

## CONTEXT OF THOUGHT AND CONTEXT OF UTTERANCE

(A NOTE ON FREE INDIRECT DISCOURSE AND THE HISTORICAL PRESENT)\*

Philippe Schlenker

Published in *Mind & Language* 19:3, June 2004, pp. 279–304.

### Abstract:

Based on the analysis of narrations in Free Indirect Discourse and the Historical Present, we argue (building in particular on (Banfield, 1982) and (Doron, 1991)) that the grammatical notion of *context of speech* should be ramified into a *Context of Thought* and a *Context of Utterance*. Tense and person depend on the Context of Utterance, while all other indexicals (including *here*, *now* and the demonstratives) are evaluated with respect to the Context of Thought. Free Indirect Discourse and the Historical Present are analyzed as special combinatorial possibilities that arise when the two contexts are distinct, and exactly one of them is presented as identical to the physical point at which the sentence is articulated.

Word Count: 10,909

### 0. Introduction

Indexicals are normally defined as expressions whose reference is fixed by the *context of speech*. But the latter notion, I will argue (following (Banfield, 1982) and (Doron, 1991)), should be ramified into a *Context of Thought* and a *Context of Utterance*. The *Context of Thought* is the point at which a thought originates; it includes a thinker, a time of thought and a world of thought (in some cases a thought might also have an intended addressee, especially if it corresponds to a speech act). The *Context of Utterance* is the point at which the thought is expressed; it includes a speaker, a hearer, a time of utterance and a world of utterance<sup>1</sup>. The difference rarely matters in everyday life: a person's mouth is located near a person's brain, and as a result the point at which a thought is formed is not significantly different from that at which it is expressed. If we were *very* different creatures, we might be able to have our brain in one location and to express its thoughts in another. The distinction would then be much more useful, as it would allow us to distinguish, say, between a *here* of intention (denoting things near the point where the thought was formed) from a *here* of expression (denoting things near the point where the thought was expressed). Although this situation doesn't seem to arise in real life, there are two literary styles in which the narrator presents things *as if* the Context of Thought were significantly different from the Context of Utterance<sup>2</sup>: narrations in Free Indirect Discourse (= 'Represented Speech and Thought', in Banfield's terminology) and narrations in the Historical Present. In such cases natural language indexicals are seen to fall into two lexical categories, depending on the context with respect to which they are evaluated: (i) tenses<sup>3</sup> and pronouns depend on the Context of Utterance, while (ii) all other indexicals (including the demonstratives, as well as *here*, *now*, and *yesterday*) depend on the Context of Thought. The surprising fact, then, is that these literary styles provide evidence for a grammatical distinction that

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\* Thanks to Edit Doron, Paul Egré, Orin Percus, Barry Schein and Benjamin Spector for discussion of some of the data. Special thanks to Ann Banfield, Edit Doron, Yael Sharvit and an anonymous reviewer for extremely useful comments and criticisms. A preliminary version of some ideas and examples discussed in the present article appear in French in (Schlenker, to appear b)

<sup>1</sup> As A. Banfield observes, the terms 'context of utterance', 'speaker', 'hearer' and 'time of utterance' are too narrow, since a thought may be expressed in writing. Thus it should be understood that the 'context of utterance' denotes the point at which a thought is expressed, even if its expression does not involve spoken language.

<sup>2</sup> See Recanatì 2000 pp. 170-172 for further remarks on imaginary contexts.

<sup>3</sup> I will restrict attention to the present and past tenses. See (Doron, 1991) for an analysis of complex tenses in Free Indirect Discourse. The future presents a number of problems of its own, discussed for instance in (Abusch, 1997, 1998).

has essentially no import in day-to-day life but seems to be hard-wired in language. The challenge, of course, is to explain *why* pronouns and tenses form a natural class and behave so differently from other indexicals. I will suggest that pronouns and tenses differ from other indexicals in that they alone are *variables*, whose domains of reference are determined by the grammatical features they carry, for instance person, gender, or tense. These features serve as a system of classification whose referential is the utterance itself. By contrast, the denotation of other indexicals is fixed by the intentions of the thinker and thus by the Context of Thought which, in the literary styles under study, is distinct from the Context of Utterance.

As soon as a narrator is allowed to do *as if* things were different from what they are, either the Context of Thought  $\theta$  or the Context of Utterance  $v$  (or both) may be taken to be distinct from the physical point at which the narrator's words are expressed, what I will henceforth call the 'actual context',  $c$ .

