the more recent management demands of the system (e.g., in our case, this will be the synthesis of the new meta-meaning – the ability of DECISION/CHOICE between different kinds of RESPONSIBILITY or distinct forms of RESPECT).

We believe this case links specificities that cannot be generalized to other subjects; however, we also believe that the processual model of multiplicity management through the process of meaning-making is suitable to any individual case. In our view, this is precisely an example of how the detailed and intensive study of a single case, in its human and contextually localized specificity, can lead to the identification of generic and universal processes, which can be generalized to other individual cases (Molenaar & Valsiner, 2005).

This case allowed us to empirically observe, not only the meaning-making process regarding the need to give sense to experience, but also and beyond that, it exempli-

fies the management efforts of the installed dialogicality whenever multiple signification processes compete for the supremacy within the multivocal self. In this sense, the case analysis suggest that the understanding of the self's active role in managing its multivocality through the dialogical articulation of the various I-positions, might be accomplished by the microgenetic analysis of the meaning making and the emergent promoter signs. In fact, promoter signs perform a fundamental role in the self-regulation process of dialogical self, since some of their functions seem to be the constant organization of the I-positions into hierarchies, the management of tensions and power relations within the self system and the regulation of the system dialogicality levels, in order to avoid system dispersion.

In sum, the identification of these self-regulatory processes through the detailed scrutiny of an individual single case constitutes the first step in the process of knowledge construction used in idiographic science. Thus, the theoretical model designed from these first empirical data of a concrete case should now be further and repeatedly tested on the basis of other selected individual cases, in order to continue its refining process and increase its generalizing ability.

Special thanks. The authors would like to thank Prof. Jaan Valsiner, in first place, for having invited us to a fruitfully and pleasant visit to Clark University and secondly, for the precious contribution to the reflection about this case, as well as for the challenge to write this paper.

The authors would also like to thank the Portuguese Foundation for Science and Technology (FCT), which guarantees the founding for this research with the grants SFRH / BD / 13104 / 2003 and SFRH / BD / 13496 / 2003.

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IDIOPHIC STUDY OF HEALTH BEHAVIOR CHANGE FROM INSULIN DEPENDENCE TO INDEPENDENCE

*Stefanie C. F. Toise**

Abstract. This idiographic study examines the psychological and behavioral changes which allowed the participant, Satya, to go from insulin dependence to insulin independence in treatment of her type 2 diabetes mellitus. By following the trajectory of this process of change over time with specific relevance to her diagnosis, insulin use and eventual insulin independence, Satya's psychological intravariability and personal dynamics for change were expressed in measurable physiological outcomes. Satya's use of yoga, its traditions and discipline, served as an important catalyst for lifestyle changes and their continued maintenance over time. Using the theoretical lenses of self-perception, self-compassion, worldview hypothesis and the McMaster Model of Family Functioning, Satya's successful health and lifestyle changes were examined in the context of intraindividual characteristics affecting herself and others. In the final interview, the partnership model was employed to allow the participant and researcher to discuss the findings of the study from their own perspectives.

Introduction

The psychological dynamics of health behavior changes make the difference between success and failure in accomplishing those changes. But the process of meaningful change is a difficult one.

“With surprising frequency, and to the considerable dismay of health care professionals, patients both subtly and overtly refuse to cooperate with medical treatment. Despite con-

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siderable empirical and theoretical attention, and an abundance of interventions designed to combat it, noncompliance continues.” (Fogarty, 1997, p. 1277)

Even people committed to health behavior change struggle and often fail to accomplish meaningful change. Many “fail to comply with medical recommendations for reasons unique to the individual,” (Fogarty, 1997) resulting in failure. But do patients who comply with medical recommendations have greater success? Does an individual have the capacity to successfully change her health behaviors? In the case of a 40-year-old woman, Satya, born in southern India, now living in the United States, success is a reality. Diagnosed with type 2 diabetes mellitus, Satya took herself on a journey from insulin dependence to insulin independence through a self-initiated physical-behavioral change, in her case, yoga. Through a series of interviews conducted in a six-month period, Satya’s description of her motivation, physical and emotional self-perception and self-compassion are related to specific indices with regard to the management of her diabetes.

Understanding the particulars of how and what she changed over a period of time provides a greater understanding of health behavioral change in an individual. Idiographic study traces the intraindividual variability of change. As part of the process of an idiographic study, Satya’s interviews describe the paradigm shifts and life transitions that resulted in her success at change. Difficult to accomplish and sustain, successful change is worth examining in this way to understand what changes she made, how these changes were implemented and how these changes have been sustained. By looking at the dynamics of Satya’s successful change in managing her diabetes, an understanding of the elements needed to create success is revealed in indices used to monitor her condition. Reciprocally, the intravariability of Satya’s lifestyle changes as they affect measurable physiological outcomes provides insight into the psychological context and dynamic necessary for successful change.

As change is inherently stressful (Holmes & Rahe, 1967), the instinct for most people is to adhere to their status quo. So strong is the instinct that the old adage, “if it ain’t broke, don’t fix it” might be redrafted to read “even if it is broke, don’t fix it.” Further, “as stressors accumulate individuals’ ability to cope or readjust can be overtaxed, depleting their physical or psychological resources, in turn increasing the probability that illness, injury, or disease or that psychological distress or disorder will follow.” (Thoits, 1995). Accumulated stress puts individuals at added risk for developing adult-onset (type 2) diabetes (Sapolsky, 1994). In this way Satya’s physiological condition (diabetes) was already linked to her state of mind. Her diagnosis and the stress accompanying managing her illness could only exacerbate her condition. As Satya explains:

I came to a breaking point...I got a urinary [tract] infection. So I went to the doctor and he had to do an examination. He said, there is some sugar in the urine and when I was on the examination table I was not able to get up and when I managed to come to the doorway of the room. He had to support me because he saw that I was going to fall down and then he asked the nurse to come and take a blood sugar [test] and my blood sugar was very high...[The doctor inquired] Why is this? The doctor was very good. He asked, why is your blood sugar high? So I told him,

here is my family history...about my mother and grandfather and all those things. Then he asked me, how is my anxiety. Then he sent me to a psychiatrist. That is how things got under control. I had to take Zoloft for about 2 years or something. It was very helpful and I was not ashamed to admit it.

In 2004, Satya began taking insulin as a part of standard medical treatment for her condition.

Satya's plan of medical treatment was three-fold: medication (insulin), dietary change and exercise and anxiety reduction. Satya's treatment plan seemed to adhere to the status quo in modern Westernized medicine and to endorse the view that her body was separate from her mind. Her condition was a disease to be managed to avoid health deterioration and death, rather than a challenge to integrate a response to her diabetes in daily living. These different aspects of self-perception regarding her condition and treatment parallel Pepper's worldview hypothesis with specific regard to the mechanistic and organismic approaches to the construction of a reality, self-perception and one's relation to the world (Kagee & Dixon, 1999).

The context of change: from mechanistic to organismic

In "Worldview and Health Promoting Behavior: A Causal Model", Kagee and Dixon (1999) found that "a modest relationship exists between worldview and health promoting behaviors (HPB) with organic thinkers more likely than mechanistic thinkers to engage in HPB." Pepper (1942) defined four worldviews that are important to the creation of a "framework within which individuals construct a reality, perceive themselves and relate to the world." (Kagee & Dixon, 1999). Two of Pepper's constructs, mechanistic and organismic, illuminate the intravariability of a paradigm shift within Satya.

Satya's shift from mechanistic to organismic thinking is demonstrated in her experience on the treadmill while exercising at her gym. She saw her body as an extension of the machine. She could view her heart rate and calorie expenditure in the digital monitoring features in the equipment right in front of her. At first Satya thought, as most modern Indians and Americans do, "only if something is expensive, like expensive exercise machinery with lots of bells and whistles and you are sweating a lot, could you ever be making a difference and getting into shape." Satya felt accomplished when the machine, now an extension of her body, registered a specific mileage or intensity that demonstrated her specific health behavior met a standard of acceptability. Satya explains that while on the treadmill her mind was often elsewhere, planning a shopping list or figuring out the schedule to pick up her children. She reported feeling distant from her bodily sensations as her conscious mind was occupied with matters outside the exercise experience. In discussion, Satya confirmed that she experienced her body at this time as: "[an] extremely mechanical thing."

Pepper's mechanistic worldview likens the body to a machine with individual parts and with small components that operate together. Individual parts can then be sepa-

rated and related to independently. For example, open-heart surgery, where a sub-part of the heart is removed and replaced, fits the metaphor of the heart being likened to a pumping machine. This perception of the body led to a “linear relationship between cause and effect.” (Kagee & Dixon, 1999, p. 164). Satya describes this view in her initial phase before beginning yoga practice.

Satya’s shift toward organismic thinking began with attending a yoga class at her gym. At first she believed yoga was merely another way of being physically active. However, Satya speaks of having more faith in cardio-vascular exercise than yoga because of the “numbers flashing changes on all the machines.” With yoga, she would use only a mat and the class was inexpensive. At first she went because it fit with her schedule and would provide warm-up for more strenuous cardio-vascular exercise. As her practice of yoga continued, she began to feel positive effects: increased flexibility, better ability swimming, mental relaxation and more refreshing sleep. A chance conversation with an instructor led Satya to consider her body as an integrated whole, providing a context for the benefits she experienced from yoga. As her yoga practice continued, she began to adopt the organismic view, experiencing yoga as “a flushing out of toxins... new blood and new oxygen. Extra sugar in the blood is a toxin. It is like wringing out a towel, [flushing out] all the toxins.”

Satya’s shift from a mechanistic to organismic world view changed core concepts about exercise and yoga and impacted the other elements of treatment for her condition. Her conception of exercise was merely a means of burning calories and losing weight, “but the chemical reaction that has to take place does not take place. Diabetes is a chemical imbalance, so walking on the treadmill is not correcting the imbalance.” In contrast, Satya saw yoga as a way of rejuvenating the body, refreshing the organs and treating the body, not as integrated parts, but as a unified whole. As a consequence, Satya’s participation in yoga increased to “five to six times per week, “and as a result her blood sugar indices decreased. In this way, Satya’s blood sugar indices reflected her change from mechanistic thinking to organismic thinking in terms of Pepper’s world view hypothesis. In December of 2005, Satya no longer required insulin.

Satya’s shift in the relative terms of Pepper’s world view hypothesis is only one aspect of her self-perception that demonstrates the intraindividual variability of her lifestyle changes. At the time she began to embrace a more organismic world view through yoga, Satya identifies mental and behavioral changes that affected or resulted in a “greater sense of well-being and health”: increased concentration and discipline, release from worry, realistic assessment of life situations, a sense of equanimity, compassion for self and others and heightened awareness in the present moment expressed in meditation (dhyana) and contemplation (dharana). All of these states of feeling are described concisely in the text of an ancient yoga sutra (Patanjali’s Sutra). Satya was responding as a whole organism to her diabetes; body, mind, spirit. The yoga sutras, which express an organismic world view in professing a traditional medicine, can be seen as in line with Satya’s experience of health and healing. But the role of self-perception and self-compassion in the implementation of yoga as the catalyst for change cannot be underestimated.

Sources of Change: Self-Perception and Self-Compassion

As Satya's experience with yoga deepened, her self-perception moved from more external to more internal responsiveness. And as she learned to participate in the relaxation at the end of yoga class, she felt her stress level decline and she felt, in turn, this affected her blood pressure and consequently her blood sugar, causing similar decline over time. Her self-perception now involved a personal emotional response (personal cue response) to stimuli, rather than environmental stimuli eliciting an emotional response (situational cue response).

Personal and situational cue responsiveness is a self-perception theory based in the Jamesian lineage, which asserts that emotional behavior is the cause of an emotional feeling rather than the result. Experimentally it has been shown by James Laird (1974) that a change in emotional expression (i.e., from frowning to smiling) corresponds to a change in emotions in persons who receive their cues internally—a phenomenon termed personal cue response (Duclos & Laird, 2001; Laird, 1974). Personal cues not only feel an emotion when the corresponding expression is induced, they are also more likely to respond to personal facial expressions, posture changes, eye gaze, experience reverse placebo effects (Duncan & Laird, 1977), and are more likely to experience premenstrual syndrome (Schnall, Abrahamson & Laird, 2002). Before dominant cueing style was explicitly defined as a category, research demonstrated that changing posture and expression together elicited stronger emotions than changing emotional expressions alone (Flack, Laird & Carvallaro, 1999). Conversely, situational cues respond more strongly to a social or environmental cue (i.e., eating in response to social pressure rather than a personal hunger cue) (Laird & Bresler, 1990). Experiments have repeatedly given evidence over time that individual differences exist in response to bodily cues. (Bresler & Laird, 1983; Laird & Crosby, 1974). Before experiencing the effects of yoga practice, Satya speaks to responding to external stimuli (the flashing numbers on exercise machines) with emotional feelings of accomplishment and personal satisfaction as a situational cue would. For Satya, participation in yoga redirects the active source of what she is doing, along with her sense of accomplishment and personal satisfaction, inward as a personal cue would. But, she explains, her participation in yoga involves more than accomplishment or a sense of personal satisfaction:

There is no proof as proof to show it. In some things you don't have the figures to show [it]...the stress level comes down. My diabetes was connected to stress. Once you control the mental tensions—the yoga is doing it. The music which is in the class [and] the class is very calm... [There is] no distraction. [Daily cares] do not enter my mind. What I'm doing for one hour I'm doing with a lot of sincerity... the whole mind gets calm, there is no extra or unnecessary activity going on in the brain.

But is personal cue responsiveness more likely to result in peace of mind? Or did Satya bring a capacity for peace of mind to her self-perception? Examining components of Satya's self-compassion permits important insight into the intravariability of her self-perception in the process of change over time.

“Self-compassion”, as defined by Neff, Rude and Kirkpatrick (2007), “entails being kind toward oneself in instances of pain or failure; perceiving one’s experiences as part of the larger human experience; and holding painful thoughts and feelings in balanced awareness.” Because pain and a sense of failure, as well as fear and/or anxiety, regularly accompany the diagnosis of a disease like diabetes, it is valuable to look at one’s capacity to express self-compassion in the face of such distress. Satya’s responses to the self-compassion scale (SCS) created by Neff (2003) describe several component categories which comprise her self-compassion: self-kindness, self-judgment (reverse scored in the SCS), common humanity, isolation (reverse scored), mindfulness and over-identification (reverse scored).

Because Neff (2003)’s SCS was originally used to interpret intervariable data, some researchers have challenged the validity of these categories, both in their origin and their semantically derived biases. However, the concept of self-compassion during illness as expressed in the SCS is important in understanding the intravariability of the individual’s emotional landscape. For researchers trained to use the scores as a comparison between external groups (intervariability), such comparisons would be as flawed as comparing apples to oranges. But to look internally at an individual’s intravariability, each of these categories is a convenient tool to examine the relationship between one segment of a single orange to another segment of that same orange.

In this way, the component parts of Satya’s self-compassion are indexed, making intravariability comparison of those components possible. By using the mean scores for each component sub-category, despite inherent limitations, a comparison of Satya’s mean scores provides insight into the relationships between those parts and the intravariability of those parts expressed with respect to lifestyle changes and their documented outcomes.

Table 1. SCS mean Scores for Component Categories of Self-Compassion

Self-Kindness = 3
Self-Judgment Items = 3.2
Common Humanity Items = 4.5
Isolation Items = 3.5
Mindfulness Items = 4.25
Over-Identification Items = 3.25
Total Self-Compassion Score = 21.7 (sum of the means--out of 30 points)
Total mean = 3.58 (out of 5 points)

(*Note:* to compute the total self-compassion score, the negative subscale items—self-judgment, isolation and over-identification—are reverse scored).

Both common humanity (4.5) and mindfulness (4.25) are above Satya's mean (3.58). Isolation (3.5) falls slightly below her mean. Over-identification (3.25), self-judgment (3.2) and self-kindness (3) are also below her personal mean.

According to the categories and scoring of this test, Satya sees herself as expressing what Neff and colleagues describe as an "understanding of the human condition and equanimity." (Neff, Kirkpatrick & Rude, 2007). Satya's sense of isolation falls closest to her own mean. Being intensely focused or fixated on, disapproving or judgmental of, but also being understanding and patient towards oneself, fall below Satya's mean (from closest to farthest from the mean respectively).

Neff and colleague's research on self-compassion supports the contention that

"self-compassion does more than ameliorate psychopathology—it also predicts positive psychological strengths.... Approaching painful feelings with self-compassion is linked to a happier, more optimistic mindset, and appears to facilitate the ability to grow, explore, and wisely understand oneself and others." (Neff, Kirkpatrick & Rude, 2007, p. 914)

Satya's scores indicate that she is possessed of an inherent capacity for self-compassion, with its expression emphasizing personal initiative while drawing on the strength (or relative weakness) of the examples others provide.

"Although self-compassion is new on the scene of Western psychology, it is actually a central tenet of Buddhist thought, one of the world's oldest wisdom traditions." (Neff, Kirkpatrick & Rude, 2007, p. 915)

The linking of self-compassion to the Buddhist tradition places it in the larger context of Buddhism's natal origins, Hinduism and Indian philosophy. Neff and colleagues continue,

"Another Buddhist construct having an impact in the West is mindfulness—a state of non-judgmental awareness that involves the clear seeing and acceptance of mental and emotional phenomena as they arise in the present moment." (Neff, Kirkpatrick & Rude, 2007, p. 915)

Satya's sense of peace of mind, her relaxed state of mental awareness and capacity for change would seem to bear this out.

Further interpretation of Satya's SCS scores indicates intravariability dynamics within the components of self-compassion that offer important perspectives on Satya's psychological and physiological changes in response to her practice of yoga. As shown above, self-kindness (the ability to be understanding and patient towards aspects of one's personality) was .58 less than Satya's total mean. But to Satya, self-kindness is a small element of her overall total self-compassion, not entirely sympathetic to the internal self-discipline she requires for meaningful change. For Satya, who developed a strong sense of internal motivation and adopted by practice both the physical and psychological discipline of yoga, self-kindness was demonstrated through self-discipline.

Her self-judgment slightly outweighs her score of self-kindness, but is not as strong a component in her total self-compassion. This also reflects her emphasis on internal motivation and self-discipline to manage her disease with self-compassion. Self-judgment exemplified a way to evaluate and monitor how close she was to her goals as well as providing a necessary source of motivation for change. Satya explains, “If all these other people can get to the yoga class with their responsibilities, why can I not get here? What is my excuse?” Satya demonstrates that a strong sense of discipline was representative of self-compassion as reflected by the scores and her own compassionate understanding of her desire for lasting, positive change.

Satya’s score for over-identification represents an ability not to obsess and fixate globally based on an individual feeling or situation (Neff, Kirkpatrick & Rude, 2007). Satya’s score in the category of over-identification was slightly lower than the mean; thus over-identification did not dominate efforts. This was consistent with Satya’s holistic view about her body’s primacy over its illness: “if there was a ‘man-made’ problem there had to be a ‘man-made’ solution”, allowing her to identify a difficulty and maintain confidence in a solution or resolution. Satya’s isolation score (noticing inadequacies but not feeling separated from the rest of the world) was closest to her total mean: only .08 difference, reflecting her ability to stay engaged and connected to the world as a regular component of self-compassion. Mindfulness, when one is aware of a strong emotion (like pain) and takes a balanced view of a situation, was a strong component of Satya’s self-compassion. Satya’s mindfulness score was .67 over her total mean. This seems to correlate Satya’s frequently expressed idea that her awareness of her personal situation, such as the seriousness of her illness, placed her disease in a perspective that allowed her to view it with equanimity regarding her options. With a score of .92 over her total mean, Satya’s common humanity score was very strong and represented a key component of her self-compassion. Seeing herself, including failures, as part of the human condition allowed Satya to see herself as a part of a larger construct, so that her struggle to control her diabetes became framed as an unavoidable aspect of being human. Satya did not express feelings of being singled out by misfortune, but rather expressed an overall acceptance. Her scores would seem to illuminate and her own actions define this acceptance, the consequences of which focused her efforts on solutions for coping with her disease. Defining, describing and fully understanding the components of Satya’s self-compassion provide a powerful set of personal tools that inform the invariability and dynamics of Satya’s health behavior changes. As Theodore Isaac Rubin writes, “compassion for my self is the most powerful healer of them all.” (Devi, 2007).

Yoga as a catalyst for personal and environmental change

The antiquity of the traditional medicine of Yoga dates back over 4000 years ago in India. Hatha yoga, the branch of yoga most widely practiced in the Western industrialized world, approaches self-realization and healing through the physical body and its energetic (pranic/etheric) template, with a focus on breath control (pranayama)

and specific postures (asanas), including both active and relaxation poses. (Feuerstein, 2003). Hatha yoga also incorporates mental concentration (dharana) and meditation (dhyana), mantras or chants (Innes, Bourguignon & Taylor, 2005). Although Satya, having grown up in India, was no stranger to yoga, she had not been a practitioner prior to her diagnosis with diabetes.

“The ancient Indian physicians had a sound knowledge of diabetes. They described the clinical features and complications of diabetes vividly [and] emphasized the importance of diet and exercise in the management of diabetes...The science of yoga is an ancient one...the usefulness of yoga in the treatment of certain diseases and preservation of health in normal individuals...has now become the subject of modern scientific evaluation.” (Sahay, 2007, p. 121)

In Satya’s case, like that of novices training in the yogic tradition, the results of behavioral change result not in “cure-oriented healing” of the disease, but in a spiritual sense of transcending the disease to arrive at a place where physical and spiritual values are one. Satya’s spiritual values are manifest in her peace of mind and general demeanor of equanimity. Such peace of mind has in her own words connected to “my diabetes... Once I control the stress...my mind gets calm.” The reduction of Satya’s stress leads to a reduction of blood sugar, which is a measurable result. Therefore Satya’s practice of yoga and her adherence to its discipline have, over time, eliminated her dependence on insulin. “Apart from its spiritual philosophy, yoga has been utilized as a therapeutic tool to achieve positive health and cure disease.” (Sahay, 2007, p. 121). Satya echoes this: “Western medicine keeps me alive but yoga keeps me healthy.”

Satya’s ideas of effective treatment options underwent change as her concept of diabetes changed from a mechanistic to organismic view, from an external perception of managed diabetes treatment to an internal perception of integrated and sustained diabetes care. Satya’s concept of illness stemmed from her belief that illness was a karmic “accounting” for past wrongs committed against others or oneself. Her concept of cure involved personal responsibility for effecting change, her belief that change could be effected and the discipline to implement and sustain this change. Satya’s practice of yoga became both a means of treating her diabetes and a tool in changing her life to diminish the inherent health risks and consequences of living with diabetes. The reach of these changes, their implementation and their positive measurable outcomes extend beyond Satya’s sense of self and into her ideas of family.

Satya believes her personal success at change has resulted in corresponding changes in family dynamics and the health of her children. Satya’s perception of how her own actions reached beyond her personal success at change to effect positive change in her family are described using the six dimensions of the McMaster Model of Family Functioning (MMFF). These dimensions are: *problem solving*, which refers to “a family’s ability to resolve problems to a level that maintains effective family functioning” within both the instrumental and affective domains; *communication*, which is defined as “the exchange of information with a family” both instrumental and affective; *affective responsiveness*, which is “the ability to respond to...stimulus... with the appropriate quality and quantity of feelings;” *affective involvement*, being “the extent to which the

family shows interest in and values the particular activities and interests of individual family members;" *roles*, defined as "the repetitive patterns of behavior by which family members fulfill family functions;" and *behavior control*, which is the "pattern a family adapts for handling behavior" with respect to danger, psychobiological needs and socializing behavior outside the family (Miller *et al.*, 1994). Satya described a new awareness of her family, not only as a functioning social unit but as an entity within the construct of her own mindset. She was able to use her knowledge of diabetes as a hereditary problem in her family history and adapt her behavior as a parent by passing along information about diabetes and affecting positive behavioral patterns in her children. In this way, she integrated the passage of knowledge and behavior to cope with the disease with the hereditary possibility of the disease itself to fulfill a family obligation to her children.

This transfer of knowledge of her diabetes and the knowledge of prevention and care created a new role for Satya. She found herself engaged in each dimension of the McMaster Model in order to see her own personal change reflected in her family dynamic. Beginning with the simple initiation of routine as a tool for personal discipline for her children, Satya recounts the reflection of her own discipline: "I have always believed that waking up early is a plus point. It makes you do more during the day. At the end of the day, you feel that your day did not go wasted. Even though my older daughter is a little overweight, I tell her to wake up, go jogging, shower and eat breakfast. By 9:30, she is ready for the day. Then we have the whole day to plan...I can have them in my view [i.e., morally supervise her children] and show them which direction to go. This routine makes the mind more alert." Satya goes on to explain that this routine is quite different from the established status quo that existed in her home before her diagnosis. Her combination of successful problem solving regarding her children's health as well as her own, her communication of family medical history, her affective response and involvement in the lives of her children, her newly expanded role as "teacher-parent" regarding health and her ability to effectively control behavior act as reinforcement of her own successful change. Her own lifestyle changes (beyond Satya's immediate person) have been perpetuated by the positive role-modeling she provides to her children. Simply put, the changes in Satya resulted in changes in the family (her network of support), which in turn reinforce the changes in Satya, helping to sustain them.

Part of Satya's new family model is a projection of her concept of personal history, which stems from Satya's own observation of the behavior of her ancestors. Her maternal grandfather lived with diabetes into his late 90s, but her maternal grandmother and her father, both of whom had diabetes, chose different sets of behaviors which brought about periods of illness and finally death. Satya illustrates these two disparate practices: "My grandmother died at 48; she was very overweight. I have no doubt she had diabetes and heart complications. My grandfather did not have influence on her to get her take better care and she had no time with fifteen or sixteen people in the house... so she died very young;" in contrast, "my grandfather controlled his own behavior and was very disciplined...He took little medication but nothing like what I was taking. He knew his body well. He used extreme moderation. One time I remember he ate his dinner and he had enjoyed it very much, so my grandmother brought him more. But

he told her, no, I don't want more food. I said it was very good, but I did not ask for a second [helping]. See, he was good to his body...He controlled his portions." Satya's veneration of her maternal grandfather and his behaviors—moderation, discretion, self-compassionate treatment of his body over decades—stands in stark contrast to other members of her family who suffered and died with diabetes. As Satya increased her yoga, a practice rooted in Indian culture, a sense of her own personal, idiographic tradition emerged. Satya has come to see yoga as part of her Indian heritage, part of her own plan of treatment of her diabetes and an important part of emulating positive behaviors like those of her ancestors who proved successful in managing diabetes. Satya sees all of this as a living tradition within herself which she intends to maintain by passing the legacy of her behavior on to her own family.

Conclusion: the partnership model in idiographic science

Satya's personal journey from insulin dependence to insulin independence over the course of nine years has been life-altering in both her medical outcomes and in her capacity for psychological intravariability as evidenced by her paradigm shift in world view from mechanistic to organismic, by her use of cue response to initiate change, by her self-compassion in refining and sustaining that change and by her use of yogic practices to structure, implement and effect that change. The results have changed her mind as much as her body. Where once a gulf existed between her perception of her body and the conscious will of her mind's intention, each has become the reciprocal and reflexive complement to the other. Satya's new state of mental-physical well-being might be described as equipoise between perceived elements of her mental and physical selves. Remarkably, it is this very sense of "equipoise" that is used by B. K. S. Iyengar to define yoga (1966). Satya's use of yoga, as an exercise, as a mental-spiritual discipline and as an extension of her concept of her own personal heritage, have had profound consequences on her health, reducing stress and sugar levels in measurable outcomes over time and affecting change in her family model to reinforce her personal lifestyle changes.

Satya's capacity for change, as well as her awareness of her own progress at successful change over time, is expressed in her willingness to impart that experience in the context of behavioral medical research and demonstrate her attitude of partnership in creating greater understanding of her own changes and their implications for herself and others. The partnership model, as applied to behavioral medical research is "based on two key attitudes: complementarity and reciprocity." (Bibace *et al.*, 2005). "Complementarity in partnership is the recognition that each partner has a special expertise from which the other may benefit" (Bibace, 1999). In this complementary relationship, both researcher and subject (henceforth, participant) have the opportunity to benefit from each other. The expert researcher brings years of analytical experience to the authentic nature of the participant's life experience. Each shares knowledge that is inaccessible directly to the other but yields greater understanding of the whole. The researcher and the participant have solid theoretical ground for mutuality in co-creating a more complete understanding of the discovery at hand. In the series of interviews

conducted for this study, the researcher's expertise in idiographic science and complementary medicine and the participant's documented accomplishments in health management of diabetes through personal experiences reciprocally informed and helped to define a coherent truth about health behavior changes.

Satya had embarked on her journey to explore how to live with her diabetes several years before being contacted by the researcher in the winter of 2007. In fact, Satya's health behavior change was an accomplished fact: she had been off insulin since December 16, 2005 (a day so important to her she knew the exact date). Approached in an informal setting and with a strong mutual interest in health psychology, Satya volunteered information about her condition, that she was diagnosed diabetic but, through a process of lifestyle change using yoga, she had been able to eliminate her need for insulin safely with the full knowledge and endorsement of her physician. Satya then agreed to participate in a series of semi-structured interviews as a basis for idiographic research about her success at achieving meaningful change. While the researcher guided the interviews toward exploring aspects of her lifestyle change, Satya decided what to talk about and for how long. She offered medical records of diabetic testing and medication as documentary evidence of the effect of change on her sugar levels, her types of medication and about her day-to-day difficulty managing her diabetes. While the role of the researcher was obvious, Satya related to the researcher as a professional but retained ultimate control of the depth and direction of the information shared. This partnership between researcher and participant yielded documented medical evidence of the power of a person to create and sustain meaningful change by employing a physical-behavioral activity, yoga, which over time positively affected medical outcomes and altered established behaviors within and constructs of, the family.

Satya's interest in this correlative relationship between yoga and her blood sugar outcomes was realized in her own curiosity to use a period in which she could not practice yoga (it conflicted with her summer schedule, as her children were home from school). Satya stopped attending her regular yoga class and, not yet comfortable with home practice, she did not practice yoga from late May to August, 2007. She did, however, continue her regular exercise routine of continuous swimming for a half-mile daily and low-sugar, low-carbohydrate diet. At a scheduled check-up with her physician, her glycated albumin level was elevated, indicating a reversal of the trend seen with yoga as an integral part of her diabetes care (See Appendix A). This confirmed for Satya a vital relationship between yoga and well-being and suggested to the researcher a causal relationship regarding the therapeutic value of yoga and the management of diabetes.

Yoga as a therapeutic physical-behavioral intervention for diabetes "may improve indices of risk in adults with type 2 diabetes, including glucose tolerance and insulin sensitivity, lipid profiles, anthropometric characteristics and blood pressure." (Innes & Vincent, 2006). Innes and Vincent's "Influence of Yoga-Based Programs on Risk Profiles in Adults with Type 2 Diabetes Mellitus," a systematic review of 25 yoga-based programs, also found evidence that yoga may reduce oxidative damage, improve coagulation profiles and pulmonary functions and decrease sympathetic activation. Yoga may also be useful in reducing medication requirements and could help prevent and manage cardiovascular complications (Innes & Vincent, 2006). Additionally, yoga has been shown to significantly reduce scores in both state and trait anxiety (Gupta *et al.*,

2006). This would support the idea that yoga can be employed as a therapeutic tool to achieve positive health and cure disease (Sahay, 2007). But the use of yoga to control diabetes, as in Satya's case, as well as other chronic medical conditions points out important questions as yet unresolved by the existing body of research.

Interest has been shown toward studying the psychosocial effects of yoga on demonstrable medical outcomes like hypertension, diabetes, asthma, obesity and other common ailments (Sahay, 2007). However, this interest, especially in the West, is rather new and therefore "rigorous, systematic studies regarding the effects of yoga on physiological, anthropometric, and psychological profiles in adults... are few." (Innes, & Vincent, 2006).

Over 85 percent of published clinical trials have been conducted in India. However, interpretation of existing studies is limited by sample size, selection bias, lack of controls, failure to adjust for baseline anthropometric characteristics, lifestyle factors and other potential confounders including everything from study design to methodological limitations. Bias in publication may also contribute to selective reporting of positive results (Innes & Vincent, 2006). If yoga helped Satya affect measurable change in her medical outcomes through initiation, adoption and maintenance of new health behaviors and yogic practices have been previously proven to "help in controlling diabetes by the following mechanisms: exercise effect, changes in biochemical and hormonal profile elimination of stress, and instilling a sense of discipline," (Sahay, 2007) then "rigorous studies are needed to clarify the effects of specific yoga therapies...and related clinical outcomes, especially in United States and other Western populations that remain under-represented in existing research." (Innes & Vincent, 2006). The promise of Satya's health behavior and subsequent lifestyle change, in concert with both the measurable medical outcomes and the corresponding evidence of her intraindividual variability with respect to her shift in self-perception, would indicate an important role for yoga in living with diabetes. The effects of yoga on Satya's medical outcomes, however, do not reflect the total impact on her self-perception or her perception of her environment, namely her family. As further studies are conducted on the effects of yoga, its full scope in the management of psychosocial risk with regard to diabetes and other chronic medical conditions seems promising.

Author Note. This study was supported in part by Award Number F31AT003757 from the National Center for Complementary & Alternative Medicine. The content is solely the responsibility of the author and does not necessarily represent the official views of the National Center for Complementary & Alternative Medicine or the National Institutes of Health.

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Biosketch

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Appendix A

Sugar indices and treatments

Important Note: The standard index for blood sugar is Glyco-Hemoglobin [GLYCO HGB (A1C)]. Due to a pre-existing genetic disorder, Thalassemia, the quantity of hemoglobin in Satya's blood results in consistently unreliable readings for blood sugar. Referred to an endocrinologist, the proper index for monitoring Satya's blood sugar is her Glycated Albumin [GLYCAT ALBUMIN] reading.

Date	Glyco HGB (A1C)	Prescription(s)	Glycated Albumin	Exercise (times per week)	Yoga (times per week)
Dec 1998-2000		Zoloft		5x6	0
Jul 7, 2004		Metformin XR 2000 mg, Actos 30 mg qd, Glucotrol XL 15 mg qd		5x6	0
Jul 14, 2004	7	Started Insulin 20 units bid, stopped Glucotrol, & Actos		5x6	2x3
Aug 11, 2004		Insulin increased to 30 units bid		5x6	2x3
Aug 26, 2004		Insulin increased to 42 units B, 34 units D			2x3
Oct 6, 2004	7.6	Insulin	.9	5x6	2x3
Jan 5, 2005		No changes made in insulin		5x6	2x3
Apr 6, 2005		Insulin increased: 44 B, 34 D,		5x6	2x3
May 16, 2005		Insulin increased: 46 B, 38 D		5x6	2x3
Sep16, 2005	6.5	Insulin decreased: 40 B, 38 D	.5	5x6	5x6
Dec 16, 2005	8.0	Stopped insulin, started Byetta, 5 mcg bid,		5x6	5x6
Feb 17, 2006		Increased Byetta: to 10mcg bid, metformin XR 2000mg; Amaryl 2 mg qd		5x6	5x6
Apr 7, 2006		No changes in treatment		5x6	5x6
Jul 14 2006	7.8	No changes in treatment	1.3	5x6	5x6

Oct 27 2006	8.0	No changes in treatment		5x6	5x6
Feb 21 2007	7.7	No changes in treatment	1.2	5x6	5x6
May 23 2007		No changes in treatment	.9	5x6	Vacation* (no yoga)
Aug 29 2007		Decreased Byetta to 5mcg bid (reduced by half)**; metformin and amaryl	1.3	5x6	5x6

- * During this period Satya did no yoga because of her children's school vacation. However, she continued her regular program of exercise (swimming ½ mile, 5x6 times a week) and followed her standard low-sugar, low-carbohydrate diet.
- ** Though Satya's glycated albumin index rose by 0.4 due to the suspension of her yoga, her physician expressed confidence in the capacity of her pancreas to produce insulin by reducing her Byetta (to stimulate insulin production) by half, from 20 mcg qd to 10mcg qd.

Medical Abbreviations:

bid= twice a day

B= breakfast

D= dinner

qd= every day

Appendix B

Self-compassion scale

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				Almost never
1	2	3	4	5

- _____ 1. I'm disapproving and judgmental about my own flaws and inadequacies.
- _____ 2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
- _____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
- _____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
- _____ 5. I try to be loving towards myself when I'm feeling emotional pain.
- _____ 6. When I fail at something important to me I become consumed by feelings of inadequacy.
- _____ 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.
- _____ 8. When times are really difficult, I tend to be tough on myself.
- _____ 9. When something upsets me I try to keep my emotions in balance.
- _____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
- _____ 11. I'm intolerant and impatient towards those aspects of my personality I don't like.
- _____ 12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
- _____ 13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
- _____ 14. When something painful happens I try to take a balanced view of the situation.
- _____ 15. I try to see my failings as part of the human condition.
- _____ 16. When I see aspects of myself that I don't like, I get down on myself.
- _____ 17. When I fail at something important to me I try to keep things in perspective.

- _____ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- _____ 19. I'm kind to myself when I'm experiencing suffering.
- _____ 20. When something upsets me I get carried away with my feelings.
- _____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- _____ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- _____ 23. I'm tolerant of my own flaws and inadequacies.
- _____ 24. When something painful happens I tend to blow the incident out of proportion.
- _____ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- _____ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

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Appendix C

Sample Interview Questions

1. Please tell me about your family background and your family beliefs about yoga, if any.
2. Please tell me about your past and current medical condition.
3. Please tell me about your pre-diabetic diagnosis lifestyle.
4. Please tell me about your post-diabetic diagnosis lifestyle.
5. Please tell me about your decision to change your lifestyle and what lifestyle changes you have been making. Please tell what that process has been like for you.
6. Please describe your current lifestyle.
7. What do you believe the role of yoga has been in your life? What is the role of yoga currently?
8. What do you believe are the benefits of practicing yoga to you? What are the drawbacks?
9. Have you noticed any measurable benefits from practicing yoga? Have you noticed any measurable costs? What are they?

COMMENTARIES

THE DIALOGICAL SELF AS (ATMOSPHERICALLY) MEDIATED WITHIN A SOCIO-CULTURAL SPHERE: A SOCIO-CULTURAL APPROACH TO THE FORMATION OF THE SELF

*Amrei C. Joerchel**

Abstract. A socio-cultural approach to mind has the ability to bring new perspectives to the understanding of the formation of a self-concept. In particular the aim is to contribute to this understanding by outlining a mediational form which differs slightly from the more commonly discussed symbolic mediation: the socio-cultural atmospheric mediation. Humans are always enveloped by a specific socio-cultural atmosphere that automatically shapes and forms the particular positions available for each individual. These mediational processes differ from symbolic mediation as the symbols and signs themselves underlie the structural processes which advance in a subtle manner, unnoticeable in most cases. Three examples of slightly different perspectives on the self-formation will be discussed in relation to the socio-cultural atmospheric mediation.

Introduction

The main concern here is the question of how to make sense of the person-in-the-world. I would like to take a closer look at the socio-cultural approach to mind and how this approach can be helpful in making sense of who we are as human beings today. The three leading chapters of section II will be discussed as examples and further elaborated upon in relation to the atmospheric structure—a mediational process within the human sphere allowing for humans to form as we find them today: dialogical and acting through symbolic mediation.

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As Wertsch (1991) has stated,

“[t]he basic goal to a socio-cultural approach to mind is to create an account of human mental processes that recognizes the essential relationship between these processes and their cultural, historical, and institutional setting.” (Wertsch, 1991, p. 6)

Self-reflection theories built upon such a socio-cultural assumption can roughly be categorized into four types of different theories: rupture theories, mirror theories, conflict theories and internalization theories (Gillespie, 2007, p. 678). Agreeing with the overall scope of the last category—internalization theories—I will discuss some relevant characteristics of the self-formation process often address within these types of theories. Especially the dialogicality and symbolic mediation are of great interest as such processes are often taken at face value. I question whether a socio-cultural perspective should be satisfied with the intra- and inter-individual processes without taking the general situatedness also of these processes—dialogicality and symbolic mediation—into consideration. Each sign and each symbol itself is embedded in a greater societal structure which, in turn, structures the meanings attached to each sign and symbol as well as the action around this meaning. My interest here is how the actual structure of the whole symbolic atmosphere allows for a human being to form. The meaning of an applied single sign is always already enmeshed within a greater social-culture sphere in which general drifts structure the understanding of what is happening within a specific situation. Should we ask how the individual applies a sign without describing the general drift in which this sign has emerged in the first place? Some may argue that within the discipline of Psychology, generally associated with the functions of the mind, it is sufficient to explicate intra- and inter-individual processes that form the human being. Yet, especially from a socio-cultural perspective such an approach needs rethinking. The human, as well as the human mind or any human action can only be found within a human sphere that ultimately has already inspired the human collective and hence each singular person within the collective as well as any actions or interaction.

Sloterdijk (2004) has argued for a perspective of the human being that does not exclude any of his or her constituents, such as signs and objects as well as biological microbes and abstract symbol systems (Sloterdijk, 2004, p. 332), all of which have at one time or another emerged within the human sphere. The main characteristic of such a human sphere is that it is self-generating. Neither the humans nor the mediational means developed within the sphere could have come into being without the intricate interplay of all counterparts together.

On the following pages I will first argue for the necessity of viewing the human as developing within the socio-cultural atmosphere which, in turn, functions as mediational means within the human sphere. I will further discuss relevant issues relating to the person developing within a socio-cultural atmosphere as presented within the respective chapters brought forth by Barcinski, (this volume); Peschek, Kraus & Diriwächter, (this volume); and Rosa, Duarte & Gonçalves, (this volume). The focus within this analysis will be the presentation, application and underlying assumptions of the self-concept and what kind of general societal structures can be found within their description of the self-formation.

The socio-cultural sphere

Within the socio-cultural realm of psychology the general aim has been to describe “psychological phenomenon that happen because of the socio-cultural aspects of human life in varied social context.” (Valsiner & Rosa, 2007, p. 1). Such an approach presupposes that

“[o]ur human world [...] is a culturally *constituted* world of the relationship of the human species with their constantly re-constructed environments.” (Valsiner & Rosa, 2007, p. 1, added emphasis)

The word ‘constituted’ will be of importance throughout this text as it characterizes the interplay of humans and their surrounding, their media (hard and soft) as well as their fellow inhabitants. All counterparts, which have often been mistaken for isolated ‘atomic parts’, have their share in constructing and being constructed by the other. Each one can only emerge because of the interaction of all parts together. It is neither the human who does all the action and thus the construction, nor is it the cultural fabrications that in isolation format the human species. Rather, both represent a non-reducible and fundamental element within the greater interplay of a socio-cultural sphere. Thus, the term ‘constituted’ should be taken seriously and not quickly be read over to then linger on the more familiar term ‘(re-)constructed’.

All of what has come along with the human simultaneously co-constitutes the human being as well as the sphere in which he or she acts and lives. A main characteristic of the socio-cultural sphere is that all that emerges with the human in Sloterdijk’s sense is not to be conceived of as purely being constructed by the human (and only by the human). A more appropriate way of defining the existence of the human being with its entire escort of things would be with the dynamic constitution proposed by Slunecko (2008).

The dynamic constitution

The theory of the dynamic constitution (Slunecko, 2008; Slunecko & Hengl, 2006) asserts that human beings and all of their media have simultaneously come to being together, the human along with all of his or her media, along with all of his or her material tools, with all of his or her social interactions, as well as symbolic mediations and abstract sign systems. It would be a never ending task to list all the co-emergences of humans and certainly is not the scope of this chapter. The point to be made clear is that a human cannot be conceived of as either developing in isolation or of actively constructing (and only actively constructing without any other subtle co-constituting forces) his or her environment. The human and his or her environment simultaneously constitute each other, both are constructed while at the same time constructing in a dynamic and bi-directional mode. Having often been referred to as ‘atomic parts’ (Markova, 1990, p. 14), this necessarily co-constituting interplay of counterparts, or even their mutual emergence as linked elements of a whole, has only too often been neglected.

The simultaneous emergence of each so-called ‘atomic part’ is a process which advances unknowingly, or at least, un-reflected and especially not determined or directed by the human being as Slunecko asserts:

“the symbolic and social constitution of human collectives constantly renew and fabricate themselves in a novel manner, without ever becoming aware of the dynamics of the collective, let alone such dynamics ever being determinable.” (Slunecko, 2008, p. 25)¹

Here it is important to note that by describing the human and his or her escort of belongings as ‘emerging’ I do not mean to assert that each single individual emerges simultaneously to each sign and symbol he or she learns to use. Quite the contrary, the individual human being is always born into a phenomenal amount of already existing signs and sign-systems as well as material objects etc. Rather, what is meant is that the atmosphere in which humans have developed and develop, in general has generated both the humans who apply specific signs and symbols as well as the signs and the symbols applied. The whole sphere can be compared to a self-generating greenhouse (Sloterdijk, 1998²) in which all that comes to being does so within a specific climate. In a sense the climate then allows for certain developments while others will fail. And yet the climate itself is being regulated by what grows within the greenhouse.

Therefore the single sign itself does not emerge *ad novo* with each newborn baby. Rather, the human is born into a collective that already operates according to a set of specific rules, various symbolic systems and diverse social structures which all have emerged parallel and only because of their particular interplay with each other. The emerging process refers to the dynamic and novel situation that occurs each and every time a person is in social action and interaction and thereby dynamically constitutes the atmosphere in which the action is taking place. When a child begins to use the appropriate sign, a novel meaning is created at various levels, altering on the one hand the individual’s structure and on the other hand that of the collective. A somewhat simple example can be made by looking at the terminology used for family members. When a new family member is born and when that family member learns to name a sibling, changes occur on various levels. While the whole family system has experienced a rupture (the newborn is now able to name a family member), the new family member has also experienced a change (he or she is now able to call for at least one family member).

Slunecko and Hengl (2007) have already asked the question; what possesses what, does the person ‘have’ the word or does the word ‘have’ the person? Along with Slu-

1 Own translation: „[...] die symbolische und gesellschaftliche Konstitution menschlicher Kollektive [sich] ständig neu herstellen, ohne daß diese Dynamic vom Kollektiv je bewußtseinsmäßig einzuholen ist [...] geschweige denn steuerbar wäre.“ (Slunecko, 2008, p. 25).

2 “Somit sind die Menschen von Grund auf und ausschließlich die Geschöpfe ihres Interieurs und die Produkte ihrer Arbeiten an der Imanenzform, die ihnen unabtrennbar zugehört. Sie gedeihen nur im Treibhaus ihrer autogenen Atmosphäre.“ (Sloterdijk, 1998, p. 46).

necko and Hengl (2007) I reiterate that “[l]anguage and culture – that is, the symbolic arrangements and practices transmitted onto us by the preceding generation always acquires us first.” (Slunecko & Hengl, 2007, p. 46).

The sibling as well as the name for that family member are already there and present a format for the child’s cognition before he or she actually applies and uses the name. The child is inspired by previously established family dynamics as the climate in a greenhouse will inspire certain plants to grow before these plants then generate a slight climate change, allowing for a new atmosphere to emerge.

Thus, to return to Valsiner’s and Rosa’s assumption of the world being “culturally constituted ... of the relationship of the human species with their constantly re-constructed environments” (Valsiner & Rosa, 2007, p. 1), it is important to understand this process as a two-way loop, as a simultaneous emergence which cannot be steered in one direction rather than another. It is not the human who in isolation re-constructs his or her environment, but rather, the human and all of his or her co-emergences (symbolic sign systems, hard and soft media, material belongings, social others, etc.) are always “started” and inspired (Slunecko & Hengl, 2007, p. 46) by the socio-cultural atmosphere, which, in turn, is constantly re-constructed by all of the belonging counterparts—all dynamically constituting each other (Slunecko, 2008).

The person within three chapters

How can this self-generating atmosphere, referred to as socio-cultural atmosphere above, be helpful in understanding self-formation processes of the human being as we find him or her today? Looking at concrete examples I will discuss whether or not the respective authors have taken the challenge of a socio-cultural perspective of the person seriously. In other words, is the socio-cultural situatedness addressed and how? Which elements and possibly underlying assumptions should be elaborated on in order to establish a rich and fruitful account of humans and the socio-cultural atmosphere generating one another?

Prayer practices within transitional life periods

Darren Peshek, Michelle Kraus and Rainer Diriwächter (this volume) have brought forth an account of how prayer and surrounding religious practices serve as coping mechanisms in terms of symbolic mediation during transitional periods. All of the incidences described in the text (entering college, leaving college and getting married) mean rupture within a live span of an individual and thus also a possible threat to the stability of the self. What underlying assumptions do Peshek and colleagues (this volume) apply to their understanding of the person within their study and, more importantly, does their view of the “self” coincide with the approach of an individual human being emerging *with* all of his or her cultural mediational forms and tools in a dynamic constitution? In other words, do the authors recognize on the one hand that

the individual is embedded within a cultural setting, structured by religious beliefs and on the other hand, that these very religious beliefs themselves are further enmeshed in a more general socio-cultural atmosphere?

As the use of prayer is described as a coping mechanism in terms of mediational means, individual human beings are depicted as making sense of their environment and relating to this novel sense of the world through symbolic mediation (Peshek, Kraus & Diriwächter, this volume). The authors go on to state that “[t]he internal dialogue that develops with understanding of language allows for complex relations between the self and the environment.” (p. 140).

Referring to Valsiner (2000), this complex relation between the self and his or her environment is described as bi-directional. The bi-directionality asserts that the environment as well as the individual human being change during interaction. This change may be ever so subtle and go unnoticed for many. An example of praying to do well on the next examination can clarify this point. Here the environmental atmosphere perceived while entering the examination room may have changed. A change which may have occurred without the individual realizing what has actually changed or that anything at all has changed. And yet, something has changed as the security and comfort gained through the prayer practice has led to a less tormenting threat of the possibility of failing the exam. Thus, the authors conclude that

“[t]hrough bi-directional interaction with the environment and social others within the environment, a religious individual uses prayer to direct and reflect upon personal actions as governed by dialogical construction and semiotic mediation.” (Peshek, Kraus & Diriwächter, p. 141)

What can we learn about the individual human being from this study on prayer practices? From the perspective of Peshek and colleagues (this volume) the individual is conceived of as a) being in bi-directional interaction with the environment which is b) governed by dialogical construction as well as symbolic mediation. In other words, the self is seen as in constant dialogical and symbolic mediational interaction with the environment. Both elements (the self and the environment) therefore constitute one another. Further, the individual is not in direct contact with the environment, rather, actions and meaning construction occur via mediational means.

How does this perspective relate to the dynamic constitution described above? One important parallel is that the person in contact with his or her environment is seen as simultaneously changing during interaction as the environment changes. Both standpoints assume a specific dynamic taking place within as well as between each element, which ultimately constitute the whole. The crucial difference though is that the dynamic constitution as proposed by Slunecko (2008) stresses more the co-emergence rather than the singular action or reaction of human being and environment. Rather than speaking of a “relationship” between two possibly seeming separated parts, the *dynamic constitution* of an autopoietic system is underlined. I.e. the counterparts do not simply relate to one another, they constitute each other within an intricate interplay which carefully unfolds because of the socio-cultural atmosphere enveloping both parts.

A further difference can be found in that Peshek and colleagues (this volume) rely on a more tangible idea of symbolic mediation based on Vygotsky's ideas while Sloterdijk speaks of a more subtle mediational process ('inspiring') which at large cannot directly be captured. Slunecko and Hengl (2007) have proposed the "vital linguistic coating" effect humans encounter as their boundaries of being are directly linked to the boundaries of language (Slunecko & Hengl, 2007, p. 41), which may serve as another more tangible example of mediational means. A less substantial mediational process can be characterized as e.g. the general feeling of belonging and of being together, of municipality; a feeling, which is paramount for the psyche or spirit³. Especially through the inspirational image of deities, stories and the arts, Sloterdijk (1998, p. 60) argues, have collectives been enabled to emerge and enable the sphere which they inhabit to emerge and flourish⁴. The history of religion and mythology is probably as old as human kind, it is rather paramount to at least mention the fact that religious rituals have emerged side by side with humans and thus from a very early stage on have co-determined human conduct. From such a semiospheric perspective the use of prayer as coping mechanism could have been situated into the human sphere.

Peshek and colleagues (this volume) have stipulated a solid account of how the individual human being makes use of symbolic recourses when needed from a microgenetic perspective. While they have not set out to accomplish any other aspiration I nevertheless would have appreciated (considering the socio-cultural perspective they are taking) a paragraph or two on how religion, especially Christian religion in the West and humans have drifted together to what they are today. Special care has been taken to constantly bring the general interplay of individual human beings and social surroundings into focus. The reason for my suggestion lies, on the one hand, in the general socio-cultural atmospheric mediation which still needs to be addressed (as internalization processes themselves are also surrounded and thus inspired by this atmosphere) and, on the other hand, in the fact that Christian religion has had such a profound meaning within the developmental course of human beings until this day. The authors have already hinted at the fact that the socio-cultural atmosphere in general also plays a role in personal conduct (e.g. pointing out that the University is Lutheran and thus praying in the cafeteria is not uncommon, giving short histories of the participants' religious beliefs). Yet, I would have appreciated a more explicit recognition of the fact that the participants' religious practices, the internalized beliefs as well as the internalization mechanisms themselves, are already enmeshed into a larger socio-cultural atmosphere.

The next example I will discuss—women's identity construction within the drug-trafficking environment by Barcinski (this volume)—has put more emphasis on the

3 "[...] das, was einst der Geist hieß, von vorn herein beflügelte Raumgemeinschaften meinte." (Sloterdijk, 1998, p. 19).

4 "In sphärologischer Sicht erscheinen Völker vor allem als Kult-, Erregungs-, Anstrengungs- und Inspirationsgemeinschaft. Als autogene Gefäße leben und überleben sie nur unter ihrer eigenen atmosphärischen, semiosphärischen Glocke. Mittels ihrer Götter, ihrer Geschichten und ihrer Künste führen sie sich selbst den Hauch – und damit die Erregung – zu, die sie benötigen." (Sloterdijk, 1998, p. 60).

socio-cultural atmosphere and its structuring processes by incorporating the general discourse of women in power and women in the drug trafficking business.

The identity construction process of a woman involved in drug trafficking

With the very first sentence Marina Barcinski (this volume) argues for a conception of the individual human being necessarily emerging with the “broader societal frame within which their experiences take place and within which such experiences acquire their meaning.” (Barcinski, this volume, p. 107).

The individual is clearly portrayed as developing within a municipality, within a community of social others as well as their signs and symbolic sign systems. Citing Foucault the author asserts that

“[s]uch a perspective involves both the investigation of the material conditions that structure and constrain social relations and the discursive arrangements that sustain and legitimize these relations.” (Barcinski, this volume, p. 107)

Thus, neither the symbolic mediation and material belongings nor the human stripped of such cultural artifacts can suffice as unit of analysis for a comprehensive understanding of what it means to be a human individual.

Precisely for this reason the goal of the study is to understand the identity construction with an emphasis on how material realities and cultural discourses shape the actual process. From a feminist perspective Barcinski (this volume) further points out that

“gender, as much as class and race, is a social organizer, an element that influences women’s lives beyond their ordinary everyday interactions. Rather than a mere discursive construction, sexual differences and inequalities are based on and sustained by material realities.” (Barcinski, this volume, p. 108)

At this point I would like to add that these symbolic constructions of gender, race and class, always surpass the individual. The individual being is hardly ever free to decide which of these heavily constructed categories he or she will belong to. Further, these categorical representations structure our cognition as much as a vital linguistic coating (Sluneco & Hengl, 2007) would. They are core constituents of what it means to be in the world and depicting the discourse of what it means to be female relates the individual back to the socio-cultural atmosphere.

Yet, a pure focus on the discourse without analyzing the individual’s positions within the general socio-cultural atmosphere would neglect an important complementary level of analysis: that of “the individual’s active participation in the constitution of her subjectivity” (Barcinski, this volume, p. 110). The individual’s participation enables the individual in a particular ways to make “sense of their societal and material contexts in their everyday lives” (Barcinski, this volume, p. 110). Again it becomes apparent that each element which constitutes the individual human being-and-surround-

ing-atmosphere contributes to the formation of the self-concept. Therefore, Barcinski (this volume) concludes that “[i]t is through the dialectic among societal-level, local, and “personal” constituents that identities are produced.” (Barcinski, this volume, p. 110). While Peshek and colleagues (this volume) have focused more on the mediational means of various cultural and social practices; the point emphasized here is the constitutive nature of the individual human being and his or her environment. Or as Sloterdijk (1998, 2004) would word it, the human being only is a human within its sphere, incorporating personal world views as well as social interactions and general societal structures. Thus,

“an adequate account of identity formation has necessarily to include an examination of both structure and meaning. It should consider the ways in which people are the products of material realities and social pre-existent discourse and the producers of new, original local forms of discourses.” (Barcinski, this volume, p. 111)

Two points are worth mentioning here. One is the solid emphasis on discourse and the other is that the discourse itself has already been mediated by the socio-cultural atmosphere which envelopes and inspires the content as well as the structure of the discourse. Of course the discourse and more general the language we use, does format our being in a profound manner (compare with Slunecko & Hengl, 2007). Yet, the general atmosphere and with it the societal structures do not solely reside in discourse. Rather, they blow through the discourse as through any other media and human residing within the human sphere. Barcinski (this volume) is surely not asserting that *only* discourse formats our self concept (as she repeatedly stresses material realities), nevertheless, a more comprehensive account of the human being would have to include for example mediational means to make sense of the world and thus of the self. Note how the two chapters discussed above complement each other. Each study points to a slightly different facet of what it means to be human in our world. On the one hand we have the mediational means and sense making of the environment (prayer practices as coping mechanism) and on the other hand we have the societal and overall reference frame which individuals constantly refer to when forming their identity (drug trafficking and female identity).

The human being so far

We have seen with Peshek and colleagues (this volume) that the person should be conceived of as dynamically and constantly being in a bi-directional interaction with his or her environment. Moreover, this interaction is governed by dialogicality as well as symbolic mediation. What can be added from the drug-trafficking study is the dimension of discourse. Thus we have an individual human being who is in dialogical interaction with his or her environment (including social others) not only via symbolic mediation, but also from a specific standpoint. The symbolic mediation will take a different turn according to various discourses which are used as frame of reference from each individual.

Furthermore, not only language in general, but more importantly the socio-cultural atmosphere will alter in a structural manner the self-concept. How exactly are these perspectives to be related? A fuzzy lacuna remains between the relation of symbolic mediation, discourse, language, dialogicality and the socio-cultural atmosphere. The last chapter I want to discuss as example—*Self and dialogical articulation of multivocality: proposal of an analysis model*, brought forth by Catarina Rosa, Filipa Duarte and Miguel Gonçalves (this volume)—will shed some light on the rather opaque understanding of these interlinked terms.

Self and dialogical articulation of multivocality

Catarina Rosa, Filipa Duarte and Miguel Gonçalves (this volume) make an important contribution to the theory of the dialogical self as proposed by Hermans, Kempen and van Loon in 1992. While agreeing with the main tenants of the theory, their aim is to contribute to the understanding of the “general process through which the self organizes itself” (Rosa, Duarte & Gonçalves, this volume). A brief description of their understanding of what it means to be an individual is sketched.

From Rosa, Duarte and Gonçalves’s perspective the individual human being derives an understanding of the world—and therefore also of him or herself within that world—from the narrative construction of meaning, which constitutes the condition of psychological survival. The use of symbolic tools is emphasized as crucial element for the constant construction and reconstruction process of meaning. In line with the theory of the dialogical self the authors point to the intrinsic plurality as well as the dialogical nature in which these construction processes take place. Therefore, the person is pictured as multiplicity of various I-positions which operate through the constant construction of intra-individual as well as inter-individual relations and “through a permanent actualization and reconstruction of the very structure of those I-positions.” (Rosa, Duarte & Gonçalves, this volume, p. 164).

The actual structure of the position-repertoire is guided and regulated by various signs and meta-meanings.

Referring to Hermans and colleagues (1992) the embodied nature of the self as well as the historical and the cultural forces which govern psychological processes are also mentioned. It is precisely the situatedness of the dialogical self within the socio-cultural sphere I will discuss in further detail. Reviewing the above three examples I find the theory of the dialogical self most compelling. Moreover, the first two example—prayer as coping mechanism and discourse in drug-trafficking—can easily be translated into a dialogical self perspective and more importantly profit from such a translation. As the dialogical self allows for various positions to be in negotiation within the self-concept, the self-concept in e.g. Denise’s case (in Barcinski’s study, this volume) could very nicely be mapped out and further discussed.

One main feature constituting the self, which all of the three chapters have put forth, is dialogicality, the core characteristic of the theory of the dialogical self. Another shared viewpoint is that the individual is more or less actively constructing his or her own meaning system about the world (and hence his or her place within it) through

symbolic mediation. As mentioned above, the theory of the dialogical self (as extended by Rosa, Duarte & Gonçalves, this volume) can account for both features. But why are these two characteristics so important in explicating the self-concept in the first place?

Why dialogicality?

Outlined by Markova in 1990 the term dialogicality generally concerns phenomena which fall under the heading both of dialogue and dialogism (Markova, 1990, pp. 1-4). Markova's definition of dialogue, which only concerns "face to face interaction between two or more persons using a system of signs" (Markova, 1990, p. 1), has commonly been extended with the Bakhtinian conception of dialogue, including but also extending far beyond the face-to-face interaction with a social other (as described by Wertsch, 1990, p. 73). Here the dialogical interaction, which nevertheless is fundamentally social, may be carried out with imaginative friends, social others who are not present at the time, or simply between various perspectives a singular human being may take (compare to Hermans & Kempen, 1993; Hermans, Kempen & van Loon, 1992). Extending the term in this manner dialogicality, as elementary form of human communication can thus be taken as the primary characteristic of cognitive processes.

While dialogue is always intrinsically social, the importance lies in the fact that it is hence always embedded in a particular socio-cultural context. The socio-cultural embeddedness becomes apparent when the definition of dialogism is taken into consideration. 'Dialogism' refers to "an epistemological approach to the study of mind and language as historical and cultural phenomenon." (Markova, 1990, p. 4). The situatedness of dialogical approaches can further be clarified with the principles of dialogical logic, which are best described with a short example that contrasts dialogical logic with the Aristotelian logic. When one and the same utterance is produced twice, once from person A and once from person B, the dialogical perspective would need a contextual setting to accurately understand the meaning of the second utterance. It might mean the interlocutor has not heard correctly, it might mean the partner has not agreed and for a strengthening of the opinion the same utterance is repeated. But it may also serve as an agreement, or else as an expression of astonishment. Thus, from a dialogical perspective the same unit of analysis may mean two (or more) very different things, depending on time and context. From an Aristotelian logic an utterance repeated always means *the same* thing, it is identical. The same utterance is understood as remaining constant over time and situation (Hermans & Kempen, 1995, pp. 106-107). A dialogical perspective hence necessarily implies a situatedness in time and context.

Thus, sharing Vygotsy's assumption of social action and interaction representing the very basis from which any higher mental function derives from (Wertsch, 1990, p. 19) and assuming dialogicality to be the prime characteristic of this social interaction, it becomes evident why a socio-cultural perspective should pay so much attention to dialogue. Dialogue, as core premise of social communication and interaction, represents a fundamental characteristic of not only cognitive processes but of the human-in-the-world as a whole.

Viewing the human-in-the-world as a *whole* is another aspect of dialogicality which is worth emphasizing. Once the notion of dialogue is applied it makes even less sense to detach either the individual or the environment as isolated entity or ‘atomic part’. As Markova (1990) has asserted:

“Wholes, as unit in dialogism, cannot be analyzed into ‘component parts’ simply because there are no such parts. Each supposed ‘atomic part’ exists only in an interdependent relationship with other parts. [...]. The wholes [...] are bound by *internal relations* rather than by external relations, and dialogical (dialectical, co-genetic) logic is defined as the study of such relations.” (Markova, 1990, p. 14, original emphasis)

From this perspective each so called ‘atomic part’, “and its counterparts with which it forms its whole, co-develop mutually through their progressive interdependent differentiation and transformation.” (Markova, 1990, p. 14). Again, it is the interdependence, the mutual emergence of human and sphere which strikes me as worth investigating. One simply would not exist without the other.

Both the dialogical process depicted within the theory of the dialogical self as well as the dialectical processes described within the case study of a woman’s drug trafficking identity construction follow the general premises of dialogicality. Yet, simply acknowledging that all three chapters discussed here apply dialogicality in one way or another will not suffice for explaining the relation of dialogicality, symbolic mediation and the formation of the self-concept. In a similar fashion Vygotsky has already stated that

“it is meaningless to assert that individuals have a sign, or have mastered it, without addressing the ways in which they do or do not use it to mediate their own actions or those of others.” (Wertsch, 1991, p. 29)

Thus, I will turn to the concept of symbolic mediation and how the authors have applied it in combination with dialogicality to make sense of the individual human being.

Why symbolic mediation?

All authors (Barcinski, this volume; Peshek, Kraus & Diriwächter, this volume; Rosa, Duarte & Gonçalves, this volume) have followed Vygotsky’s call. The college students don’t simply *have* religious practices; they also *use* them as coping mechanism when experiencing rupture within their day to day life (Peshek, Kraus & Diriwächter, this volume). Denise does not only *have* social discourse and local practices, she also *uses* them for her identity construction as frame of reference (Barcinski, this volume). And so the concept of the self from a dialogical perspective should not only be characterized by dialogical interactions that take place between various positions, these dialogical interactions should also be analyzed in relation to symbolic mediation (as Rosa, Duarte & Gonçalves, this volume, have argued for).

Why should symbolic mediation be so pertinent for the formation of the self-concept? Peshek and colleagues (this volume) have pointed to the significance of the bi-directional interaction between person and environment while exemplifying it with the means of prayer practices. The bi-directionality occurs over a set of symbolic mediations. Barcinski (this volume) has directly shown the significance of the symbol-system in relation to the formation of the self-concept as the respective discourse serves as reference frame. And Rosa, Duarte and Gonçalves, (this volume) emphasize that the hierarchy and general structures of the position-repertoire within the self are symbolically mediate as the dialogical interaction resorts to sign- and symbol-systems such as language. Stating it more broadly, human action in general typically employs mediational means such as tools and language and these mediational means shape the action and hence also the human him- or herself in essential ways (Wertsch, 1991, p. 12). Emphasizing the special coupling relation of language and the psyche Slunecko (2008) has proposed that language serves as possible platform from which both the socio-cultural system and the personal system of consciousness may be accessed. Here the parallel structures of the psyche and the language system are by no means random anymore. With language the psyche can express its structure while at the same time, through the act of social communication, the psyche may take on a communicative structure present within language⁵.

While all of the examples discussed here have described the microgenetic incidence in which the intricate interplay between media and psyche can be analyzed, the socio-cultural atmospheric dimension which on its own has a mediational character has only been hinted towards by Peshek and colleagues (this volume) without further elaboration. The mediational process of the socio-cultural atmosphere always already has inspired and 'started' the respective complex symbol-systems such as language and religious practices. The subtle structuring process of the human sphere always formats not only the specific symbol applied, but also the context of when and how it is applied. In other words, *the socio-cultural atmosphere always already has us before we act and react with symbolic mediation in a dialogical manner*. As Slunecko and Hengl (2007) might have added to Vygotsky's general appeal for the analysis of the usage of signs and their mediational means, while humans may be perceived as having signs, signs and symbol systems always also simultaneously have humans (Slunecko & Hengl, 2007, p. 46).

5 "Die Besonderheit des Verhältnisses von Bewusstsein und Kommunikation ergibt sich daraus, daß strukturelle Koppelung hier nicht mehr zufällig und ereignishaft ist, sondern über Sprache verfü-, erwart- und planbar wird. Über Sprache werden die beiden Systeme einander als Medium zugänglich: Über Sprache kann das Bewusstsein den Kommunikationen seine Form einprägen (d. h. Kommunikation zu seinem Medium machen); umgekehrt kann sprachliche Kommunikation psychische Systeme dazu bringen, kommunikative Form anzunehmen." (Slunecko, 2008, p. 70).

Symbolic mediation vs. atmospheric mediation

“I am always aware of a moving sort of glass between me and the world, my present and my heritage, what is seen and what is not seen and only felt” (Prince-Hughes, 2004, p. 4)

The heightened senses of a woman who has been diagnosed with an autistic spectrum disorder enables this particular individual to constantly be aware of a phenomenon which usually goes unnoticed. The moving glass between oneself and the world is present around all of us. The reason why humans usually do not notice it is because the glass moves in the same manner for most of us. As Bennett (1993) has pointed out, it is particularly difficult for societies that generate themselves in isolation (e.g. small towns in the Mid-West of America, indigenous people in the wide prairieland of Mongolia...) to grasp the power of a moving glass between humans and the world. Categorical cultural differentiations simply do not exist in isolated social groups and thus cannot be detected (Bennett, 1993, p. 31). In such cases it would need a disorder, as in the case of Dawn Prince-Hughes and her autistic perception of the world, to notice that a variety of moving glasses exist within the world and that the perspective each human has of the world depend on the dynamics of the movement of the glass. And even then, humans may become aware of slight cultural differences without attributing them to a general socio-cultural atmosphere which constantly inspires collectives to form and take shape in particular manners.

I would like to remind the reader of the greenhouse effect described above. The moving glass in this case refers to the climate in which the person makes sense of who she or he is. Different socio-cultural atmospheres provide different perspectives for humans and the various perspectives have their own dynamics, as does the moving glass. Action and interaction are always enveloped by the socio-cultural atmosphere, which always have their own characteristics and dynamics. These dynamics are composed of abstract belief systems, of cultural practices and habits, of the media we employ (e.g. language and tools), of the personal as well as the overall historic trajectories, of the simple feeling of belonging here rather than there, of the smells and the sounds and all the other stimuli within our surroundings and of the feelings we foster for one another etc. Within this sphere, which is a self-generating system, humans unfold and perceive the world from a shared perspective⁶.

In contrast, Vygotsky discussed mediation in a somewhat more tangible manner. His interest predominantly resided in signs and symbols and in the application of whole symbol-systems such as language (Wertsch, 1991, p. 28). Nonetheless both aspects of mediation are equally important. The socio-cultural atmospheric mediation is

6 “In beiden Regimen, dem vorgeschichtlichen wie dem Geschichtlichen, hat das menschliche Dasein zu dem, was modern und zu glatt Umwelt heißt, nie nur ein Anpassungs- und Einpassungsverhältnis; vielmehr erzeugt dieses Dasein selbst den Raum um sich, durch dem und in dem es vorkommt. Zu jeder sozialen Form gehört ein eigenes Welthaus, eine Sinn-Glocke, unter der die Menschenwesen sich allererst sammeln, verstehen, wehren, steigern, entgrenzen.“ (Sloterdijk, 1998, p. 57).

seldom detected and thus more difficult to grasp. Nevertheless it is present at all times, taking in all of our changes while at the same time mediating them. The socio-cultural atmosphere differs from the more commonly known symbolic mediation in that it mediates these complex symbol systems before they can mediate our actions.

The dialogical self as mediated by the socio-cultural atmosphere

Why the theory of the Dialogical Self

The theory of the dialogical self (Hermans & Kempen, 1993; Hermans, Kempen & van Loon, 1992) has not only gained much attention within the last decade, it has also been elaborated upon and transcended a great deal (e.g. Rosa, Duarte & Gonçalves, this volume). What has made this theory so attractive to social scientist across fields? One aspect of this sudden popularity is what I have pointed out earlier; the nature of dialogicality and its irreducibility of singular elements within a whole. Thus, various facets of the self can finally be described without picturing the self as saturated, in-between and not belonging anywhere (e.g. compare to Badawia, 2002; Gergen, 2000). The possibility of multiple positions in dialogue with each other has been especially alluring to those social scientist interested in multicultural or cross-cultural personalities (e.g. Bhatia, 2002; Bhatia & Ram, 2001; Josephs, 2002). The theory of the dialogical self enables a positive description of a person who at the same time feels “Italian” and “Egyptian” without feeling fractured or not belonging anywhere. To the contrary, children negotiating various positions may very well feel as though they belong both to the Italian culture as well as to the Egyptian culture and the English culture. Yet, the actual feeling of the self (positive vs. negative) is not purely the result of negotiations taking place on the intra- and inter-individual levels. The general socio-cultural atmosphere in which the human develops and negotiates plays a crucial role as well (Joerchel, 2006). Therefore, the dialogical self theory can profit from taking the socio-cultural atmosphere into consideration as well.

The Dialogical Self within the socio-cultural sphere

The question of what makes the dialogical self culture-inclusive has been answered amongst others with e.g. the ability to occupy multiple positions and thus also for “contact between cultures within the individual person” (Hermans & Dimaggio, 2007, p. 35), the dialogical capacity to negotiate contrasting cultural positions (Hermans & Dimaggio, 2007, p. 35), the incorporation of personal as well as social and collective voices (Hermans & Dimaggio, 2007, p. 37), as well as power relations between social positions and personal positions which are governed by institutional and cultural structures (Hermans & Dimaggio, 2007, p. 38). All of these examples have their own value, shedding some light on various problematic aspects of e.g. multicultural selves. Yet,

the overall atmospheric mediation has not been discussed in relation to the dialogical self theory. Social scientists have hinted towards the powerful mediational processes of cultural atmospheres (e.g. Gillespie, 2007⁷; Valsiner & Rosa, 2007⁸), which has not adequately been address within the theory of the dialogical self. In more general terms Gillespie (2007) proposes the work on more complex semiotic systems such as social representations (Moscovici, 1983) or symbolic resources (Zittoun, Duveen *et al.*, 2003) to account for socio-cultural atmospheric processes. While these advances within socio-cultural psychology have proven to be fruitful in a variety of ways, none of them seems to be able to touch upon the more subtle structure which already structures and mediates social representations in the making, symbolic recourses ready to be used, or the discourse circling (as discussed with the case of Barcinski, this volume).

Portraying a human being who is forming a self-concept while at the same time always already being formed by the socio-cultural atmosphere would be a great achievement for the theory of the dialogical self as it would stabilize the situatedness of the self in the making. How could one make sense of the dialogical self, in dialogical interaction with personal positions as well as social positions and through symbolic mediation, which already is inspired and started by the socio-cultural atmosphere?

Prospects for a dialogical self mediated by a socio-cultural sphere

It is no surprise that ideas emerge in parallel within the human sphere (e.g. Darwin and Wallace, Vygotsky and Bakhtin). Each concept can only be formed when a certain path leads to it; a path that includes past, present and future. A range of ideas and concepts have to have already emerged, as well as future aspirations, for novel and unprecedented phenomenon to be able to occur. Important here is that each past action, coupled with future aspirations, leading to present novelties, are inspired by present and past socio-cultural spheres. Within the sphere a particular atmosphere mediates not only actions and the meanings of symbols and signs, but also the very structures of the whole complex symbol system and the relations of these parts to one another. As these spheres, which habitat humans with all of their constructions, ideas, material objects and biological microbes, are self-generating, the very advance of a single element can be said to have emerged in parallel to all other counterparts within the sphere (Sloterdijk, 1998, 1999, 2004).

Thus, as soon as a human individual is in dialogical interaction with either social positions, personal positions, or with cultural symbols and objects, the enveloping socio-cultural atmosphere has already tainted the meaning and the structure of this action. This mediational process, which happens simultaneously on a societal and

7 “Neither Vygotsky nor Mead provides an adequate theory of complex trans-individual systems that circulate in society.” (Gillespie, 2007, p. 688).

8 “The biological bases of the body works through the cultural experience, that further modifies the body.” (Valsiner & Rosa, 2007, p. 701).

personal level, can be added to all of the processes described by the theory of the dialogical self. Take e.g. the collective voice, which is depicted as socially and culturally influencing the self-formation. Not only do they affect all other positions within the self-concept and not only do they introduce social language into the self, but, the very way in which collective voices and social language is able to ‘influence’ personal voices in the first place is mediated by the socio-cultural atmosphere. I have chosen to bracket the term ‘influence’ as it may lead to a misunderstanding of the socio-cultural atmospheric mediational characteristics. As stated above, neither the sphere nor the humans ‘influence’ each other, each forms the constitutive counterpart of the other.

What needs to be added here and what has not been explicated by the theory of the dialogical self, is that also the personal voices have already been mediated by the socio-cultural atmosphere. Each voice or action that emerges has always been started by the socio-cultural atmosphere before it can form into a detectible unit. In this manner the socio-cultural atmosphere has also already inspired social institutions and whole complex symbol systems individuals use to mediate their action (e.g. prayer practice in times of rupture, Peshek, Kraus & Diriwächter, this volume; discourse on women and power, Barcinski, this volume; or symbolic mediation when in dialogue, Rosa, Duarte and Goncalves, this volume). No position within the dialogical self, or any interaction which takes place either intra-individually or inter-individually, is spared of the general inspiration which seeps through every single element within the human sphere. The theory of the dialogical self could thus begin to consider not only dialogical interaction on the intra- and inter-individual levels, but also on more complex and abstract levels. Such a contribution would be especially important for the theory of the dialogical self as it proposes to be culture-inclusive. Being reminded of Wertsch’s quote at the very beginning of this chapter: “[t]he basic goal to a socio-cultural approach to mind is to create an account of human mental processes that recognizes the essential relationship between these processes and their cultural, historical and institutional setting” (Wertsch, 1991, p. 6). Thus, from a socio-cultural perspective the theory of the dialogical self should also include the general socio-cultural setting in which dialogical interactions take place, the socio-cultural situation in which I-positions are able to form, negotiate their positions and are re-negotiated.

Conclusion

The interactive perspective assumes a particular dynamic between various elements of a general whole, the overall system or, in Sloterdijk’s (1998, 1999, 2004) terms, the sphere. Interaction, how I understand it, not only refers to the dynamic processes between various elements, but also to the automatic change in all parts of the system, should one element be altered and the thereby resulting socio-cultural atmosphere which in turn inspires every interaction. This is an important stance to take as it excludes the assumption of one singular element—e.g. the individual human being—being able to construct his or her environment without further processes guiding and constraining such a construction. In other words, when the person constructs his or

her environment, he or she is simultaneously constructed by his or her environment. The novelty *always* functions in a two-way loop, dynamically rearranging the whole system. While the human being constitutes its own atmosphere, the atmosphere in which various decisions are made necessarily constitutes the human.

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INVISIBLE BOUNDARIES WITH CONCRETE IMPLICATIONS: MEANING-MAKING PROCESSES AND SYMBOLIC BOUNDARIES

*Ana Flávia do Amaral Madureira**

Abstract. From the analysis of the contributions of the articles by Barcinski (this volume), Rosa, Duarte and Gonçalves (this volume); and Peshek, Kraus and Diriwächter (this volume), this commentary focuses on *symbolic boundaries* as a useful conceptual tool into meaning-making processes approaches. It is proposed that symbolic boundaries conceptualization is a promising path to study diverse phenomena, like the construction of social identities, prejudices and discriminatory practices. The importance of the tension between the processes of *abstracting generalization* and *contextualizing specification* (Valsiner, 2007a) in the construction of new scientific knowledge is also analyzed.

“(...) Cultural psychology, as conceived here, is the study of the extraordinary nature of the most ordinary aspects of daily human living at any place on the planet. We are all one – by being individually unique.” (Valsiner, 2007a, p. 18)

Introduction

The present commentary analyzes the construction of invisible boundaries with concrete implications in daily-life: symbolic boundaries. The analysis starts from the contributions of the articles by Barcinski (this volume); Rosa, Duarte and Gonçalves (this volume); and Peshek, Kraus and Diriwächter (this volume). Secondly, from the cultural psychology framework, I focus on the relations between meaning-making processes and symbolic boundaries, in order to clarify the general principles underlying the construction of social identities and prejudices. Moreover, I discuss some

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methodological issues related to the tension between the general and the particular into scientific approaches or, in a more accurate terminology, the tension between the processes of abstracting generalization and contextualizing specification (Valsiner, 2007a).

Mariana Barcinski's (this volume) treatise *The Identity Construction Process of a Woman involved in Drug Trafficking: a Systemic Approach* presents a insightful analyses of gender identity construction of a woman (Denise) who had a past history of 15 years working for the drug trafficking in a "favela" in Rio de Janeiro, Brazil. The goal of her approach was to analyze the complex processes through which Denise constructs her identity as a woman and her space within a criminal activity. Since drug trafficking is a essential male territory, the personal history of this woman does not fit as a conventional trajectory. Thus, the questions that oriented the author's analysis were:

"How does the woman in the study negotiate her contradictory position as both woman and criminal? What are the cultural discourses she appropriates in order to construct her identity as woman involved in a typical male criminal activity? And what are the counter discourses she constructs in the process?" (Barcinski, 2008, p. 111)

In order to answer these questions, Barcinski presents a consistent articulation between: (a) the analysis of material conditions that sustain and constrain social relations (macro social structure); and (b) the analysis of discursive arrangements that sustain and legitimize these relations and their inequalities (cultural meanings). On the one hand, the author contextualizes very well the reality of "favelas" in Rio de Janeiro and their deep and strong social and economics constraints, as places marked by absence of basic urban infrastructure, public policies and investments, etc. On the other hand, she claims for the heuristic value of gender, class and race as social organizers of people's lives beyond their ordinary social interactions - as also claims by Oliveira (1998) in his approach concerning masculinity discourses.

Barcinski integrates a materialistic and cultural discursive perspectives in a productive way, as it is possible to perceive in the interview analysis of Denise's personal history presented in the article. In addition, contradictions and ambiguities in Denise's discourse (compliance *versus* resistance to prescribed hegemonic discourses) and their role in gender identity construction are stressed by the author. For instance,

"(...) For women in the favelas, choices are made within very rigid social, cultural, and economic constraints. Even her deviation from the expected path is marked by the same constraints. Denise mentions how she used to cook, do little favors, and have sex with the leaders of drug trafficking in the beginnings of her life in crime. While she had subverted the expectations, by engaging in a traditionally male illegal activity, her transgression occurred within limited boundaries." (Barcinski, 2008, p. 123)

As will be discussed later, contradictions and ambiguities play an essential role in affective meaning-making processes to make sense of our personal experiences related to social world and to ourselves. In other words, they are not like an "error" that could

be eliminated in human beings. Barcinski presents vivid examples of how contradictions and ambiguities have a central role in Denise's narrative, in the personal ways that she makes sense of her unique trajectory, constructed from a very restraint social background. Another important contribution of the article concerns the attentive focus on the interpersonal aspects of interview situation. The author shows clearly that the interview does not represent a way to unravel the intra-psychological content of the subject studied, as if it were already "ready in his/her mind." Instead, the interview situation is seen as dialogical space, impregnated of meanings that are being co-constructed by both interviewee and interviewer (Madureira & Branco, 2001).

The article by Barcinski presents diverse contributions for the studies of gender identity construction from an integrative analysis of: (a) macro social structure or the "societal frame" within which individual experiences take place; and (b) personal meaning-making processes, their ambiguities and contradictions. According to my point of view, as the author presents a insightful theoretical issues in the Introduction and carried out an interesting single case analysis, she could develop more the paper's discussion in order to present, in a more accurate way, her general conclusions.