-In *Free Indirect Discourse*, the Context of Utterance is the actual context, but the Context of Thought is taken to be located somewhere else (thus  $c=v$  and  $\theta \neq c$ ). This creates the impression that, quite literally, another person's thoughts are articulated through the speaker's mouth, with interesting literary effects, as in (1):

- (1) Tomorrow was Monday, Monday, the beginning of another school week! (Lawrence, *Women in Love*, p. 185, London, Heinemann 1971; cited in (Banfield, 1982) p. 98 and (Doron, 1991))

In (1) the thought expressed is not attributed to the narrator but to one of his characters, as shown by the fact that the narrator could add without any air of contradiction: *This turned out to be incorrect (the next day was in fact Sunday)*. The character's perspective serves as the Context of Thought, with respect to which the indexicals *tomorrow* and *now* are evaluated. Still, the past tense is evaluated with respect to the actual speech act, which serves as the Context of Utterance. If *tomorrow* and the past tense were evaluated with respect to the *same* context, the sentence would result in a contradiction, contrary to fact. As several other researchers (in particular (Banfield, 1982) and (Doron, 1991)), I take this observation to establish decisively that sentences in Free Indirect Discourse must be evaluated with respect to two contexts rather than one (my Context of Thought corresponds roughly to Banfield's 'E' and to Doron's 'Point of View', while my Context of Utterance corresponds to Banfield's 'Text' and to Doron's 'discourse situation'). I will attempt to develop explicit rules of semantic interpretation that capture this intuition.

-The same distinction but the opposite pattern is found in narrations in the *Historical Present*. There the Context of Thought is identified with the actual context (i.e.  $c=\theta$ ), and as a result the assertion is attributed to the actual speaker, contrary to what happens in Free Indirect Discourse. On the other hand the time coordinate of the Context of Utterance is set somewhere in the past (hence  $v \neq c$ ), which yields the impression that the (actual) speaker is present at the scene he is describing. Thus in the following example the present tense is evaluated with respect to the Context of Utterance  $v$ , while the adverbial *fifty eight years ago* is evaluated with respect to the Context of Thought  $\theta$ :

- (2) Fifty eight years ago to this day, on January 22, 1944, just as the Americans are about to invade Europe, the Germans attack Vercors.

If *fifty eight years ago* and the present tense were evaluated with respect to the *same* context, (2) would result in a contradiction. But in fact this sentence is felicitous; from the present perspective, the explanation is simply that the time of the Context of Utterance  $v$  is set exactly fifty eight years before the time of the Context of Thought  $\theta$ , which yields the impression that the speaker is directly witnessing the relevant scene. (Although the past tense would be perfectly acceptable in this example, it would not produce the impression of vividness which is one of the hallmarks of the Historical Present, and which is in need of explanation; from the present perspective the vividness derives from the fact that the speaker presents himself as directly witnessing the events he is describing).

Thus our suggestion is that a simple distinction between Context of Thought and Context of Utterance permits a unified theory of Free Indirect Discourse and of the Historical Present, in which the latter emerges as the mirror image of the former. In fact, the attempt is to *deduce* some properties of the Historical Present from the analysis of Free Indirect Discourse. In particular, once it is observed that in Free Indirect Discourse the assertion is attributed to the Context of Thought, and hence *not* to the actual speaker, we can predict that in the Historical Present the opposite pattern should be found, with the result that the assertion *should* in fact be attributed to the actual speaker. Be that as it may, I largely agree in my conclusions with (Banfield, 1982), who mostly discussed Free Indirect Discourse (with an interesting foray into the Historical Present on pp. 165-167). I will also borrow important insights from (Doron, 1991), who framed her own theory within Situation Semantics. In this paper, by contrast, I develop the theory in an extensional variant of Kaplan's logic of demonstratives (the system is extensional in order to allow tenses to be treated as variables in exactly the same way that pronouns are; see the discussion below).

The difference between Context of Thought and Context of Utterance should be contrasted with other distinctions that have sometimes been drawn in the analysis of indexicals.

-As (Kaplan, 1989) put it (citing Donnellan), if sound traveled *very* slowly our language could distinguish between a *now* of production and a *now* of audition (Kaplan, 1989 p. 491 fn 12). The distinction is coherent, but it does not appear to be used in the grammar of natural language. It is, in any event, different from the distinction drawn here. The Context of Utterance could be further subdivided in the way suggested by Donnellan if one so wished (for instance there could be two present tenses, etc.).

-Our attempt should also be distinguished from theories that retain the unity of the notion of context, but argue for a revised analysis of what contexts are. (Kaplan, 1989) assumes that only *proper* contexts, contexts that correspond to a possible speech act, should be admitted in the semantics. As a result, a sentence such as *I am here now* comes out as a logical truth, because for any proper context *c* the agent of *c* is located at the place of *c* at the time of *c* in the world of *c*. (Predelli, 1998) challenges this view, on the ground that such sentences are *not* logical truths - witness the fact that *I am not here now* may be felicitously uttered through the intermediary of an answering machine. Predelli's solution is to extend the set of contexts to include improper ones, and thus to weaken the logic of indexicals. Crucially, his treatment does not require any modification of our grammatical analysis of indexicality: a single notion of context does all the work, although its semantics is not the standard one. By contrast, the present attempt is to show that any theory of indexicality must distinguish between two notions of context (as it turns out, at least one of these contexts must be allowed to be improper; see Section 3.2).