In the article *Self and Dialogical Articulation of Multivocality: Proposal of an Analysis Model*, Catarina Rosa, Filipa Duarte and Miguel Gonçalves (this volume) presents fresh theoretical and methodological contributions concerning the study of meaning-making processes in the context of dialogical self approaches. From an integrative view of the Dialogical Self Theory developed by Hermans (2001, 2004) and the theoretical formulation on affective meaning-making processes developed by Valsiner (2005, 2007a), the authors explore the role of promoter signs, as cultural meanings with high levels of abstraction and generalization, related to the issue of self's dynamic multivocality. More precisely, the target article presents a methodology accomplished by the authors to analyze the dialogical processes of meaning-making. In the authors' words, this methodology involves a semi-structured interview, which includes:

1. Adaptation of Self-complexity Task (Linville, 1987) – it is intended to facilitate the identification and description of the most self-descriptive discursive positions (e.g., personal dimension, social roles, interests, group membership). (...)
2. Dialogical Articulation Task – it consists in exploring the dialogues between each discursive I-position and each of the previously referred significant others (interlocutors). The participant is asked to explain how the most usual interaction between them happens, while imagining that each of these I-positions is a character in a story or in a movie, which suddenly gets a voice" (Rosa, Duarte & Gonçalves, 2008, p. 170).

In order to explore the promising implications of the methodology above, Rosa, Duarte and Gonçalves present an intensive analysis of a single case of a young woman: Kate, a 27 years old who identified as important discursive positions in her personal life: (a) "Me in the family"; (b) "Me at work"; and (c) "Me with Friends." Through many pages of the article, the authors develop in details their analysis of this single case with the presentation of didactic figures (see: figure 1 to figure 4).

The most interesting contribution of this article, according to my point of view, is not the detailed analysis presented *per se*, but the consistent theoretical and analytical ‘bridges’ between: (a) the *specificities* of the relations of different I-positions in the Kate’s case; and (b) the *general discussion* about the role of promoter signs (as “respect” and “responsibility”, see: figure 5, p. 181) on the articulation of these different I-positions marked by asymmetric and symmetric dialogues. In the Kate’s narrative,

“(…) two fundamental semiotic regulatory fields emerge from the internalization and abstractive generalization of two affective important values – Responsibility and Respect (…).” (Rosa, Duarte & Gonçalves, 2008, p. 184)

It is also important to mention that the article as a whole is congruent of the authors’ intention to contribute for the improvement of idiographic approaches. After all, the analysis of self-regulatory processes

“(…) through the detailed scrutiny of an individual single case constitutes the first step in the process of knowledge construction used in idiographic science (…).” (Rosa, Duarte & Gonçalves, 2008, p. 186)

The Dialogical Self Theory is the theoretical basis of the analysis presents in the article in focus. In a few words,

“The dialogical self can be seen as theoretical effort to extend the self from a self-contained entity to a process that is extended to the other person and to society at large of which the self is part.” (Hermans, 2004, p. 14)

Beyond its methodological contributions, the target article also brings theoretical contributions in order to improve the understanding of dialogicality processes related to self-system development. For instance, the discussion presented about: (a) the tension between the stability and change; (b) the fundamental role of values – as hyper-generalized affective promoter signs – in the self-regulation, providing a dynamic stability essential for maintaining the development of the self-system as a whole. In a congruent way, Branco and Madureira (2004) discuss how values, as cultural beliefs with deep affective roots, promote a sense of continuity of self-system along the ontogenesis. Therefore, values are not as ‘static structure’, but an important principle conducting the flow of experiences.

In sum, from a creative methodology developed by the authors, the target article shows the general role of promoter signs on self-regulatory system through an detailed analysis of a single case.

The treatise *Construction and Internalization of Prayer Practices to Cope with Transitional Life Periods* by Darren J. Peshek, Michelle L. Kraus and Rainer Diriwächter (this volume) investigates how the prayer practices internalized by college students – who are dealing with transitional periods that may invoke discomforting feelings (like anxiety) – are used, in differing degrees, as a coping strategy to overcome these transitional periods. The participants were four college students of Psychology at California Lutheran

University: three of them (Molly, Nicole and Bri) are the beginning of the College and were investigated through focus group and interviews; one of them (Courtney) is at the end of the College and was investigated through interview.

“(…) Introducing the image of a supernatural being in place of social other creates a more complex type of bidirectional communication – that which may occur between an individual and a deity. A goal of the present study is to investigate these communication dynamics between an individual and a deity and examine the nature of this bidirectional interaction.” (Peshek, Kraus & Diriwächter, 2008, p. 138)

The article focuses on relevant issues for cultural psychology. In diverse societies, religious beliefs, values and practices play an important role in different domains of human living. Thus, the cultural dimension of religious should not be disregard as a relevant research topic. In this sense, Peshek, Kraus and Diriwächter contribute to the improvement of our understanding about the processes of internalization of prayer practices by religious individuals and how these practices function as a coping strategy for transitional periods in daily-life. According to my perspective, although the relevance of the issues analyzed by the authors, there are some problematic statements presented in the article. For instance,

“(…) Religious individuals that have strong spiritual heath are better at coping with stressful situations than non-religious individuals (…).” (Graham, Furr, Flowers & Burke, 2001, quoted by Peshek, Kraus & Diriwächter, 2008, p. 136)

“(…) Students practicing prayer and other ritualistic religious behavior are less likely to suffer from various forms of psychosis such as depression and anxiety.” (Francis, 1997; quoted by Peshek, Kraus & Diriwächter, 2008, p. 141)

“(…) Since the true nature of God cannot change, only one’s perception of God, the circle surrounding God is either solid or semi permeable depending on each individual’s beliefs (…).” (Peshek, Kraus & Diriwächter, 2008, p. 145)

The first and the second statements above present results of researches carried out by other authors. Unfortunately, we do not have more information about these researches. Since the positive aspect of religious beliefs and practices in terms of mental heath are not applicable for every single individual, general statements like “religious individuals that have strong spiritual heath are better at coping with stressful situations than non-religious individuals” or they “are less likely to suffer from various forms of psychosis such as depression and anxiety” become problematic. After all, it will depend of how the individual integrated in his/her self-system these beliefs and practices. In other words, religious beliefs and practices could be a resource of personal coping strategies or a promoter of discomfoting feelings, like blame and guild. The third statement “since the true nature of God cannot change, only one’s perception of God (…).” is also problematic, because it is a matter of personal religious faith, it does not correspond an axiom that can sustain the construction of scientific knowledge. Each

researcher has his/her own personal religious beliefs (at least, we can mention the belief that God does not exist at all). Nevertheless, statements based on religious beliefs are problematic in the scientific domain.

Historically, it was not an easy challenge to separate scientific and religious discourses in western societies. However, this separation was (and still is) essential to the development of a specific way to construct knowledge: science (in a modern conception). Surely, as a human production, science is not the unique and valid way of understanding the world and ourselves, but it has a specific language, goals, roles, methodology and so on. Thus, I think it is important to preserve the autonomy of scientific discourses from religious beliefs. This distinction, however, is not clear in some moments of the target article.

This necessary distinction mentioned above does not diminish the importance of scientific approaches about religious issues, like prayer practices, religious rituals, etc. Since these issues play an important role as cultural organizers (include the development of the self-system), they are meaningful issues for social and psychological inquiries. For example, in the classical work *The Protestant Ethic and the Spirit of Capitalism*, first published in 1904-1905, Max Weber (1904-05) develops an insightful thesis: the Protestantism had a central role in the construction of a specific ethic, deeply coherent with the capitalistic system. Protestantism, especially Calvinism, has promoted an ethic based on individual hard work, which has been extremely useful for the development of the capitalism throughout the centuries.

According to Joffe and Staerklé (2007), the self-control ethos is a key to understanding the processes of social exclusion in western societies. This ethos is stronger and clearer in Protestant and more individualistic societies. In this sense, the pejorative view of the pleasures of life (include sexual pleasures, the pleasures associated with eating, drinking, dancing, etc) – as a lack of self-control over the body and a waste of time (and money...) – assumes multiple configurations in different societies in the West (Madureira, 2007a). The study of religious values and practices could improve our understanding about these diverse cultural configurations in order to construct deeper analysis of relevant issues. For instance, the cultural education over the body and the corporal senses (Madureira, 2007a, 2007b; Valsiner, 2003). The body is the “(...) intimate place where nature and culture meet each other (...)”¹ (Nightingale & Cromby, 2001; quoted by Araiza & Gisbert, 2007, p. 115).

Throughout the history, religion has been a resource of cope strategies for individuals and an important element of community integration. Unfortunately, religion has been also a resource of violence and intolerance against the “unfaithfuls”, does not matter if the “unfaithfuls” are Catholics, Protestants, Muslims, Jewishes, etc. (Sim, 2004). Around the world, diferent religious have participated in the construction of symbolic boundaries between individual and social groups, between insiders and outsiders.

1 In the original: “(...) el lugar íntimo donde la naturaleza y la cultura se encuentran (...)”.

The construction of symbolic boundaries: meaning-making processes, social identities and affective roots of prejudices

“The image is quite common: imagine a world where everybody looks like the same, wears the same clothes, reads the same newspapers, says the same things everyday, have the same thoughts – a world with no difference. What would be meaning in such world? Probably, it would be a set of fixed and immutable entities – a world without any ambiguity. Nevertheless, it would be a dehumanized world, a world with no particular voice, in a word, a totalitarian society. (...) Human meaning, in that sense, is brought to being by difference, contrast, tension, disagreement. (...) In other words, meaning is always dependent on the play between sameness and difference.” (Ferreira, Salgado & Cunha, 2006, p. 27-28)

The quotation above is extremely important for our purposes. In a hypothetical world where everybody is identical, a world without any difference, ambiguity will be, for sure, eliminated. Thus, according to the traditional positivistic paradigm – that consider ambiguity as a “problem of methodological limitations or human imperfections” (Ferreira, Salgado & Cunha, 2006, p. 27) – it would be possible to construct a “perfect and objective” scientific knowledge about human beings. Nevertheless, communication and, consequently, meaning-making processes would be impossible in this dehumanized world. At least, the scientific enterprise, as a human production, would be impossible. In a few words, without differences and ambiguities, meaning-making processes are impossible (Ferreira, Salgado & Cunha, 2006; Valsiner, 2007a).

From the dialectical philosophical tradition, the tension of opposites united within the same whole is a central notion, include the studies of meaning-making processes (Josephs & Valsiner, 1998). It is important to note that the meaning-making processes: (a) express the unit of cognition and affect; (b) relate to the flow of personal experiences; (c) the internal relational have to be in tension {A and non-A} to be transformed. Josephs and Valsiner (1998) call the semiotic organizers of relations between meaning complexes as circumvention strategies. The circumvention strategies change the results of thinking, feelings and actions at the inter and intra-psychological levels. According to the authors,

(...) When a meaning emerges in the course of a person’s life in a here-and-now setting (e.g. ‘I am sad’, with *sad* as the emergent meaning), immediately and without reflection a fuzzy field of opposites emerges: all that could fit adequately into the field of *non-sad*. The generic form of such meaning complex is {A and non-A}; in our example, {sad and non-sad}.” (1998, p. 70)

Tensions, ambiguities and differences are in the ‘heart’ of the meaning-making processes. These processes involve the constant using of signs through the flow of experiences. As there are many possible combinations between icons, indexes and symbols, signs (visual and verbal) present a hybrid nature that increases the complexity of the

meaning-making processes (Valsiner, 2007a). The studies of human beings within the context of cultural psychology have stressed the concept of conduct as behaviour re-organized by semiotic mediation that is used by the intentional and active mediator, the person oneself (Valsiner, 2005). Consequently, for understanding conduct is essential to consider the central role of semiotic mediation (Vygotsky, 1934/1978).

Nevertheless, it is necessary to clarify: our relating with the world is not just a rational enterprise mediated by signs expressed by verbal language. Firstly, because affect, cognition and action form a whole and complex unit that should not be disregarded by psychological science. Secondly, as Valsiner (2003) claims: “(...) the role of language-mediated relating with the world is not highest level in the semiotic mediation hierarchy – but an intermediate one (...)” (p. 156).

Therefore, the overcoming of rationalistic and linguistic reductionisms in our approaches is a relevant theoretical and analytical challenge. In this sense, the concept of *symbolic boundaries* could be a useful theoretical tool.

Symbolic boundaries: marking the differences

If differences are central to meaning-making processes, boundaries mark differences: “(...) There is no ‘outside’ (or ‘inside’) of circle without a contour – boundary that creates the separated-but-united parts. (Valsiner, 2007b, p. 221). In general lines, boundaries function as membranes (in the biological sense):

“Boundaries as structures that unite standard in the biological world. All membranes are boundaries – and the livelihood of organisms depends on how well appropriate transpositions of chemicals through these membranes work.” (Valsiner, 2007b, p. 221)

The image of a boundary as semi-permeable membrane is a promising path to study phenomena like, for example, the construction of social identities and the related dynamics between in-group and out-group, prejudices and discriminatory practices.

In diverse cultural contexts around the world, there are always symbolic boundaries that delimit, in a semi-permeable way, the differences between individuals and social groups. Some of them do not present meaningful implications, but others present deep implications in different levels of analysis: (a) macro social level (collective culture); (b) inter-psychological level (social interactions) and (c) intra-psychological level (subjectivity). Two examples may clarify this distinction. At the first case, we could mention the “size of individual’s nose.” From this criterion, it would be possible to organize different groups. However, this situation looks like so unusual (and nonsense), because this difference is not culturally meaningful. Thus, it does not imply any meaningful implications in the daily-life. At the second case, we could mention the “color of skin.” This criterion has been considered meaningful to split individuals into different social domains with concrete implications in different societies. Surely, there is a long history of oppression (and resistance) behind the transformation of the arbitrary criteria “color of skin” into a culturally meaningful difference.

When the symbolic boundaries become non-permeable, rigid and come to qualify some groups at the cost of disqualifying others, we can perceive different kinds of prejudices in action (racism, sexism, homophobia, elitism, religious bigotry, etc). When these rigid symbolic boundaries – called cultural barriers – are targets of transgression, we see the violence and the intolerance underlying discriminatory practices. For the constant reproduction of social inequalities, we often hear that these boundaries are treated as these should be respected. In a few words, *prejudices are rigid symbolic boundaries, cultural and historically established, with deep affective roots and they function as cultural barriers between social groups and individuals* (Madureira, 2007a, 2007b, 2007c). After all, prejudices are cultural invention deeply articulated with power issues – understood as the relation between forces of oppression and resistance (Foucault, 1979/1996).

Culture² as a central construct – that makes it possible to analyze the symbolic nature of human development – is not just an “influence” upon human development: culture constitutes the person and forms, in a deep and meaningful sense, his/her own development (Bruner, 1990; Cole, 1992; Madureira & Branco, 2005; Rogoff, 2003; Shweder, 1991; Valsiner, 2005, 2007a). Therefore, it is impossible to think about the reproduction of prejudices without consider the processes of socialization in structured cultural contexts:

“(…) Through the processes of socialization, individuals learn to recognize diverse kinds of symbolic boundaries present in the social world. In the majority of the cases, these boundaries are invisible but with concrete implications. Some of them – related to specific social groups – are rigid, non-permeable, as a result of power relations that are cultural and historically established. The transgression of these rigid symbolic boundaries, called cultural barriers, is perceived not just as undesirable, but as a real dangerous for society and the status quo (...).” (Madureira, 2007a, pp. 425-426)

Marking differences between individuals and social groups through symbolic boundaries is a ordinary task in our lives. The construction of social identities – for instance, gender identity, ethnic identity and so on – is deeply related to the processes of construction, maintenance and transformation of symbolic boundaries. These boundaries limit who pertains to ‘our group’ (we) and who does not pertain to it (they). An important question, with deep social and political implications, is: how differences become inequalities?

From differences to inequalities: when symbolic boundaries become rigid

The articles by Barcinski (this volume) and by Peshek, Kraus, Diriwächter (this volume), although the different issues focused and goals, inquire important aspect of

2 In this paper, the concept of culture is close to the interpretative anthropology proposed by Clifford Geertz. According to him, the anthropology seeks interpretations about the symbolic universe of culture (Geertz, 1973).

the processes involved in the construction of social identities. In the first case, it is presented a single case of analysis: the narrative of a woman who had a past history of 15 years working for the drug trafficking in a “favela” in Rio de Janeiro, Brazil. In the second case, it is presented an analysis of prayer practices internalized by four college students as a cope strategy to overcome transitional periods in California, USA.

Barcinski (this volume) shows the complexity of gender identity processes from the single case analyzed. This complexity is expressed through contradictions and ambiguities present in the narrative of a woman who has an unusual past trajectory in a traditional masculine domain: drug trafficking. Contradictions and ambiguities are not a “default” of her narrative; instead of, they make sense when a person has to deal with opposite social expectations (‘be a woman’ *versus* ‘be a gangster’). Beyond that, the processes of gender identity construction never happen alone, apart of the construction of other social identities (ethnic identity, sexual identity, etc). When we talk about the construction of social identities, we are talking about ‘affective bridges’ (feelings of belonging) between the individual and the social groups present in society (Madureira & Branco, 2007). These processes are a political arena where tensions and contradictions are not the exception, but a common characteristic. In this sense, gender, class and race become important interdependent axes in the approaches on social identity processes, as powerful social organizers (Barcinski, 2008; Oliveira, 1998).

Peshek, Kraus & Diriwächter (this volume) demonstrate the important role of internalized prayer practices as cope strategies in cases of religious individuals. Although the social identity issues are not explicit in their approaches, as happen in Barcinski (this volume), there are some interesting cues to improve our understanding, especially concerning the affective roots of social identity processes. In this direction, we can mention the following passage:

“The present study demonstrates the personal construction of the meaning and use prayer during crisis periods. The God of most Christian traditions is similar to an ideal attachment figure (Kirkpatrick & Shaver, 1990). Therefore, the use of internalized prayer practice may serve as a transition to a substitutionary secure base in place of the more familiar and comfortable situations in which the prayer behavior was formed.” (Peshek, Kraus & Diriwächter, 2008, p. 140)

For individuals who share strong religious beliefs and values, a deity represents “an ideal attachment figure”, a secure base to face the uncertainties and ambiguities of life. Prayer practices, in this sense, is an important way of communication with this ‘ideal attachment figure’. Since uncertainties about the future moments could be a source of feelings of discomfort (like anxiety, fear, insecurity...), prayer practices can function as a meaningful cope strategy. Surely, we are referring to religious individuals, it is not a general statement about human beings. Again, we are talking about the construction of ‘affective bridges’ between individuals and social groups. In this case: feelings of belonging a religious group that share some beliefs, values and practices (like prayer).

The feelings of belonging to a specific group provide a familiar and secure basis to face the ambiguities present in ordinary situations in our lives. In this direction, it is important to mention the notion of tension between the two general processes (speci-

fied by Ernest Boesch) – *HEIMWEH* (“homeward road”: striving towards the known and the secure) and the *FERNWEH* (“road to the far away”: adventure, encountering novelty and also risks) (Valsiner, 2006). In general terms, while the feelings of pleasure and curiosity are related to the promotion of the *FERNWEH* process, the perception of risks and dangers are related to the promotion of *HEIMWEH* process. As we encounter many ambiguous situations in daily life, one possible solution could be avoided through the experiences that put in risks the stability of self-system, especially when these experiences may promote our curiosity in ‘forbidden domains’ that put in risk our deep personal values (Madureira, 2007b, 2007c).

When strong promotion of *HEIMWEH* process happens, the symbolic boundaries between ‘us’ and ‘others’ tend to become rigid, non-permeable. Thus, a cultural barrier is erected and the ‘others’ become to be perceived as ‘enemies’ who put in risk ourselves and, in a broader sense, our society and its institutions. More than seeking strategies to deal with ambiguities from a secure and familiar basis, what emerging is the desire to eliminate all ambiguities, differences, to eliminate the ‘others’ (perceived as the source of discomfort feelings).

Two examples illustrate this changing: religious bigotry and homophobia³. (1) From the secure basis of religious beliefs, values and practices to religious bigotry based on fundamentalist mentality: everybody out the symbolic boundaries of my own religion is “unfaithful” and should be combated (Sim, 2004). (2) As recent studies have demonstrated there are deep connections between sexism and homophobia (Andersen, 2000; Madureira, 2007b; Welzer-Lang, 2001). Thus, rigid and hierarchical gender distinctions (sexism) are direct related to the reproduction of non-permeable boundaries between masculinity and femininity, between heterosexual population and the GLTB (Gays, Lesbians, Transgender and Bisexuals) population. In sum: differences become inequalities. Intolerance, that underlying prejudices, become explicit through discriminatory practices against different social groups.

The tension between the general and the particular: methodological implications

From the Dialogical Self Theory, Rosa, Duarte and Gonçalves (this volume) present an analysis of a single case that provides insightful methodological contributions in the context of idiographic approaches. About the case in focus, the authors affirm:

“We believe this case links specificities that cannot be generalized to other subjects; however, we also believe that the processual model of multiplicity management through the process of meaning-making is suitable to any individual case (...).” (Rosa, Duarte & Gonçalves, 2008, p. 186)

3 See Madureira (2007b, 2007c) for a deeper analysis of homophobia, as boundary phenomenon, from an integrative perspective between the general processes of Heimweh and Fernweh and the Semiotic Regulatory System Model proposed by Valsiner (2003, 2005, 2007a).

The complex methodological passage from the specificities of single cases to general principles would be impossible without any theoretical basis. General conclusions like: “(...) promoter signs perform a fundamental role in the self-regulation process of dialogical self (...)” (Rosa, Duarte & Gonçalves, 2008, p. 186). would be completely nonsense. After all, there is a ‘universe of theoretical concepts’ behind the single words in the previous assertion. Therefore, ‘data’ are always constructed by researchers through the integration between theory, methodology and information produced in the empirical moment (Branco & Valsiner, 1997; Madureira & Branco, 2001). Ontological, epistemological and ethical principles are also present in the scientific approaches, in the basis of the researcher’s personal and academic background.

Without these general and abstract principles would be impossible to face the complex challenge related to the passage from the particular to the general. In a more accurate terminology, it would be impossible dealing with the tension between *the processes of abstracting generalization* and *contextualizing specification* (Valsiner, 2007a).

“The study of human development has been struggling with how to take time into account in its methodology. In that struggle, the necessity to consider dynamic hierarchies of semiotic regulation has not been emphasized. Yet what follows from the present exposition is that it is precisely the work of such hierarchies (‘on line’, or in real time, so to say). Two processes can be present in the regulatory hierarchies—*abstracting generalization* and *contextualizing specification*.” (Valsiner, 2007a, p. 64-65)

The following example (extracted from Madureira, 2007d) – illustrates this tension in the context of scientific approaches. When the researcher is carrying out an interview, he/she is in the face of multiplicity of verbal and non-verbal information. Then, when he/she is listening the interview’s audio recorded, on the one hand, many of this information is lost (specially non-verbal information). On the other hand, it is possible to concentrate on the participant’s narrative and select the meaningful passages, according to the research questions and goals. Thus, the information starts to be transformed through a systematic process by the researcher: from specific information to a more general “empirical indicators” (“indicadores empíricos”) – concept that emphasizes the indissociability of theory and empirical information (González Rey, 1997, 1999). Therefore, the information that emerges in the concrete situation of an interview, with all their richness related to here-and-now settings, start to lose their experiential ‘colourfulness’. Nevertheless, they start to win more abstractive ‘contours’ from the articulation within theoretical principles. In order to construct different levels of analysis – from specificities to general – the researcher can use different methodological strategies, like the construction of *analytical categories* that were not established previously. They are useful tools into organization of empirical indicators and construction of more general levels of analysis (see: Figure 1 for a didactic image, p. 245).

Conclusion

From the analysis of the contributions by Barcinski (this volume); Rosa, Duarte and Gonçalves (this volume); and Peshek, Kraus and Diriwächter (this volume), this

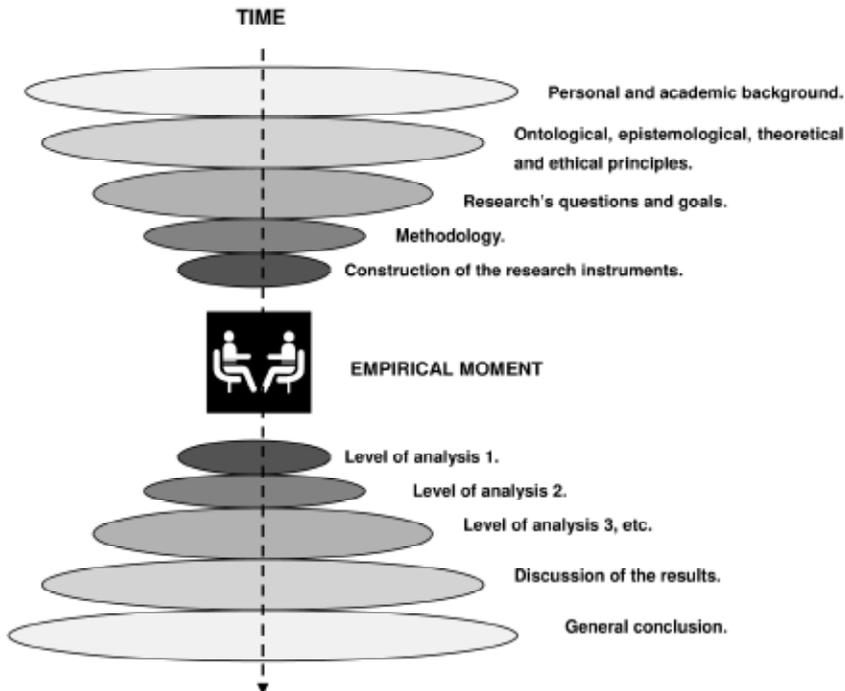
paper focused on *symbolic boundaries* as a useful conceptual tool into meaning-making processes approaches. The image of a boundary as semi-permeable membrane (Valsiner, 2007b) is a promising path to study diverse social and psychological phenomena, like the construction of social identities, the dynamics between in-group and out-group, as such as prejudices and discriminatory practices.

As Valsiner (2005, 2007a) claims cultural psychology is universalistic in its generalizations and particularistic in its analysis of cases. Therefore, scientific enterprise seeks generalization beyond the specificities of diverse cultural contexts and personal trajectories. From the tension between the particular and the general it is possible to construct new scientific knowledge “(...) that allow for increased abstraction and generalization – while retaining the richness of its phenomena (...)” (Valsiner, 2007b, p. 219).

This tension also presents other important implications. For instance, the complex ethical dilemma expressed through the tension between: (a) the respect of cultural diversity and (b) the respect of human rights.

In conclusion, the seeking to understand the general principles that underlie affective meaning-making processes and the construction of symbolic boundaries (in a flexible or rigid ways) does not exclude the importance of a more local knowledge about the configurations of these processes in particular cultural contexts. In the construction of concrete strategies against many kinds of prejudices in our societies, this integration also plays a strategic political role that should not be disregarded.

Figure 1. From the general to the particular and from the particular to the general



Acknowledgments

The author wants to thank the National Committee for Scientific and Technological Development – CNPq (Brazil) for the financial support of her PhD studies and for the “sandwich course” visit opportunity at the Psychology Department of Clark University in Worcester – MA (USA), from August to December 2006. The author is grateful for Prof. Dr. Jaan Valsiner for his insightful ideas that make possible the theoretical develop of symbolic boundaries conceptualization as such as the methodological discussion about the tension between the general and the particular.

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Biosketch

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WHAT IS IT LIKE TO BE A PERSON? THE CONTRIBUTION OF DISCURSIVE PSYCHOLOGY TO IDIOGRAPHIC SCIENCE

*Giuseppe Mininni**

Abstract. One of the most ancient and fascinating debates brought about by the psychological science is the one that opposes “mind” and “behaviour.” Actually these constructs can be seen as two different accomplishments of the “psyche”, fruitfully investigated in the light of two diverging meta-theories: the essentialist (monological) approach and the relational (dialogical) approach. The first perspective stresses the distinction between knowing subject/known object. It is reductionistic and looks at psychic phenomena as natural properties of a living thing (the brain). The second perspective stresses the intersubjective nature of knowledge. It uses hermeneutics and looks at psychic phenomena as the historical and cultural properties of a living system (the person). Such alternative approaches refer back to the well known distinction between “nomothetical sciences” and “idiographical sciences.” In the psychological perspective, the main task of the idiographic science is to describe what it is like to be a person. Then it cannot neglect the main route of discourse analysis. The present paper aims at discussing the contribution of discursive psychology to idiographic science, recalling the notion of diatext as pragmatic synthesis between text and context.

Introduction

From Galilei onwards, the scientist is bound to accomplish two main tasks: specifying his “object” and indicating the most suitable “method” for it. Playing on words we might say that psychology is an “atypical” science because it is “atopical.” In fact, scientific psychology has so far almost failed in its aim of organizing the interpretative principles of the “human phenomenon” within a unitary framework in spite of its

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undeniable success in specific issues. Such a situation of checkmate takes root in the insurmountable difficulty of developing a metatheory able to deal with a logical impasse: the fact that the system in search of knowledge (man) and the system object of such a search (man) are equally complex.

For a long time scientific psychology has been wavering between human “behaviour” and human “mind” when singling out its specific object. Behaviour and mind are two different accomplishments of the *psyche*, that can be investigated in the light of two diverging meta-theories: the essentialist (monological) approach and the relational (dialogical) approach. The first perspective stresses the distinction between knowing Subject/known Object, it is reductionistic and looks at psychic phenomena as at natural properties of a living thing (the brain). The second perspective stresses the intersubjective nature of knowledge, it uses hermeneutics and looks at psychic phenomena as at the historical and cultural properties of a living system (the person).

Such alternative approaches refer back to the well known distinction between “nomothetical sciences” and “idiographical sciences”, brought up by the neokantian philosopher Wilhelm Windelband (1914). Intervening in the “*Methodenstreit*” that were inflaming Germany in the late 19th century, he showed that the distinction between “sciences of nature” and “sciences of spirit” (also labeled “human”, “moral”, “social”, or “cultural sciences” afterwards) cannot be found in different “objects” but in different “attitudes”, that means in prevalent cognitive interests reflecting themselves in the dissimilar methods of quantitative and qualitative research. Science can be modeled on two diverse needs: either “fixing laws” in order to explain the connection between phenomena or “describing each phenomenon in its un-replicable unicity.” In the first case

“observed reality *becomes nature*, in the second case it becomes *history*, the history of what is most peculiar to a phenomenon, that is its value or its cultural meaning.” (Sperti, 2002, p. 48, original italics by the author)

In fact, in recurrent stages of epistemological competition, “hermeneutic” turns in human sciences have stressed the advantages of a situated knowledge of events. The idiographic perspective is relevant for psychology in exploring mental phenomena since they “are accessible from a specific standpoint” (Bacchini, 2000, p. 52). In accordance with the well-known “bat’s argument” (Nagel, 1974), discovering the laws that shape the bat’s neurophysiology does not imply understanding what is like to be a bat. In fact only being bats can one grasp the bat’s experience. Defining itself as “the view from nowhere” (Nagel, 1986), the nomothetic science is unable both to explain and to understand the subjective experience, that exists only in the perspective of the person who is living it.

The basic question of idiographic psychology can be said with Nagel’s words: What is it like to be a person? Answering such a question is the most difficult task for idiographic psychology. It can make use of different research traditions –from phenomenology (Armezzani, 2002) to sociocostructionism (Gergen, 1994) –, but always within the aims and the experience of humanistic psychology. Turning to idiographic science, psychology makes it definitively clear that its proper object is the “person.” It is the

complex mental operator developing in the historical/cultural process of “becoming a person” that transform animal behaviour into human action. Meant and practiced in an idiographic perspective, psychology would reassesses old intradisciplinary distinctions as “general psychology vs dynamic psychology vs social psychology”, since it is “inherently person-centered –whatever its subject matter” (Taylor, 1999, p. 17).

Such a perspective acts as the background for the three big issues related to the project of an idiographic science proposed by Salvatore & Valsiner (this volume), namely:

1. If we choose sense-making as framework of analysis, how to produce generality from particularity?
2. What is the conceptual rationale of the person?
3. What does development mean and how can it be understood?

Indeed the three questions are interwoven. Let’s just consider the first two ones, that are clearly set one in another, at least in acknowledging the “co-constructive circularity between sense-making and the sense-maker” (Salvatore & Valsiner, this volume p. 9).

Idiographic psychology as an ossymorical science

The first question deals with the paradox included in the expression “idiographic science.” As already known, within the epistemologic debate the idiographic science has often been defined a *contradictio in terminis*, since there cannot be science without generalization. Idiographical psychology tries to turn the paradox into an oxymoron, by showing that questioning about generalizability does not mean adhering to a univocal concept of science. In fact, while apparently the expressions “nomothetic science” and “idiographic science” describe “two dissimilar ways of being of that practice of knowledge called “science”, in reality they mean deeply different activities. “Science” can be made in at least two ways and not always what is convenient in one – standardized procedures, generalizability of outcomes ecc. – is convenient in the other one.

The epistemological genius of Bakhtin

The obsession for generalization reveals the sort of inferiority complex that human sciences find hard to work through. A contribution in this direction can be found in the work by Salvatore and Valsiner (this volume) either when they elucidate the epistemological and methodological difference among “validation patterns” or when they point to “strategies of transferability” as specific aim of idiographic science. They properly remind us that the efficacy of the clinical method is connected to such an attempt as to relate a case with another one, with a low claim of generalizability. This example says much, since it appeals to abductive logic. In order to stress its own distance from

the inductive/deductive logic, that is adopted by nomothetical science, the idiographic science often uses “to the semipoietic power of the analogy” (Salvatore & Valsiner, this volume). Actually, analogy is semipoietic as it has a semipoietic power. The transferability of the knowledge produced by idiographic science is similar to the surplus of meaning produced when thinking-speaking metaphorically. Using a metaphor one mentally moves from one reality domain to another one.

Analogy has a “semipoietic” strength since, though it simply reorganizes already existing worlds, it changes them by putting them together “according to either some respect or capacity” – just to remind Peirce’s definition of sign/icon-- . Indeed analogy also has a “semipoietic” strength since it produces meaning, showing the connections – and thus multiple meanings- between objects, cases and events. Summing up, we could say that nomothetical science is metonymical, while idiographic science is metaphorical. In fact, nomothetical science replaces actual data with abstract laws whether this passage would be supported by evidences; idiographic science filters the abstract unknown through the actual known, hinting at the reasons, that legitimate consistency of the filter. In order to develop abductive logic, idiographic science must work together with hermeneutical phenomenology and semiotics. Therefore, it can study its specific object (personal experience) from two sides. In fact, both “*sense-making*” or “*sense-giving*” -in other words third person’s sense (*Sinn*) and meaning (*Bedeutung*), that is acting-feeling in first person (see also Arciero, 2006)- convey in the personal experience. The expression ‘sense-making’ shows the procedural and organizational nature of what happens in meaning production and management. On the other hand, the expression ‘sense-giving’ draws attention just to the *act* that *makes* reality, as a process of reality construction” (Gargani, 2005, p. 83).”Sense giving” does not interpret ready-made objects and ready-made meanings, but needs an elaborative surplus that is the choice of a possible world. Choosing one meaning in a bunch of possibilities ties the sense-giving process to a basic capacity of “*poetical listening* of nature”, in the sense of *poiein: to do, to construct*” (ibidem, original italics by the author).

The human ability to listen to the others reveals a marked dimension of psycho-semiotic agency (Mininni, 2008) that might be spent also within the epistemological debate. The supporters of science (whether natural and “human”) might relate to their objects without caring about listening since they are thought to be “a voiceless thing” (Bachtin, 1979, italian version 1988, p. 375). The aspiration to naturalistic objectivism has actually hindered to most of the 19th century psychology, especially in its north-American streams (such as behaviourism and cognitivism), to practice a “poetic listening” of human experience. Indeed the main fruitful streams in the European psychology of 19th century - psychoanalysis and Gestalt theory – run the same risk as they shape opposite paradigms for the comprehension of phenomenological subjectivity, being guided respectively by the principle of “suspect” and of “respect” (Galli, 1999). They can also be considered as the scientific expression of two opposite positions that can be found in popular psychology as either optimistic or pessimistic views of human nature. However, both psychoanalytic approach and phenomenological-experimental are limited by their being “a monological form of knowledge” (Bakhtin, 1979, in Italian version 1988, p. 375).

Idiographic psychology adheres to a dialogic perspective of scientific knowledge and thus it deals with human beings as “subjects with a voice.” In this case, Bakhtin rightly highlights that

“the horizon of the knowing interacts with that of the person to know. Here ‘I’ exists for the Other and thanks to the Other. The story of concrete self knowledge cannot be thought without considering the role played by the Other, without mirroring into the Other” (Bakhtin, 1979, p. 419).

With every right, Michail Bakhtin may be considered one of the ingenious inspirations of idiographic science. The work *Marxism and philosophy of language*, attributed to Bakhtin though published under the name of his pupil Valentin Volosinov (1929) is enlightening. It contains a criticism of the two dominant coordinates in the sciences of language at the beginning of the 20th century: *abstract objectivism* and *individualistic subjectivism*. Bakhtin considered misleading the Saussure’s opposition between “*langue*” and “*parole*”, since it allowed parallel research routes bent either on fixed rules systems where expressions were shut in, or on the different abilities of single speakers in choosing their expressions. On this interpretative track, the comprehension of language is doomed to run off the rails. Bakhtin proposes a third way suitable to avoid both the vagueness of formalism and the unsystemicity of particularism. Translinguistics (or science of situated enunciation) casts the study of language in the real conditions of its joining knowledge processes and communication processes. Language in action is the way human beings, interacting one another in a specific context, enunciate a sense project for the world, thus making it real.

Because language plays an important role in defining human experience, the perspective proposed by Bakhtin may be extended to psychology, that is – and perhaps should be – knowledge continuously in crisis. A particular perspective, definable “psychosemiotics” (Mininni 1982; 2003), focuses on the specific link between mental processes and communicative action. Semiotics finds features of a typically human mind in sign operating. Sign operating *stricto sensu* is the “natural” peak of a route where semiotic complexity is measured by the stages of “index”, “track”, “symptom” and “signal.” With *Homo sapiens*, the species’ evolution reaches such a level of psychic operation that the individual can overcome the contiguity of index and track, the precariousness of symptom and univocity of signal to be open to the productivity of the proper “sign.” The cultural creativity of sign operating reveals itself in inventing “icons” and “symbols”, that is “forms of life” that can be interpreted in an in(de)finite way. The typically human sign operating turns the attention from the referent to the enigmatic fascination of the interpreting person, producing in this way an early awareness of the basic splitting self/other.

Mathesis singularis (et pluralis)

Another brilliant author who has inspired idiographic psychology is Roland Barthes. In his rich semiological production one can find frequent hints at a need of

knowledge interested in entering the mystery of the “here and now” singularity with the same formal care sciences apply to their specific universe of reference.

“Why ever, in a sense, there should not have been a new science for each subject? A *Mathésis singularis* (and no more *universalis*)?” (Barthes 1980, p. 10).

The expression ‘mathesis singularis’ recalls the paradox of the will to catch the individual knowledge as personal sense making in the net of the restrictions to generalization peculiar to science.

In order to elaborate a “science” compatible with the existence of the individual, it is necessary mostly that the researcher is constantly asking himself: “What does it mean all this for me?” The universe of “all this” is not circumscribable, since it includes a friend’s smile, the last about-turn of the deputy of my district, the tsunami for a tour operator and for a fisherman, the screaming of enjoyment of the student when he got the news of the anticipated exit from school, a relative’s illness, the opportunity of publishing an article on a journal and so on listing the uncountable events in the world. When we want describe a singular universe, we must access to it “in first person” (Armezzani, 2004).

Wondering about “what does it mean?” implies almost inadvertently to start the narrative engine for an “inferential walk” (Eco, 1994) where eventually the wondering is the main character. It must be noted that the “What does it mean?” is a typical adolescent nagging thought, as well as “Why this?” (that is the great question of nomothetic science) is a typical childish worry. Since these two questions match the vast differences of paradigms within the human sciences, we can deduce that the epistemological methodological debate is not yet mature in awareness. Perhaps the development of idiographic science might foster an evolution in the history of self-knowledge if it puts human awareness in the adult position shaped by post-modern sensibility, that seems to suggest new untreatable questions as: How to stand responsibility for (all) what one knows (to do)?

Truly, the phrase ‘mathesis singularis’ is paradoxical since it alludes to the fact that every single object can’t be known. In fact, “knowing” or “learning” (μανθάνω) entails the possibility to include the world in general and abstract frames, from verbal concepts to the mathematization perspectives of (nomothetic) sciences. In order to mitigate the disruptive value of the paradox, the more efficient rhetorical strategy is to transform it into an oxymoron aiming at justify the validity claims of idiographic understanding. The phrase “Mathesis singularis” looses the destructivity of paradox, if through the oxymoron it turns itself into “pluralis.” The phrase “mathesis singularis (et) pluralis” aims at introducing polyphony of voices in this topical context. In fact it emphasizes that there can be a multiplicity of accounts for single events such as self, group or global village, when they are considered as unique and unrepeatable phenomena. All these accounts are legitimate and many of them are also justified by different tissues of values. The perspective of a “mathesis singularis (et) pluralis” has a special relevance for idiographic psychology, since each singular experiences that “the ‘I’ can actualize itself in words only basing itself on ‘us’” (Bakhtin, 1926, p. 43).

All knowledge is open to the risk of considering itself as singular though knowing itself as being plural. Such a tension can already be found in the discourse, that is that

evanescent *sense-making* activity expecting to “order” the world (Foucault, 1971). Indeed the weft of the several proposed epistemological innovations, also those divergent from critical realism, social constructionism and cultural and discursive perspectives in psychology, may be traced back to a particular stress on human speech that make the world variously understandable. The discourse practice is the natural laboratory that agglutinates the multiplicity of meaning in an intentional coherent project. The discourse shapes the vital synthesis between the plurality of interpretative potentials and the singleness of an interactional style. The discourse makes people face the need to stand the dizziness of thinking that is of giving a recognizable shape to a vortex of interpreters. The utterer of a -political, scientific, moral etc. - discourse works out his topic as a sort of *reductio ad unum*, taking position in the multiplicity of possible worlds, assuming that nothing is better than his own singular voice in revealing the polyphonic weft of sense. As well as extremes must be directed to the centre in order to be worth, what is various and dissimilar has to be meant as a whole to be recognized. Such a transition from plural to singular, from moving to fixed is the stake implied in the activity of sensemaking, that is understandable only using big flexibility in proceeding. This should be the main task of cultural psychology (Fabbri & Munari, 2005) as well as discursive psychology (Mininni, 2003), that attempts at suiting the aims of daily life to the awareness produced by the philosophy according to that “in all what becomes an internal to him, in general a representation, in all what man owes, language has crept in” (Hegel, 1968, p. 8).

The self tells itself in many ways, not only because the awareness of the variability of the masks related to the different roles people play in daily life, but also - as Bruner taught us (1986) – because the story of the self elaborates historical time intertwining two different scenarios. The first one is marked by the logic of action (*landscape of action*), that coordinates elements as “agent”, “aim”, “available means”, “situation”; the second one, instead, is shaped by the dialogic of consciousness (*landscape of consciousness*), that enhances agents’ thoughts, beliefs, feelings, attitudes. These two scenarios fit to the frame metaphor of the container (“outside/inside”) that (western) men started to think of themselves with as persons, that is as an interface between universes of sense.

Persons are special events

Idiographic psychology is a science because it lays the claim to dealing with person as a system of *sense giving*, that is intrinsically unique, singular, local, embedded in a sense-making context, but that is so deeply understandable that the general principles can be grasped. Personal experience is worth to be accurately described not although it should be regarded as “unique” or “particular”, but quite because it is so. Stressing the dynamic nature of *sense-making*, Salvatore and Valsiner conceptualize its unicity using the model of “one-time event.” Idiographic science deals with (sense) occurrences that happened at a specific time, as “the French Revolution of 1789, the birth of Albert Einstein and the first step by a man on the Moon” (Salvatore & Valsiner, this volume, p. 12).

The rhetoric of example is nearly always illuminating, even if sometimes it causes some blind areas. This is what happened here, since the three recalled “one-time

events” are not precisely comparable. In fact, the French Revolution of 1789 may be considered as a (macro) event, produced by long series (micro) actions, while the birth of Albert Einstein is in itself a (micro) event involving his family’s time. The walk on the moon made by the astronaut Armstrong is interesting not as much because of its link to a given time (20-07-1969), as because of its being somehow a “no-event” (fictional). In fact there is a well-known rumour about that such a spectacular human exploit would have been shot in a studio.

All the quoted above examples of “one-time events” are possible research object for idiographic psychology since each of them manifest itself in a (more or less complex) process of sense production. The expression “one-time event” makes the research objects of idiographic science pertinent not only because of the precision and the sharpness evoked by “one”, rather because of the narrative intentionality linked to “time.” Indeed the term ‘event’ is ambiguous in its semantic reference, since it allows two interpretative routes animating the traditional epistemological debate. In fact “event” indicates both a “natural” phenomenon, that happens under the steely laws of chance and necessity and a “cultural phenomenon”, that is something originating with a project. In conclusion, both earthquakes and film festival are “events” and can be considered either in an idiographic perspective if seen as related at “one-time.” So, we can try to catch the “meaning” of the earthquake in Irpinia on 20-11-1980 and the “meaning” of the Cannes Festival in 2005, or in a nomothetical perspective, if we focus on the data collected on earthquakes and festivals.

What is more relevant in order to set up and develop an idiographic science, it is the specific difference between these two kinds of events, resulting from the fact that human beings produce meaning for the “events” by transforming them in actions. The birth of Albert Einstein is the birth of a child like many others, but his action of thinking of the world in a way (initially) somewhat “singular” will draw the general attention to it. The meaning of Einstein’s birth is better shared of that of the French Revolution, because the rate of *action* in the two occurrences is different. Anyway, taking shape as a constellation or a swarm of actions each “event” may be viewed as a process of sense making.

Personal experience might be an object of scientific knowledge since it is made up by “events” that are transfigured into “words.” This concept might be enlightened first by recalling the vision of the world transmitted by the Hebrew language, that in the term ‘dabar’ drawing near the meanings of “event” and “word” (Ong, 1981, p. 60). “What happens” to human beings is the making of their “word.” In the course of the several events of existence it is possible to reckon an effort toward (and sometimes a fight for) meaning. The experience of life is textured from the dynamic inside the “dabar” with that everyone attempts to affirm one’s own self as a person. Individuals are discursive events.

Meant and practiced as idiographic science, psychology is the study of man as a person (Harré, 1998). Though the conceptual rationale of the person is anchored to the activities of co-construction of meaning, its ontological root is still to be determined. Salvatore and Valsiner hint at this when they evoke the “very basic issue” of identity that may be thought either as a “reference” or as a “sign.” If identity is a “reference”, then it is “something” that is an entity that pre-exist and is independent from the *sense-*

making process. If, instead, it is a “sign”, then it is “somebody”, that is a “rhetoric and performative” mode of action in a specific socio-cultural environment. This alternative is clearly delineated, but it is worth two comments. First of all the assimilation of “person” to “identity” has to be highlighted. It seems that taking the individual as object of idiographic psychology would require the need of setting the “being a person” in the category “identity.” Psychology seems to be a “science of self” even and *a fortiori*, in its idiographic realization. Nevertheless just the old Greek metaphor of “persona” (that as it is well known referred to the “mask”) legitimates a completely different interpretation, since being a “persona” does not (only) mean being “Self”, that is identical to what others think we are, continuous, consistent, steady etc., but does also mean being “Other”, that is dissimilar, discontinuous, self-contradictory, instable etc. The ontological statute of the person justifies a psychological perspective oriented toward otherness, that is toward the ascertainment of meaning in its becoming.

Assuming identity as absolute category of psychological knowledge makes it difficult to recognize the Otherness, that is instead strongly recommended by some incomparable masters in the “unrest for the other” as Bachtin and Levinas. The impassioned care for the Other get the effect of saving the irreplaceable property of individual, that is “his irreducible singularity, his uniqueness” (Ponzio, 2007, p. 16). The words ‘singularity’ and ‘uniqueness’ often recur as synonymous to mean what in identity can not be represented and is nor interchangeable nor comparable. Perhaps we should be more precise and distinguish between ‘singularity’ and ‘uniqueness’. Developing the intuitions proposed by a fine researcher on personality (Lamiell, 1987; 1997), we can notice that every individual is unique and singular. In fact, “being unique only if differs from another one in all his properties” (Harré, 1998, p. 19). Such a condition occurs because every persons’ properties come from his net of relations. The singularity of each person, on the contrary, comes from “position in time and in space” (Harré, 1998, p. 20). But the uniqueness of every personal positioning draws its value from the net of relations that is in, since

“Persons (...) are not only part of a typology or a species, but also of a community (...) where everyone who belongs to it plays a unique, peculiar role precisely defined by him. The one who plays the role is not ‘something’, but ‘somebody.’ (...) Persons are not something that is given. What is given are things, plants, animals and men. The fact that persons are linked to all what exists in such a profound way is linked to the fact that they are individuals.” (Spaemann 1996, italian version 2005, p. 6)

The ontological statute of the “person” is steadily fixed to the possibility of reciprocal acknowledgement in a community of belonging and to the need of express oneself in a specific language, that is always supposed, when men through that communicative event realise themselves as they actually are that is as persons (Spaemann 1996, italian version 2005, p. 17). The reference to “language” is decisive as to define the singular features (interiority, intentionality, consciousness, historical and space/temporal context) of persons that are “beings other persons can *talk* with” (Spaemann 1996, italian version 2005, p. 176, original italics by the author).

Secondly, the alternative recalled by Salvatore and Valsiner (this volume) between

“reference” and “sign” openly recalls a semiotic frame. More precisely, the most used terms are “referent” and “significant” (or “*representamen*”). Yet I do not dare to reject such a rigorous terminological difference: what is more important is that the alternative is set within a binary conception of acting as a representation and/or reference to reality. Actually, the dilemma would be between the assumption according to that if people are on the “things” side or in the “sign” side, even if signs’ identity is deeply bound to they “being for (that is substituting, recalling, etc.) the things.” If the person should adapt himself to such a binary solution, then it would be easier to define him/her as “someone meaning” rather than as “something to refer to.” However, the 19th semiotics has exploded such binary hypothesis, by focusing attention on the third pole of the communicative action (the interpreter) by giving to it a “form of life” (the semiosphere).

The semiosphere as the form of life of persons

The concept of “semiosphere” was introduced by a great semiologist, Juri Lotman, with the aim of pointing up the need of considering the complex system where either single signs or simple communicative acts take place. The word ‘semiosphere’ is coined on the model of ‘biosphere’ and ‘noosphere’, respectively meaning “the whole of living matter” and the space of human knowledge. Similarly the semiosphere is “a semiotic continuum filled with different formats with several levels of articulation”, that is “a whole of texts and languages”, that can be considered as “a unique mechanism (if not as an organism)” (Lotman, 1984, p. 56, 58).

In the first instance, the concept of semiosphere meets a principle of gestalt: single components of semiosis are understandable only whether set in a totality that, putting them in relation, allows the accomplishment of a significant intention. Lotman gives a harsh example: we cannot get a calf by putting together some steaks, while we can get steaks from a calf (cfr. Mininni, Scardigno & Rubino, 2008).

Secondly, by adopting the concept of semiosphere, Lotman can show the dialogic of cultures, meant as organisms living in “a structural and combining symmetry and asymmetry” (Lotman, 1984, p. 81), interweaving static character with dynamism, singleness with variety. The homeostatic dynamism of semiosphere makes texts and languages dialogue in such different ways, with such varied rhythms as appearing as a chaos without rules. Such an impression comes from the fact that “we are immersed in it” (Lotman, 1984, p. 69) and we cannot get out since it is unimaginable any (either real or fictitious) human place out of the enveloping of semiosphere. As long as they live, people continuously cross various regions of semiosphere, trying to outline sense trajectories (or “directing”) compatible with expectations of coherence and dignity appearing consistent and free to them, that is in the prototypical format of history.

The Self as interpreter (with and of the Other)

Semiosis works with persons as “interpreters.” The alternative suggested by Salvatore and Valsiner (this volume) between “reference” and “sign” make clear the contrast between the positions of a (more or less naïve) “realism” and those of a (more or less radical) “constructivism.” By emphasizing the work of the interpreter a dialectical synthesis can be done. We can call it critical realism or critical and autopoietic constructivism. It recognizes either the being rooted in reality of the person, or his creative openings to possibilities. In fact, just the interpreter makes it possible a mediation between sign (representamen) and referent, each time fixing what can be good as “meaning.” Something works as “sign” for something else it refers to, just because a process of interpretation allows that connection “under some aspect or capacity.”

The interpreter reminds the necessity of a synthesis between realism and constructivism since it stresses the capacity of producing meaning and the freedom in setting relations, but also the need of being fastened to the harsh condition of a specific world of textual reference and the different bonds intrinsic to the materiality of the semiotic process. The “interpreter” lives on probation, since he detects the possibility of sense within a thick network of (physical, perceptive, cognitive, emotional, interactional, historical-cultural etc.) determinisms. People live in the semiosphere as “interpreters”: they experiment with the strength of their semiotic chains, thus constantly challenging their own capacity of singling out new routes of sense for themselves and for the world. People are interpreters organizing their own existence in two different macroformats of text (narration and argumentation) that realise two special profiles, interweaving Self-care and interest of the Other.

The nexus between “person” and “interpreter” becomes more evident in the semiotic notion of “utterer”, thus specifying the way through that human beings realise their agency of subjects responsible for their physical and social world. As it is well known, the most evident indices of the active role played within communication are personal pronouns (Benveniste, 1966). Since it occurs in every language, even if with different forms, such linguistic module reveals the pragmatic nature of sensemaking, thus anchoring the possibility to enounce intentions to the acknowledgement of situations. For instance, saying “me” to the entry phone by answering to the question “who is there?” posed by the one inside, is meaningful since it shapes the image of an utterer who is able to assume that his/her intention (“open the door!”) might be reckoned as valid in such a situation (“this is my home and you are my wife or daughter”): the features of the voice would assure the one who is posing the question about the identity of the interlocutor who is answering. Then, personal pronouns are the most evident proof that the meanings might be thought as articulations of intentions and situations and that these articulations constructed through the texts have a particular effect on persons that is they allow themselves to think of themselves as “utterers” of meaning.

If the conceptual statute of the person is steadily anchored to the function of “interpreter” then the “triadic” dialogic of semiosis enhances itself (Bonfantini, 1985), thus diffusing along the directions outlined by Salvatore and Valsiner (see Introduction) and highlighted as important for the relationship between the persons and the semiosphere, that is “levels of elaboration”, the opposition between “consent” and

“conflict” or between “autonomy” and “contextual dependence” of sensemaking. The “interpreting person” shows the necessity to overcome any binary conception since not congruent with the complexity of the dynamisms implied in sensemaking procedures. The interpreting person knows that the distinction between the “local” level (or “superficial structure”) and the “global” level (or “deep structure”) in the organization and elaboration of a text is only a useful heuristic device, since the meanings overlap and move themselves in many ways, with reference to the several contexts that activate them. Even the opposition between “consent” and “conflict”, everyone might experience in the daily discursive practices, is a scheme that allows to account for the “polemic-contractual nature” of semiosis (Greimas, 1983), but it might be inadequate to describe the fine torsion of the cooperation and competition dynamics often found in the actual communicative events, thus establishing new forms of concurrent validation of both pressures to conformism and emergences of novelties and diversities.

Text as matrix of identity: the Other mirroring the Self

The challenge to the ungraspable “mathesis pluralis” might be accepted if, with Barthes, allowed to cover the whole passage from the “message” as pivot of *communication*, through the potentialities of *signification* agreed for the “symbol” and coming to the *significance* produced by the “text.” Discursive psychology acknowledges that its constructs are linked to meaning resources that could be thought as “texts.” Generally, such linguistic notion is recalled to underline three important aspects, that makes it pertinent for the comprehension of psychological operation:

1. *connectivity*: the “text” is the utmost expansion of the systematic relationship and realises the engagement to share all the communicative resources;
2. *holistic systematicity*: the “text” has a gestalt quality since it claims to be a whole not coincident with the sum of its components;
3. *coherence*: the “text” reveals a unitarian project of meaning, since it enhances the reciprocal accessibility of its several components.

These three dimensions allow the possibility to use the “text” as an interpretative instrument of persons’ and communities’ identity. Nonetheless, there are other aspects of text, probably less evident, able to enlighten some psycho-social phenomena, as for instance the intra- and intergroup relationships. After having highlighted its operative nature both at the level of “communication” and “signification”, that is after having caught its informative and symbolic values, the text might still activate other interpretative rushes. Some texts, as some people, might be “liked” by others, as they contain an enigmatic trace, a flexible rather uncertain rhythm. The text “opens itself to the infinite of language” (Barthes, 1982, p. 46) when it opens itself to the “obtuse sense”, that is to the signification of unfinished, to the tension of discontinued, to the freedom of loss (also of the self). Really,

“the obtuse is the irruption of the other since not referential, since wrongfooted and wrongfooting, since ‘other’. ‘Other’ since the signifier cannot be compromised with the

perfect rhythms of signification on one side and of the model on the other. In this case, the signifier opens himself to signification that is to the discontinuous rhythm of semi-osis, to a brilliant elusion of the obvious meaning.” (Velardi, 2006, p. 181)

The claim for a unique and unrepeatable subjectivity injected in persons by cultures is legitimized by the signification, that leads the construction of the texts of their interactions. The need to look for an “obtuse sense”, eventually hidden in them, is an implicit acknowledgement of the cultural potentiality that is inbred to ambiguity and plurality of human saying, thus finding in the ambiguity its source for creativity.

“The adaptability, the uncertainty of signs, the ambiguity supply spaces where to construct my identity as singularity, as un-repeatability, as a novel text.” (Ponzio, 2006, p. 34)

The unfinished play of differences that construct the meaning of texts allows subjective identity to establish a “somewhere” where it is possible to say one’s own self.

The dialogical and dialectical relationship between identity and otherness supposes the existence of a space-time where to activate the *sense-making* practices that better suit the human beings’ life conditions. “To have or to be?” is the title of a famous book where the great psychoanalyst Erich Fromm (1976) denounces the risks of psychological suffering implied in the materialistic and capitalistic drift of modern societies. Actually, the alternative between these two “auxiliary verbs” –as labelled in the traditional Italian grammar— might be spent more efficiently in many other argumentative contexts to highlight a radical difference of perspective. The funniest example is given by the intricate imaginary of bisexuals, always uncertain if “to have” a woman or “to be” a woman. Maybe the argumentative context where such an option implies more important consequences is the one that defines the relationship of the individual with his/her discursive practice. To argue that we “do not have a language, rather we *are language*” (Volli, 2005, p. 68, italic of the author) means to propose a radical transfiguration in the comprehension of human experience of the world. The spanning of perspective implied in such a change becomes clearer in the different domestic metaphor chosen. To state that individuals “have” a language means to believe that they might use language as a “key” to enter the world. Conversely, to state that individuals “are” language means to believe that this is already their “home” or rather an “air bubble.”

Actually, the “possessive” conception of the relationship man-language has made an image very familiar according to that such nexus would work as a “mirror of the mind.” Nowadays, such image seems to be very problematic since the action of mirroring attribute to language a passive role of mere recording of projecting a sense that is produced “wherever” that is in the cognitive structure and/or in the sensorial procedures. Nonetheless, the mirror metaphor still holds a higher psychological relevance, as to think about the processes of construction of self-image or to the narcissistic dynamics.

Recently the mirror metaphor has acquired a new heuristic power since several empirical evidences have supported the theory of “mirror neurons”, that is those special neural networks that are the biological requisites to a “theory of mind” and to

those meta-representational abilities necessary to many contexts of human experience, from empathy in interpersonal relationships to management of the organizational assets in social relationship. The neural enhancement of the mirror metaphor might be extended also to the cultural side of the mind, where it could be possible to see “mirror utterances” work.

Therefore, there are some aspects of the communicative behaviour where the speaker takes care of what the other has already said by fostering his expectation to be understood. The techniques of “active listening” play a great efficacy not only on a relational level but also at an organizational one since they aim at disentangling the uncertainty that always accompany communicative action. The inter-human comprehension is mostly a jump or rather a series of jumps and then a blind voyage, since its probability to succeed depends on the possibility to catch at least sometimes some “reflector” expressions that by signalling welcoming might mark a route of shared interpretation about what is happening. The “mirror utterances” enhance the emphatic function of an horizon of possibilities not only in the mere conversation, rather in the organizational communication. Let’s think to the value of pre-agreement assured by some enunciative forms recurrent in the organizational “newsletter” where the focus is on the modalities of successful integration between different organizational departments and/or the successes derived from the acceptance of a proposal come from “the bottom.”

The notion of “mirror utterances” has a more general context of application, since its explicative value might expand in the wider and more compact forms of the texts. They are cultural artefacts that give back to human beings the image of their discursive nature, that is of their being made up by evanescent, plural and dynamic matter, imprecise and uncertain although versatile, flexible and adaptable, available to the confrontation and to the discussion of meanings, able to create and to change relationships, thus giving birth to new possible worlds.

Culture is a network of “mirror texts” where a specific group might find beliefs and values that activate its consistency. The “mirror texts” are the narratives, short or long, that define the identity profile of a community, thus contributing to guide the process of reciprocal acknowledgement between the individuals who belong to it. In the “mirror texts” the group experiments with the process of transforming the plural into singular, because identity manifests itself as a composition of differences.

How to explore the personal appropriation of the semiosphere

If idiographic psychology has the task to describe what is like to be a person, it cannot neglect the main route of discourse analysis. Indeed, the personal experience of human existence refers to the thick texture of texts and of conversations where each subjective claims of sense-making becomes concrete. For the person a prototypical example of sense-making realized as “one-time event” is given by a simple “discursive act”, that is by an episode of “talk/text-in-interaction.” The “act of words”, that is

a concrete phenomenon of communication, that is that type of reality that is to be labelled with the wonderful self-referential acronym “SPEAKING”, according to the elegant theory by Hymes (1972), is a “one-time event”, since not only it doesn’t anchor itself to a specific point in time, rather it demands “a time” to produce its effects. Consequently, each analysis of a discursive act let it happen again “in (another) time” and thus each analyst might extract different sense potentialities from it. Dealing essentially with discursive acts, idiographic science does not see the variability of interpretations as a limitation to hide rather a resource to enhance “todo modo.”

Mild methods

A very important feature of idiographic science might be caught in the tendency to reconsider the methodology not among the objectives, rather among the instruments of scientific knowledge. Even (and, maybe, overall) in psychology the definition of the investigation procedures has progressively acquired the rather tothemic function to support the compactness of the research group. The convinced adhesion to a specific practice –laboratory experimentation— has fostered the myth of methodology, that is based on the dependence of the value of scientific knowledge on the control over the way through that it is has been produced. Actually, nobody could deny the necessity to discuss the procedures of construction of the scientific knowledge, but the objectives of idiographic research allow coping with the question in a milder climate, that is with an open attitude toward the plurality of routes. Idiographic psychologists are convinced that science is a discursive practice that allows to human beings to foster questions on the self rather than to legitimize answers. The routes toward the knowledge they cultivate are marked by uncertainty and ambiguity rather than by predictability and uniformity.

The three texts of this volume’s section “Person in the semiosphere” (Barcinski, this volume; Rosa, Duarte & Gonçalves, this volume; Peshek, Kraus & Diriwächter, this volume. face some issues linked to very peculiar positions of persons in the semiosphere. Two of them examine quite in details a sample of discourses uttered on occasion of some in-depth interviews with two women: Kate e Denise. The third one, conversely, analyses some discursive data produced by four girls, more specifically by three first-year university students (Molly, Nicole and Bri) taking part to a video-recorded focus group and to a following individual interview and by a university student near to her degree (Courtney), who has only been interviewed individually. In both cases the discourse was focused on praying practices.

A first general remark about the three contributions here commented refers to *gender*: all participants and quite all researchers are women. This evidence might be motivated. Nonetheless, generally speaking, it seems to legitimize the common sense opinion according to that all psychological tangles are mostly “female questions” and then they owe a minor value with reference to other humanistic context, such as sociology, philosophy, politics, etc. As to recall the title of a famous book by Rodriguez (1999) *Dios nació mujer*, we might say that the “I is grown as a woman.” The cultural construction of female gender marks the needs for self care in self-acknowledgement

practices as to supply a more efficient dedication to the other. Being specified by any reference to male and female gender, the sensation (the feeling) of the I highlights that any claim of subjectivity gains consistency (and is legitimized) as a resource in the competition for the power to establish the sense.

References to gender are important since they clarify the dynamics between “concrete” and “abstract”, that overlaps (but do not coincide with) that between “particular” and “universal.” Idiographic psychology intercepts the “universal” tendency as it configures in the “single” case, aiming at catching the “concrete” dimension of a specific human phenomenon rather than its “abstract” projection. The ‘concrete’ term is only a linguistic “metasign” that synthesizes the urgency to frame that specific phenomenon in a wide and detailed interpretative horizon, as to catch the biological, historical, social, cultural, evolutionary, etc. determinants.

The three trajectories of idiographic psychology composing the “Person in the semiosphere” answer to this criterion of concreteness since they succeed in revealing the density of an issue considered as a “form of life” that has involved the interpersonal relationship between all those who took part in the study. The analysis by Barcinski has a great idiographic relevance since it enhances the complex rhetorical elaboration given by the person interviewed about different (and sometimes contrasting) discursive and cultural practices aiming at constructing an image of the self, compatible with the different positions of “woman”, “daughter”, “wife”, “mother”, “criminal” and “repented.” The emphasis on the rhetorical dimension of the identity construction is a useful analytical specification of a theoretical asset according to that “material conditions, societal discourse and personal meanings are jointly constitutive of subjectivities” (p. X; see also Falmagne 2004, p. 828). Actually, the interest for rhetoric is the methodological procedure chosen within a wider “systemic approach”, oriented to highlight “the ways in that people are simultaneously the master and the slave of discourse” (Edley & Wetherell 1997, p. 206).

The dialectic “servant-master” is an optimal metaphor that, after having alimented some philosophical reflection, might enlighten also some important aspects of the communicative dynamics of people. Then, the relationship “servant-master” allows to better understand the emergence of subjectivity “through the texts” since it shows how do work the two main coordinates that make any discourse a “form of life” for individuals, that is the “fight for power” and at the same time the “reciprocal acknowledgement.” The discursive practices show how every single person realizes a special synthesis between the interiorization of any great dominant narratives and the adhesion to the contra-argumentations to them. The discursive data analysed by Bracinski underline the “complex work of compliance and resistance” accomplished by every human being with respect to the hegemonic texture of culture, within that he might be reckoned as a person.

Peshek, Kraus & Diriwachter (this volume) investigated how people construct the meaning of the praying practices in specific phases of existential difficulty. The four girls taking part in the study on the meaning of prayer shared living conditions, since they all experienced a period of transition within their life cycle, respectively the beginning and the conclusion of the college experience. Then, the three first-year girls had the task of adapting to the new demands linked to the parting from their original

families while the last-year student begins to figure out the demands for adaptation that might come from her entry in the labour market. The first interesting evidence is that a relevant feature of the identity of subjects –the experience of a university college— manifests its ambiguity: the same life conditions acquire meanings that are radically different, since for the first-year students they represent a novel source of stress, while for the last-year student they are the background that gives her security and trust. Naturally, the semiotic ambivalence of experience is not limited to this single case, rather it is a general trait of human nature, that frames the auto-poietic processes in the unsolved circuits of interpretation. The semiotic ambivalence of experience transforms the particular into general since it shows for instance in the specific case here examined, that every period of life might be meant as “transitional.” Each moment of human existence is characterized by the presence of a decision (more or less meaningful) to be taken, being in balance on a rope that leads us from known to unknown.

Prayer is an extremely interesting discursive practice for the theory of the dialogical self, as it allows validation of the hypothesis that the I might reckon as its privileged interlocutor God, that is the “totally Other.” If the need for God might be understood as a search for a “figure of ideal attachment” (Kirchpatrick & Shaker, 1990), such search might be enriched by meanings that are different depending on how it meets the micro-genetic dynamics of the development of the self. Prayer is a resource of the semiotic and of the dialogic meditation that people might take from their cultural treasure that contributes to organize their mind, but they could continuously re-interpret in the course of their life. The communicative nature of prayer is marked by the emphasis given to the intentionality and bi-directionality of the process activated. These two features shape the recurrent engagement showed by the three students participating to the focus group in highlighting the distinction between “structured” and “personalized prayer” (this volume, p. 110), labelled also as “objective” and “subjective” (Poloma & Pendleton 1991). One of the students interviewed (Molly) underlines that for her to pray is not a routine rather a choice that allows her to feel engaged “when she has something to say” (this volume, p. 118). She experiences her prayers as “silent discussions”, so that “she often pauses to listen for God’s response.” Therefore, prayer as an intimate communicative practice with God postulates a form of meta-communication, since it bases itself on what the single person may interpret as a God’s “answer” or “reaction” to individual communicative intentions. Courtney explains that her decision to get engaged with Brandon has followed the affirmative answer she has attributed to God in her prayers. People may allow God to say anything they believe/desire, but this is an example of “meta-communication via semiotic mediation” and shows the great enunciative value of personalized prayer: “it just makes more sense to do it in my head” (this volume, p. 145). The way people relate to their God – by communicating and meta-communicating – supplies a special comprehension of one of the most intimate linkage between individuals and their cultures within the semiosphere.

All the contributions in this section analyse discursive data and then in their methodological section mention the investigation procedures that the researchers have followed to collect them and to interpret them. Actually, the description of the methodology is quite superficial so that it is confirmed the largely diffused opinion according to that the theoretical renewal, allowed by the “culturalist epistemology” does not still

correspond to an adequate development of methods alternative to those of the mainstream research tradition congruent with the dominant (neo) positivistic epistemology. Then the indication of the research method is mostly reduced to a specification of the way through that discourses in analysis have been collected (that is through focus group and semi-structured interviews) and of a more or less detailed description of the participants to the research. The procedures actually adopted to analyse texts are not sufficiently highlighted and, as a consequence, the discussion of the results is convincing not because of the intrinsic validity of the tools adopted but rather because of the power of argumentation.

Actually, the analysis of texts is often meant as a mere individuation of thematic frequencies, allowed by the selection of specific textual portions produced as examples of the hypothesis elaborated. Nonetheless, if it is not anchored to precise and well defined constructs, discourse analysis risks to become a mere “comment” to the worlds of sense activated by the texts. For instance, the strategies of construction and interiorization of prayer practices adopted during transition periods are pointed out through ad hoc categories, extracted from the texts of any single interviews. As a musical refrain the analysis sides the proceeding of the text and highlights what, from time to time is functional to the construction of specific projects of sense. For example the family background that has alimanted some prayer rituals is very relevant both for Molly and Nicole, but not for Bri.

When the interpretative instruments adopted in the analysis appear even more relevant when cited and described. This is the case of the “promoter signs” that Rosa, Duarte and Gonçalves (this volume) adapt from Valsiner (2002, p. 56) to define an abstract model of “semiotic regulators” able to lead the possible evolutionary cycle of individuals. Actually, the whole analysis of Kate’s discourses aims at reckoning the “promotional signs” within the interviews’ passages chosen as examples of different enunciative positions. The “promotional signs” pointed out are “responsibility”, “adaptation and/or conciliation”, “space definition”, “support”, “distance and/or freedom”, “interest”, “respect”, “compensation”, “similarity.” The promotional signs reveal a synthetic conceptualization (and, as such, working at a higher level of abstraction) of a dynamic of contrasting positions evoked from the concrete flowing of discourse. Then, the analyst points out the textual portions where the speaker hints at a difference more or less marked of possible positions and highlights the higher position that allows to think about them as a whole. Generally, the “promotional sign” is labelled as value, that is that it shows the ethical orientation underlying the making of discourse. The possibility to develop “promoter signs” acquires a “mediating role” in the management of conflicts” (this volume, p. 168) since they are charged with a “meta” meaning, that is they activate resources that organize discourse at a higher level of hierarchy, thus allowing to the dialogic form of the self to give itself new pathways of coherence.

It is worth noting the solid theoretical framework that characterizes the decisive phase of the analysis that is the individuation of the “bipolar complexes” giving consistence to the discursive production of meanings. A dialogical approach to the genesis of sense is also dialectical, since it postulates the necessity to enhance differences. Appropriately, the oppositional conception of the sense-making process (Josephs, Valsiner & Jurgan, 1999) is connected to one of the philosopher- psychologist who inspired

the *Gestalttheorie*, that is Alexius Meinong, according to whom the representation of A passes through some reference to its negation (non A). Actually, it is possible to go back very far in the history of the Western and Eastern thought as to find other forefathers of such a basilar semiotic dynamism. A very ancient and clear awareness comes from the famous Principle of Protagora, according to that human mind works following a continuous comparison between “*logoi*” and “*antilogoi*”, as wisely argued by the Social Psychologist Michael Billig (1996).

Nonetheless, the most rigorous formalization of such a perspective has been proposed by the Lithuania-French semiologue Algirdas Greimas, who bases his “polemic-contractual theory” of sense on the idea that the generative nucleus of meaning consists in the individuation of differences. The sense-making process can be traced back to the oppositions framed by the “semiotic square”, that is the “visual representation of the logic articulation of any ordinary semantic category” (Greimas & Courtès, 1979). It structures itself through a first conceptual opposition (for instance between “being” and “seeming”), thus implying its negation (between “non seeming” and “not being”). The “semiotic square” not only traces back the generation of possible meanings in a discursive sphere. In fact, if considered as an “enunciation square”, it allows one to enhance the pragmatic cues of the “architecture of subjectivity” (you-me) in the meaning production realized “through the text.” That is why idiographic psychology may profit from the resources of a procedure known as “diatextual approach” (Mininni, 1992; 2003).

Tracing diatexts

The notion of “diatext” may be viewed as inspired by the dialectical dialogism pointed out by Bakhtin as the “natural tendency of any live discourse” (Bakhtin, 1979, p. 87). In their happening, texts are diatexts, for two main reasons that are recalled by the same word ‘dia-text’ (from the Greek prefix ‘*dia*’, through). Actually, sense does not reside permanently within the texts, rather it goes through them as a result of the conjunct action of the enunciators, who negotiate the frame of the situation that they are actively involved in. As a consequence, a diatextual approach to the study of personal experience of world aims at pointing out the Gestalt qualities of the interactional processes of sense-making. The “diatext” is the principle organizing the mutual links between text and context prompted by its three dimensions (“field”, “tenor” and “mode”), that indicate the topic, the relational tone and the style of what is happening (Halliday & Hasan, 1985). Any discursive event originates mainly by the dynamics of the opposition between different enunciative possibilities. Every enunciator marks his self image, as a discourse subject, in order to make it different from the other’s and organizes his own arguments (*logoi*) taking into account what can be set up against it (*antilogoi*).

The guiding principles for the diatextual researcher are *dialogism*, *situationism* and *holism* and all of them enhance the Gestalt nature of discourse. Though apparently evanescent, intangible, slippery, confused and impressionistic, the “oversummativity effects” of a particular discursive practice are the most interesting ones for the dia-

textual approach. communicative events shape their sense through their being “texts” and, according to one of the most important Gestalt principles (Galli, 1999, p. 23), the diatextual researcher *respects* the text so much that he refuses any systemic operation of cutting it in lower analysis units (words, phrases, paragraph, etc.), assuming that its meaning can be drawn only through a holistic attitude. Obviously, the analyst may focus on some segment of the “corpus”, but his main interest is to enhance their contribution to the “spirit” of the text.

Such a holistic approach is sustainable if the researcher is aware of his own fallibility and partiality. The diatextual scholar is cautious, since he knows that at any time he can fall into the abyss of over-interpretation. Anyway s/he starts from the assumption that the meaning of a discourse could be caught by answering three basic questions: Who is saying that? Why does he/she say it? How he/se does say it? These questions have an ethno-methodological valence since first of all they guide the practices of comprehension of those who participate to the communicative event. To come into a dialogical relationship means to grant such an enunciative contribution of sense, as to show who is speaking, what could legitimize what she/he is saying and that is its claim of validity. These questions organize interpretative procedures for a diatextual researcher, since they suggest that he/she looks for a series of markers that identify the *Subjectivity*, the *Argumentation* and the *Modality* of discourses and can thus catch the meaning within the dynamics of reciprocal co-construction of text and context of enunciation (see Table 1).

The first question aims at clarifying the way the text speaks of its subjects, by weaving the complex links with the image the enunciator elaborates of him/her self and of the addressee. The diatextual researcher looks for traces of the dialogue between the enunciative positions that (through the text) let the identity profile of the ideal author and of the ideal addressee come out. The second question points out an axis of semiotic pertinence that allows the discourse to articulate arguments, that is to organize “meanings why” and to give voice to reasons and aims as to why one says what they says. The third question focuses on the articulation of the “*dictum*” and of the “*modus*” of discourse according to that the meaning is shaped, that is it acquires a *Gestalt* quality that can be evaluated as “good” or “bad”, “nice” or “naughty”, “effective” or “insipid” etc.

Diatextual analysis is a proposal for a “subjective” interpretation, with the explicit awareness of the particular and the fallible nature of its results. The analysed text links the subjectivity of the researcher to the subjectivity of enunciators. The researcher expresses his/her subjectivity first into a series of options that are prior to the data analysis, starting from the definition of the object under analysis, to the collection and selection of the *corpus* and proceeding to focus on the pre-theoretical point of view (or ideological orientation) in that he/she seeks to penetrate the text. If the enunciator adopts a strategy of *débrayage*, he produces a text lacking any anchoring to “I-here-now”, so that the global effect is that of an “objective sense”, since he shows unselfishness and normative generalization. On the contrary, if the enunciator adopts a strategy of *embrayage*, then his text exploits any resource in order to link meanings to “I-here-now”, so that the final effect is of a personal involvement, since he takes himself into a regime of circumstantial legitimation and actional guarantee.

Table 1. An overview of the diatextual approach

Questions of Diatextual Analysis	Dimensions of Diatextual Pregnancy	Diatextual Markers
Who is the utterer of the text?	Subjectivity	<ul style="list-style-type: none"> - Agentivity: any textual unit showing if the enunciator is source or goal of action; - Affectivity: any textual unit highlighting the emotional dimension of texts; - <i>Embrayage/ debrayage</i>: any textual unit revealing whether the enunciator is involved or not.
Why the text organizes its world?	Argumentation	<ul style="list-style-type: none"> - Stake: aims and interests animating the text; - Story: scenes, characters, models of action; - Network: <i>logoi</i> and <i>antilogoi</i> activated within the several narrative and argumentative programmes
How the text is built?	Modality	<ul style="list-style-type: none"> - Genre: any reference to the typology of text and intertextual references; - Opacity: rhetorical figures, frame metaphors, etc. - Metadiscourse: any expressions of comment and reformulation.

Concluding remarks

The idiographic perspective recalls to psychology its “humanistic” destiny that is that the organization of its knowledge is validated from the supreme criterion of any interest in the comprehension of the human condition as it manifests itself in each concrete existence. If what really cares for the psychologist is the “experience” than each person does of the (inner and outer) world that frames his/her life cycle, then the main interpretative category becomes the “meaning” that for it is constantly elaborated (Armezzani, 2002). Idiographic psychology is a psychology of the individual and, then, it considers rather useful the “conceptual confusion” produced by more than a century of history of psychology claiming to be at the same time “general” and “individual”, thus anchoring itself to the naturalistic model. The argumentative strategy of such a claim bases on the supposed warranty of the reduction of any psychological phenomena to the underlying bio-electrochemical processes of the mind and to their measurability as epistemological code for their understanding.

Idiographic psychology contests with the establishing operations of the “naturalistic” psychology, starting its emancipation from the philosophical and anthropological context where self-knowledge has been hosted for thousand years. The philosophical root is necessary to the idiographic psychology not only to foster the reflection on the radical diversity of the “qualia”, but also to show the moral horizon of any understanding of the singular self (Harré, 1998). For quite all sciences and mostly for psychology, the structures of knowledge are intimately linked to the system of values, thus being a unique point of reference for the individuals within the physical and social world

(Fabbri & Munari, 2005). This produces that a very relevant effect of the renewal introduced by idiographic psychology is a reflexive one. Therefore, the anchoring to the individual allows idiographic psychology to define itself not only as a science but rather “as a bridge between science, the arts and the humanities” (Taylor, 1999, p. 17).

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Biosketch

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WHAT IS THE NATURE OF IDIOGRAPHIC DATA?

*Claudia Venuleo**

Abstract. This work starts from a key consideration. If idiographic study is today recognized as a scientific method of gaining knowledge, it is evident at the same time that its consolidation and further advancement in psychological research requires a rigorous definition not only of the theoretical frame guiding the reading of the object investigated in the study, but also of its methodological principles (Slife, 2004). As observed (Molenaar & Valsiner, this volume; Salvatore, 2006), the idiographic purpose of taking into account the local nature of meaning-making joins with the scientific need to cumulate local production of knowledge and to ensure that it is inter-subjectively verified. From my point of view, on the one hand this means defining the data investigated, the tools used to collect it and their linkage with the object investigated and on the other hand - and first of all – making explicit the theory of data that idiographic study assumes as the frame of reference, in constructing and understanding its data. This paper deals with this volume. Starting from recognition of data theory which Toise (this volume)'s idiographic study seems to be referring to, conditions and constraints concerning a semantic approach to discursive data are discussed. Moreover it is here suggested that the methodological task of defining the nature of idiographic data requires taking into account the dialogical and situated nature of sense making and therefore of the data that idiographic study assumes as its frame of reference. This entails a semiotic approach to data.

Introduction

As observed (Molenaar & Valsiner, this volume; Salvatore, 2006), the idiographic purpose of taking into account the local nature of meaning-making joins with the scientific need to cumulate all local production of knowledge and to ensure its inter-subjective checking. If idiographic study is today recognized as a scientific method of knowledge, it is evident at the same time that its consolidation and further advance-

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ment in psychological research requires a rigorous definition not only of the theoretical framework that orients the reading of the object investigated, but also of its methodological principles (Slife, 2004).

From my point of view, on the one hand this means defining the data investigated, the tools used to collect it and their linkage with the object investigated, while on the other hand explicitly stating the theory of data that idiographic study takes as its frame of reference.

Indeed, the use of the interview (as well as the use of a questionnaire or other tools aimed to record the other's representations on some specific objects) clearly involves at its source a theory on the nature of data: a way of defining what data is, where one can find it and how one can understand it. Nevertheless, the idea of thinking of the nature of data as the object of a methodological discourse cannot be taken for granted. The target articles deal with this volume on different levels: in some cases they explicitly state the nature of the data collected in their study; in other cases they say nothing on this volume, as if were irrelevant or taken for granted.