The rest of this note is organized as follows. The main properties of Free Indirect Discourse are summarized in Section 1, where I motivate the distinction between Context of Thought and Context of Utterance. I follow relatively closely (Banfield, 1982) and (Doron, 1991), but try to address the question *why* tense and person behave differently from other indexicals. A simple formal analysis of Free Indirect Discourse is then developed in Section 2. Finally, I show in Section 3 that the required machinery suffices to explain -indeed, to predict- some of the main properties of the Historical Present. Some consequences of the analysis for the theory of quotation are developed in the conclusion.

## 1. Properties of Free Indirect Discourse

### 1.1 What is Free Indirect Discourse?

Consider again the following examples:

- (3) a. Tomorrow was Monday, Monday, the beginning of another school week! (Lawrence, *Women in Love*)

- b. #He thought: ‘Tomorrow was Monday, Monday, the beginning of another school week!’  
 c. #He thought that tomorrow was Monday, Monday, the beginning of another school week!

- (4) Where was he this morning, for instance? Some committee, she never asked what (Woolf, *Mrs Dalloway*, cited in (Banfield, 1982) p. 98)

In both examples the thought expressed is attributed to the character whose attitude is described rather than to the narrator. (In order to bring out the relevant reading, it often helps to add a parenthetical after the passage in Free Indirect Discourse proper, e.g. *Where was he this morning, she wondered*. This procedure will often be used in the following). Descriptively, Free Indirect Discourse behaves as a mix of direct and of indirect discourse: tenses and pronouns take the form that they would have in an attitude report (e.g. *She wondered where he was that morning*), while everything else -including *here, now, today, yesterday* and the demonstratives (e.g. *this*)- behaves as in direct discourse. In other words, a passage in Free Indirect Discourse may be obtained by changing the person and tense markers of a quotation to those of an indirect discourse embedded under an attitude verb in the desired person and tense. According to this (purely descriptive) procedure, any of the direct discourses in (5) may yield the first sentence of (4) when the pronoun is replaced with *he* and the tense with *was*:

- (5) a. Where is he this morning?  
 b. Where are you this morning?  
 c. Where was he this morning?  
 d. Where were you this morning?

Although it may be tempting to analyze Free Indirect Discourse as an instance of embedding under a silent attitude operator, (Banfield, 1982) provides convincing evidence that this is the wrong way to go:

(i) First, some of the indexicals that can readily be evaluated with respect to a non-actual context in Free Indirect Discourse may not display such a behavior in standard Indirect Discourse. Thus in (6a) *tomorrow* may refer to the day following the time of John's promise to Ann, while this reading is impossible in (6b)<sup>4</sup>:

- (6) a. He would marry Ann tomorrow (, John thought) [*tomorrow* can denote the day following John's thought act]  
 b. ≠John thought a week ago that he would marry Ann tomorrow [*tomorrow* can only denote the day following the speaker's speech act]

(ii) Second, in every respect Free Indirect Discourse behaves syntactically like an *unembedded* clause. (Banfield, 1982) (Section 2.1) lists an impressive array of arguments for this conclusion. In particular, she observes:

- that a passage in Free Indirect Discourse is never preceded by a complementizer (e.g. \*That he would marry Ann tomorrow, John thought a week ago).
- that all sorts of elements that can never occur in embedded clauses can still appear in Free Indirect Discourse (for instance *Oh, he was tired, John said* is a possible Free Indirect Discourse; by contrast,

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<sup>4</sup> I have argued in (Schlenker, 2003) and (Schlenker, to appear, a) that the behavior displayed by *tomorrow* is not universal, and that *some* indexicals, such as *dans deux jours* (lit. 'in two days') in French or for some speakers *two days ago* in English can in fact be evaluated with respect to the context of a reported speech act when it appears in an indirect discourse such as (6b). But this does not affect the present point, since it is only a very restricted class of indexicals that can display such a behavior. By contrast, *every* indexical except person and tense behaves like *tomorrow* in Free Indirect Discourse. (I do not attempt in this note to integrate the theory of indirect discourse developed in (Schlenker, 2003) with the analysis of Free Indirect Discourse.)

*John said that oh he was tired* is ungrammatical; similarly the repetition of *Monday* in (3)a would be impossible in an indirect discourse)

(iii) Third, direct questions are entirely natural in Free Indirect Discourse even though they are never acceptable in embedded clauses:

- (7) a. Why was John so happy today? (Mary wondered)  
b. #Mary wondered why was John so happy today?

(iv) Last, but not least, a sentence in Free Indirect Discourse does not allow for any De Dicto/De Re ambiguity, unlike a clause embedded under an attitude operator, as illustrated in the following contrast due to (Reinhart, 1983):

- (8) a. Oedipus believed that his mother wasn't his mother.  
b. #His mother was not his mother, Oedipus believed.