However, one cannot but notice that the same data can be used in very different ways with regard to the features of the data that are regarded as important, the procedures used to analyse the data, the system of categories according to which the findings are interpreted and so on. In other words, the meaning of the data does not lie in the data itself. Target articles highlight what we have just pointed out. All of them make use of discursive data collected in the dialogical context of an interview, but choose rather different ways of accounting for, understanding and using idiographic data (on different levels: lexical features, system of categories system, aims of the study and so on).

Think of the dimension of differentiation which seems the most obvious to us: the role which is assigned to the interview context. In some cases, it seems to be regarded as a mere space for the collection of data and in fact the authors do not describe it in detail. In other cases, it seems to be regarded as a semiotic context, which plays a meaningful role in the construction and therefore in the understanding of the data that has been collected; here the authors also dwell upon the sex and the institutional identity of the interviewer.

Toise (this volume) exemplifies the first position. Barcinski (this volume), pointing out the central role of the interviewer, the second one. It is worth underlining that such differences cannot be totally linked up to the theoretical models the two authors refer to; rather to different theories on the nature of data and on what data is. Our aim is not to discuss this plurality in depth. Rather, we intend to use it as a further sign of the need for a theoretical definition of idiographic data, aimed at treating it not as a sign of a worldly phenomenon, but as a methodological construct qualifying a specific model of knowledge. This paper deals with this volume.

The nature of data

In her *Idiographic study of Health Behaviour Change*, Toise (this volume) quotes extracts of a woman's narrative recorded in an interview context over a six-month pe-

riod. Her “description” of her motivation, physical and emotional self-perception and self-compassion - related to specific indices with regard to the management of her diabetes - are used in order to show *how* and *what she changed* on her journey from insulin dependence to insulin independence.

The data taken into account are therefore the signs (thoughts, statements, behaviours) produced by the interviewee in a collaborative research setting. The woman's answers (i.e. woman's self-representation of her change trajectories) are regarded as signs referring to further psychic realities (self-compassion, self-perception, world-view). These are the psychological components that the model of change put forward by Toise sets out to describe.

Nevertheless, the interview in itself and the semantic contents it produces, does not raise such questions as: why does the woman (called Satya) at a certain point of the interview assert that when doing yoga “the whole mind goes calm” (p. 195)? With what representation of the aim of the interview shared with the interviewer? At what moment of her life? In regard to whom?

In effect, the focus on the contents, rather than on the context, of discourses, presupposes the salience of a space of homogeneity/agreement between interviewee and interviewer on the meaning of what is being said (the meaning of the answers and the meaning of the question). The meaning of the semantic contents is stable enough to justify the lack of comment on the interview's discursive context where the sign is produced. From a complementary point of view, a semantic approach relies on the assumption of invariance of meaning through contexts.

From this perspective, the interview is a space-and-time of transmission of preformed meanings. It is therefore legitimate to set out to investigate the psychological components implied in the change in the woman's state of health through what she says (or the level of agreement she expresses about the statements in the questionnaire), but without dealing with the problem of giving a meaning to the fact that she says what she says in that context.

The statements recorded through the interview are meaningful in themselves (since they are the sign of further psychic realities). One therefore does not need to treat their nature as a methodological issue. It is enough to *explain*¹ what psychic realities they refer to and why and how psychic realities have changed.

The interview, the collaborative setting of research where it unfolds, is not part of the construction of idiographic data. The latter is pre-existent to the discursive change, though conveyed by it.

Barcinski (this volume) expresses a different point of view, since she underlines that self-representations of the woman in her study (Denise) change through time (so she is sometimes a weak woman, other times a strong gangster, other times a dependent wife and so on), but also because she underlines that the woman makes use of rhetorical devices “in order to position herself in particular ways throughout the interview.” (p. 117).

1 In the case, why and how the mind of the woman goes calm, not why she says the “mind goes calm”.

On this level, analysing the role of the audience is central in order to understand the discursive positions investigated. These are regarded not as states of the world, but as dynamic processes which one cannot understand by leaving out the intersubjective discursive change within which and according to which they unfold.

We can refer to this different approach in terms of a semiotic approach to data. The typical aspect of such an approach is the fact that one gives up the referentiality of the discourse as data on which one can construct one's own interpretative hypothesis; this means recognising the fundamental rule that what is said and done has to be regarded not as referential content (that is as significance of a state of the world), but as sign/significance of the semiotic context that encourages the saying and the doing (Salvatore & Scotto di Carlo, 2005).

This paper starts from the recognition of such diversity, but it aims to do more than just stress this recognition. My intent is to discuss it on a modelistic level. In the following pages, I will examine - from my point of view - the factors that on the one hand, spur one to reject a semantic approach to data (or rather, its use as a universally assumed approach) and, on the other hand to justify a semiotic reading of it.

In so doing, we deal with the problem posed by the Editorial introducing this Yearbook (Salvatore & Valsiner, this volume) concerning the conceptual status that should be attributed to identity (*the entity to which idiographic data refer in the final analysis*). As observed by Salvatore and Valsiner (this volume):

“if identity is thought of as a *reference* (...), then the actor's self-representations can in the final analysis be used as a criterion of validity. On the other hand, if one thinks of identity in terms of a sign, this means that every form of sense of self has to be understood as a rhetorical and performative act that unfolds within a local social activity, in order to regulate it.” (p. 15)

This entails refusing the ontological postulate concerning the idea that the object of philological knowledge is a real, single entity.

Significance and sense

In recent years an increasing number of authors in the philosophical, semiotic and linguistic field, as in that of psychology² (*inter alia*, Bruner, 1986; Cole, 1996; Gergen, 1999; Edward & Potter, 1992; Salvatore *et al.*, 2003; Valsiner & van der Veer, 2000) have expressed their dissatisfaction with the semantic approach, due to its incapability of taking into account the role played by meaning and contextual factors.

In particular, it has been highlighted that, if discursive exchange clearly shapes moving signs (each one with a semantic content, which is more or less constant), it is at

2 Here, in particular we are referring to the authors adopting a semiotic and intersubjective point of view.

the same time worth recognising that what is communicated goes beyond the semantic content, even radically so.

An example can highlight this point. Let's take one fragment of the speech of Satya, the woman in Toise's study:

"My diabetes was connected to stress. Once you control the mental tensions—the yoga is doing it. The music which is in the class [and] the class is very calm... [There is] no distraction. [Daily cares] do not enter my mind. What I'm doing for one hour I'm doing with a lot of sincerity...the whole mind goes calm, there is no extra or unnecessary activity going on in the brain" (Toise, 2008, p. 195).

Let us imagine that this utterance is made in regard to the following questions a), b), or c), in turn:

- a) "What are the benefits of yoga?"
- b) "Can you speak about your daily cares?"
- c) "Why did you stop your traditional exercises?"

The meaning (i.e. the semantic contents) of the words of Satya's speech is the same. Nevertheless it is evident that she doesn't communicate the same thing in the three different cases. In regard to the first question *a*), her answer seems aimed at reassuring the interviewer on the benefits of yoga. In regard to the second question *b*), talking about yoga may be a way of saying and at the same time not saying, that her daily life is a source of stress for her, so she doesn't like to think and/or talk about it. In regard to the third question *c*), the utterance seems a justification for her commitment on yoga, rather than being about her exercises.

Now, let's imagine the same utterance in regard to the same question *a*) (What are the benefits of yoga?), but asked by a doctor who has earlier told her about his wariness of non-traditional health treatments. What can the sense of the utterance be in this case?

Once more, let's image the same utterance in regard to the same question *a*) (What are the benefits of yoga?), in a family argument, asked by her husband, after the wife (Satya) said: "There is no benefit in living with you." Let's image that she is alone in the street, in a dangerous situation and she is saying that utterance to herself, with the aim of recalling the mental state she connects to yoga....

The examples highlight that the same significance (i.e. semantic content) may have a huge number of different senses not only according to *who* makes it, but also according to *who to*, *when*, *where* and *why*. In other papers the distinction between significance and sense has been discussed (see: Salvatore, Ligorio & De Franchis, 2005; Salvatore, Tebaldi & Potì, this volume; Salvatore & Venuleo, 2008). Here it is enough to recall it.

If one defines *significance* as the semantic content of the sign (what the sign says about a given reference), one can distinguish it from *sense*, defining the latter as the psychological/communicational value that a certain significance acquires within and according to the situated intersubjective (discursive) circumstances (Edwards & Potter,

1992; Gergen, 1999); that is, not what is said, but what is communicated by the act of saying it.

Getting back to our starting-point, the distinction just mentioned, as well as the one between *content* and *act* (Salvatore & Valsiner, this volume), leads us to insist on the view that Toise's silence about the contextual circumstances of Satya's speech strikes us as a critical matter. The criticism does not lie in the theoretical model of change but in the theory of meaning (data) that his silence seems to be referring to, entailing a semantic approach to discourse. Indeed

“every text cannot be treated as significant in itself, but it also raises the question of understanding what does the fact that it has been produced in that specific circumstance – by these actors – in that moment mean.” (*ibidem*, p. 16).

Toise's model helps us to conceptualize what changes and how it changes, but it tells us nothing of the pragmatic dimension of the sensemaking, i.e. what and how one can understand from the fact that Satya is expressing a feeling of well-being, instead of worry or discouragement.

In sum, from our point of view, the basic criticism is the *semantic reductionism* that creates an overlap between sense (the strength and the direction of the informative and persuasive forces of communication) and significance³. On this point, if one accepts our first statement that communication doesn't depend only on meaning, but also and above all on sense, then in order to construct the interpretative hypothesis at which each model aims, one has to take into account the sense of the data.

The last statement entails another methodological task. What is the nature of sense? In order to answer to this question, one point is worth highlighting. What we have called “sense” concerns the whole act of using the content of the signs (what we have called “significance”) *within* and *by* a discursive social exchange.

The last section is aimed to recall the idea that in order to understand the sense we need to go beyond the approach that sees the interviewee's speech as a mere epiphenomenon of cognitive structures and think of it as a product and – at the same time – as a constitutive dimension of sensemaking (Salvatore & Venuleo, 2007). As we will try to argue, this means recognizing its intersubjective, social, perlocutionary and semiotic nature.

What is the sensemaking process?

As socioconstructivism has observed, sensemaking is always an intersubjective process (Billig, 1996). And thinking is always a contextual act, embodied in a social

3 In the terms of the editorial introduction (Salvatore, & Valsiner, this volume), the issue is that the semantic approach treats the linkage between discourse on the object (DO) and discourse on the discourse on the object D (DO) as taken for granted-- that is, it assumes the equivalence of the two objects.

activity and shaped and oriented for and by the requirements for regulation of such social activities.

Here we will just recall two aspects of this topic. First of all, one talks about making use of the resources (i.e. cognitive and affective categories) and master narratives found in the context and that be used by the subject thanks to her/his membership of a social system (and therefore of a culture) (Rappaport, 1998; Zittoun, 2004). Barcinski (this volume) takes up this statement, since the aim of her study is to show “the ways in which hegemonic discourses become the privileged resources individuals use to identify themselves.” (p. 108).

Subjects don't come in touch with a single, discrete object (i.e. yoga, the interviewer, his/her question), but rather they relate to any sign (the signs offered by the interviewer too) through the system of significance (cultural, symbolic and cognitive models) found in their local context.

In this perspective, for instance, the connection between “the mind is calm” and “I am well” is clearly a connection between signs which is possible in some relational and cultural contexts, unlikely in others. The subject's representations are guided and limited by the language system where he/she lives (McNamee & Gergen, 1992). It follows that a subject's statements about his/her own experience tell us about membership of a system of activity and discourse.

Second, talking is never a neutral action, blind to the consequences. As Austin (1962) pointed out, producing a sign is an action of communication (a speech act) that one can not consider without taking into account its perlocutionary value, its conative function, aimed at influencing the listener and arousing a certain reaction in him/her. People make identity, reality, social order and social relations real by talking and narrating. According to the teachings of the later Wittgenstein (1958), language forms can be regarded as acts aimed at empowering one's own vision of the world in the dialectical space of the social exchange.

From this angle, speaking is more than the cognitive function: is an argumentative, rhetorical and social practice, an integral part of specific forms of life that offer substances, devices and ways to talk about experience. In other words, sense-making is a dialogical process, unfolding within and according to a socio-symbolic space (Rosa, Duarte & Goncalves, this volume; Zittoun, 2007). Recognizing the contextual and semiotic dimension of language leads to underlining that talking about one's own experience is an action grounded on a system of assumptions - concerning the definition of the problem, the goals, the rules, the roles, the tools and the procedures - that make sense and regulate the interviewer and interviewee's reciprocal positioning, therefore their shared activity (Venuleo *et al.*, 2007; Montesarchio & Venuleo, 2003).

It follows that to interpret the sense of data - recorded in a dialogical context – one must take into account the plurality of points of view by means of which such activity can be conceived and the plurality of aims underlying the way one takes part in it (i.e. as a human duty; as a way of thanking someone, for instance the doctor who took care for one's health; as way of knowing something else about oneself and so on).

Now let us return to the study we are referring to. As well as the interview, Satya also provides a medical record regarding her health. On the evidence of the admission form, Toise points out that when the woman “could not practice yoga (*because*) it con-

flicted with her summer schedule (as her children were home from school)”, her health was worse. On the basis of the above consideration, firstly, we may ask: who is speaking? It is the point of view of the researcher or the interviewed woman that staying at home with the children clashes with yoga?

Let’s suppose that Satya gave such a justification. What is the communicative value of this act? Can we infer that being well for her means being outside the house? Can we infer that yoga is useful but hard to combine with her also being mother, wife and so on? Can we infer that, from her point of view, her psychic and physical well-being is poor?

Toise (this volume) reads the woman’s statement as a sign/proof of the fact that yoga had good effects on her health from her point of view too. Our aim is not to change one such meaning with another, but rather to suggest that this conclusion is not self-evident. The utterance does not provide the reader with all the information needed to understand its sense. The sense is not part of the words the woman utters. Rather, one has to ask: what is the semiotic context (what representation of the organizational context of the interview activity, of the interviewer, of the partnership model, of its value for herself and her problem), in which the woman is offering that construction of herself?

From our point of view, this means that defining the superordered frame in which the relations between the assertions about the local phenomena investigated are possible (Salvatore & Valsiner, this volume), entails on a methodological level going beyond a semantic approach to the discursive data and reintroducing – in the observation field – the social and discursive context. Indeed, as we have highlighted above, this context is not a mere space for the recording of data, but is what unfolds and is constructed *thanks to* the sense of the data. This perspective makes us regard as problematic the aim of decoding linguistic material (words, phrases, textual fragments) by using universal criteria belonging to the observer’s system of categories rather than local ones, that is, criteria which are elaborated according to the discursive and social change under study (Salvatore, Grasso & Tancredi, 2005).

Conclusion

I have tried to highlight that the methodological task of defining the nature of data on which an idiographic study is based requires taking into account the dialogical and situated nature of sensemaking. This entails models of analysis, understanding and reporting that are able to take into account the semiotic context of which the data is a product and at the same time vector and to make it explicit. The context is that of the *interview*, but also the *socio-symbolic space* the interviewee belongs to.

In sum, from my point of view, if we consider sensemaking as an intrinsically intersubjective process, we have to regard the nature of the data in the same way. This paper did not set out to discuss further methodological issues, even if connected to the semiotic data theory we have recalled (to mention one: how can we capture sensemaking processes? What procedures are needed?). Our - more limited - aim was to recall the opportunity of treating data as the object of a methodological discourse. Otherwise, one risks losing the *sense* of the inquiry.

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Biosketch

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SECTION III
LIFE TRAJECTORIES

JOINT BOOK READING: SOCIALIZATION OF LITERACY IN CULTURAL PERSPECTIVE

*Giuliana Pinto**, *Beatrice Accorti Gamannossi*** and *Catherine Ann Cameron****

Abstract. The present work is part of the broader research initiative, “A Day in the Life”, which investigates aspects of culture in the interactional construction of early childhood in diverse global communities: Peru, Italy, Canada, Thailand and the UK. Regarding culture as a dynamic dimension of the child’s socialization, the approach taken was to film a “Day in the Life” (DITL) of a two-and-a-half year old girl in each location. The focus is on home activities in which parents expose their child to opportunities for learning about written language. A typical early socio-cultural language practice situation is singled out: shared book reading. To detect if emergent literacy shows culture-specific patterns of social interaction, we also investigated how in the natural context of discourse, parents enhanced the development of awareness about this notational system. We noted how they help their child by engagement with text to develop an appreciation of print conventions, narrative forms and appreciate and develop metalinguistic awareness, by calling attention to the difference between picture and print and between print and other notations. We present evidence of the different pathways through which knowledge acquisition of the characteristics of formal language can be attained in different cultures. In all the different interactions observed, we could confirm the omnipresence of the setting that other research identifies as promising for shared literacy experiences. In fact in all three contexts, written materials (mostly books), shared attention child-adult, dyadic asymmetrical relationship and reciprocal involvement are present.

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Socialization of emergent literacy

The ability to create and use symbols to communicate and to structure social life is one of the most striking cognitive skills of human beings. Linguistic symbols, written language, mathematical notation, art, music, are objects of cultural transmission and exchange, indeed, they are part of the

“moderately common evolutionary process that enables individual organisms to save much time and effort, not to mention risk, by exploiting the already existing knowledge and skills of conspecifics.” (Tomasello, 1999, p. 4)

Beside their generality and their evolutionary nature, the behavioural and cognitive mechanisms involved in the cultural transmission of symbolic communication are situated in an environment embedded in cultural-historical features which deserve to be taken into account, as they give rise to different social practices and furthermore, put different emphases upon and exploit various cultural practices, (as is instantiated from the variety of cultural artefacts and forms that different cultures accumulate over time). Each culture has its own inventory of symbols, the particularities of the various symbolic systems come from differences among the various people across the globe in the forms and functions of language they think it important to use. Differences among oral and written cultures are extensive and the reason for this can be traced back to different cultural needs (see the history of mathematics: Saxe, 1981; and writing: Jaynes, 1976). An understanding of the development of literacy is not complete without consideration of the ways in which literacy skills and activities are distributed within a given society (McKeough, 2000; McKeough *et al.*, 2006). We approach literacy as a process that the existing social relations in a culture shape and that co-varies with other social institutions. From this viewpoint the structuring of access to literacy is seen as an essential characteristic of any communication system and exploring the patterns in different cultures can tell us much about a society and the mentalities of its members (Lock & Peters, 1996). Our broad interest is in the development of an understanding of representation across domains and in identifying experiences that influence children’s acquisition of various symbol systems like drawing activities and knowledge of print and numbers (Bialystok *et al.*, 2000).

The theoretical focus of the present work is the emergent knowledge of written notational systems presumed to be developmental precursors to conventional forms of symbolic communication: we focus on the emergence of shared attention toward written language, thought to be an experience that influences children’s acquisition of literacy. A strong association between home literacy environment and preschool-age children’s emerging literacy is broadly supported in the research literature (Weigel, Martin & Bennett, 2005).

From this perspective we must consider, according to Gee (2002) and Olson (1996), that literacy is intertwined with attitudes, beliefs and ways of talking and behaving. Literacy is not a general capacity; rather, people adopt varying socially constrained ways of using language and print as they construct meaning. Socio-cultural practices that embed ways with printed words almost always involve human beings both coordinat-

ing and getting coordinated by other people, as well as forms of language, non verbal images and symbols, objects, tools, technologies, sites and times. Such practices are an interchange in which people are simultaneously active (coordinating) and passive (getting coordinated) and they get in synchrony with others through a multitude of forms of language, images, symbols, etc. (Gee, 2002).

The format of joint book reading

An important format for children's acquisition of such practices is joint caregiver-child book reading. As Bus (2002) pointed out, book reading has a long history as a family routine. According to social-construction theories, book reading is a socially created, interactive activity in which the child's interest is as much a prerequisite as a consequence of book reading. Exposure to books provides a rich source of linguistic stimulation for the child that may foster literacy development in a unique way. Book reading may stimulate book understanding because it supports children's knowledge of oral and written language within a particular contextual sociocognitive framework (Bus, 2002).

The evaluation of a wide range of field materials will allow us to notice the recursive presence in all the three contexts studied here of a particular activity: shared book reading, an emergent literacy activity very useful for enhancing children's interest in written symbols (Lonigan, 1994). Book reading brings young children in touch with story structures and schemes and literacy conventions that are prerequisites for understanding texts; reading books to children also exposes them to the written language register (Bus, van IJzendoorn & Pellegrini, 1995).

Much research shows the importance of shared book reading in helping children to become familiar with written language and proves its efficacy in preventing first difficulties in reading and writing (Payne, Whitehurst & Angell, 1994). Shared book reading is thought to provide social-cognitive grounding for the child to understand that the signs on the page and the utterances and the gestures of the reading/writing partner serve a communicative intention, as it affords opportunities for witnessing the mature use of the relation among written signs and linguistic meanings, among the symbols and their referents, between contextualized and recontextualized language (Cameron, Hunt & Linton, 1996).

According to Normandeau (2004) similarities of contexts allow for the observation of each girl in contexts of development that are specific to each culture and relevant to each culture. These observations show the central role of the organization of activities in shaping the child's experience as well as the experience of the caregiver. Differential social valuation of modes of representation is a major issue given the differential emphasis on written symbols among different cultures and the consequential different emphases given to literacy in school systems. In their review, Schiefflin and Cochran-Smith (1984) stressed cross-cultural influences on the importance given to literacy and literacy experiences in early childhood. We cannot forget that the relevance of these first experiences with reading may be influenced by the emphases given to the

significance of print across cultural contexts, by the extent of what Brockmeier (2000) terms “the symbolic space of literacy.”

It is also important to remember the multiplicity of symbol systems that children are expected to explore, in their attempts to communicate; an understanding of written language acquisition differentiates it from and complements oral language, number systems, drawing, musical notation. The research literature requires us to view written language as just one of many symbol systems.

The day in the life project

The “*Day in the Life*” project is an offshoot of a program of research¹ concerned with developing new methods for the study of early childhood, that involves several locations across the globe (Gillen *et al.*, 2007). This ongoing international, interdisciplinary, collaborative, project investigates aspects of culture in the lives of two-year-old girls in diverse communities on four continents, namely: Asia, South and North America and Europe.

The broad range of notions of “culture” in such disciplines as education, anthropology, sociology, demographics, psychology, etc. has inclined us to take a sociocultural (Rogoff *et al.*, 1993) or sociohistorical (Cole, 1997) perspective. Our methodology explores the dynamic nature of the child’s and her caregivers’ activities and social interactional processes. Selecting and exploring contexts of “healthy development”, we assume all interactants always to be in dynamic reciprocity whether they be “subjects” of study or researchers.

In this research strand we focused in particular on early experience with written symbolic systems, hypothesizing that knowledge acquisition is a universal task of human development and that this task can be addressed through different cultural pathways. We expect to identify, in the different cultures observed, typical settings that the literature shows are generative of emergent literacy (presence of written materials, shared child-adult attention, dyadic asymmetrical relationships and reciprocal involvement).

Methodological framework

Working together from origins in multiple disciplines: developmental and health psychology, early years education and psycholinguistics, we evolved the following aims:

1 The “Day in the Life” project began under the umbrella of a research development initiative: Interdisciplinary examination of the role of culture on human development: an international project for the development of new methodologies based at the Centre for Research on Culture and Human Development at St Francis Xavier University, Nova Scotia Canada (directed by T. Callaghan). Support for the project has been received from the following sources: Social Sciences and Humanities Research Council, Canada; Human Resource Development Canada; The British Council; The Open University; University of Exeter; University of British Columbia; University of Florence.

- a) to explore “strong” or healthy, robust, children in a variety of cultural communities;
- b) to further our understanding of children as social actors, interacting and exchanging with others in ways that shape culture and are shaped by culture; and
- c) to develop interpretive research methods, through the application of a critical perspective.

As far as the first aim is concerned, a core investigative focus has been the exploration of the notion of a strong or healthy child as developed in the interplay of the child, family and broader sociocultural context. We explore both explicit and implicit views of such children during and subsequent to our captured day in their lives. We assume that a participatory understanding of development can be applied to children, caregivers and those who seek to understand them and that this is a fruitful approach within an interpretive understanding of research (Abbott & Gillen, 1999; Rogoff *et al.*, 1993). We commenced with a notion of the “strong child” as being variable across cultures, thus we sought the most appropriate phrase in each community’s language that denotes thriving and surviving in spite of potential negative odds. In all strands of the project, we start with observations of the “strong child” interacting with the environment, including her family, in the course of one videotaped day in her life. Naturalistic observation will always be unattainable, but nevertheless, the day as enacted may be indicative of the family’s values.

Our approach, in common with that of Tobin, Wu and Davidson (1989), documents the daily rounds of young children in context and inspects those contextualized activities from a variety of both professional and personal perspectives. Colleagues indigenous to the child’s home background as well as those from different cultural backgrounds; colleagues from a range of different disciplines observe footage of the child’s day; and family members review and comment on segments of the day, all providing good connections to assist us in comprehending the values of a culture and its modality of transmission.

The basic scenario for getting specimens of the phenomena involves video taping a “*Day in the Life*” of a two-and-a-half-year-old girl at home in each of five cultures: Thailand, Peru, Italy, Canada and the UK.

Each local project followed a six-phase protocol (Gillen *et al.*, 2007).

1. Locating research participants

The umbrella project conference at St Francis Xavier University in Canada afforded opportunities to meet distal co-researchers and Canadian interns trained to work with those co-researchers in those locations. Collaborating with these colleagues, we designed the initial protocols, although always emphasizing the desirability of striving towards sensitivity for local interpretations. After the conference, these partners located an appropriate family, with an apparently thriving two and a half year old girl, willing to engage in the project. We chose to focus on a strength-based analysis of the roots of female resilience.

2. Pre-filming: family preparation

Two researchers (either the local researcher and a Canadian intern or two local

researchers) visited the family to establish initial rapport and collect basic demographic, health and lifestyle information through a semi-structured interview. The project aims, extents of commitment, confidentiality and participants' rights, were fully discussed with the families. There was also a one-hour session of filming to accustom the child and her interactants at least slightly to the experience of being in the presence of a video camera-person and field-note taker for an entire waking day.

3. Day in the Life first iterative filming

The two researchers arrived at the family home soon after the child woke and stayed for as much of the day as possible. Videoing, usually using a small digital camcorder, was stopped while the child was asleep or engaged in toilet activities. At least six hours of film was obtained in each location. The researcher present who was not videoing, quietly observed, making notes on a spreadsheet on a clipboard, identifying the times the child changed her activity or location and people present at the scene. S/he also wrote explanatory notes about other activities or features of the environment to assist the distal project researchers with their understandings. Plans of the environment were also drawn. The composition of the team sometimes altered in line with circumstances. For the purposed of the present report these videotapes were carefully inspected in order to identify all passages including any joint book reading recorded during the day.

4. Selection of focal interchanges

"*Day in the Life*" videos were collected and perused individually and then together by the two project principal investigators (C. A. Cameron and J. Gillen). The focus on real time viewing and reviewing by the investigators who are from two different cultures and disciplines, afforded a sense of attunement with each local "*day*." While viewing the videos the distal researchers were dependent for understanding upon the field notes and layout drawings to gain insight into the lives for the focal family. Working together the principal investigators edited a half hour compilation video of approximately six five-minute clips that in collaboration they considered displayed a variety of the activities and kinds of interactions the child had engaged in over the day and which appeared to tap in on the family's striving to support the healthy development of their child. Clips were selected based upon what the two researchers external to this culture found noteworthy, with some being identified as wholly in keeping with the general tone and content of the day and some others represented anomalies. This one-half hour compilation tape proved an appropriate and timely elicitor of family discussion.

5. Second iterative stage

After scrutinizing the compilation video, the local investigators returned to the target family with the tape. They filmed an interview during which the participants together watched the compilation video, pausing between sections for reflexive discussions. Families in each context responded with reactions to the selection of video data in ways that often enhanced or reoriented the researchers' provisional

understandings. The questions posed evolved quite naturally out of the discussion. The families demonstrably enjoyed their participation; although it would certainly be true to say that, as expected, some slight tensions were evinced towards the ends of the long day of filming. The meeting afterwards was welcome and of course the participants appreciated their gift of the compilation tape (Gillen *et al.*, 2007).

The DITL data set

The focus of the present study is on home activities by which parents expose their child to opportunities for learning about different notational domains (as with drawing and written language) (Payne *et al.*, 1994).

We were interested in observing both the child's approach towards the written notational system and the home activities by which parents create opportunities for learning written language and enhance the child's concomitant development of symbolic representations.

Naturalistic observation seems a better methodology than parental reports for reducing social desirability effects. From the "*Day in the Life*" dataset, we reviewed the corpus and identified all passages that revealed:

- a) the attention of the child towards written symbolic systems,
- b) their spontaneous engagement in literacy activities,
- c) their request for assistance in joint involvement,
- d) parents' facilitation of the development of awareness about notational systems, noting how they calling attention to print and other notation conventions and
- e) how often mention is made of written-form terms (such as "page", "word", "title" etc.) (Ravid & Tolchinsky, 2002); and how often they mention drawing terms (using "pen", "colour", "paper", etc.).

The first phase of written language acquisition is called "emergent literacy": it is characterized by children's formal and informal contacts with spoken and written language before attending primary school (Chaney, 1994).

The foundational age for many children is from about 2 years of age, when the process of discovering symbolic systems has begun. In this process the child is an active discoverer, but adults also play a significant role helping him/her to build knowledge in a social way, through "cognitive scaffolding." The adult plays a very important role facilitating the child in learning written language as a representational system of spoken language.

The comprehension of the relationship between written signs and meanings is a complex process that involves a multiplicity of skills and abilities. Emergent literacy is considered related to several cognitive abilities: knowledge of letters (Evans, Shaw & Bell, 2000), knowledge about the functions of print (Purcell-Gates, 1996) and language skills (Wagner *et al.*, 1997), including the recontextualization of language use (Cameron, Hunt & Linton, 1996).

In fact between 3 to 6 years of age there appears both continuity and discontinuity in language development. Whitehurst and Lonigan (1998) built a model that explains how emergent literacy might encompass two distinct domains: inside-out skills (phonological awareness, letter knowledge, emergent writing, etc.) and outside-in skills (language, conceptual knowledge, emergent reading, shared book reading, etc.). These various domains are not the product of the same experiences and evidence suggests that early individual differences in these skills can be traced back to the nature of the child's literacy context and experience. These differences are noticeably relatively stable from kindergarten onward (Bryant *et al.*, 1990; Scarborough, Dobrich & Hager, 1991). These considerations implicate the importance of deepening the knowledge of the first developmental steps of this process.

The cultural practice of parents regarding symbolic systems is of particular interest because of wide differences in children's print based performance observed both cross-culturally and within multicultural societies.

We expected to identify, in the different cultures observed, typical settings that the literature distinguishes as important for the emergent development of symbol systems, such as the presence of written materials, shared child-adult attention, dyadic asymmetrical relationships and reciprocal involvement (Ravid & Tolchinsky, 2002). But we expected at the same time to find important variability that characterizes the different contexts (for example different focuses of the activity on emergent literacy, different levels of material sharing, diverse degrees of joint interactional style, etc.).

Shared-book reading experiences in different socio-cultural contexts

To observe the possible ways through the child directs her attention towards symbolic systems, we looked in the different cultures examined both the occurrence of activities useful for enhancing children's interest toward written symbols (Lonigan, 1994), that is to say the presence of typical settings that research has demonstrated to be relevant to the development of symbolic systems, like shared attention, asymmetrical dyadic relationships and reciprocal involvement (Ravid & Tolchinsky, 2002). Once all instances of joint book reading were identified, we chose three dyads (2 1/2 year-old child and adult) living in three highly different environmental contexts in the DITL data set: United Kingdom, Peru and Italy to afford an opportunity to observe a differentiated range of literacy events.

To conduct research with ethnographic procedures, the studied event should be relevant both in life practice and in social community representation. This methodological consideration guides our data analyses as well (Pontecorvo, 1996; Pontecorvo, Fasulo & Sterponi, 2001).

The approach we used was designed to assess parental ethno-theories of writing and learning and their instantiation in practice at home.

Case 1: the English family

The child in the UK was a member of a set of fraternal twins and they had a younger sibling as well. These three children, all under thirty months of age, had a total of six caregivers. Their commodious home afforded room not only for them and their two parents, but also, one of two sets of grandparents who alternated living in; each pair alternating with the other a week at a time. The father went out of the home to work (as a computer consultant), but the mother, a university research scientist, stayed home with the children and whichever grandparents were resident that particular week. The maternal grandparents (retired physicians) were on the scene the day of our observations and actively engaged in childcare. All reported a shared commitment to enhance while honouring the natural individual differences of the children and their divergent developing responses to their experiences.

In the English dyad, composed by the girl and her grandmother, we selected two significant episodes from the many in which an interaction among adult and child was mediated by written material.

After breakfast the little girl moves from the kitchen to the sitting room to join her grandmother and selects the book "*Goo Goo Gorilla*" (Whybrow, 1998). She sits on her grandma's lap to hear this favorite story; the grandmother begins the storybook reading following the text with her finger, whilst the girl intermittently drinks and eats her sandwich. The grandma reads and the girl follows attentively looking at the pictures in the book, she interacts making spontaneous comments related to the story's unfolding. During the storytelling the grandmother interprets the voices of the characters

[00:01:52] Grandma: "Ssss, ssss, say the snakes."

and points the fingers on the pictures in the book to catch the girl's attention

[00:02:00] Grandma: "Look there, how beautiful it is."

So the girl's attention is wholly captured by her grandmother's telling of the story and she joins in with the story at certain significant and already familiar moments

[00:02:15] Grandma: "...and there came the night..."

[00:02:16] Girl: "Oh! There!" pointing the picture in the book.

[00:03:43] Grandma: "...and the crocodile..."

[00:03:44] Girl: "Here is the crocodile!" pointing the picture in the book.

At the end of the story the grandmother asks her if she would like the story again or another story. She chooses to hear it again.

[00:05:25] Grandma: "Would you listen it again or would you like another story?"

[00:05:26] Girl: "Let's have it again!"

During this second telling the grandmother continues to read following the pictures in the book and the girl's attention seems even more captured. She carefully scans and pictures as the pages are turned and listens attentively to her grandmother's words while she imitates voices and gestures of characters.

[00:07:03] Grandma: "And he screams, he screams, he screams: whaaaa!"

The whole interaction lasts 9 minutes and 25 seconds.

During the interaction the girl and her grandmother are very close: the girl is sitting on grandmother's knees, but they don't look each other because they are both looking toward the book. Even if there is not reciprocal glance, the interaction is very intense: they are both totally involved in the relation guided by the sharing of the book.

The language used is always in reference to the story and, while the grandmother utilizes complex and structured phrases (mostly red in the book), the girl interacts with simple sentences. The engagement of both partners in this activity is very high and they both appear totally absorbed by the reading and the listening without any distraction.

After lunch the girl again joins her grandmother and selects the book "*Hello baby badger*" (Maris, 1994). The grandmother begins the telling with the same setting at that of the previous interaction; the girl intervenes during her favorite moments in the story

[00:00:49] Grandma: "...and arrives..."

[00:00:50] Girl: "...the badger!" pointing the picture in the book.

[00:00:51] Grandma: "Oh, yes, the badger!"

[00:02:53] Girl: "Two frogs!"

[00:02:54] Grandma: "Yes, there are two frogs there."

At the end of the story the grandmother asks her if she would like the story again or another story. She chooses to have "*Goo Goo Gorilla*" again and goes to pick the book up. The grandmother starts the reading following the text and the pictures in the book. This interaction is 9 minutes and 22 seconds in length.

The partners have the same spatial position (the girl sits on grandmother's knee), but in this second interaction there is much more noise because in the same room the mother is reading a story to the brother and he is talking loudly. In spite of the noise, grandmother's voice is very calm and gentle, she speaks softly in the girl's ear and they are both very engaged by the story, by the book and the pictures.

There is a very high level of participation from the girl, who is in grandmother's arms during the whole interaction. There is positive reciprocity in social behaviour: grandmother turns pages and points out the characters of the story. The language is primarily simple, but there are some complex interchanges (more than two such verbal exchanges). Grandmother's interaction style is *dialogical*, in fact she speaks to her granddaughter, imitating the cries, voices and gestures of the animals) giving her time to answer and talk.

Case 2: the Peruvian family

This child lives with her mother, who keeps a prosperous corner village shop and bakes bread for sale. She appears to be the primary wage earner for the extended family. She has a husband, the child's father, a grown daughter, a sister and her six-year-old child, a brother and her two parents all living in a family compound. During the day, the mother bakes and works in her very carefully kept store while her sister and mother (the child's aunt and grandmother) look after the two children. At mealtimes all adult family members who are at home take a hand in assuring that the child is fed in each of their homes in the compound. During their leisure time, the aunt and grandmother read with and provide the children with toys, games and activities to engage them. But the child also spent some considerable time in the company of her mother as she worked in the shop and their bond of association was strong. The mother, as she worked very long hours, left the discussion of her child's "day" to the other caregivers as they did much of the daily child-care giving.

In this Peruvian context, the girl and her aunt compose one book-reading dyad. During the afternoon the aunt is sitting in the family's courtyard reading a book. The girl gets from the table a big picture book of animals. The aunt starts a little game with her asking the girl to point out where the animals are

- [00:00:50] Aunt: "Where is the cow?"
[00:00:50] Girl: "There!" pointing the picture in the book.
[00:00:51] Aunt: "And the bear?"
[00:00:51] Girl: "There!" pointing the picture in the book.
[00:00:52] Aunt: "And the hippo?"
[00:00:52] Girl: "There!" pointing the picture in the book.

As well as finding where the animals are, the aunt is getting the girl to repeat the names of the animals

- [00:01:20] Aunt: "Giraffe, how do you say giraffe?"
[00:01:21] Girl: "..."
[00:01:21] Aunt: "Giraffe!"

The interaction goes on and the aunt corrects the girls if she doesn't answer correctly.

- [00:02:30] Aunt: "Say elephant!"
[00:02:30] Girl: "Elephant!"
[00:02:31] Aunt: "And where is the elephant?"
[00:02:31] Girl: "There!" pointing the picture in the book.
[00:02:32] Aunt: "No, that is the horse, here is the elephant!"

The aunt turns the book's pages and continues asking the girl the names of the animals. When the girls is inattentive and walks around the yard, the aunt calls her attention on the book

- [00:04:24] Aunt: "Where is the green snake?"
[00:04:24] Girl: "Here!" pointing the picture in the book.
[00:04:25] Aunt: "No, the green one! Look better!"
[00:04:25] Girl: "Here!" turning the pages in the book.
[00:04:26] Aunt: "No!"

The interaction lasts 6 minutes.

During the interaction the aunt is sitting on a chair, while the girl is standing in front of the book, which is on the floor. The contact between the two is guaranteed by reciprocal glances: when the girl answers the aunt's questions she turns her head toward her and watched at her intently; the aunt looks alternatively at the book and the girl when she asks her questions.

Both partners are very involved in their shared-book reading activity and when the girl becomes inattentive, the aunt calls her regard back on the book. Dialogues are reciprocal: the aunt always waits for the girl's answer before posing another question. Language is not very extensively articulated: aunt's questions are simple and direct and the girl's answers are mostly one-word sentences accompanied by deictic gestures. The engagement shown by both partners is high during the entire interaction.

At the end of the day, grandmother is reading a pictorial book in the family's courtyard. The aunt and a cousin are sitting near her. The girl arrives and begins touching the pages and pointing out the pictures while grandmother continues her reading, turning the pages.

The grandmother talks about the pictures in the book with the aunt, who is knitting, without paying attention to the girl's interventions

- [00:01:20] Grandmother: "See here trousers and..."
[00:01:20] Girl: "Mine!" touching the page.
[00:01:21] Grandmother: "And then there is..." turning the page.

The aunt intervenes in the interaction to correct the girl's pronunciation when she pronounces words referring to images in the book

- [00:02:16] Girl: "Miao.... Miao.... Gato!" [incorrect pronunciation for cat] pointing the picture in the book.
[00:02:17] Aunt: "No! Gatto!" [Cat].
[00:02:17] Girl: "Gatto!"
[00:02:18] Aunt: "Gatto!"
[00:02:18] Girl: "Miao... Gato!"
[00:02:18] Aunt: "Gat-to!"
[00:02:19] Girl: "Gato!"
[00:02:19] Aunt: "No! Gat-to!"

The girl begins to put an object on the book while the grandmother is turning the pages and the cousin takes them off.

This second interaction is 5 minutes and 35 seconds in length. In this interaction partners are in frontal position: the aunt and the grandmother are sitting side-by-side,

the cousin is standing near the grandmother and the girl is standing in front of her. They are carrying out different activities: the aunt is knitting, the grandmother is reading, the cousin and the girl interact with them about the book. Language used in the interaction is quite simple. All the partners appear to be involved in this interaction: even if they are doing different activities, they all are centred around the grandmother and her book, sharing with her their personal interaction with the material.

The girl and her aunt maintain eye contact during the whole interaction and they show a high level of involvement in the activity. There are some solitary activities, but the interactions are mostly reciprocal: the girl turns the pages, pointing to and naming the animals; the aunt interacts with her asking names of animals and pointing to pictures. The language is simple and always used to communicate with a partner. The aunt has an *instructional* role: she is very attentive to the correct naming, pronunciation and spelling of words.

Case 3: the Italian family

In Italy, a nuclear family of a father, mother and one child live together in a relatively small but carefully appointed urban flat. There are many toys, books and musical activities available to the child and her father spends a good deal of time caring for her, especially as her mother is absent for part of the day. The child appeared comfortable in the care of either parent and took considerable comfort in being cuddled by her mother upon waking from her nap, but was clearly accustomed to spending a substantial amount of time in the company and playing with her father. It was he who highlighted their parental belief in the importance of their influence upon her through an active, moral, presence in her life.

In the Italian context the girl and her father compose the dyad. At the end of the day they are in the living room and the girl chooses from the bookshelf the comic book "*Amore amore*" ("*Love love*") by Mordillo and starts to look at it with her father on the sofa.

Child and dad look at the book together. Dad asks to the girl the names of the objects in the pictures

[00:01:26] Dad: "What is this? This is a..." pointing the picture in the book.

[00:01:26] Girl: "A horse!"

[00:01:27] Dad: "A horse."

And the girl asks him the names of the things she doesn't know

[00:01:40] Girl: "What is this?" pointing the picture in the book.

[00:01:40] Dad: "This is a palm."

[00:01:41] Girl: "A palm" pointing the picture in the book.

Dad corrects the girl's mistakes and teaches her the correct pronunciations of the words

[00:02:36] Dad: "What is this?" pointing the picture in the book.

[00:02:36] Girl: "A ciuf ciuf!"

[00:02:37] Dad: "How do you call it? This is a..."

[00:02:37] Girl: "A ciuf ciuf!"

[00:02:38] Dad: "No, it is a tr..."

[00:02:38] Girl: "Train!"

[00:02:38] Dad: "The train."

The interaction continues with the fathers turning the pages and asking the girl the names of the objects in the pictures. When mum asks them

[00:06:41] Mum (from the kitchen): "What are you doing?"

[00:06:42] Dad: "We are reading a book!"

[00:06:43] Girl: "We are reading a book!" looking at the book's cover.

[00:07:08] Mum (entering in the room): "How nice!"

The girl takes the book and flips the pages

[00:08:38] Dad: "What is your favorite picture?"

[00:08:38] Girl: "This!" pointing the picture in the book.

[00:08:40] Dad: "Do you like it? What is in there? A man on a stair and then?"

[00:08:41] Girl: "....."

[00:08:42] Dad: "Then he opens the window."

The girl stops looking at pictures and decides to change books; she takes the story-book for children "Ciccio porcello" ("Ciccio the pig") and brings it to dad. He begins reading the book without telling a formal story, but continues, pointing out figures and characters providing their names and asking her the meaning of scenes

[00:13:54] Dad: "Where is Ciccio Porcello here?" pointing the picture in the book.

[00:13:55] Girl: "Here is Ciccio Porcello and there and there" pointing several pictures in the book.

The whole interaction lasted 15 minutes and 25 seconds.

During the interaction the partners are sitting very close on the sofa and they often look each other during their verbal interchanges. They are both very involved in the shared book reading and conduct the interaction mutually. The language used by the father is often complex, especially when he tries to teach the girl new words, the girl's language is quite simple and she often repeats words and sentences. Both partners are totally engaged in the activity and show reciprocal attunement in the development of interaction.

There is a high level of participation from both father and child: close positioning and maintenance of a shared focus of attention. The interaction is reciprocal: the father describes scenes, points out figures and objects in pictures, he answers the girl's

questions about names of objects in the pictures. The child is active in maintaining engagement; her language is simple and direct. Father's interaction style is directive: He mostly turns the pages and gives instruction to the child about correct word usage.

Discussion

The particular focus of this study in shared book reading instantiates both theoretical perspectives on this behaviour in early literacy models and confirms its ubiquitous presence in the cultures examined, as a common feature of home practice.

In this study we sought an understanding of cultural pathways through human development that presupposes taking into account family values and socialization practices. From this perspective, the development of children's cognitive development results from social construction processes that include apprenticeship from cultural "experts" in the adults.

We can conclude that written language knowledge develops in interactive situations (Karmiloff-Smith, Cameron & Dodsworth, 1998). These cultures not only confront children with written symbols but also supply an expert that presents cultural knowledge to the novice in explicit form. Emergent literacy is thus built through the ready transition from the implicit, tacit knowledge to an explicit intra-mental one (Mercer, 2000). Adults structure the context of shared reading providing the children bedrock on which the comprehension and mastery of essential properties of literacy are facilitated (Bruner, 1983). All the adults we observed appeared sensitive to the apparent effectiveness of such communication.

The children we observed appear to be learning in a very social context for conventional written-language use, by being encouraged by their adult partners to understand the intentional use of the symbolic practices of book users. Their joint book readings appear to be typical of practices of symbolic learning in a social interaction. It is inter-subjective (the symbol is socially shared with another person) and developmental, because the symbols acquired here focus on its conventional, representational in nature, contributing to transformations in the children's cognitive representations. The shared book readings we observed have in common some crucial features that allow us to define them as joint attentional events. There were, in all the three contexts, social interactions in which, for an extended period of time, the child and the adult were jointly attending to a third object, in this case a book and to another's attention to that third element.

We observed children's attempts to use a book in the same way adults used it with them. The child's role and the adult's role appear to be interchangeable, which actually creates the inter-subjectivity essential to understand any symbolic system.

The partners were acting within a special mode of interpretation of the written text, calling the child's attention not only to the meaning, the message, but also to the peculiar language (lexicon) in which the meaning was embedded. This introduces the child not only to reading but also to thinking about language in a new, more abstract way. The child, on his/her part, makes what Pelletier (2002) calls a "clever misunderstanding" of print.

As to the varieties of partners (father, aunt, grandmother) we saw engage in book-shared reading in the three contexts, it accords with the view of the two-and a half-year-old child as highly skilled at detecting adult communicative intentions in a highly varied set of social-communicative contexts.

We must link the micro histories of individual interactions to the histories of representational systems and to the larger histories of cultural and social groupings.

As Super and Harkness (1999) suggested it is the redundancy among different components of the environment (parental beliefs, physical and social settings of daily lives, etc.) that provide the special power of cultural effects on development. So, the choice to read storybooks jointly provided lessons regarding the caregivers' assumptions as to the worth of reading to the child, which could be instantiated at many levels of analysis from psycholinguistic to sociolinguistic to cognitive behavioural interpretations to the epigenesis of written expression and perceptions of cultural membership. In our data we can observe redundancy both in adults sharing joint book reading with their children and in materials and artefacts which are present in each context (books, paper, magazines, pens, pencils, etc.).

DITL data support the conclusion that considerable literacy and language-related activities occurs before children receive formal reading instruction and they happen in a variety of informal settings. We report important variability that characterizes the different contexts (for example different focuses on emergent literacy, different grades of sharing of material, diversity in the quality of interactions, etc.). The nature of data does not allow hypotheses of the recurrence of different patterns nor about their exclusiveness in each context and any conclusion drawn from these data must be provisional. However we can suggest that the construction of competences in notational systems is a commitment within each of the cultures examined.

We evidence different foci of the emergent literacy activities in these particular constructions of these particular dyads. There is a different gradients of sharing of material and the nature of the interactions is diverse: narrative, instructional, modelling, but no inferences are made here that these patterns are modal patterns for the three societies represented here.

These results confirm the idea that "Individual interest, itself a condensation in complex ways of the interests of social groups, is constantly at work in the shaping of individual systems of representation. Consequently the systems of representations are both the product of individual action and the effect of the social and culturally available resources [...]. Social and individual semiotic, communicative and representational activities are thus linked in a complex but tightly integrated mesh" (Kress, 1996).

Another limit in the interpretation allowed from these data stems from the awareness that beyond the "cultural line" of development we described above, the contribution of the idiosyncratic, individual ways of conceptualising cultural heritage must to be taken into account. An explanation of the development of any symbolic system in terms of cultural mediation vs. developmental process is too narrow. Indeed, we need to acquire a broader view, in which the perspective that children actively built their cognitions about language (knowledge construction) converges with the perspective that their conceptions of language are mediated by cultural tools (cultural mediation).

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Biosketches

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A DEVELOPMENTAL-FUNCTIONALIST VIEW OF THE DEVELOPMENT OF TRANSITIVE AND INTRANSITIVE CONSTRUCTIONS IN A HINDI-SPEAKING CHILD: A CASE STUDY

*Smita Srivastava**, *Nancy Budwig** and *Bhuvana Narasimhan***

Abstract. The present study examines the acquisition of transitive and intransitive constructions in a Hindi-speaking child using a developmental-functionalist approach. This approach posits that children construct interim solutions that cluster linguistic forms with semantic and pragmatic meanings en route to adult-like usage. We report findings from a longitudinal case-study of a child who ranged in age from 2;3 to 2;8 of age. Analysis draws upon a corpus of videotaped naturalistic mother-child interactions over a six month period. All uses of transitive and intransitive verbs by the child were isolated and coded in terms of a) construction type, b) semantic animacy of the sentence subject and c) pragmatic function. Findings reveal that initially the child was able to use multiple constructions (e.g., *I made it* and *It is made*), but each construction was tightly linked with a separate function. For instance, a transitive construction early on was used by the child in an attempt to use language to bring about change (control act) and comprised of an utterance with an animate subject acting on an inanimate object. The intransitive with an animate subject was used as an assertion and an intransitive with an inanimate subject was used to talk about a scene involving goal blocking. Only gradually did the child begin to encode forms with multiple functions. Discussion focuses on the multiple factors that influence the course of grammatical development and the importance of the case study method as early steps in theory building and testing for the present study.

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Introduction

A remarkable feat of the human child is the movement from preverbal babbles to the ability to produce and understand multiword utterances. One view gaining momentum among developmental psycholinguists draws upon functional linguistic theorizing and emphasizes that language develops in relation to the communicative context in which it is used (Budwig, 1995; Goldberg, 1995; Tomasello, 1992, 2003). Such an approach contends that children experience language in the form of meaning units called constructions instead of as neat and discrete packages of sounds, words and abstract grammatical rules. This view that holds that constructions are the fundamental unit of linguistic competence has interesting implications for the processes of language acquisition as well as developmental psychology (Budwig, 2004). Slobin (1985) and Goldberg (1995) among others contend that constructions involving basic argument structure are shown to be associated with dynamic scenes: “experientially grounded gestalts” (Goldberg, 1995 p. 5) or bundles of meaning that designate a basic pattern of experience, such as that of someone volitionally transferring something to someone else, someone causing someone to move or change state, someone experiencing something, something moving, so on. Slobin (1985) posited that children’s early linguistic competence is structured by such important scenes in their lives for which they learn canonical sentence schemas.

Most functionally based theorists (also known as usage based theorists) propose that the path of syntactic development is from concrete, lexically specific to more abstract constructions proceeding in a gradual piecemeal fashion (Tomasello, 2003). The question then arose of how concrete or abstract children’s early sentence schemas are. The degree of concreteness of children’s early constructions has been measured in terms of their creativity or productivity with their language. Researchers have focused on whether a child can use a verb in a sentence frame in which she has not heard it used. For example, can a child on the basis of hearing a verb like *roll* just in an intransitive construction like *The ball rolled* then go on to produce that same verb in a transitive construction like *The boy rolled the ball*, without having heard it used in this frame? If children have somewhat abstract meanings built around transitive and intransitive frames such that, for instance, a transitive frame is associated with a meaning of direct causation, then upon learning a new verb like *roll* children could be expected to use it productively in a transitive frame. Alternatively, some work has suggested that children start with piecemeal solutions such that a given verb *roll* is only used in ways it has been heard and thus could not be expected to be used productively (see Tomasello, 2003).

Usage based theorists have used two basic methods to study children’s productivity with constructions, that is, their use of language in ways that go beyond what they have heard as input from adults. The first method is the observational method of analyzing children’s spontaneous speech in naturalistic interactions with others. This method focuses on looking at all the ways in which a child uses verbs in constructions. This method can be paralleled with a case study method in that the focus is on investigation of a theoretical construct in a small sample of children to gain an in-depth view of the process. The second method is the experimental method, which involves teaching children novel verbs and seeing the different ways they can use them (Tomasello,

2000). The idea to introduce novel verbs has been implemented because researchers were concerned that the small amount of observational data they collect on any given child would leave open the question of whether the child received input that was not captured in a given recording session. Novel verbs have the advantage of offering the researcher clear evidence on what input has been given to a child for a particular verb. Our own ongoing research suggests a third option that merges these approaches (see Budwig, Narasimhan & Srivastava, 2006; Smith & Budwig, 2008, 2005; Srivastava, Budwig & Narasimhan, 2006). First, careful longitudinal case study work is conducted to better understand how children make use of transitive and intransitive constructions. Such work paves the way for experimental follow up (see Smith & Budwig, 2008).

The present study contributes to this approach by documenting in a longitudinal study how one Hindi-speaking child uses transitive and intransitive constructions and provides the first step in the process of trying to better understand the development of constructions in a language other than English. We turn now to review prior literature on transitive and intransitive constructions, focusing on both observational and experimental work on English and then to consider what is known about children acquiring languages other than English.

Observational studies of english-speaking children's transitive and intransitive constructions

The case-study approach has a long and venerable tradition in the social sciences, with some of the greatest advances in thinking coming from case studies rather than from large scale experiments or survey studies. The field of language development, in particular, is checkered with case studies that have transformed the field. These studies are generally conducted on a small number of children with a focus on specific set of issues of interest to the researcher (see Bloom, 1970, 1991; Bowerman, 1990; Brown, 1973; Tomasello, 1992). Usage based theorists have been interested in the communicative contexts in which language develops. Therefore, observational studies have been used extensively by these researchers as records of the child's interactions with others in a more or less continuous manner, providing a rich source of data of not only what the child said or did but also the context in which she did so (see Budwig, 1995; Tomasello, 1992). Such in-depth insight of a child's ability to use language spontaneously and in a variety of pragmatic contexts would be difficult to assess in large populations (Budwig, 1995; Tomasello, 1992). Moreover, looking at a child's language use in depth and scrutinizing the contexts in which she uses language helps researchers seek out "both what is common and what is particular about the case" (Stake, 2000, p. 238). Additionally, case studies provide excellent grounds for refinement of theory and can be used as explorations leading up to generalizations of a theoretical construct (Stake, 2000).

A landmark study that led to the development of the Verb Island Hypothesis is an extensive diary study conducted by Tomasello (1992). Tomasello (1992) analyzed the different ways his English-speaking daughter used each of her verbs during the period from 15 to 24 months of age. The major finding of this study was that almost all of this

child's early verbs were used in a very limited manner, in one or two construction types. So for example, *Daddy break cup* and *Mommy break cup* are the same construction type because both have an animate agent (daddy or mommy) acting on an inanimate object (cup), whereas *cup broke*, *break cup* and *Mommy break cup* are three different construction types. Each of these constructions is a linguistic marker of slightly different representations of entities and actions as connected in an event. For example, *cup broke* is an intransitive with a focus on the cup. There is no mention of the agent that caused the action of breaking. *Break cup* is a transitive but the agent has been omitted by the speaker (Tomasello, 1992). Moreover, at any given developmental period, Tomasello's daughter's verb usage was uneven such that some verbs were used with just one construction type while others were used in a number of constructions. Thus each verb seemed like its own island of organization with no link to how other verbs were being used. The child's usage of a given verb matched closely to the adult's usage.

This phenomenon was referred to as the Verb Island Hypothesis, whereby Tomasello (1992) claimed that children's early multiword utterances revolve around particular verbs that themselves draw heavily from input patterns the child has heard. According to the Verb Island Hypothesis, children are unable to use verbs in novel constructions that go beyond what they have heard from adults. He suggested, therefore, that children do not possess abstract schemas that would enable them to be generative with their grammar. This means that the grammatical categories that children are working with are not such verb-general things as "subject" and "object," or "agent" and "patient", but rather such verb specific things as "hitter" and "hittee", "sitter" and "things sat upon."

Experimental studies of english-speaking children's transitive and intransitive constructions

One concern expressed about naturalistic studies has been that it is difficult to know exactly what input children are getting because sampling only gives a small amount of data a given child actually receives (Tomasello, 2000). To get around this, Tomasello and colleagues have suggested that it is important to introduce novel verbs and watch their development to better understand developmental processes (see Tomasello, 2003). Using an experimental paradigm of training children to use novel verbs, Tomasello and Brooks (1998) found that English-speaking children produce simple transitive and intransitive utterances in their speech on a verb-specific basis. They taught 2- and 2-and-a-half-year-old English-speaking children two novel verbs (*meeek* and *tam*) for highly transitive actions in which an agent did something to a patient. Each child learned one of the experimental verbs in a transitive construction such as *The puppy is meeking the ball* and the other verb in an intransitive construction such as *The bear is gonna tam*. The children were then given opportunities to use their newly learned verbs in discourse situations that encouraged use of a different construction than the one in which the child had learned the verb. The experimenters found that 2-year-old children almost never produced an utterance using a novel verb in anything other than the construction in which it had been modeled. For instance, this group

of children did not produce a transitive construction (*He's meeking the ball*) with the intransitively introduced verb (*The ball is meeking*). Children at 2.5 years of age were somewhat productive, but still a large majority of them avoided using the novel verbs in constructions that were not modeled by the experimenter (see also Brooks & Tomasello, 1999). Therefore, Tomasello claimed that English-speaking children are unable to transfer their knowledge of word order from their existing item-based constructions to the novel items until after the age of three years. These findings indicate that young children's early syntactic marking (for example, the word order in English language) is learned for different verbs on a one-by-one basis.

Crosslinguistic work on transitive and intransitive constructions

crosslinguistic studies have gained increasing importance in the study of language development. Researchers have focused on crosslinguistic work to identify universals of development. However, it has also been established that properties of individual languages influence the course of development (Bowerman, 1985; Slobin, 1985). Bowerman (1985) argued that "the way in which languages organize meaning ...[is] an integral part of their structure" (p. 1313) and these in turn influence the pattern of acquisition.

To date very little crosslinguistic work exists on children's acquisition of verb argument constructions from a usage-based perspective. An exception to this is a study conducted by Berman (1993) on Hebrew-speaking children (see also Uziel-Karl & Budwig, 2003). In Hebrew a change in verb argument frame (i.e., transitive to intransitive and vice-versa) entails a change in verb morphology. The switch between transitive and intransitive constructions is done "through the set of *binyan* 'conjugation' patterns" (p. 642). These patterns comprise of a cluster of features such as word order, marking of case, number, gender and person and morphological marking on the verb. While children acquire most of the features of the *binyan* conjugation patterns as early as two-and-a-half-years of age; "they still appear to lack ... [a] productive command of morphological marking of transitivity value on the verb" (p. 644).

Berman (1993) designed an elicitation study to examine two, three and eight year olds' ability to use an intransitively introduced novel verb in a canonical transitive construction. She wanted to see if children of these three age groups are able to successfully change a verb with the appropriate morphology and syntax from a transitive construction to intransitive construction and vice-versa. Using an experimental paradigm, she presented children with familiar verbs that have conventional *binyan* variants in the established lexicon with reverse transitivity (i.e., a given verb has both transitive and intransitive form); and novel verbs, which did not have morphological alternates with reverse transitivity in the established lexicon. The children were shown a pair of pictures representing the same activity from different points of view. The experimenter would describe one picture in the canonical transitive or intransitive construction depending on what the picture depicted. She then used a sentence completion task to describe the other picture, whereby the child had to complete the sentence using a novel transitive or intransitive construction.

Berman found that like English-speaking children, there was a steady increase in the proportion of normatively correct *binyan* alternations to express distinctions in syntactic transitivity over age. Although the young children in her sample were able to successfully alternate *binyan* patterns, it was restricted to the use of some pairs. Overall children did better on the known than novel part of the elicitation procedure. This ability rose sharply between the ages of three and four. From her findings, Berman suggested that children might be proceeding from item based learning to class based knowledge of the inter-relations between particular forms and only subsequently to a more integrated understanding of the morphological transitivity as a whole.

However, compared to the English-speaking children, the children studied by Berman looked surprisingly productive. She contends that the reason for younger children's success on some of the items may be explained in terms of interaction between various factors such as semantic complexity, the availability of productive syntactic alternatives for a given verb in the Hebrew language and the degree to which a given verb form is favored in actual usage and in the input to children compared to other verb forms. Thus even very young children were able to alternate between the transitive and intransitive constructions for verbs belonging to a particular pattern, because it was very frequent in adult usage, was semantically the simplest and syntactically the verbs could be used as transitive and intransitive to the same degree. Another factor that influenced children's performance was the degree of familiarity with the verbs and the perspectives typically selected by the caregiver and the child in using the verbs. Thus 2- and 3-year-olds correctly changed the transitive form of verbs such as *spill*, *tear*, *break* to intransitive form rather than vice-versa because verbs such as these that have a negative connotation are "used with a patient perspective to refer to highly salient change-of-state events, marked by the intransitive inchoative form in the Hebrew language" (p. 664). In contrast, children gave the same amount of correct responses in both directions for a neutral verb like *open*. Berman adds that the low rate of errors in switching from transitive to intransitive and vice-versa in younger children may also be explained in terms of "Language-Particular factors" (p. 664). It is possible that children recognize the transitivity values of different *binyan* forms early in their acquisition of the system. However, Berman suggests that the younger children rely more on contextual cues and lexical familiarity in order to produce alternations than older children. She concludes that in older children the "knowledge of the system" (p. 664) is established, enabling them to rely less on external cues.

There is now increasing crosslinguistic evidence for the piecemeal process of language acquisition. Uziel-Karl and Budwig (2003) conducted a longitudinal examination of two Hebrew-speaking children's use of non-agent subjects, focusing on the middle constructions¹. Middles were utterances where the subject was affected by the verb in some way (e.g., *the juice spilled*). Hebrew has been of special interest to most crosslinguistic researchers because it is typologically different from English. As mentioned above, it encodes voice distinctions (active vs. passive vs. middle) by alternating

1 Uziel-Karl & Budwig's (2003) use of middle constructions is similar to Berman's (1993) use of the intransitive inchoative construction. Both authors refer to utterances with a patient perspective referring to actions that have negative outcomes.

a particular consonantal root in different verb patterns. The findings from this study showed that the children initially linked non-agent subject only with middle voice verbs. Moreover, they used non-agent subjects mostly with inanimate subjects that were used exclusively with the pronoun *ze* – ‘it’. Only gradually did the children begin to extend the variety of pronouns to include other pronouns that referred to inanimate entities as well as ones that referred to animate entities. The restricted use of their verb usage was further highlighted by the fact that middle constructions were used first with a cluster of verbs that portrayed negative happenings (e.g., *fell, broke, got stuck*).

Taken together these findings highlight the piecemeal and gradual process of language acquisition. However, on closer examination of the studies reviewed above it seems that young children may neither be working at a verb-by-verb basis nor at an abstract level but rather at some intermediate level where they are sensitive to typological, semantic and contextual cues (see also Budwig, Narasimhan & Srivastava, 2006). The systematic patterns of form-function constructed by children in both the studies mentioned above also suggest that children are constructing some sorts of meaning clusters by linking certain semantic and pragmatic factors together.

The developmental-functionalist approach-explicating the nature of developmental path.

While it has been well-accepted that children move from concrete understanding of verb constructions to more adult like constructions, very little has been said about the nature of this developmental process. Much prior acquisition work as summarized above has primarily focused on child’s use of lexically specific patterns at a given developmental stage. Because so much of the empirical work has been based on cross-sectional samples rather than careful longitudinal analysis based on the case study method, this is hardly surprising. Budwig (1995, 2001) has attempted to explicate the nature of the developmental process by focusing on the changes in the form-function pairings over time using case studies as an important tool. This framework for studying grammatical development, called the developmental-functionalist approach, highlights the role of semantic and pragmatic meaning clusters in early constructions. Budwig (2000, 2001) argues that from early on, children recruit argument structure constructions to adopt perspectives on scenes for discourse purposes. Transitivity is viewed as a deictic anchoring for how the speaker wants to be understood (Budwig, Clancy & Fisher, 2000). Therefore, the use of transitive and intransitive sentences is a dialogically constructed way for speakers to position themselves in relation to others in the world. On this view, children are dynamically selecting a vantage point based on their own specific communicative purposes. coming from this view, Budwig, Narasimhan and Srivastava (2006) suggest that children may neither be working verb-by-verb nor at an abstract rule level, but rather at some intermediate level by actively organizing what they take from input into something that is more systematic and productive than a mere inventory of rote-learned sentences. The authors argue that children are constantly constructing meaning clusters comprised of semantic and pragmatic factors wherein they link forms with functions that meet their specific communicative needs. These meaning clusters serve as interim solutions for children en route to more adult

like constructions and are suggestive of more productivity with language than has been reported for English-speaking children.

The idea that children's unique communicative goals pressure them to deviate from adult patterning was also explored in a crosslinguistic study by Budwig, Stein and O'Brien (2001). The authors examined the frequency and function of English- and German-speaking children's talk about non-agent inanimate subjects to see whether children start with prototypical event perspectives and only gradually branch out to mark less prototypical events, or whether they follow the input of the target language from very early on. Their multilevel functional analysis revealed that children distinguished between agent and non-agent subjects from early on and also used two different construction types (middles and intransitives) to distinguish contrastive ways of introducing non-agent subjects into the discourse. Middles were utterances with "syntactically active subjects which are semantically affected by the action of the verb" (p. 56) such as *the jar broke*, *the doors won't open*. The intransitive constructions were those in which the subject was not affected by the predicate but played a causal role in transferring the action described (e.g., *It [=helicopter] flies*; *the ambulance came*; *now it [=bulldozer] will dump*). English-speaking children linked middles to report events in which they seemed to face resistance from the environment to their own intentions and goal-directed actions (e.g., *the doors won't open*; when the child was attempting to open the doors and couldn't succeed). On the other hand, these children linked the intransitive constructions with non-agent inanimate subjects in their attempts to create a new play frame (e.g. *It [=helicopter] flies* was spoken by a child who had been pretending to fly the helicopter and now wanted his partner to engage in a new play frame).

While the German children's use of intransitive construction with non-agent inanimate subject was similar to American English-speaking children, the two groups of children differed in their use of middle constructions. The German children made use of middle constructions to describe normative ways objects could be related to one another. Such usage tended to refer to instances of objects belonging, fitting, or going with one another in particular ways (e.g., *da kommen die hin* 'there they fit inside'; *das gehört dem Teller* 'that belongs (with) the plate') (p. 62). In talking about resistance to goals and intentions, German children used subjectless constructions rather than non-agent subjects (see examples 1 and 2 below from Budwig, Stein & O'Brien, 2001, p. 64).

1. Child was attempting to build up block tower

<i>umgefallen!</i>
'fallen down'

2. Child accidentally knocked over a "garage" built out of blocks

<i>kaput gemacht!</i>
'made broken'

This study illustrates the ways the English- and German-speaking children in this study use the two types of non-agent constructions to distinctly shift perspective away from a prototypical transitive frame. The findings underscore the importance of the

functionalist perspective in highlighting the unique linkages children make between active transitive, active intransitive and middle constructions with a range of semantic and pragmatic factors in order to index vantage points particularly salient to them. The authors suggest that the mere usage of forms does not imply that children's usage is adult-like. Over ontogenetic time, there is a dynamic relationship between language forms and functions. This implies the need to examine more than the frequency or presence or absence of a form; language needs to be examined in terms of multiple levels including a focus on language forms and semantic and pragmatic functions.

The present study

Usage based theorists have emphasized that in addition to expecting children's learning to be gradual and piecemeal, the acquisition of particular linguistic structures depends heavily on the specific language to which a particular child is exposed (Budwig, 2001; Slobin, 1985; Tomasello, 2003). Moreover, the few studies examining children acquiring languages other than English show that although the development of children's early construction use is protracted, there is evidence that before the age of three, these children are able to generalize individual verbs to form transitive and intransitive constructions (Berman, 1993; see Budwig, Narasimhan & Srivastava, 2006, for an account of crosslinguistic work on constructions). Budwig (2001) contends that all children from the start concern themselves with perspective taking. The ability to adopt perspective undergoes development itself and these developments may vary with children living in distinct cultural communities that speak different languages. Therefore, more crosslinguistic work is needed to better understand the relationship between the use of various kinds of linguistic markers and the scenes with which children link them when adopting various perspectives over developmental time. The findings from crosslinguistic work on acquisition of verb argument structure suggests that children between the ages of 2-and-a-half and 4 will show evidence of being able to move beyond item-based learning. An important factor may be that languages that use linguistic markings to overtly classify individual verbs as transitive and intransitive may make it easier for children acquiring such languages to distinguish between the two perspectives and thus be more productive with verb usage.

The focus of the present study is to examine longitudinally the nature of interim solutions that children create in the transition from the very restricted use of transitive and intransitive constructions to the more sophisticated adult-like usage when learning Hindi. Specifically, we aim to understand the semantic and pragmatic functions of transitive and intransitive constructions of a Hindi-acquiring child. Hindi presents an interesting contrast to English because in Hindi, many individual verbs are overtly marked as being causative (transitive) and inchoative (intransitive) (Budwig, Narasimhan & Srivastava, 2006; Narasimhan, Budwig & Murty, 2005)². For example,

2 Not all transitive verbs in Hindi have a clearly morphologically related intransitive (inchoative) counterpart (e.g. *khaa* 'eat'), and not all intransitive verbs have a clearly morphologically related a causative counterpart (e.g. *mil* 'receive'). Nevertheless, there is a fairly productive process of

an English-acquiring child has to learn the verb *roll* which can then be used in the same form in the intransitive, *the ball rolled* and the transitive *the boy rolled the ball*. The case is quite different for a Hindi-acquiring child. For her, the Hindi verb *luD\hak*, which means ‘roll’, is structurally different for the two syntactic constructions. It has to be affixed with a causative marker *-aa* to make it transitive (examples 3 and 4).

3. Intransitive	<i>gend</i>	<i>luD\hak-ii</i>	
	ball	roll-sg. fem. perf. ³	
	‘The ball rolled.’		
4. Transitive	<i>laD\ke=ne</i>	<i>gend=ko</i>	<i>luD\hak-aa-yaa.</i>
	Boy=erg	ball=acc	roll-CAUS-sg. msc. perf.
	‘The boy rolled the ball.’		

To date there have been very few studies examining the nature of children’s constructions in Hindi. The major work that exists for Hindi is cross-sectional work (see Budwig & Narasimhan, submitted). The authors’ cross-sectional study of Hindi-speaking children ranging in ages from 2;10 to 4;3 showed that even the younger children used some verbs in both transitive and intransitive constructions with the appropriate markings as illustrated above in examples 3 and 4. These children also aligned transitive and intransitive constructions with distinct semantic and pragmatic functions that did not necessarily replicate the adults’ usage. For instance, the caregivers primarily used animate subjects in intransitive constructions (animate=67%; inanimate=33%), but the children preferred inanimate subjects in intransitive constructions (animate=26%; inanimate=73%), thereby showing a contrast with the caregivers’ patterning. The case was similar for the pragmatic functions in which transitive and intransitive constructions were used. The caregivers used transitive and intransitive constructions in similar pragmatic contexts, to regulate children’s behavior. However, children tended to use intransitive, especially with inanimate subjects to respond to adult’s claim that the child had caused a negative event to happen (e.g. breaking the doll) and to justify self’s actions. These findings suggest that while it is evident that young children’s usage of constructions is not adult-like, these children link the transitive and intransitive constructions with a cluster of semantic and prag-

causativization of intransitive inchoative verbs involving the suffix *-aa* (e.g. *ban* ‘form’—*ban-aa* ‘form-CAUS/make’; *gir* ‘fall’—*gir-aa* ‘fall-CAUS’). Another clear indication of transitivity in Hindi is the ubiquitous light verb that accompanies the main verb: typically the light verbs *le\de* ‘take/give’ are used with (di-)transitive verbs and *jaa* ‘go’ with intransitive verbs (e.g. *khaa lo* ‘eat take.imperative’ versus *khul gayaa* ‘open go.sg.msc.perf.’).

3 Glosses: Erg: Ergative; Nom: Nominative; Acc: Accusative; Dat: Dative; Gen: Genitive; Loc: Locative; Ins: Instrumental; NF: Non-finite verb; Pst: Past tense; Pres: Present tense; Fut: Future tense; Prog: Progressive; Sg: Singular; Msc: Masculine; Fem: Feminine; Hab: Habitual; Perf: Perfective; Inch: Inchoative; Caus: Causative.

matic meaning systems that meet their own communicative needs. A central tenet of the developmental-functionalist approach is that these meaning systems themselves undergo change over the course of an individual's development. However, a longitudinal analysis based in the case study method is needed to gain a fuller understanding of the developmental process.

Therefore, the overall goal of the present study was to examine the sorts of patterns that emerge for the linking of semantic and pragmatic functions with the child's use of verbs in the transitive and intransitive constructions over a period of six months. The specific research questions that have guided the present study are:

1. How does the child distribute the use of verbs in transitive and intransitive constructions? More specifically, the focus was on whether the child uses the same verbs in both transitive and intransitive constructions with the appropriate markings or whether she restricts the use of particular verbs to particular constructions.
2. Do the child's uses of transitive and intransitive frames differ systematically in terms of animacy of subject and object of verb? Prior work suggests that children tend to link the transitive construction with an animate subject, since the transitive construction marks a scene involving prototypical agency with an animate doer acting to bring about change. On the other hand, the intransitive construction is more complex, since an intransitive subject tends to be either animate or inanimate (Budwig & Narasimhan, submitted; Smith & Budwig, 2008; Uziel-Karl & Budwig, 2003).
3. Finally, does the child link the use of transitive or intransitive constructions with specific pragmatic functions? For instance, previous studies found that the intransitive inanimate subject construction was used by English-speaking children in an attempt to get his partner to start engaging in a new play frame (Budwig, Stein & O'Brien, 2001). In their study of Hindi-speaking children, Budwig and Narasimhan (submitted) found that intransitive constructions with inanimate subjects were used by children to deny carrying out an action commanded by an adult.

In answering the above questions related to the distribution of construction types and their linking with semantic and pragmatic meaning clusters this study will help us better understand the developmental process underlying the transition from early lexically specific, item-based usage to the more adult-like use of transitive and intransitive constructions.

Method

Participants and procedure

This study is based on a larger study conducted by Budwig and Narasimhan (submitted) on the development of transitive and intransitive constructions in 3-4 year

olds⁴. The present study is a longitudinal case study of a girl belonging to a middle income family residing in New Delhi, India who was acquiring Hindi as a first language. The videotaped data used in this study is a subset of recently collected field data by Narasimhan with support from the Max Planck Institute, Nijmegen, Netherlands. The observations are spread over a period of 6 months, with the age of the child ranging from 2;3 to 2;8. The child was videotaped in her home along with a caregiver, mostly the mother, for approximately 50 minutes twice a month. During a session the child and caregiver engaged in 3 or 4 activities such as play with blocks, doll play and looking at a picture book.

Coding

All data were transcribed using a modified version of the CHAT system (see MacWhinney & Snow, 1985). All clauses containing verbs were isolated and then coded using a multilevel coding scheme adapted from Budwig and Narasimhan (submitted) to examine the following patterning of constructions.

Construction type of clause

The clauses were coded as transitive, intransitive, or other. An utterance was coded as transitive if the infinitive form of the main (simple or compound) verb had two arguments and if the subject took the ergative marker *ne* in the past/perfective (includes ditransitives). If the verb took only one core argument, it was coded as an intransitive (see Narasimhan, Budwig & Murty, 2005 for further details of the coding criteria). Passives allow only one argument of a transitive verb to appear and hence were coded as an intransitive (e.g., *darvaazaa kholaa gayaa* – ‘the door was opened.’). Physical context was used to disambiguate cases in which the linguistic framing was ambiguous.

Animacy

At the second level, the utterances were coded for animacy of arguments. For the transitive construction, both the subject and object of the construction were coded as either: a) animate (e.g., person, figurines that were treated as human-like) or b) inanimate (e.g., blocks, book). The subject of the intransitive construction was also coded for animacy. We wanted to see whether the child is contrasting between transitive and intransitives constructions in terms of animacy of the subject of the two types of constructions. Also of interest was the child’s use of animacy to distinguish between the subject and object within the transitive construction. Additionally, since the intransi-

4 This study is part of ongoing research in the SCLD LIPS lab under Dr. Nancy Budwig at Clark University. She looks at particular acquisition problems faced in acquiring typologically different languages like English, German, and Hindi. More details on ongoing projects can be found at <http://www.clarku.edu/faculty/nbudwig/research.html>

tive construction can have either an animate or an inanimate subject, we wanted to see whether the child made use of animacy to distinguish clusters of meaning indexed within the broader intransitive construction.

Pragmatic levels

Pragmatic coding assessed the potential relationship between the syntactic frames and the communicative functions they serve. The focus was to see if the child was systematically distinguishing between the transitive and intransitive constructions by linking each with specific pragmatic functions or whether she was linking all her utterances with a range of functions. The coding scheme was adapted from Budwig (1995) using the following codes to categorize the communicative goal of the utterance containing transitive and intransitive constructions:

- Control acts: An utterance was coded as a control act when the child's utterance was intended to bring about a change in the hearer's actions through directives or requests (e.g., the child pretends a block is an ice cream and gives it to the researcher saying: *ice-cream khaa lo* –'eat the ice-cream') or if the utterance was intended to influence child's actions such as in soliciting permission (e.g., the child wants to feed the doll who is in her mother's lap, so she asks her mother: *our dUU?* - 'should (I) give more?').
- Non-control acts were utterances that did not attempt to bring about a change in the environment but rather, were about given states in the world. Non-control utterances were further coded as: Assertions (e.g., the child closes a box, then looks at the researcher and says: *mAE ne band kar diyaa* –'I have closed (it)') and Questions (e.g., the mother is pretending to put a doll to sleep. The child asks her mother: *so gayaa?*- 'is (he) asleep?')
- Multifunction: Utterances that were at the same time an assertion or a question about the state of the world and a request to perform an action (e.g., *yeh rotaa nahII h|e-* '(he) doesn't cry. ' In this context, the child gives a doll to the researcher to hold while she wants to play with another toy. The researcher says to the child that the doll cries and the child, in an attempt to get the researcher to hold the doll responds as above).
- Uncodable: cases where the pragmatic function was not clear from observing the video recording.

Analysis

Tallies were made of all coding within each level and at each time point. Distributional analyses were conducted focusing on patterns of use of the various coding levels as well as their linking with each other. The general aim was to assess whether constructional meaning clusters emerged and if so, how these clusters of form function pairing changed over the course of six months.

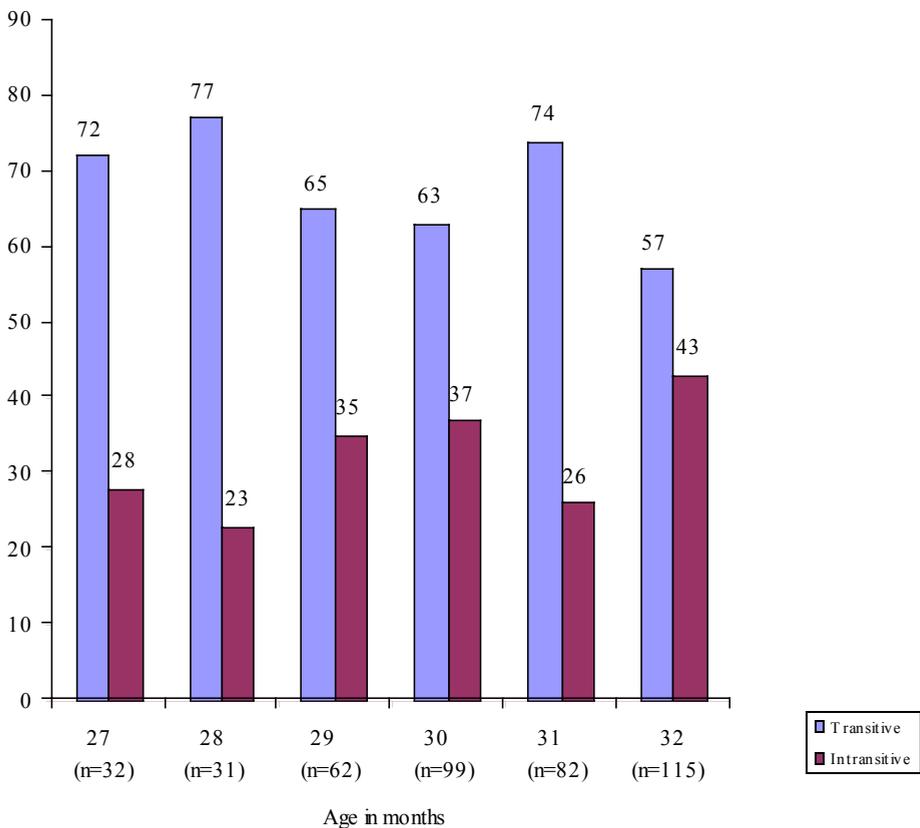
Results

Organization of form-function pairs: grouped data from each time point

Construction type

The first level of analysis deals with the distribution of transitive (including ditransitives) and intransitive frames in the child's utterances at each time point (see Figure 1) providing a glimpse of the distribution of transitive and intransitive frames over the six month period. While there are more transitive constructions than intransitive constructions at each time point, the child is using a substantial amount of intransitive frames in her interactions. This suggests that the child has some flexibility in the ability to use both constructions and may be using the two different types of constructions to mark different perspectives.

Figure 1. Distribution of construction types by age



N=419; Transitives=273; Intransitives=145

Analysis at the lexical level

A central concern with children’s early construction use is whether they are able to use the same verb productively by alternating between transitive and intransitive constructions and if so, are they able to use the correct morphological markings with such verbs. For example, if the child is using the transitive form of the verb *khul* ‘open-CAUS.’, is she also able to simultaneously use this verb intransitively with the appropriate morphological changes to create contrasts such as *Dabba khul gayaa* – ‘the box opened’? A lexical level analysis adapted from Theakston, Lieven, Pine and Rowland (2001) was conducted on the child’s verb usage at each time point. The analysis comprised of conducting a type frequency of verbs that occurred only in transitive or intransitive constructions and verbs that occurred in both constructions. Table 1 shows the child’s use of verbs at each time point on a verb-by-verb basis.