In Free Indirect Discourse *everything* except pronouns and tenses is read De Dicto, i.e. from the character's perspective. As a result, both occurrences of *his mother* in the Free Indirect Discourse in (8)b are interpreted De Dicto, which attributes to the character a contradictory thought; no such effect holds in the standard Indirect Discourse in (8)a, where the first occurrence of *his mother* is naturally construed De Re. Note however that the category 'De Dicto' is not quite sufficient to describe Free Indirect Discourse. For it appears that apart from person and tense the words themselves (rather than their mere semantic value or 'Sense') must be attributed to the character as if they were quoted<sup>5</sup>. For instance the repetition of 'Monday' in (3)a must correspond to a similar repetition in the agent's thought. This faithfulness to the words is a more stringent constraint than is at work in standard De Dicto reports. 'John thought that Peter or Sam would come' is equivalent to: 'John thought that Sam or Peter would come', with the order of the disjuncts reversed; and no speaker would have any difficulty to accept both sentences as true descriptions of one and the same event. But from: *Tomorrow Peter or Sam would come, Ann thought* it seems much harder to infer: *Tomorrow Sam or Peter would come, Ann thought*. Somehow one gets the sense that at most one of these sentences should be true of a given thought act, exactly as with quotations: if *Ann said: 'Tomorrow Sam or Peter will come'*, it can't also be true of the same event that *Ann said: 'Tomorrow Peter or Sam will come'* (of course one often doesn't care whether Ann said one or the other, but this is a different issue).

In this as in other respects Free Indirect Discourse patterns with quotations rather than with standard indirect discourse. In fact it behaves like a quotation whose 'grammatical skeleton' (=the tenses and pronouns) had been modified to match the perspective of the narrator. In this sense our initial observation that 'someone else appears to be speaking through the narrator's mouth' is more than a mere metaphor. It offers a solution (to be fleshed out below) to the problem raised by the contrast between (9)a and (9)b below. If in each case the first sentence is unembedded, why is a. not contradictory even though b. is? The solution is to analyze a. by analogy with the quasi-dialogue in c., in which the narrator comments on a character's utterance. As can be seen this does *not* entail that the utterance itself is syntactically embedded under an attitude operator (as is the case in d.):

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<sup>5</sup> As A. Banfield (p.c.) observes, the words need not be attributed to the character in a completely literal fashion, since the following is certainly a coherent example of Free Indirect Discourse:

(i) But of course he would do it, Jean said in French

Clearly, what is attributed to Jean in this example is a French *translation* of the words used. Importantly, the same observation carries over to standard cases of quotation, which need not literally attribute the words quoted to the character, as illustrated in (ii):

(ii) 'But of course I will do it', Jean said in French.

Thus despite examples such as (i) it is true that in Free Indirect Discourse the words themselves must be attributed to the character 'as if they were quoted'.

- (9) a. [In a novel:] Tomorrow was Monday, Monday, the beginning of another school week! (As it turned out, this wasn't true. The following day was Sunday).  
 b. [In a non-fictional context:] Tomorrow is Monday, the beginning of another school week. #This isn't true.  
 c. -Tomorrow is Monday, Monday, the beginning of another school week! (As it turned out, this wasn't true.)  
 d. John thought that the following day was Monday, the beginning of another school week. (As it turned out, this wasn't true.)

In sum, the analogy between Free Indirect Discourse and pieces of (quasi-)dialogue suggests that we may both claim that the thoughts expressed in a passage in Free Indirect Discourse are not attributed to the narrator, and yet that the passage is not syntactically embedded under an attitude operator. The key is to suggest that although the Context of Utterance remains constant throughout (9)a, the Context of Thought is not the same in the first sentence and in the second.

## 1.2 Why are tenses and pronouns special?

So far we have remained close to the spirit of (Banfield, 1982) and (Doron, 1991). The question these authors do not address, however, is *why* tenses and pronouns should behave differently from other indexicals. Without giving a full answer, I will suggest the following line of analysis: tenses and pronouns form a natural class in that they behave like (multiply) sorted variables (I write 'multiply sorted' because temporal and pronominal features add further subdivisions *beyond* the classification of variables as time vs. individual variables). A sorted variable may (i) be bound or left free, (ii) be responsible for cases of referential failure when the variable is assigned a value that does not satisfy its sortal restrictions<sup>6</sup>, and (iii) in some (ill-understood) cases, give rise to patterns of morphological agreement without any semantic reflex<sup>7</sup>.

In the system developed below, sorted variables are lexically associated with a domain of reference. Whether free or bound, they receive their denotation from an assignment function, but give rise to referential failure if their denotation does not lie in their designated domain. In this sense the sortal restrictions do not 'add' anything to the thought expressed by a sentence. They serve as a system of classification of the denotations with respect to a coordinate system, whose origin is, in effect, the Context of Utterance itself.