Table 1: Agewise distribution of the number of verb types used in the transitive construction only, intransitive construction only or both constructions

Time points (age in months)	Transitive only	Intransitive only	Both constructions	Total number of verbs used	Mean no.of tokens per verb	Proportion of verbs used in both constructions
27	11	4	0	15	2.1	0
28	6	6	1	13	2.3	7.7
29	11	6	3	19	3.2	15.8
30	11	9	5	25	3.5	20
31	11	8	2	21	3.9	9.5
32	15	11	4	30	3.8	13.3

An analysis of verb constructions at each time point showed that from about 28 months of age, the child was using at least two verbs in both transitive and intransitive forms with the appropriate morphological markings on them (see examples 5 to 8). There was also a wide variety of verbs used at the different timepoints; for instance, the verbs that were used in both transitive and intransitive constructions at 30 months were different from those used at 29 or at 31 months (see Appendix).

5. Transitive	(28 months) <i>khul</i>	<i>diyaa</i>
	open. CAUS	give. sg. msc. perf.
	‘(I) have opened (it).’	

6. Intransitive	<i>khul</i>	<i>gayaa</i>	
	open	go. sg. msc. perf.	
	'(it) has opened.'		
7. Transitive	(29 months) <i>aese</i>	<i>ban-aa</i>	<i>do</i>
	Like. this	form-CAUS	give. Imperative
	'(you) make (it) like this.'		
8. Intransitive	<i>yeh</i>	<i>ban</i>	<i>gayaa</i>
	this	form	go. sg. msc. perf.
	'this is made.'		

This suggests that this child was able to alternate between transitive and intransitive constructions with the same verb and indicates some ability to use verbs productively from a very early age.

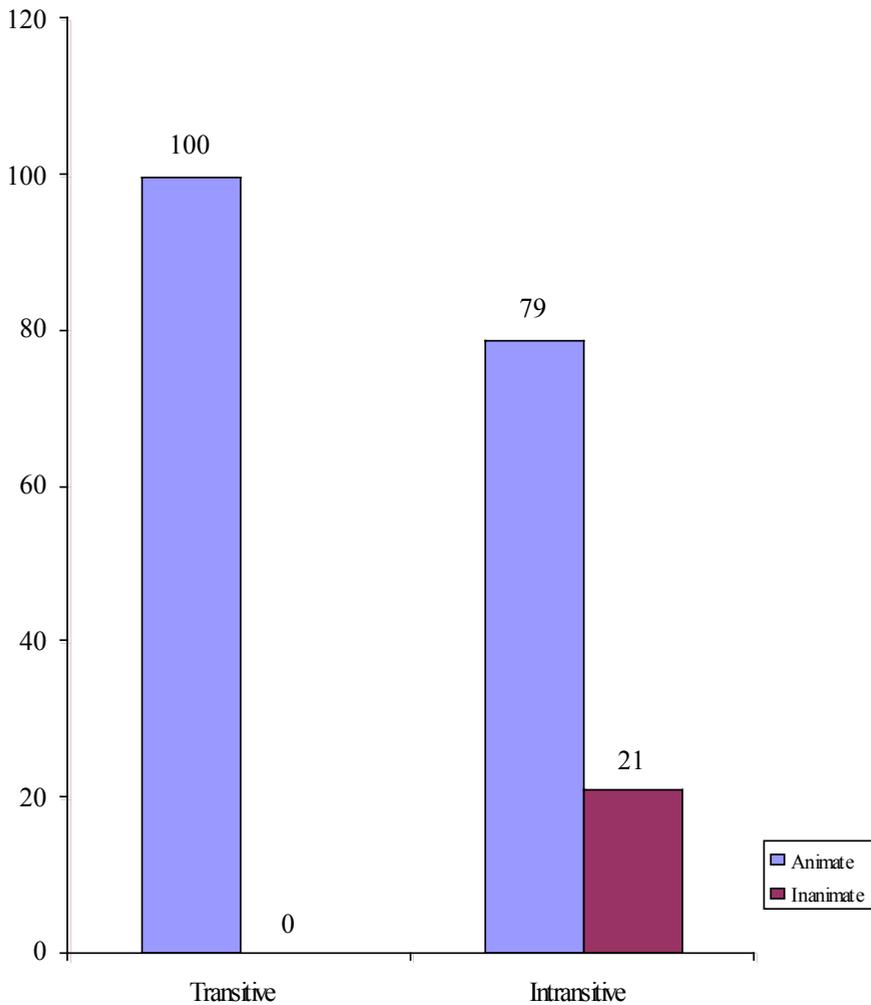
Animacy of Arguments

The second level of analysis examined the distribution of animate and inanimate subjects between transitive and intransitive constructions. The question motivating this analysis concerned whether the child would link transitive and intransitive constructions with a particular semantic category such as agent, actor, or patient subjects. Overall the child used more animate than inanimate subjects in both transitive and intransitive constructions (93% of all verb utterances). While both transitive and intransitive forms were linked with animate subjects, this pattern is stronger for the transitive. We found that all (100%) of the subjects in the child's transitive constructions were animate and a majority (72%) of the objects of transitive constructions was inanimate. That is, it was most typical for the child to say things like *ice-cream khaa lo-* '(you) eat the ice-cream' versus (*mujhe*) *godii mE le lo-* 'take me in your lap.' The child did not use inanimate subjects at all in the transitive. Thus the child's transitive constructions primarily comprised of an animate subject acting on an inanimate object. The intransitives were used with an animate subject 80% of the time (e.g., *so rahii hle-* '(she) is sleeping.'). However the intransitive was also used with inanimate subjects around 20% of the time (see Figure 2), resulting in utterances such as *khul gayaa-* 'It has opened.'

From the distribution pattern of animacy of subjects in the transitive and intransitive constructions, there seem to emerge three different types of constructions: (1) a transitive construction with an animate subject, (2) an intransitive construction with an animate subject and (3) an intransitive frame with an inanimate subject. However, based only on a semantic analysis, it is difficult to assess whether the child is differ-

entiating between transitive and intransitive constructions because she primarily uses animate subjects in both constructions. We now turn to a third level of analysis to examine if the difference between the three types of constructions outlined above lies in the pragmatic function each serves.

Figure 2. Animacy of subjects in transitive and intransitive constructions



N=419; Transitives=273; Intransitives=145

Pragmatic function

Difference between animate transitive and intransitive subject constructions.

A third level of analysis examined the distribution of pragmatic functions across transitive and intransitive constructions. The results show that there was a clear dis-

inction in the communicative goals being served by transitive versus intransitive constructions. As can be seen from Table 2, the child was using transitives mostly (73%) as control acts. In contrast, intransitive constructions were used primarily (67%) to make assertions or describe the state of the world. Examples 9 and 10 illustrate the linking of transitive and intransitive frames with control acts and assertion functions respectively.

Table 2. Distribution of pragmatic functions between animate subject transitive and intransitive constructions

	Control Act	Assertion	Question	Multifunction	Uncodable	Total
Transitive	73% (198)	22% (61)	3% (7)	1% (4)	1% (3)	273
Intransitive	25% (36)	67% (97)	6% (8)	1% (2)	1% (2)	145

9. Transitive animate subject as control act.

(i) Child (30 months) asks researcher to make an elephant out of playdoh.

<i>haathii</i>	<i>ban-aa</i>	<i>do</i>
Elephant	form-CAUS	give. Imperative
'(you) make an elephant'.		

(ii) Child (32 months) asks mother to hold a doll.

<i>pakaDlo</i>
hold. Imperative
'(you) hold (it)'.

10. Intransitive animate subject as assertions

(i) Child (31 months) talks to researcher during doll play

<i>so rahii</i>	<i>ble</i>
sleep PROG	be.3. sg. pres.
'(she) is sleeping'.	

(ii) Child(29 months) talks to mother about a past event of getting hurt and

points at her leg.

<i>meraa</i>	<i>pipi</i>	<i>ho</i>	<i>gayaa</i> ⁵ . [pipi=child-specific form]
I-Gen	hurt	become	go. sg. msc. perf.
'I got hurt'.			

Pragmatic difference between animate and inanimate subject intransitive constructions.

The child constructed two types of construction with the intransitive frame. One construction was an intransitive with animate subject and the other was an intransitive with inanimate subject. An analysis of the pragmatic functions served by each of these two types of constructions showed that broadly, both were linked mostly with assertions and descriptions about the state of the world. However, prior work by Budwig and colleagues (2001) and Uziel-Karl and Budwig (2003) on children's use of non-agent inanimate subjects suggests that English- and Hebrew-speaking children use various constructions to talk about deviations from a prototypical agent event frame of human causation and that these constructions were linked particularly to report negative events. Based on such work, we conducted a finer grain posthoc analysis of the child's use of intransitive construction. We recoded the intransitive constructions to examine whether the child differentiated between the animate and inanimate subject intransitive constructions by using the latter specifically to report negative effects on patients or to report instances of goal blocking or resistance from the environment as has been found by Budwig and colleagues (2001). Goal blocking was defined by contexts in which the child was manipulating an object to achieve a certain goal but was unable to do so.

We found that compared to animate subject intransitive construction (18%), this child used a higher percentage of inanimate subject intransitive construction (33%) to report negative consequences of self's or other's actions (examples 11 and 12). She also used inanimate subject intransitive construction sometimes to report instances of goal blocking (10%) or ways in which the environment did not cooperate with the child's intentions (examples 13 and 14). On the other hand, the animate intransitive construction was seldom used in such instances (1%), but rather was used primarily for making neutral or positive assertions or descriptions of the state of the world (81%).

11. Child (29, 30 months) accidentally knocks a doll down

<i>Gir</i>	<i>gayaa</i>
Fall	go. sg. msc. perf.
'(it) fell down'.	

12. Child (30 months) finds that the doll in her hand is broken

5 pipi ho jaa was treated as a complex unanalyzed whole verb.

<i>TuuT</i>	<i>gayaa.</i>
Break	go. sg. msc. perf.
'(it) broke'.	

13. Child (30 months) was putting together a puzzle but was unable to fit the piece in its slot.

<i>nabII</i>	<i>ban rabaa</i>
Not	form PROG.
'(it) isn't getting made'.	

14. Child (30 months) could not open a box

<i>yeh</i>	<i>khul-tii</i>	<i>nabII</i>	<i>hle</i>
This	open-sg. fem. imperf.	not	be.3. sg. pres.
'It doesn't open'.			

This suggests that the child may not be using a general intransitive construction but rather may have two distinct constructions that cluster around semantic and pragmatic factors.

Functional Intersections

Integration of the three levels of analysis reported above shows that there is a clear functional cluster in this child's transitive and intransitive constructions (see Table 3). The transitive was used mostly with animate subjects in control acts (73%). The intransitive with animate subject was used to make assertions or describe state of the world. The intransitive with inanimate subject was used mostly to talk about negative consequences of an action and sometimes to report instances of goal blocking from the environment.

Table 3. Distribution of animate transitive and animate and inanimate intransitive subject constructions across pragmatic functions

	Control Act	Assertion	Question	Multifunction	Uncodable	Total
Animate transitive subject	73% (198)	22% (61)	3% (7)	1% (4)	1% (3)	273
Animate intransitive subject	26% (30)	65% (74)	6% (7)	1.5% (2)	1.5% (2)	115
Inanimate intransitive subject	20% (6)	77% (23)	3% (1)	0	0	30

Development of constructions over time

to get a better understanding of how the transitive and intransitive constructions develop over time, an age-wise distributional analysis of these constructions was conducted. That is, the child's productions were re-examined in terms of age-related trends based on the six monthly datapoints. Findings suggest some important developmental changes that are not found in grouped data. For example, although the child used the transitive construction mostly in control related contexts, with time she also started using the transitives to serve declarative purposes to make assertions or describe the state of the world (see Table 4). This suggests an increasing flexibility in the use of these constructions as the same form is gradually endowed with multiple functions.

Table 4. Age wise distribution of transitive construction across pragmatic functions

Age (months)	Control Act	Assertion	Question	Multifunction	Uncodable	Total
27	79% (18)	17% (4)	4% (1)	0	0	23
28	68% (15)	27% (6)	5% (1)	0	0	22
29	85% (34)	15% (6)	0	0	0	40
30	74% (46)	18% (11)	2% (1)	3% (2)	3% (2)	62
31	69% (42)	30% (18)	1% (1)	0	0	61
32	66% (43)	25% (16)	5% (3)	3% (2)	1% (1)	65

As noted before, the child used intransitives mainly for declarative purposes throughout the six months. Further distributional analysis over the course of six months indicates that the use of declarative (assertions or descriptions) becomes more prominent with age with still very few intransitive constructions used as control acts. The child reserves the use of transitives for that purpose. However, there is increasing use of questions in intransitive constructions (see Table 5).

Table 5. Age wise distribution of intransitive constructions across pragmatic functions

Age (months)	Control Act	Assertion	Question	Multifunction	Uncodable	Total
27	56% (5)	44% (4)	0	0	0	9
28	57% (4)	43% (3)	0	0	0	7
29	23% (5)	73% (16)	0	0	4% (1)	22
30	30% (11)	57% (20)	11% (4)	2% (1)	0	36
31	24% (5)	66% (14)	10% (2)	0	0	21
32	12% (6)	80% (40)	4% (2)	2% (1)	2% (1)	50

We also found a developmental change in the use of the intransitive inanimate construction. Though broadly this construction type was used in declarative contexts, finer grain analyses looking across developmental time revealed that in the initial months, the child used the intransitive inanimate subject mainly to report negative consequences of actions and instances of goal blocking (see discussion above). However, with time, intransitive, inanimate subjects were also used to mark completion of an action for which goal blocking was not an issue (see example 15 and 16):

15. Child (32 months) was pretending to make bread and the researcher asked her when the bread will be made.

<i>ban-egii</i>
form-3. sg. fem. fut.
'(it) will be made'.

16. Child (32 months) finished putting some blocks in a puzzle.

<i>lag</i>	<i>Gayaa</i>
attach	go. sg. msc. perf.
'it has attached'.	

Therefore, the findings suggest that hidden in the grouped patterns were not random exceptions, but rather suggest that the deviations from dominant patterns represented a developmental trend. More specifically, the longitudinal case study analysis supports the conclusions that over time, this child is beginning to link each form with multiple functions.

Discussion

A central goal of the present study was to examine the nature of a Hindi-acquiring child's early transitive and intransitive constructions from the perspective of the developmental-functionalist approach. Specifically we wanted to account for the types of meaning clusters around semantic and pragmatic factors that are created by this child and the changes in these meaning systems over a period of six months. In the discussion, we will first focus on factors that influence how this child might have come to organize form-function systems the way she did. Furthermore, if we are claiming that the form-function patterns created by this child are a temporary developmental phase en route to the more adult-like systems, a second question can be raised regarding what motivates the child to give up the her child-like linkages. To address this question, we will discuss the potential web of factors that influence the changes in form-function pairings over time.

Organization of form-function systems

Prior work on English-speaking children's syntactic development has shown that children younger than 3 years of age use transitive and intransitive constructions in a restricted manner (Tomasello, 2003). In a lexical analysis of this child's transitive and intransitive constructions, we found that she is flexibly alternating between transitive and intransitive constructions by using at least two verbs as both transitive and intransitive with the appropriate morphological markings before the age of 3 years. This seems to suggest that this child showed some evidence of moving beyond the item-based phase of verb development. Other crosslinguistic studies have reported similar findings (Berman, 1993; Budwig & Narasimhan, submitted). Budwig and Narasimhan (submitted) looked at slightly older Hindi-speaking children (2, 10 to 4, 3 months) and found that around 58% of children in their sample were also using at least one verb in both transitive and intransitive constructions and with both kinds of morphological endings.

Although this child appeared to be beyond the item-based phase of verb development, her use of constructions suggested these were not used in completely abstract, adult-like way. Instead, she tended to link the various constructions to a cluster of semantic and pragmatic meanings. Crosslinguistic research suggests that speakers of various languages organize particular linguistic devices around prototypical notions of agentivity and control (Hopper & Thompson, 1980; Slobin, 1981). The claim is made that the notion of transitivity is best conceived of in terms of a number of related notions cutting across semantic and pragmatic boundaries including such notions as volition, animacy and control. Several separate lines of research provide support for the idea that social control is an underlying organizing function of children's early linguistic forms. For example, Deutsch & Budwig (1989) in their investigation of possessive pronouns found that children employed the pronominal form in their constructions when attempting to gain or maintain control of objects, whereas the nominal form was used when referring to a possession when the possessive relation was not in question. Similarly, slightly older children studied by Shephard (1980) contrastively employed the modal forms *will* and *gonna* based on locus of control. These studies therefore show that children contrastively employ particular forms depending on whether they wanted an action to be carried out by a partner or whether they wanted to bring attention to a particular object⁶.

Drawing from past literature, the present study examined how the notion of social control links with this child's use of transitive and intransitive forms. An examination of the child's meanings systems revealed that this child had created at least three different construction types, each of which served distinct communicative goals for the child.

6 One of the reviewers has pointed out that there are other ways of understanding function outside the control/non-control framework related to interpersonal dynamics. The authors agree with this comment however, the view of function used in this paper is tied to prior work on transitivity in child language and further analysis of this lies outside the scope of the current paper but would be an interesting study for future work.

She distinguished between animate subject transitives and animate subject intransitives by pairing each type of construction with different pragmatic functions related to control. For instance, transitive construction linked up with the prototypical scene of marking the actions of an animate agent on an inanimate object and was used mostly as a control act to bring about a change in the interlocutor's actions (see Example 9). On the other hand, the animate subject intransitives were used as assertions or descriptions of the state of the world in which control was not an issue (Example 10). The fact that the child focused her transitives on animate agents replicates findings of many others (Budwig, 1995; Budwig & Narasimhan, submitted; Slobin, 1985). However, the Hindi-speaking children in Budwig and Narasimhan's (submitted) sample distributed animate subject transitive use between regulatory and declarative contexts, with a slight preference for the latter. This difference between their findings and ours could be attributed to the ages of children in their sample. Since their sample comprised of slightly older children, it is possible that their constructions were more adult-like and were therefore used in a wider range of contexts. Further work will need to investigate this issue. This linking of linguistic forms with particular semantic factors to serve child's own communicative goals, further lends support to Budwig and Narasimhan's (submitted) notion of "interim solution" (p. 14), which are clusters of meaning created by children learning a language en route to adult-like usage.

Along the same line, further examination of child's meaning systems led us to believe that she was not making use of a general intransitive construction but rather had created distinct clusters of meaning around animate subject intransitive and inanimate subject intransitive constructions as well. Post hoc analyses revealed that the child restricted the use of inanimate subject intransitives to report negative consequences of an action on an object or when she faced resistance from the environment to her actions (Examples 11 through 14). Previous studies with English-, German-, Hebrew- and Hindi-speaking children have shown that even very young children consistently adopt a variety of perspectives with the intransitive construction (Budwig, 2001; Budwig & Narasimhan, submitted; Budwig, Stein & O'Brien, 2001; Smith & Budwig, 2008; Uziel-Karl & Budwig, 2003). Inanimate subject intransitives have been shown to be linked with reports of goal blocking (Budwig, Stein & O'Brien, 2001) by some and in reports of negative consequences by others (Uziel-Karl & Budwig, 2003). The animate intransitive on the other hand, was generally found to be used with neutral or positive events. This further lends support to the idea that children create interim solutions to serve their own communicative needs.

Several accounts can help explain why young children organize form-function systems in a restricted way. Based on a number of empirical and naturalistic studies, Karmiloff-Smith (1979) suggested that initially, small children express and interpret forms unfunctionally and the choice of a given function depends on the child's capacity to identify the "most consistent input pattern" (p. 237). The frequency and patterns of use of the verbs in the input have been shown to play a critical role what forms are used more by the child by a number of researchers (Berman, 1993; Cameron-Faulkner, Leiven & Tomasello, 2003; Theakston *et al.*, 2001). Tomasello (2003) has argued that the more frequently a verb is heard in a particular construction, "the more firmly its usage is entrenched" (p. 178); that is, children are less likely to extend that verb to any

novel construction with which they have not heard it used. Relating this idea to the present study, it is possible that the child in this study hears transitive constructions in the input mostly in contexts in which the speaker is trying to change the interlocutor's actions and therefore uses this construction more frequently than any other. However this does not imply that the children merely copy the forms they hear in input. Language learning is rooted in very general cognitive abilities to seek and organize patterns in the environment (Karmiloff-Smith, 1979; Tomasello, 2003). The child makes use of these general cognitive abilities of analogy and pattern finding to isolate the *dominant patterns* in the input. For instance, Budwig (1995, 1996) found that while all of the caregivers in her study tended to use *I* in a functional cluster similar to that used by the children, none of the caregivers restricted the use of particular self-reference forms to a specific semantic and pragmatic cluster. It would be important in the future to examine the relation between form-function pairing in the input and this child's constructions to determine the relationship between the two.

A second factor that has been shown to impact the sort of form-function systems children construct is related to the particular structural properties of the language being acquired. The extent to which particular language categorized meaning plays a role in child's categorization. Bowerman (1985) suggested that children are sensitive to the clues from the language they are acquiring. The findings from the present study suggest that this child demonstrates more flexibility in using both transitive and intransitive constructions than has been reported for English-speaking children. Some languages like Hebrew and Hindi have distinct markings on transitive and intransitive forms of the verb. It is possible that these markings make the different forms of the verbs more salient to a young child and therefore the child learns the use of the appropriate form earlier. Typological factors may also explain the differences in the kinds of meaning that this child constructs around transitive and intransitive constructions. The child always used the transitive constructions with an animate subject in control acts of regulating self or others actions. In certain contexts the child used an inanimate intransitive construction. These were generally instances when the child was describing a negative consequence of an action such as *it broke* for a broken toy the child picked up. In Hindi, the use of an active transitive with animate subject implies intentionality. The distinction between a transitive and intransitive form marks the difference between deliberate and non-deliberate action respectively (Snell, as cited in Budwig & Narasimhan, submitted). A child acquiring Hindi may therefore become sensitive to and make these distinctions earlier in her constructions because the Hindi language overtly marks these with morphosyntactic means. This argument supports conclusions drawn by those who study Hebrew-speaking children (see Berman, 1993; Uziel-Karl & Budwig, 2003).

Developmental changes in form-function organization

The developmental-functionalist approach views development in terms of the changes in form-function patterning over time. Budwig (1995) claimed that children move developmentally from a phase of using multiple forms, each linked with distinct meanings and used in a context restricted way, to one of using the forms multifunction-

ally as adults do. The most salient feature of the present study was a similar trend of changes in the form-functioning patterns. There was a systematic developmental change in the use of the constructions in a relatively small window of six months. For example, the transitive construction was initially used as a control act aiming to bring about a change in the child's or the interlocutor's actions. For instance, when the child wants the mother to pretend to eat ice cream made of blocks and says: *ice cream khaa lo* – 'eat the ice cream.' But over time, the child also started linking the transitive form with the function of assertions about the state of the world. The example below is from an instance when the child was describing to the researcher that she got hurt and cried. The researcher asked her what happened next. The child responded with the following utterance:

17. Child (32 months)

<i>Aese</i>	<i>fir</i>	<i>mummy</i>	<i>toffee</i>	<i>laa-yii</i>	<i>thii</i>
like. This	then	mummy	toffee	bring- sg. fem. perf.	be. sg. fem. perf.
like this, mother brought toffee					

In the above example, the child was simply describing a past event (using a transitive construction) with no attempt to change the researcher's actions in anyway. Earlier the child tended to use intransitives for this function.

A similar process of movement from context-restricted use of forms to a more multifunctional use of forms was also evident in this child's use of intransitive with inanimate subject. This construction was initially differentiated from an intransitive with animate subject by using it only to report instances of goal blocking and negative consequences of action, while the intransitive with animate subject was used to make assertions or describe the state of the world in general without any negative connotations. However, over time, the child broadened the scope of the intransitive inanimate construction by using it more in non-negative instances, such as reporting completion of an action. We turn now to various accounts that might help explain why children give up their original systems in favor of adult-like systems in which forms are used multifunctionally.

This movement from a phase of using multiple forms each with a distinct function to a phase of using forms multifunctionally can be interpreted in the light of a cognitive account proposed by Karmiloff-Smith (1979). According to her theory, at first children link each form with one function by recognizing examples of the function presenting the most consistent pattern in the input. In most cases, there are examples of other functions served by the same forms, but these might be exceptions to the general patterns found in the input. According to Karmiloff-Smith, once the child is aware of one form fulfilling two different functions, there is a tendency to "create temporarily a new form to cover one of the two functions" (p. 239). This way the original form is retained for the other function. A similar process seems to be occurring in our data, the child in the present study uses two different forms of the intransitive construction, linking them with two different functions. It may be that initially the child becomes aware that the intransitive is fulfilling the function of reporting both the neutral as well as negative

consequences of an action on an object. She might then have created a separate form of an intransitive inanimate subject construction to cover the function of describing something negative about the state of the world. It is suggested that this differentiation by creating different forms helps the child consolidate two separate meanings normally expressed by a single form in adult usage. Once this consolidation has taken place, the child then drops or integrates the forms to use for the expression of both functions. Thus gradually the child integrates the relations between functions and uses forms multifunctionally the way adults do (Budwig, 1995; Karmiloff-Smith, 1979).

Several hypotheses exist regarding what might lead children to reorganize their form-function systems towards a more adult-like usage. It has been suggested that caregivers pull for certain types of form-function patterns by providing discourse pressure or that adults might scaffold the child's use of particular constructions (Budwig & Narasimhan, submitted). Another account that has gained increasing importance in explaining the shift in form-function patterns deals with such issues as the impact of the speaker's belief systems and attitudes on the organization of form-function patterns in ongoing discourse (Schieffelin & Ochs, 1986). Thus, a change in form-function patterns could be linked to developmental changes in children's beliefs about themselves, their communicative partners and the function of the communicative context (Budwig, 1996). Still others have proposed that the patterning is initially affected by parental input and then proceeds on the basis of experience with individual verbs (Uziel-Karl, 2002). However the findings are still vague regarding the specific mechanisms guiding the reorganizing process. Future research should examine this issue more carefully.

Taken together, these findings suggest that after a phase of linguistically marking various functions with distinct forms, the child is said to "gain control over the organization of the relation between form and function" (Budwig, 1995, p. 196). Once this phase of organization is reached, the child no longer externalizes the distinction between various functions, but rather she begins to encode in a single form a cluster of related meanings and functions that were previously encoded in several separate forms. This account further strengthens a central claim of the developmental-functionalists that children pay attention to meaning during construction use, particularly in terms of how they choose to situate the self and other, as well as their agentive roles in light of communicative demands. Moreover, the developmental change is motivated by a web of interrelated factors. Thus, one must consider not only the factors external to the child such as the nature of input, but also the child's changing notions of human action, communication and language as a system in uncovering the mechanisms that guide the relationship between form-function pairs.

Finally we would like to highlight the importance of contextualizing the present study as a case study method. Case studies can be the crucible for more advanced theoretical analysis. Indeed, extending David B. Miller's (1977) comments about naturalistic observation to case studies of children learning language, the case study plays a critical role as early steps in theory building and testing. Therefore, contextualizing the present study within the case study approach served as a starting point for investigating the notion of interim solutions in a language different than English. It helped to validate the findings of functionalists who view development in terms of changes in form-function patterning. Since many studies have shown that there is a difference between

the grammar of language as described by linguists and the actual language children hear and use (Budwig & Narasimhan, 2004; Cameron-Faulkner, Leiven & Tomasello, 2003; see also Tomasello, 2003), using a case study method helped us explore longitudinally and in depth the process underlying children's acquisition of abstract, adult-like constructions. Furthermore, the findings from this study will serve as a point of departure from which to develop an experimental program for controlled research. We conclude by quoting Slobin (1985) that "one cannot study universals without exploring particulars" (p. 4). Therefore, it is only by examining both that is universal and that is particular to each culture and each language that we can begin to discern why there are differences in the pattern of acquisition of different languages.

Acknowledgement. We are grateful to the Max Planck Institute for Psycholinguistics, Nijmegen for sharing videotaped data with us. The data reported here was collected in collaboration with Rachna Sinha, Pritha Chandra, Ayesha Kidwai, Rukmini Bhaya-Nair, Bhumika Sharma, Rajesh Kumar, Sheeba Mathen and Kavita Joshi, among others. We also thank the SCLD-LIPS research group at Clark University, for their valuable feedback on the ideas expressed in this paper (<http://www.clarku.edu/faculty/nbudwig/research.html>).

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Biosketches

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Appendix

Agewise distribution of verbs in transitive construction only, intransitive construction only and both constructions.

Age (months)	Transitive only (including ditransitives)	Intransitive only	Both (transitive and intransitive)
27	le 'take' (2) bataa 'tell' (1) banaa 'make' (4) khaa 'eat' (7) de 'give' (2) toDl 'break' (1) khol 'open' (2) kar 'do' (1) choDl 'leave' (1) kaT 'cut' (1) pii 'drink' (1)	baiTh 'sit' (2) so 'sleep' (3) uDl 'fly' (1) gir 'fall' (3)	0
28	kar 'do' (5) Daal 'put' (1) Khaa 'eat' (10) pehen 'wear' (1) dekh 'see' (2) banaa 'make' (1)	aa 'come' (1) so 'sleep' (1) ro 'cry' (1) kuud 'jump' (1) nahaa 'bathe' (1) ruk 'stop' (1)	khol 'open' (4)

cont...

29	khaa 'eat' (7) bataa 'tell' (1) de 'give' (3) jhuul 'turn around' (1) daal 'put inside' (1) nikaal 'remove' (2) le 'take' (1) khol 'open' (2) rakh 'put' (1)	gir 'fall' (5) jaa 'go' (2) pipi ho jaa 'got hurt' (2) so 'sleep' (1) ghuumnaa 'travel' (1)	kar 'do' (15) ban 'make' (2) dekh 'see' (10)
30	khaa 'eat' (3) le 'take' (3) do 'give' (14) dekh 'see' (6) fenk 'throw' (2) bulaa 'call' (1) pakaDI 'hold/catch' (1) nikaal 'remove' (1) pii 'drink' (1) daal 'put inside' (2) ghumaa 'turn around' (1)	aa 'come' (4) so 'sleep' (2) mar 'die' (1) gir 'fall' (5) jaa 'go' (3) ruk 'stop' (1) baith 'sit' (1) haT 'move' (1) utarnaa 'taken down' (1)	kar 'do' (16) toDI 'break' (5) ban 'make' (5) khol 'open' (5) kaaT 'cut' (2)
31	dekh 'see' (13) khol 'open' (11) pehen 'wear' (2) le 'take' (2) bajaanaa 'play instrument' (1) de 'give' (10) toDI 'break' (1) daal 'put inside' (3) nikaal 'remove' (2) pakaDI 'hold/catch' (1) rakh 'put' (1)	so 'sleep' (1) chup ho 'keep quiet' (1) khel 'play' (2) gir 'fall' (1) bhaag 'run' (1) baiTh 'sit' (4) aa 'come' (3) jaa 'go' (3)	kar 'do' (10) khaa 'eat' (8)
32	khol 'open' (3) jhuul 'turn around' (2) pakaDI 'hold/catch' (2) Daal 'put inside' (7) de 'give' (1) laa 'bring' (4) maar 'hit' (1) kaaT 'cut' (1) pii 'drink' (1) rakh 'put' (3) pehen 'wear' (1) faaDI 'tear' (1) dekh 'see' (10) haT 'move' (2) bacaao 'save' (1)	aa 'come' (8) gaa 'sing' (1) ghuumnaa 'travel' (1) gir 'fall' (2) pipi ho 'hurt' (1) baiTh 'sit' (1) bol 'speak' (1) jaa 'go' (5) chaDI 'climb' (1) ro 'cry' (7) so 'sleep' (1)	kar 'do' (20) ban 'make' (2) khaa 'eat' (8) lagaa 'attach' (14)

COMMENTARIES

FUNCTIONALLY ADEQUATE LANGUAGE USE IN THE REAL WORLD: WHAT DOES IT MEAN “TO BE FUNCTIONAL”?

Koji Komatsu and Noboru Takahashi***

Abstract. Srivastava, Budwig and Narasimhan (this volume) examined the development of transitive and intransitive verb usage in a Hindi-speaking child from a “developmental functionalist view.” While their explanation of the development is based on the function of the child’s verb usage, we have discussed that it is essential to carefully examine the researchers’ grasp and description of the intentions of the child, which is the key for the emergence of functionally adequate behavior and is also important for understanding their development in the real world. With regard to this argument, we have also discussed the necessity for considering the contexts in which the data were collected and the inter-individual differences of trajectory whereby verbs were acquired.

Introduction

Many—if not all—studies on psychology presume general laws of our behavior and try to find them. The real world unfolds scene-by-scene over the course of time and human behaviors are interwoven with them. Psychologists extract and reveal the general laws for human behaviors in the real world, although their explanations of human behaviors are different in their theoretical perspectives. The task of developmental psychologists is more intricate: They try to find the laws of development from children’s behaviors in the real world to explain how children come to behave seemingly based on general laws. It is the same in the case of language acquisition, as for the relationship between children’s language use, their development and the grammar as the general laws.

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Srivastava, Budwig and Narasimhan (this volume) considered the “developmental functionalist view” to tackle children’s language acquisition. In the functional approach, language is thought to develop in relation to the communicative context in which it is used and

“children are constantly constructing meaning clusters comprised of semantic and pragmatic factors wherein they link forms with functions that meet their specific communicative needs.”(p. 313)

“From early on, children recruit argument structure constructions to adopt perspectives on scenes for discourse purposes.” (p. 313)

therefore in their paper, they focused on the development of transitive and intransitive verb use in a young Hindi-speaking child.

Functionalists assume a theoretical stance that children construct the general laws from their experiences in the real world, where meanings are generated in the communicative context. Attitude of formalists toward the real world is the opposite: While the general laws for formalists are axiomatic, the real world for them is merely the sphere where the laws are tested. There should, however, be many ways to explain the relationship between children’s behaviors in the real world and the general laws even from the functionalists’ viewpoint. In this commentary, we will show that the developmental functionalist approach in Srivastava, Budwig and Narasimhan (this volume) is one of the possible, though plausible, explanation for the functions found in children’s behaviors and that their approach is possible on the grounds of some tacit simplification about the concept of “being functional.” We will then discuss whether the approach has validity.

Emergence of functions in the real world

To discuss the relationship between the general laws and functionally adequate behaviors in the real world, we will begin with a familiar example of explicit laws that control and restrict our behavior in our social life, i.e., the rules for driving cars in traffic. In every country or state, there are road traffic rules for safe and smooth transportation. Although we can read and assimilate these rules through documents before we get a driver’s license, we consider the example of the development of a novice driver who knows little about the stipulated rules for road traffic.

He will begin driving within an area close to his home with the help of an expert who sits on the passenger’s seat. After some trial and error in starting the engine, using the accelerator and brake, controlling the steering wheel, adjusting the mirror and so on, he slowly drives along the road. He may sometimes stall the engine and fail to adjust the steering wheel, but based on signs on the road and observing the way other people drive, he will acquire some information about local and functional rules: For example, “do not cross *this* yellow line for safe driving.” The meanings of traffic signs

are not general ones based on general laws, but functional ones, such as “stop the car at the stop sign on the corner of *this* block.” He may not know the general rules even when he is able to drive the car functionally well in the closed context of the real world, but he *looks to* obey the general rules from the viewpoint of the surrounding people who know the rules.

He tries to drive the car functionally well in real traffic. Through these trials, he will build up some locally constructed functional behavior patterns. At first, his way of driving would be functionally adequate only within a familiar close neighborhood, i.e., within several blocks and cannot be generalized to a broader environment. Then, he will gradually start using these prototypes of behavior when he goes beyond his neighborhood and drives to places such as a shopping mall. His functional knowledge for adequately driving a car becomes a generalized behavior pattern. Once the rules that he constructed locally become globally functional, the rules he applied where he first learned to drive can be applied everywhere, although they are limited to the areas where the rules are valid.

In this example, we can see the structural commonality between the child in Srivastava, Budwig and Narasimhan (this volume) and a novice driver, concerning the interrelationship between the general laws which the learners should acquire, their functionally adequate behaviors in the real world and their development. There are no explicit laws of language that children, when learning their first language, can read and understand beforehand. In addition, the child in Srivastava, Budwig and Narasimhan (this volume) uses specific phrase patterns that seem to work functionally well, although she uses them within restricted contexts. Her prototype behaviors are used only in the local context, as with the novice driver when trying to drive in a familiar neighborhood and they also seem to be adequate from the viewpoint of the general laws of language. Although she does not know the laws of verb use precisely, she copes with tasks in her environment and develops her usage of verbs gradually toward the adults' verb usage.

However, we are both appreciative and suspicious of their basic viewpoint. The child in Srivastava, Budwig and Narasimhan (this volume) learns the usage of language functionally, such that she is able to use transitive and intransitive constructions by connecting pragmatic functions. We should, however, emphasize that there can be a wide variety of ways in which children, or a novice driver in our example, draw pragmatic functions from the real world. A novice driver learns to drive a car in a functionally adequate way, which is based on a variety of pragmatic functions: He may drive slowly on *this* road *in the morning* because children walk there to elementary school. His driving is a locally adequate functional behavior but is not directly connected to the general laws.

Furthermore, an observer, who is also an expert driver, may judge whether the behavior of the novice driver is functionally adequate in relation to the contexts in which it takes place. Even if the novice driver stops a car at a seemingly inappropriate place, the observer does not judge that it is inappropriate solely on the basis of explicit laws. The observer can construe many interpretations for a car stopping in the middle of the lane in front of him. It may be appropriate because the car is waiting for a small child to cross the road or inappropriate because the car has stopped as it

has run out of fuel.

Our suspicion is that their analysis of the functional use of language overlooks these points: While transitive and intransitive constructions in Srivastava, Budwig and Narasimhan (this volume) can be a plausible candidate for the pragmatic meaning clusters the child has constructed, it is not the sole way to determine whether the child uses verbs in a functionally adequate manner. The pragmatic functions can be both constructed by the child and construed by the caretaker or observers in several ways. If we consider the novice driver's development from locally and specifically achieved functions, the laws of traffic should not be the sole point of reference. In the case of the child in Srivastava, Budwig and Narasimhan (this volume) grammar, i.e., the general laws or pragmatic functions they had predetermined, is not the only norm to judge whether her use of verbs and her language use in general is functionally adequate. In other words, the fulfillment of their norm may be a sufficient condition, but not a necessary condition to judge whether her behavior, i.e., language use in concrete contexts, is adequate in its pragmatic function.

Difficulty of interpreting intentions

In Srivastava, Budwig and Narasimhan (this volume) the decision whether the child's utterances are pragmatically functional was made on the basis of their categorization: For example, observed utterances with some specific behavior were considered as "control acts", when "the child's utterance was intended to bring about a change in the hearer's actions through directives or requests" (p. 319) Here, their interpretation of the child's behavior and utterance is the crucial part of their analysis. While we do not deny that these functions are important for the acquisition of verb use, we must begin with how these functions emerge in adults', i.e., caretakers' and observers', interpretation (work of categorization).

Though we can think quite naturally and easily about the *intentions* of other people, it is not easy to know exactly where in the utterance or behavior we find them. The criteria for categorization and examples by Srivastava, Budwig and Narasimhan (this volume) —and also by Budwig (1995)—do not give us enough information about how they comprehend the child's *intentions* to bring about a change when they described them as "control acts." While we also do not have detailed descriptions about the configuration or body movement with which the child used these verbs when they categorized so-and-so, it leads us to reconsider how they arrived at such *intentions* from the child's behavior. They insist that we must consider

"the child's changing notions of human action, communication, and language as a system in uncovering the mechanisms that guide the relationship between form–function pairs."(p. 333)

as a question for further research. However, we must first begin to examine our own "notions of human action", considering the indeterminacy of the child's *intentions*.

We can imagine that our feelings toward the children’s *intentions* would change during the six-month research period, as Srivastava, Budwig and Narasimhan (this volume) discussed concerning “the form–functioning patterns” (p.332). There is a possibility that we would begin to feel the child’s *intention* more firmly and distinctively in the course of development. Though the developmental trend may not be clear, there at least must be some fluctuations in what the observers feel about the child’s *intention* in her behavior.

Moreover, a wide variety of *intentions* in children’s behaviors can be found even in a restricted context such as mealtimes (Kawata, Tsukada-Jo & Kawata, 2005): For example, children in the second year of life may *reject* the food offered to them by their mother by closing their mouths or spitting out the food. They may show their *intentions* to eat by themselves, by brushing away their mother’s hand or adding their hand to the spoon their mother is holding. They may *try* to make the mother eat the food by bringing the food to the mother’s mouth. Although the mother would find the child’s *intentions* in all of these behaviors, there may be different reasons behind them: Bringing the food to the mother’s mouth may simply be an imitation and adding their hand to the spoon may be the result of intersubjectivity. Moreover, children in the second half of the second year of life can understand the *intentions* and *desires* of others based on the distinction between their own mental state and those of others and can act prosocially on them without becoming embroiled in others’ affect (Akagi, 2004). We wonder, then, whether we can see the same, or at least similar, *intentions* in children both when spitting out food (Kawata *et al.*, 2005) and by pointing to others to tell the place (Akagi, 2004). However, there should be the child as a *fixed* and *intentional* agent from the beginning of their longitudinal observations in Srivastava, Budwig and Narasimhan (this volume) and they find the child’s pragmatic and functional language use by means of connecting language use and her *intentions*. Children’s *intentions* are constructed between the children’s *seemingly intentional* behaviors and the observers’ interpretation and the manner of constructing their *intentions* changes along with the developmental changes in children’s behaviors.