Let us now consider in greater detail the respects in which tense and pronouns form a natural class. The three properties listed above are standardly taken to apply to *he* or *she*, which (i) may be left free (e.g. *She left me*, uttered without linguistic antecedent (Partee, 1973)) or be bound (*Every woman thinks she is the wisest*) and (ii) may cause referential failure if the intended denotation does not satisfy its sortal restrictions (*She is wise*, talking about George W. Bush). In addition, (iii) the gender features of pronouns are sometimes pronounced but not interpreted, as is suggested by the following (Heim & Kratzer, 1998):

- (10) a. Only Mary did her homework. (Therefore Peter didn't do *his*)  
 b. [only Mary]  $\lambda x$  [x did ~~her~~<sub>x</sub> homework]

<sup>6</sup>Referential failure for pronouns is analyzed by (Cooper, 1983) in terms of *presupposition*. This is not exactly the treatment I adopt here, because presuppositions may normally be filtered out in certain semantic environments (for instance *The King of France is happy* yields a presupposition failure, while the following sentence doesn't: *If France were a monarchy, the King of France would be happy*). By contrast, the sortal requirements of pronouns appear to be absolute. See (Geurts, 1999) for a recent discussion.

<sup>7</sup>Note that mood, which is not discussed in this paper, shares several of the properties of tenses; how it should be integrated to the present framework is an open question.

For the inference to go through (...*therefore Peter didn't do his homework*), (10)a must be understood on the bound variable reading (=‘sloppy reading’) represented in (10)b; and the bound variable *her* must range over non-female individuals - in particular, over Peter. But if the gender features of *her* were semantically interpreted this would give rise to a referential failure, since Peter isn't a woman. The conclusion is that in this case the gender features of *her* are morphologically present but semantically invisible (we do not attempt to explain *why* this is so, but only to suggest that this is one of the characteristic properties of pronominal features).

All three properties appear to hold of first and second person pronouns as well. First, as noted in (Heim, 1991), first and second person pronouns may sometimes be used as bound variables, as shown by the following example:

- (11) a. I did my homework. Peter did too (*on the reading*: Peter did his homework too)  
 b.  $I \lambda x [x \text{ did } my_x \text{ homework}]$ . Peter  $\lambda x [x \text{ did } x\text{'s homework}]$

Standard syntactic assumptions suggest that a bound variable reading must be available in the first sentence in (11)a to license the bound (=‘sloppy’) reading in the elided conjunct, as is represented in (11)b. As in the case of *her* in (10), it must also be stipulated that person features can be ignored in the course of ellipsis resolution, or else the second sentence of (11)b would appear as *Peter  $\lambda x [x \text{ did } my_x \text{ homework}]$* , which would yield a referential failure if the first person features of *my<sub>x</sub>* force the variable to range only over the speaker. The same conclusion can be reached by considering the first person version of (10) given in (12): *my* can be used as a bound variable, and its person features appear not to be interpreted semantically (for otherwise a referential failure would occur, since the variable must range over non-speakers to license the inference that Peter didn't do *his* homework):

- (12) a. Only I did my homework. (Therefore Peter didn't do *his*)  
 b.  $[only I] \lambda x_k [did(x_k, my_k \text{ homework})]$

Finally, to observe a case of referential failure, consider an utterance of *you* accompanied by a pointing gesture toward someone who is clearly not an addressee of the sentence. The result is as infelicitous as the utterance of *She is wise* when the speaker points toward George W. Bush. This suggests that the same treatment should be given to both cases: under an assignment function *s* *she<sub>k</sub>* denotes *s(x<sub>k</sub>)* if *s(x<sub>k</sub>)* is female; otherwise it yields a referential failure (in the notation we adopt below, it denotes #). Similarly, under an assignment *s* and in a context of utterance *c* *you<sub>k</sub>* denotes *s(x<sub>k</sub>)* if *s(x<sub>k</sub>)* is an addressee of *c*; otherwise it denotes #. By contrast, a standard treatment would analyze *you* as denoting in a context *c* the (one and only) addressee of *c*. This gives rise to difficulties in sentences such as *You<sub>k</sub> [pointing] should stop talking to you<sub>m</sub> [pointing]*, where the two occurrences of *you* have different denotations. On the present account this is analyzed in the same way as the sentence *She<sub>k</sub> [pointing] should stop talking to her<sub>m</sub> [pointing]*: *she<sub>k</sub>* and *her<sub>m</sub>* receive their denotations from an assignment function, and since they bear different indices they may refer to different people; however the feminine features that appear on the pronouns constrain their referential possibilities, yielding a referential failure if *s(x<sub>k</sub>)* or *s(x<sub>m</sub>)* isn't female. In the same fashion, *you<sub>k</sub>* and *you<sub>m</sub>* may refer to different people, but they are constrained to denote addressees only.

Finally, let us observe that tense displays the same three properties that made us treat pronouns (whether third, second or first person) as sorted variables. (Partee, 1973) suggested that tenses behave in many respects as temporal pronouns (rather than as temporal operators, as was traditionally postulated in Tense Logic). In particular, she argued that the past tense can be used deictically, without any linguistic antecedent. For instance watching pictures of myself, I might say: *I was young*, meaning not the obvious truth that I was once young, but rather that I was young *at the*

*time made salient by the picture*, i.e. when the pictures were taken<sup>8</sup>. By the same token, some far-fetched cases of referential failure may be created when the wrong tense is selected. If I see a video of myself and say *I was young* even though (unbeknownst to me) the camera is filming me as I speak, the effect is not unlike that obtained when a feminine pronoun is used to refer to George W. Bush (in both cases one can understand what is meant, but the sentence is somehow deviant all the same). It is also uncontroversial that the past tense can be used as a bound variable, for instance in *John was always late* (universal quantification over past moments). Finally, both in the past and in the present there appear to be examples in which some tense marker is solely the result of morphological agreement and remains semantically uninterpreted:

- (13) a. Only now do I work in L.A. (therefore before I *didn't* work in L.A.)  
 a'. [only now]  $\lambda t_k$  [work-in-L.A.(I,  $\text{pres}_k$ )]  
 b. Only then did I work in Boston (therefore now I *don't* work in Boston)  
 b'. [only then]  $\lambda t_k$  [work-in-L.A.(I,  $\text{past}_k$ )]

Following the same reasoning as for (10) and (12), we note that the inference in (13)a (resp. (13)b) couldn't go through unless the variable  $t_k$  ranged over past moments (resp. over the time of utterance); as a result the tense features must somehow remain uninterpreted in these cases as well. (*How* the agreement is triggered is another issue - not one which is well understood. But see (Kratzer, 1998) and (Heim, 2002) for some remarks).

To recapitulate, pronouns and tenses form a natural class in that they behave very much as (multiply) sorted variables. Some of the sortal domains are relative to the Context of Utterance, which thus plays the role of a point of reference with respect to which the denotation of variables is situated.

### 1.3 Refinements

Before turning to a formal analysis of Free Indirect Discourse, I mention two respects in which the foregoing description is overly simplified.

As the description suggests, first person pronouns can figure in Free Indirect Discourse, and must denote the author of the Context of Utterance. (Doron, 1991) cites (14)a from Miller's *Sexus* (drawn from (Ron, 1981); I have reconstructed the direct discourse counterpart in (14)b, which shows that *I* denotes someone who is the author of the Context of Utterance but the addressee of the Context of Thought):

- (14) a. What had kept her? Oh, it was nothing at all. [...] I should have realized that something had happened to her.  
 b. -What kept you?  
 -Oh, it was nothing at all. You should have realized that something happened to me.

But this is not the end of the story. There appears to be a further constraint on first person pronouns, which (Banfield, 1982) calls *Priority of SPEAKER*. Banfield's observation is that if the speaker of the

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<sup>8</sup> The example in (Partee, 1973) was: 'I didn't turn off the stove' (uttered in a situation in which the speaker is about to leave her house). Using *P* to represent the operator 'at some point in the past', Partee observed that the sentence could neither be analyzed as  $\neg PI\text{-turn-off-the-stove}$  (trivially false because the speaker certainly did turn off the stove at some point in the past) nor as  $P\neg I\text{-turn-off-the-stove}$  (trivially true because there certainly were moments in the past at which the speaker was not turning off the stove). Her proposed analysis was:  $\neg PI\text{-turn-off-the-stove}(t_0)$ , where  $t_0$  is a free variable whose reference is contextually provided. However Partee's example could plausibly be re-analyzed in terms of contextually restricted existential quantification, yielding: *at no point in D did I turn off the stove*, where *D* is a salient past interval. Such a re-analysis is much harder to give for the French version of the example I use in the text: 'J'étais jeune' (lit. 'I was young', with a verb in the imperfect). This is because the French imperfect *never* has an existential reading, unlike the English simple past. Thus an existential analysis with a contextual domain restriction is particularly implausible, which leaves Partee's deictic analysis as the sole plausible contender.



Context of Utterance is mentioned (through the pronoun *I*), it must also be either the agent or the addressee of the Context of Thought<sup>9</sup>. Thus the example in (14)a is acceptable because *I*, which by definition denotes the speaker of the Context of Utterance, also happens to refer to the addressee of the Context of Thought. By contrast, Banfield gives the following as anomalous if it is followed by the parenthetical:

(15) Oh how extraordinarily nice I was! (\*she thought)

*Without* the parenthetical the sentence can be understood to report a thought that the speaker of the Context of Utterance had in the past, or possibly a thought that was addressed to the speaker of the Context of Utterance. With the parenthetical these readings are ruled out, and by *Priority of SPEAKER* the sentence becomes deviant.