From this viewpoint, not only the categorization of the child’s utterances but also a detailed description of repeated use of the same verb that appeared frequently across the research period (for example, the transitive verbs “khaa” (eat) or “dekh” (see) and the intransitive verb “jaa” (go)) and the analysis about how the observer extracted the existence (or nonexistence) of her *intention* in each recorded usage would be needed for further understanding of the relationship between the child’s verb usage and its pragmatic functions. After all, accumulating such thorough analysis concerning the emergence of specific functions should be needed for explaining how children come to use language in a functionally adequate way in the real world.

Further problems

Considering this approach from another perspective, we must be more careful about the context in which the data were collected. While our interpretation of chil-

dren's behavior concerning their *intentions* is dependent on the context of the behavior, the environment of our observation may change the behavioral pattern of the same children. Srivastava, Budwig and Narasimhan (this volume) observed the child in "3 or 4 activities such as play with blocks, doll play and looking at a picture book" (p. 318). Though we do not know the detailed description of these activities, for example, what kind of toys there were, it is plausible that the characteristics of these activities, such as manipulating small objects with adults, elicited some specific type of verb usage related to the activity. Physical arrangements of objects afford and elicit children's specific behavior: For example, while a sofa and a mat in the living room afford behaviors such as jumping and rolling on them, a ball elicits the behavior of throwing and rolling it. Everyday routine such as going to the toilet, taking a bath, having a meal, going for a walk and so on, also decide the usage of physical (and cultural) objects and extract specific behavior patterns. Moreover, the surrounding adults draw the children's behavior in culturally specific ways (see Azuma, 1994). Therefore, we can imagine the possibility that the child in Srivastava, Budwig and Narasimhan (this volume) may have shown another pattern of verb usage in other contexts of her daily life. In other words, the function of the child's verb usage in the observed activities is locally constructed and cannot necessarily be generalized from the restricted activities in the restricted context of the whole of her everyday life. Therefore, not only focusing on the target behavior as we have discussed above, but also extending the context in which these focused verbs are used must be indispensable to understand how the child has become an efficient language user.

In addition, if we extend children's functional behavior in the real world as discussed above, we must pay attention to the inter-individual differences of the developmental process though this may not be the main focus of Srivastava, Budwig and Narasimhan (this volume). They try to attribute the difference in the tendency of verb usage between a girl who participated in this study and other Hindi-speaking children of the same age. However, as we discussed the possibility of one child's different pattern of verb usage based on different contexts, different children can develop different courses toward one general law of verb usage, as shown in the Trajectory Equifinality Model (Sato, Yasuda, Kido, Arakawa, Mizoguchi & Valsiner 2007).

All that we have discussed throughout this commentary has originated from one question: "What does it mean to be 'functional' in the world?" It is true that function has a close relationship with the general laws of behavior such as grammar. However, our activity of interpretation is indispensable for the "function" to appear. Moreover, the context or environment of the behavior is also needed for the "function" to be valid. Thus, our utterance has its function or meaning in the complicated network of the multiple elements of our interaction. Should we ignore this complexity, we would have a simple but empty theory that abandons the richness of "children's development in the real world."

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Biosketches

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TEXTS AS CULTURAL INSTRUMENTS

*Andrea Smorti**

Abstract. I focus my analysis on four main points: texts are cultural instruments endowed with a quantity of meanings, partly inherited from a historical process, partly acquired through forms of use; joint book reading is a crucial situation which gives birth the notion of text in the mind of a child; an analogy exists between interpreting a text and interpreting human action; working with a text, makes a child capable of managing a mental dictionary and encyclopedia. These represent a type of knowledge organization connected to paradigmatic and narrative moods of thought. Using these concepts as tools of interpretation of Pinto *et al.*'s article, I mainly stress two problems: the style of a caregiver's interaction with a child and the type of categorical or narrative cognitive processing used. Advantages and disadvantages of using emic vs. etic methods are discussed as well in reference to the authors' use of cross cultural comparison.

Introduction

Joint book reading represents an almost classic area of research in modern studies on early socio-cognitive development. Moreover, joint book reading is one situation in which the emergence of the initial instructional formats of early literacy in a family may be observed. Therefore, it forms a natural experiment from which important data about child development and the appropriation of cultural routines inside the family can be obtained. This critical situation improves the study of families and the differences in their cultural contexts such as the styles used to orient preschool literacy, to promote socialization and to provide important cultural learning.

Pinto, Accorti and Cameron (this volume) tackle this topic by comparing joint book reading in five different cultures: Peru, Italy, Canada, Thailand and the UK. Cultural transmission is the first concept discussed. In fact, linguistic symbols, written language (such as mathematical notation, art and music) are objects of cultural transmission. So the aim of the next section of this commentary is to explore the concept of cultural transmission.

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Instruments and symbols

Systems of symbols such as written texts are objects which are transmitted culturally. Therefore, reading can be considered to be a culturally transmitted system of symbols - or a system used to transpose symbols. However, in conceptualizing the relationship between symbols and cultural transmission, this perspective is not sufficient in itself. Joint book reading is not the only instrument used in transmitting culture (that is, literacy), but literacy, including written texts, is itself also composed of cultural instruments. Using instruments (primary, secondary and tertiary instruments as Cole, 1996, calls them) has two main effects: first, it modifies the environment and second, it changes the subject using these. For example, a hammer, a computer, or a written text can be used to solve important problems in the external world but they also change the person (for instance, computers and written texts make it possible to save memory). But this it is not all, because an instrument is also a capital of knowledge which may be shared with others, it therefore becomes something that modifies the mind of the subject and of others. So a written text is a system of symbols that can be transmitted through a cultural instrument such as joint book reading, but is also an instrument in itself that modifies cultural transmission. Given particular conditions, symbols and their organization in texts become living beings, active agents capable of affecting the way people approach them. The story of writing and reading is a classic example (for an outstanding analysis see Olson, 1994).

About writing and reading

Studying the history of writing and reading is doubly interesting. Firstly, it teaches us how the way of writing affected reading as act of reading and as cultural transmission. Secondly, through the text it shows how the notion of the self slowly emerged with the passing of each historical era.

It is well known that writing in the Greek and Roman era was performed as “*scriptura continua*” without interruption between words and the task of writing was reserved to specialists (*scribi*). Therefore, the author of a text was also rarely the writer of it: the author dictated to a *scriba* who wrote the spoken words down. This had an enormous effect on the act of reading. In fact, the *scriptura continua* could only be decoded easily through oral reading that helped the readers to hold in their mind’s eye those strings of words which were decoded phonetically in short and mid term memory. *Scriptura continua* and the necessity of an oral reading favored a metric rhythm in which the pauses stressed the end of the words. Consequently, the written text mediated not two but four people: Author -> writer-/text/->reader->listeners.

It was only in the 11th -12th century that in some areas of northern Europe, the space between words was inserted. This graphical convention now allowed silent reading and this produced important outcomes: the act of reading was faster and it facilitated easier decoding as well understanding of the text. With the separation of words the notion of a distinct and autonomous text slowly began to emerge. Together with

other graphical conventions, such as dotting, division of the text into chapters and paragraphs, the numbering of pages and the use of notes and glossas, reading a text outside a context became possible and so the practice of consultation could also take place. The text now took the form of a document that could even be used in trials as evidence or proof of witness testimonies and for oaths. The text not only assumed an autonomous value but also a communicative meaning. Writing a text meant the efforts of the reader to read and understand it had to be taken into account because now the text could be read by anybody rather than only by specialized readers as in the days when *scriptura continua* was used. Therefore, author and writer as well as reader and listener began to coincide in this era. The author knew that whoever read the text would do it silently. Writing and reading became a private process which escaped, partially, from social control and consequently contributes to the formation of a more autonomous conscience: writers could leave their most intimate thoughts on the paper and the readers were also free to orient themselves towards heterodox ideas.

However, in mediaeval times text was still not completely an autonomous entity, above all because a text changed because of the mistakes the copiers made when copying it and secondly because if they thought there were errors, anyone who read a text also corrected it. So the comments, notes and glossas could be both intentionally and unintentionally inserted in the text according to what the reader believed was the correct meaning of the text.

Only in the humanistic era was it realized that this system was erroneous and the text in itself was something to respect: comments were no longer corrections of the text but became reflections or analyses that left the text intact. With the invention and revolution of printing the notion of the text changed significantly. The printed book was now available to a theoretically unlimited number of people, it was a fixed text not contaminated by all those mistakes or corrections made by the copier. This dramatically changed the relationship between text and reader. Reading became an intimate activity that was no longer controlled from without and writer and reader were connected by an original text without the mediation of the copier. To use Bacon's words the text was now "God's word" in the case of religious book such as the Bible and "God's work" – that is, Nature - in the case of scientific books. Protestant reform and the birth of modern science was favored by this new relationship in which the text could no longer be suffocated by another text, such as by the priest, because any individual could now read the Bible directly. So the text was now separated from its interpretation and from its meaning. Writer and reader became two distinct entities, one responsible for the text and the other for its meanings.

According to Olson (1994), it is through this history and in particular the invention of printing, that the idea of self emerged. In fact, the reader must learn to distinguish what the Author means in the text from the text in itself.

Joint book reading and the emergence of subjectivity

The historical reconstruction of reading and writing shows how the form in which texts were edited and published dramatically influenced not only the act of reading and

writing but the notion of subjectivity (social communication, scientific developments). Texts are not only a system of symbols to transmit culture but are also instruments. However, the history of texts also shows that what parent and child do during joint book reading is something based on historically founded assumptions. That is to say, it is a cultural process built up through centuries of human history during which the history of the text has become intertwined with the history of religion, science, technology and society. And just as the notions of author and of subjectivity develop out of this historical process, so too is adult-child interaction in front of the book represented in this micro process, with many processes facilitating the emergence of the self.

Joint book reading represents one of those conditions mentioned in the introduction that makes a text a living being. First of all, respect for the text in its materiality also leads to respect for this object and the people who helped create it, including its author and his purposes. Secondly, joint reading makes it possible to attribute canonical meaning and to categorize, that is, to go through a process of cultural appropriation (for the concept of cultural appropriation see Wertsch, 1998). Thirdly, parents help children to distinguish the text from its interpretation (in a similar way in which paratextual glossas were distinguished from the text in the humanistic era). Fourthly, joint reading constitutes a privileged context in which a child can reflect on the intentionality of people and reason about their state of mind, be these people or animals. Now we can recognize a clear analogy between the process of reading (understanding the state of mind of characters, wondering what state of mind the Author attributes to them, distinguishing a text from its interpretation) and what occurs in metarepresentation or in false belief tests. So interpreting a text is analogous to interpreting the deeds of others in everyday life when an observer must distinguish what a person does from what that person meant. Fifthly, *conditio sine qua non*, all this can happen because a framework exists in which children can coordinate themselves with an adult and can appropriate a format (the joint book reading format) which has certain determined aims, phases and rules. There are many formats children learn to manage in their childhood, but this is particularly important due to the quantity of capacities involved: joint attention, memory, categorization, theory of mind capacities, language, social coordination etc.

One of them is now discussed.

Consider the moment in which parents helps a child to recognize a character, for instance, a cow or a hippo, as in the Authors' research. This may occur by indicating both what it is and questioning where it is (two different types of memory are involved, the first more evocative and the second more cognitive). In fact, the work on the images by parents and children also encompasses work on language and memory that leads on to the construction of dictionaries and encyclopedias.

Each word may have a double order of cognitive references such as a dictionary and an encyclopedia (Eco, 1997). A dictionary defines a word by using a system of linguistic relationships that (excluding any other considerations regarding world knowledge) provides a packet of semantic categories that are organized hierarchically (e.g. animal vs. vegetable; mammal vs. reptile) so that, even without knowing anything about the world, it is possible to make inferences such as: "if mammal, then animal" or "if mammal, then not a reptile." Therefore, a dictionary is an instrument that provides categorical knowledge.

Encyclopedias provide an extralinguistic knowledge. For instance, for the word ‘dog’ an encyclopedia gathers all the information that represents the main knowledge about it. An encyclopedia provides a system of knowledge for properties that tell us as much as possible about what a dog does, its form and structure, its instincts, as well as legends and superstitions about dogs.

In other words, linguistic knowledge is organized according to a dual system: one experience can be both processed and transformed through a dictionary and through an encyclopedia. While dictionaries are more organized in a paradigmatic way, encyclopedias are more organized according to a syntagmatic method. This could be reformulated by saying that knowledge can be organized as categories or as stories.

Some examples of these two types of knowledge organization can be seen in the research carried out by the Authors. Categorical organization is more frequent and it can be seen in the Peruvian (“where is the cow...the bear... the hippo?”) and in the Italian family (“What is this? ...a horse... a chuff chuff.... a train ...”). Narrative organization is less frequent and from the excerpts is more evident in the English family (“Ssss, sss, say the snakes..... and there came the night.... and he screams, he screams, he screams: whaaa!”)

This commentary will return to this difference in the frequency of use of these two systems of organization at the end, but first other problems raised by the present research need to be discussed.

Joint book reading and cultural contexts

One of the main aims of Pinto *et al.*’s article is to compare joint book reading across cultures.

There are two basic problems that are common to all cross-cultural investigations, that is to say: why confront some cultures but not other? How should outcomes be interpreted?

Regarding the first problem, with the topic of the research being specific, an answer is provided almost naturally: the point of study is to find out to what extent joint book reading is specific to a culture or is it constant and general across different cultures? This seems to be an “etic” type of response. However an “emic” response may be provided: the aim is to study the relationship of joint book reading to its cultural context.

Although the study of Pinto *et al.* cannot strictly be defined as cross cultural research, it does aim to explore similarities and differences across the five types of families. However, a further question arises: in what ways are the communities that the families are drawn from similar and in what ways are they different? Consider the use of questions, so crucial in asymmetrical interactions. There are questions in which the response is known and questions in which the response is unknown (Ragoff, 2003). Posing a question which the response is known may seem an odd way of interacting, as Luria (1976), noted. Alphabetized societies and in particular, academic contexts, use this discursive genre and a child learns to discriminate these types of questions from

those in which the response is unknown. Joint book reading is typically an activity where questions posed always have a determined answer and, from this point of view, it can be considered to be a situation where this discursive genre begins to be learned and managed. In cultures that do not manage questions with known response, does some form of joint book reading exist? This is not likely if this form of genre is correlated with alphabetization. Barbara Ragoff (2003) particularly concentrates on adult-child segregation. There are some cultures (especially in the technologically oriented western world) in which adults and children are segregated for many hours in a day, reserving specific moments to parent-child interaction, lived very intensely, during which parents really perform the role of a preschool literacy tutor. However, in other cultures (see Gusii in Kenya, Maja) children are not segregated and they observe all the activities found in the adult world. Once again the question of whether or not some form of joint book reading exists in these cultures arises. Furthermore, should it exist, in what ways is it different from what happens in segregated cultures? The sample Peruvian family seems to belong to a culture closer to the model of non segregated cultures. Moreover, at the age examined in this research, the variable of segregation is less clear because in segregated families in the western world, non working mothers also spend a lot of time with their children. However, the child in the Peruvian family examined also spends a lot of time with her mother during working time, though other caregivers are charged with looking after children and spend leisure time with the child. These results are interesting because the style of joint book reading in the Peruvian family is quite similar to the other cases examined in this study in certain aspects such as stressing categorization, labeling, drawing the attention of the child and so on.

This, moreover, leads to a second problem. What do similarities and differences between cultures mean? The first answer is that similarities (or differences) found between families are evidence that joint book reading as an activity occurs (or does not occur) in the same way in all alphabetized cultures. However, there is another answer: these similarities (or differences) are evidence that the cultures examined are similar (or different) because other variables are operating that are likely to affect joint book reading, such as segregation, question genre, role of the mother, etc.

It is unlikely that a definitive solution to these problems will be found. All the same, a useful contribution might come from coordinated use of emic and etic methodology, as Berry (1969; 1989) and Triandis (1978) suggested some decades ago. On the other hand, from both a methodological and from a theoretical point of view, the perspectives of emic and etic pose more general problems, problems faced by the main issue of this paper and the introduction of Salvatore and Valsiner (this volume).

Generally speaking, in cultural studies emic and etic perspectives pose the same problems of nomothetic and idiographic approaches do in scientific studies. Something similar can be found in the distinction between a clinical versus a differential statistic methodological approach to studying psychological processes. The distinction between concepts of extensional and intentional proprieties has the same basis as the dichotomy between paradigmatic and narrative thought since on the one hand there is the tendency to create similarities between different types of objects and concepts (extensional, paradigmatic) and on the other hand the tendency to research into the coherence within each of them (intentional, narrative).

Bruner recently (Bruner, 2007) proposed a similar distinction in cultural studies in which there are two towering figures in current cultural anthropology. On the one hand, there is Alfred Kroeber who insists that culture is “superorganic”, that is, beyond individual experience. On the other hand, there is Clifford Geertz who with equal conviction insists that culture must be viewed as “ways of imagining the real”, i.e. that culture is best viewed as inherently “local.” The conflict between the “subjective” and “objective” worlds makes it virtually impossible to describe a culture superorganically, i.e. without reference to what some “informant” has told you he takes to be “real.” At the same time, a person cannot fully understand the conception of what is locally real to their informant without some reference to the institutionally perjuring nature of the “overall culture” of which the local is a manifestation.

Even though it might be possible, tackling these dichotomies without resorting to a new version of the medieval “double truth theory” would take more than a simple commentary like this one. It is simply that both poles are required since these represent two different positions taken by observers. Just as Valsiner and Salvatore use it in their introduction, the formula “observer’s position” is used here with the same meaning provided by the second generation of the theory of systems (Bocchi & Ceruti, 1986) and so a rather constructivist stance is taken. Using the observer position theory, the idiographic, local, clinical and intentional perspectives seem to presuppose an internal position in the observer, while nomothetic, institutional, differential, extensional perspectives seem to presuppose an external position. Because these two approaches depend on the position of the observer, the basic choice between the external point of view, typical of cross-cultural psychology and the internal point of view, typical of cultural psychology must not be made. We should, rather, be aware that when an external position is assumed, the influences of culture on mind is examined and this makes it possible to compare different cultures and verify the type of influences these have on the mind. On the other hand, when an internal position is adopted, the circular and reciprocal implications between mind and culture are examined, using an interpretive methodology. In this case, being internal in the system, observers are involved in the system because they interact with what they are observing. Therefore, what they observe will affect them and they, on the other hand, will have their “west” biases in the interaction, influencing the observed object. The only feasible way is therefore to use interpretation, studying the object by starting from several presuppositions, which means influencing the observed object and being influenced by this according to a circular and hermeneutic process (see: Smorti, 2003)

Elaborative vs. non elaborative style of interaction

It is now worth discussing an important aspect of Pinto *et al.* (this volume): the results of their study. One way of examining these results is to view them in terms of style of parental interaction with the child. In studying parent-child conversation, Engel (1986) distinguished elaborative vs. paradigmatic mothers. Elaborative mothers use appropriate cues, signs of approval and so on in order to help their children to remem-

ber. So children become capable not only of describing an event but also of narrating it with its emotional nuances. On the other hand, non elaborative or paradigmatic mothers persist in repeating the same questions as if they wanted to test the memory of their child. This hinders the possibility of remembering and of narrating memories. Paradigmatic mothers talk with their children about practical affairs, for example, where they may have left their doll and when they ask questions, they center on the “what” and the “who.” In contrast, elaborative mothers tell of their experiences, inviting their children to participate in these stories and when they ask questions, center on the “where”, “when” “how” and “why.”

A similar system of classification was adopted by Tessler (1986) who used paradigmatic vs. narrative distinction (following the well known distinction of Bruner, 1986) to describe two different interactive styles). When they converse with their child on the past, paradigmatic mothers center on labeling and describing objects, while narrative mothers are more oriented towards temporal dimensions, the intentionality of people, causality of events and evaluation of situations. The children of narrative mothers do not only remember significantly more than paradigmatic ones do, but what is extremely important is that they remember those elements of conversation in which they contributed towards creating the interaction with their mother. In other words, talking with mother about the past leads children to put their memories in a narrative form and it is this narrative form which is conserved in memory. Parents create a framework in which the child can place his or her experience, facilitating the development of autobiographic memory that becomes a system within which personal memories can be kept.

Even if this type of parental style classification was specifically observed when parent and child were discussing memories, it is also theoretically possible to use it during joint book reading. In fact, joint book reading may be an opportunity to work with memories both semantically (“do you remember what this is?” or “what its name is?”) and narratively (“do you remember when we saw the dog yesterday?” or “what was Mary’s dog doing yesterday?”). Of course, the complexity of questions depends on the age of the child, but, as is known, parents work on the “area of potential development”, behaving as if their children were older than they actually are. So joint book reading may represent an opportunity to play with images, words and experiences in both a categorical and in a narrative way.

All this premise, what is it that found in the data and excerpts of the Authors? They do not take into account this point, however it is possible to have an idea from the excerpts. At the age the children have (two-three years old), caregiver style is more paradigmatic than narrative, is more centered on labeling animals than on narrating something about these, on training them into a dictionary rather than encyclopedia form of knowledge. Does it depend on age? Are these parents more interested in teaching language in the form of names rather than in the form of actions or proprieties? Does it depend on the specific joint book reading format that, as described by Ninio and Bruner (1978), seems to have maintained this structure and content?

However, differences may also be noted. The Peruvian aunt asks the name of pictures representing an elephant or a snake and is very “strict” about labeling (see, for instance, the “miao” and “Gatto” sequence), but she also gives cues to the child about

where to look (“no, the green one! Look more closely!”). The Italian father too is interested in labeling, but he also gives suggestions to his child on how to pronounce the name correctly (see the “ciuff-ciuff and train” sequence) and asks about the point of view of his daughter (“What is your favorite picture?”; “Do you like it?”). The English grandmother seems a little bit less paradigmatic and more narrative than the other caregivers are (“Ssss, sss, say the snakes”.....”and there came the night”....”and he screams, he screams, he screams: whaaa!”).

Nevertheless, beside these differences, labeling, recognizing and spelling seem to be the most urgent preoccupations of these caregivers. So why is labeling or categorizing images so important compared to developing stories, playing with fantasy and developing encyclopedia knowledge? Is this evidence of particular popular psychology caregivers have about language, a naïve theory on language learning according to which language is built up through conversation but also through particular situations in which adults can teach “names”, as if they believe language to be built on individual words and in particular, on names of objects?

Conclusions

Texts are systems of symbols which are culturally transmitted, but these are also cultural instruments endowed with a quantity of meanings, partly inherited from a historical process, partly acquired through forms of use. Texts do not have one form of reading but pose problems of interpretation which make these instruments active and alive, changing the people who use these. One of these problems of interpretation is that of distinguishing the text from the intention of the Author. This problem is further complicated by the fact that a text is charged with the interpretations of others. All these characteristics make interpreting a text something that is not so different from interpreting the actions of people and a text is a particularly alive instrument thanks to all those types of interaction which affect literacy, working with a child’s theory of mind and so on. Providing an adequate type of interaction between children and their caregivers, joint book reading research in preschool years observes the birth of text in the mind of a child, the ways in which it is used, its function in conversations, the richness it contains. This commentary paper concentrates on one particular aspect of working with a text, that of dictionary and encyclopedia. These represent a type of knowledge organization connected to paradigmatic and narrative moods of thought. Joint book reading research not only explores how these two types of thought develop, but also how these are stimulated by the caregiver. Drawing attention, pointing, request of labeling, spelling, categorization, providing cues and suggestions may be oriented toward categories or narrative as a way of organization. Of course, these are not separate boxes and the two types of organization are usually pursued in parallel at the same time. Examples of both have been seen in these excerpts, but it has been noted how at this age and in this type of format, there are more categorical ways of organization can be stimulated. Further research is needed to assess whether or not idiosyncratic attitudes of caregivers, cultural community models, age and gender of the child, affect

parents in using paradigmatic vs. narrative ways in the context of joint book reading more than in other contexts such as conversations about the past and play. If this is the case, joint book reading acts as a form of preschool training. Perhaps adults too are convinced that a categorical form of knowledge is more suited to the requirements of school than a narrative one.

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Biosketch

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Starting as a student on the issue of parent-child interaction and on the role of the father in particular, for twenty years he has researching on narrative thought in a Brunerian perspective carrying out developmental and social inquiries on narrative thought and peer interaction. Recently he is studying the problem of Autobiographical narrative of trauma experiences.

CHILDREN'S USES OF CULTURAL OBJECTS IN THEIR LIFE TRAJECTORIES

*Tania Zittoun**

Before I started going to school, Mother read to me every night at bedtime, to help me fall asleep. She would turn on the coloured glass lamp by my bed, put on her pince-nez and read fairy-tales. I really hated sleeping, but I liked listening to the stories: there was a wicked witch who ate children and a rotten stepmother who poked out her stepchildren's eyes and then when the prince was betrothed to the prettiest of the children, she (the heroine) chopped off both her stepmother's arms and also one leg. Those fairy tales frightened me so much that I couldn't fall asleep, which was why Mother had to keep reading on and on, until she fell asleep.

But alas, those wonderful times were soon to be no more. I had to start grade one at the elementary school for boys. I didn't want to, but they made me. Our teacher, Mrs Rehakova, taught us reading and now, as Mother was turning on the lamp she would say to me: "Soon I won't have to read you any longer, Joey, because in no time you'll learn how and then you'll be able to read quietly to yourself." But I liked having Mother read to me, because she was pretty and had a scratchy voice that helped me to stay awake when she read the story about Budulinec, the boy who gobbled everything he could find in the pantry, but was still hungry and then became a cannibal. So I decided not to learn how to read, so that Mother would have to go on reading bedtimes stories to me every night.

(Skvorecky, 2000)

Abstract. In this paper, I reflect upon two case studies of children's progressive mastery of semiotic means, by Srivastava, Budwig and Narashiman (this volume) and Pinto, Accorti and Cameron (this volume). I first highlight their shared meta-theoretical assumptions – primacy of semiosphere, non linearity of development and social origin of psychological processes. I then identify three theoretical issues raised by the case studies and their analysis: the danger of a rigid understanding of socialisation, the possible limits of ternary analyses and the disconnection between analysis of micro-processes of development and of life trajectories. To overcome these issues, I finally propose a midrange model, which highlights the emotional nature of interactions and the sense-making in the construction of semiotic mastery.

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Introduction

In the introduction to this Yearbook, the editors raise a series of issues which set the frame in which the papers collected in the section should be read. The goal of this publication is thus to contribute to a general theory of development. Expanding through abduction, this theory would draw from the one hand on a reflection on the rules of psychological development and on the other from a reflection on the phenomenon (Salvatore & Valsiner, this volume). However, theoretical advances require not only that one articulates general assumptions with local cases, but also to develop midrange descriptions and analyses that enable one to establish links between the empirical cases, and to circulate from data to general principles and back again to data. The different levels of description have for example been articulated in hierarchical systems (Valsiner, 2007).

This section of the yearbook has been specifically named “Life Trajectories.” It is based on two case studies on children’s progressive mastery of the semiotic means offered by their environment. These two papers have been strongly theoretically informed. The challenge for a discussant is thus to offer a midrange explanation that enables both to articulate two case studies of micro-interactions to a more general understanding of life trajectories and through this, to relate the two papers.

Case studies for a developmental psychology

One way to start an abductive reasoning based on two case studies is to highlight a few general theoretical assumptions. These define the sort of objects at stake. They must also find a translation in the two case studies; without such principles, the case studies become incommensurable. I highlight here principles formulated by Vygotsky and recalled by Salvatore and Valsiner (this volume), which define the specificity of the sort of developmental psychology done here.

Shared theoretical assumption

First, a primordial attention is given to the semiosphere – the circulation of signs that mediate the relationship between humans and their environment and that enable the elaboration of meaning both within the person, and among people and groups of people, in time and space. In the two studies, this priority is actualized as an attention to the dynamics of communication between children and adults, to their verbal and non verbal modes of expressing their ideas and to their progressive mastery of culturally established forms of uses of semiotics systems (using transitive verbs and using a book to read a story).

Secondly, these papers admit the non linearity of development: a given ability – e.g. reading – can be acquired through different pathways, in different moments of a person’s life. For example, in some families, an adult reading a book to a child em-

phases the actual narrative, while in others, the adult emphasises the correspondence between represented images and words (Pinto, Accorti & Cameron, this volume). Yet in both cases the children eventually learn to read the story written and depicted in a book. Similarly, through different pathways, partly depending on parental patterns of communication, children eventually all learn to master transitive and intransitive Hindi grammatical constructions (Srivastava, Budwig & Narasimhan, this volume).

Thirdly, these cases very clearly illustrate the social origin of psychological processes. These two studies explore how children learn to master a form of verb in one case, or to read books in the other, in interactions with adults. Through interactions, they come to progressively master the socially shared ways of using words to construct grammatically admitted sentences, or to use books and words written in them in a manner which resembles reading. Hence the authors seem to assume that children learn through their exposure to, imitation and exploration of ways of using semiotic means. These interactions appear oriented towards an implicit goal: the mastery of a shared semiotic system and its appropriate use together with an understanding of this shared meaning.

Theoretical issues

Because these studies share a set of meta-theoretical rules, they can be brought together. We then work with the idea that they can be seen as actualizations of some more general principles yet to be identified. These principles can be inferred through comparisons of case studies, but also, they can be highlighted thanks to pre-existing theoretical reflections and studies. Drawing on such work, I propose to highlight three issues raised by the two papers, issues that will bring me to a further elaboration.

First, these two case studies rely on observations of mediated interactions. Researchers in developmental psychology might have two main reasons to observe interactions. One is methodological: since it is impossible to observe thinking as it occurs “in the head” of people, observing discourse gives access to externalizations of these contents. The other reason to observe interaction is theoretical: according to the assumption that psychological processes are initially social, observing interactions is a way to observe ontogenetic phenomenon as they occur, during their micro-genetic actualization. The two studies in this section seem to be in the second case – assuming that the phenomena observed are actually sequences within the developmental trajectory of the person (the child, but it might be added, also the parent). Even more, the authors seem to assume that the nature of the interaction is a constituent of the modalities of the mastery of the semiotic system observed. In Pinto, Accorti and Cameron (this volume), children are observed as interacting with the book in the same way their parents do. Because parents have different modes of relating to books – emphasizing narratives vs. images, for example – we might think that children in different families acquire specific modes of relating to books, or more generally, specific social or cultural *habitus* (Bourdieu, 1977). Similarly, Srivastava, Budwig and Narasimhan (this volume) indicate that children develop different relationship to verbs according to the grammatical mode preferentially promoted by the adults that interact with them. Accord-

ing to such observations, interfamily or inter-cultural variations are likely to affect the modality of acquisitions or display of a specific skill. In other words, the researchers seem to assume that there is a strong correspondence between the modalities of a social interaction and the modalities of an intrapersonal use of a semiotic tool.

This raises the traditional question of whether or not this promotes a rigid version of socialization as transmission. One way to refute such a view is to recall the non linearity of development: although the ways differ, these children will all eventually develop a relative mastery of a given aspect of a semiotic system. Another view that refutes this assumption is to emphasize that, through socialization, there is also internalization – which is largely invisible, yet demands a transformation of the structure of understanding (Toomela, 1996; Valsiner 1998 for a debate). A third way to answer is to show one of the limits of the model of interaction suggested so far.

Therefore, the second issue regards the underlying implicit model of an interaction used by these two case studies. They seem to be based on a triadic description: a child, an adult and a book or verbal structure are united in an interaction; the adult uses the book or the structure and so does the child; the adult incites or canalizes the child's relationship to the semiotic object and so on. However, in a triadic relationship, the object at stake seems to be "the same" for the child and the adult; the model emphasises shared intersubjectivity, not the fact that the child's perspective might largely differ from the adult's. This also hides the fact that the child and parents' perspectives might differ from that of the researcher. The confusion of perspectives has been identified by William James long time ago as the "psychologists' fallacy" (James, 1890, p. 196) – and a triadic model does not necessarily helps avoiding it. How can we avoid such confusion and account for the child's perspective on the object?

The third issue concerns the place of the developmental dynamics identified by Srivastava, Budwig and Narasimhan and Pinto, Accorti and Cameron (this volume) in the overall trajectory of a person. The underlying epistemological question is, how can the micro-analysis of interactions of two-and-half years old children with their caregivers be part of a general understanding of development in the life trajectory?

Extending the implicit midrange model

The sequence of the Skvorecky autobiography at the head of this paper has the merit to depict the vividness of a scene of storytelling between a mother and a child. The scene emphasizes a few aspects generally lost in psychological accounts: the emotional quality of the situation (the child is terrified and so happy), the sense it has for the child (which is not the one it has for the adult) and the importance, for the child, to have an exclusive relationship to an adult – the mother seems to respect and feed her son's love for stories and need for exclusive company...

In order to account for the progressive mastery of a semiotic system by a child, we need to consider not only the child, the adult and the object (triadic description) but we also have to take in account the particular value that this object has for that child, in that occasion. A more complex figure than a triangle is required (Zittoun *et al.*,

2007) if we want to account for her personal reconstruction of the object. One possible solution is to create a prism-like figure (Zittoun, 2006) with, as poles, the *child* (as the centre of attention), the *adult*, the *object* about which it is discussed together with its socially shared meaning, and as a fourth pole, the *sense that the object* (or the other or the situation) has for the child. This figure can account for the child's perspective – and for the fact that his experience of the situation is not identical to the one intended by the adult, or assumed by the researcher. The *sense for child* pole designates the personal reading, echo, emotions, values, biographical anchorage, of the situation. The way the adult's words or usages are going to be internalized is always mediated by this "internal" resonance of the object. In this figure, the *child – adult* side designates the interpersonal relationship taking place and *the child – sense for child* side designates the intrapersonal dynamics taking place. Note that the intrapersonal phase does not simply follow the interpersonal *child-other* phase of the interaction; rather, any relationship to an *object* is doubly mediated by these two relationships. Thus, an object is never straightforwardly internalized as intended by the adults (if it would be the case, children raised by the same teacher in the same classroom would all acquire the same skills...).

Personal sense and emotion

Through this model, other aspects of the case studies come to the fore. This personal sense can be described as value or emotion laden. In the Skvorecky case, it is not because Joey does not have the ability to understand the meaning of written words that he does not learn to read: it is because he does want to preserve the very special moment during which his beloved mother is there only for him. Learning to read – the mastery of a semiotic system – is an experience located in the flow of life. It is never fully detached from conscious and unconscious motives. Emotional processes are also part of the constitution of sign use, as Salvatore and Valsiner emphasise (this volume).

In Pinto, Accorti and Cameron (this volume), the little girl who is read a story by her grandmother follows it with excitement and asks for the story to be reread again: it seems indeed that the story has "caught" the girl, has some particular sense for her. These aspects are ignored if the situation is read through the lenses of a triadic mode which emphasizes the mastery of the *shared meaning* of the object, which is somehow seen as equivalent to the object. A prism model sees these manifestations as part of the more *personal sense* that the object have for the child.

Similarly, in Srivastava, Budwig and Narasimhan (this volume), meaning making is described in pragmatic and semantic terms. Children thus seem to use transitive constructions mostly to describe animate subjects in control acts (e.g., child says to mother, "you hold it (the doll)") and intransitive construction to speak about the environment blocking the achievement of some goal set by them (e.g., a child that cannot open a box says, "it doesn't open"). Of course, both the pragmatic function (the function of the verb in the sentence) and the semantic function of the transitive and intransitive constructions differ. Yet one might also wonder how it feels for a child to meet a world that obeys to one's desire, or at the contrary, that resists. In that perspective, a transitive verb marks one's own potency and ability to achieve goals, while intransitive forms pro-

fects self narcissistically: for a child, they might enable to preserve the idea that it is not I who failed achieving a goal, it is the world that resisted. Such construction could thus be another form of what Piaget called “magical thinking” (Piaget, 2003) - conferring a quasi-intentionality to things. More simply, without inferring that the child thinks that the box has an intention, the child might thus be expressing that his intention has been frustrated, *as-if* the objects had wanted it. What this tentative analysis suggests is that a semantic and pragmatist description of the progressive mastery of a semiotic system might gain from an analysis of the sense that the sign acquire for a child in a particular situation.

In other words, analyzing such cases with an attention to dynamics of sense might enable to identify the emotional component of sense, that is, of the child’s active negotiation and reconstruction of shared uses and meaning of semiotic systems.

The configuration of mediated interactions

Modelled though a prism, mediated interactions can then be observed in their various configurations. More specifically, it becomes possible to distinguish these situations along their emotional qualities, or according to the importance that adults give to the child’s perspective.

In the observations by Pinto, Accorti and Cameron (this volume), indications regarding physical distances and emotional atunement are reported. A child is thus said to sit on her grandmother’s lap, another sits next to the adult on a sofa, while another child stands in front of the adult who tells her a story; some children maintain eye contact with the adult, the others share attention on the book, sometimes using fingers to point at a specific aspect. This means that the physical experience of these three children is different and that the mediating role of the book is different as well. In some other cases the adult tells narrative sequences of the story, completed by the child (“and here arrives” ... “the badger” ...), while in others, the adult asks questions answered by the child (“where is the cow?”, “here.”) (this has being shown to be highly dependent on culture-specific narrative styles, Heath 1994; Ochs & Capps, 2002). Finally, in some cases the adult seems available to the child’s desire to hear the same story over and over again (see Miller *et al.*, 1993), while in other cases the adult seems more in position of deciding what story should be read and when.

Thus, in relational terms, while there is in some cases a shared attention on an object (child and adult develop the same perspective on the object), in other cases there are complementary perspectives: what the sitting adult sees is not what the standing child sees. In the case of physical proximity or contact, emotional empathy might be stronger than when the bodies are in a distal position. Then, when the child is being asked to answer a question, he is not in the same agentic position than when he participates to the construction of the narration. Also, when the child can choose to hear again a story she knows by heart, she experiences the special attention that the adult confers to her needs. Thus, we suggest, by expanding our observation of the interactive structure taking place into a prism-like figure, we come to realise that these situations

can be understood as very different configurations: in some cases, the adult acknowledges and gives a space for the “sense for the child” that the situation or the object has, while in others, this is not the case.

Research in early development (Fonagy *et al.*, 2002) child's acquisition of semiotic systems (Nelson, 2007), or clinical psychology (Tisseron, 2000) suggest that that particular dimension – the acknowledgement by the adult of the children's sense and emotion – play a capital role in their progressive mastery of semiotic systems.

Micro-interactions in life trajectories

If one admits the importance of emotionally laden events in the constitution of a memory in the flux of experience, as well as the fact that learning requires the constant evolution of similar but not identical patterns through time (van Geert, 2003), then analysis in terms of these prism-like configurations might contribute to identify emotionally laden situations which might have a long-time canalising role in the development of the person.

Incidentally, as Skvorecky's biography suggests, the special emotional quality of reading a book with an adult brought him to develop a long-standing privileged, socially situated relationship with books, as a writer and then as a professor of literature. In a more systematic manner, reconstructive case stories (Zittoun, 2006; *in press*) suggest that the space given to children's personal sense in an interactive situation might have long term consequences in the persons' later uses of semiotic objects and systems. For example, a person that develops a privileged relationship to paintings through her mother's shared passion, can have this basic configuration evolve into a privileged relationship to paintings with a teacher and eventually, with that teacher, into an interest for etching.

One way to reconnect micro-interactions to a lifelong trajectory is thus to describe them with the help of a midrange model which enables to compare moments disjoint in time, while accounting for change and continuity in a life trajectory.

How can case studies of interactions participate to an understanding of life trajectories?

Three main ways of addressing the links between local descriptions and lifelong trajectories can be recalled.

A classical way is to see local situations as they take place among a diversity of comparable situations captured over the lifetime. These situations can be reduced to simple dimensions that can be compared; on the basis of average configurations, local situations give rise to predictions of possible development. Linking microanalysis to life trajectories through predictive reasoning based on average trajectories raises many theoretical and methodological problems (Abbey & Valsiner, 2005; Valsiner, 2006). I

will highlight only one. If we admit the plurality of life trajectories, than we have to reject predictions to avoid internal contradiction. It is thus not possible to assume that some people showing greater vivacity as young children (e.g., “healthy children” in Pinto, Accorti & Cameron, this volume) will develop “better” than others – after all, more than one sickly, unpromising child did develop in a great scientist.

A second way to articulate microgenesis and life-long development is to admit that local situations are connected to general development, as any local situation is an instantiation of a general meta-theoretical developmental principle. For example, any interaction requires semiotic elaboration, and semiotic elaboration is one of the main process through which changes take place. This might enable to see what is developing in a given situation; it does not enable to timely connect the present situation to a future situation in the same life trajectory.

The third way is the one followed here: it is to identify midrange models, which connect a close description of case-study data with general theoretical principles that are robust enough to account for two situations distant in time in the same life trajectory and that can highlight aspects both of continuity and change. Thus, this commentary ends with a call: that for using and developing midrange models to articulate and connect a diversity of empirical cases – which is the only way through which these might develop and through which general theoretical models might acquire some heuristic power. As children, scientists develop their mastery of semiotic tools - that are theories - through local practices...

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Edited by

Cynthia Lightfoot and Maria C.D.P. Lyra

Challenges and Strategies to Study Human Development in Cultural Contexts



Firera & Liuzzo Group is a member of

- SECOND EDITION -

Printed in Italy
by Arti Grafiche Colombo - Muggiò (MI)