I would argue that Banfield's constraint need not be stipulated, because a version of it follows from the pragmatics of narration. The key is that if the speaker of the Context of Utterance presents himself as taking part to the action he is reporting, it is hard for him to also present himself as an omniscient narrator. As a result, there must be a plausible reason why he has information about the thoughts of the characters involved. Conceivable reasons might be that (a) he was himself the author of these thoughts, or (b) these thoughts were expressed in his presence, or (c) he has magical powers that allow him to read other people's minds. Note that for (b) to hold it is not necessary that the speaker of the Context of Utterance be the *addressee* of the Context of Thought, but only that he should have witnessed an expression of the thought. This situation is illustrated in (16), which to my ear sounds considerably better than (15) uttered out of the blue:

- (16) a. Oh how extraordinarily nice I was, she told my father, without realizing that I was listening to their conversation.  
 b. [Reporting on thoughts I read in my mother's diary]  
 Oh how extraordinarily nice I was, she thought

The situation in which an individual has magical powers that allow him to read other people's minds ((c) above) also leads to a considerable improvement of examples that otherwise violate Banfield's *Priority of SPEAKER*. Thus the narration in (17) sounds acceptable, even though the speaker of the Context of Utterance is neither the author nor the addressee of the Context of Thought:

- (17) I had become adept at reading my teachers' thoughts. My Greek teacher didn't like me so much after all. Really, I was a little devil, not entirely without talent, but impossible to deal with - something had to be done about me, or else tomorrow I would become completely unbearable<sup>10</sup>.

I conclude that Banfield's constraint is not quite correct as she states it, since in (17) the agent of the Context of Utterance is neither the author nor the intended addressee of the Context of Thought; and furthermore that the constraint should not be stipulated in the grammar of Free Indirect Discourse, but rather should be seen as a mere consequence of the pragmatics of narration.

Another difficult point concerns the interpretation of gender features. The present analysis might lead one to expect that gender features behave in the same way as person features and are thus read from the standpoint of the narrator rather than of the character whose thoughts are reported; that is, a feminine pronoun should be used just in case it refers to an individual that is in fact female in

<sup>9</sup> Banfield writes on p. 123 that the 'separation between SPEAKER and SELF seems possible only in represented speech (but not in represented thought) where the first person is one of the original interlocutors of the speech represented'. Her revised statement of Priority of SPEAKER reads as follows (p. 132):

(i) *Revised priority of SPEAKER*: If there is a SPEAKER, the SPEAKER is either the SELF or the HEARER coreferential with the subject or indirect object of a parenthetical verb, i.e. with the SELF or its (optional) HEARER.

<sup>10</sup> While I have tested similar examples with a couple of French and English speakers, further work should be done to assess the data. Thus E. Doron (p.c.) disagrees with (16) and (17); she writes that the 'I' in them is unjustified, because 'if the protagonist isn't aware that the speaker is there, she certainly cannot use *any* pronoun to refer to him'.

the world of the Context of Utterance  $v$ , even if the character thinks that that individual is female. In some cases the prediction appears to be borne out, although the judgments in (18)b-c are controversial:

- (18) a. [In her dream, Mary<sub>i</sub> was a cardinal]  
 Really, she<sub>i</sub> thought, she<sub>i</sub>/#he<sub>i</sub> had excellent chances of becoming Pope some day.  
 b. [In John<sub>i</sub>'s dream, Ann<sub>k</sub> was an old priest that he had known for ages.]  
 Really, John<sub>i</sub> thought in his dream, ?she<sub>k</sub>/#he<sub>k</sub> was now a terrible priest  
 c. [I dreamed that Ann<sub>k</sub> was an old priest]  
 Really, I thought in my dream, she<sub>k</sub>/#he<sub>k</sub> was a terrible priest (A. Banfield, p.c.)

(Doron, 1991) argues that *when a third person pronoun denotes someone other than the author of the thought, the gender features become part of the content of that thought*. Thus the present theory agrees with her concerning (18)a, but not about (18)b-c, whose status is also considerably less clear. The following is a summary of the facts as I currently understand them:

- (i) There are cases such as (18)b-c where the gender features of a pronoun are read from the narrator's perspective, especially when the pronoun in question has an antecedent in the discourse. However these examples are rarely perfect, and are even quite degraded for some speakers (in French these examples tend to be more acceptable with weak than with strong pronouns).  
 (ii) Contrary to what is predicted by the present theory, but in accordance with the claims in (Doron, 1991), it is sometimes the case that the gender features of a pronoun become part of the content of the thought which is reported (i.e. are read 'de dicto', so to speak), as in the following example, due to an anonymous reviewer:

- (19) [Mary wrongly believed that Robin was male. In fact, Robin was a woman]  
 Where was he this morning, for instance? (Mary wondered)

In (19) *he* bears masculine features even though it denotes an individual that is female in the world of the context of utterance  $v$ . This appears to contradict the present theory, which would predict that *she* should be used instead. One possible line of analysis is that in this case the pronoun does not behave as a variable, but goes proxy for a definite description (e.g. 'the man') which, by definition, must be read De Dicto in Free Indirect Discourse. There is indeed independent motivation for positing that some pronouns may behave as definite descriptions. Thus in *The man who gave his paycheck to his wife was wiser than the man who gave it to his mistress* (cited in (Levinson, 1983), attributed to Karttunen), the pronoun *it* does not behave as a bound variable, but rather as a 'pronoun of laziness' which stands for the description *his paycheck*. Whether the problem we encountered with gender features can be handled in terms of pronouns of laziness is as yet unclear.

## 2. A Formal Analysis of Free Indirect Discourse

### 2.1 Basic Analysis

In order to provide an analysis of Free Indirect Discourse, we must clearly relativize the definition of denotation and truth to *two* contexts rather than one, and also -as is usual- to an assignment of values to variables. In what follows *denotes<sub>s,v,θ</sub>* (resp. *is true<sub>s,v,θ</sub>*) means: *denotes* (resp. *is true*) under the assignment  $s$ , in the context of utterance  $v$ , and in the context of thought  $\theta$ . The symbol # indicates referential failure in case the value given by an assignment to a variable does not satisfy its sortal restrictions; similarly a predicate *is weird<sub>s,v,θ</sub>* has been added to indicate failure at the level of formulas. The lexical specifications of pronouns and tenses are given in (20), and those of other indexicals in (21):

- (20)  $I_k$  denotes<sub>s, v, θ</sub> # iff  $s(x_k)$  isn't the speaker of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(x_k)$ .  
*you<sub>k</sub>* denotes<sub>s, v, θ</sub> # iff  $s(x_k)$  isn't an addressee of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(x_k)$   
*she<sub>k</sub>* denotes<sub>s, v, θ</sub> # iff  $s(x_k)$  isn't (in the world of  $v$ ) a female who is neither the speaker nor an addressee of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(x_k)$   
*he<sub>k</sub>* denotes<sub>s, v, θ</sub> # iff  $s(x_k)$  isn't (in the world of  $v$ ) a male who is neither the speaker nor an addressee of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(x_k)$   
*pres<sub>k</sub>* denotes<sub>s, v, θ</sub> # iff  $s(t_k)$  isn't the time of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(t_k)$   
*past<sub>k</sub>* denotes<sub>s, v, θ</sub> # iff  $s(t_k)$  isn't before the time of  $v$ . Otherwise it denotes<sub>s, v, θ</sub>  $s(t_k)$
- (21) *here* denotes<sub>s, v, θ</sub> the location of  $θ$   
*now* denotes<sub>s, v, θ</sub> the time of  $θ$   
*today* denotes<sub>s, v, θ</sub> the day of the time of  $θ$   
*tomorrow* denotes<sub>s, v, θ</sub> the day that follows the time of  $θ$   
*actually* denotes<sub>s, v, θ</sub> the world of  $θ$

With this background in mind, we can analyze some basic examples of Free Indirect Discourse. The sentence in (22)a is given the Logical Form in (22)b, where for simplicity a predicate of time  $\lambda t \text{ rich}(he_k, \text{past}_t, \text{actually})$  is formed which is then applied to the indexical *now*. One position has been reserved in each predicate for an overt world argument, which in this paper is always filled with the world indexical *actually*; in a more sophisticated treatment world variables and world quantifiers would also be allowed. Glossing over some details, the final truth/definedness conditions are given in (22)c<sup>11</sup>:

- (22) a. Now he was rich (, John thought).  
 b. Now  $\lambda t \text{ rich}(he_k, \text{past}_m, \text{actually})$   
 c. (b) is weird<sub>s, v, θ</sub> iff (i)  $s(x_k)$  isn't (in the world of  $v$ ) a male individual who is neither the speaker nor an addressee of  $v$ , or (ii) the time of  $θ$  isn't before the time of  $v$ . Otherwise (b) is true<sub>s, v, θ</sub> iff  $s(x_k)$  is rich at the time of  $θ$  in the world of  $θ$

Several observations should be made at this point.

1. As was announced before and as can now be seen, Free Indirect Discourse can be analyzed without recourse to any modal operator. Thus even in the absence of the parenthetical 'John thought' the sentence can be understood and will be interpreted as a thought or claim attributed to John (because the Context of Thought is his), uttered through somebody else's mouth (the narrator's).
2. In the truth-conditions proper (i.e. in the part of the last clause that follows (b) *is true*<sub>s, v, θ</sub> iff \_\_\_) the Context of Utterance  $v$  does not play any role. This is a systematic fact which is discussed in Section 2.2.2.
3. From (22)a one may recover the very words that are attributed to John - in this case 'Now I am rich' is the likeliest possibility. The recoverability of a large part of the words that are attributed to the character in a passage in Free Indirect Discourse is also a systematic fact, which is discussed in Section 2.2.3.

<sup>11</sup> The technical point that is glossed over is the denotation of the  $\lambda$ -term  $\lambda t \text{ rich}(he_k, \text{past}_t, \text{actually})$ , which contains a variable with sortal restrictions  $\text{past}_t$ . Following (Heim & Kratzer, 1998), this term is taken to denote<sub>s, v, θ</sub> the function  $f$  defined on moments by:

$f(t)=\#$  iff  $t$  isn't before the time of  $v$ . Otherwise,

$f(t)=1$  iff  $s(x_k)$  is rich at  $t$ .

As a result, a failure (i.e. #) is obtained when the function is applied to a moment that isn't before the time of  $v$ .

## 2.2 Recovering the Thought and recovering the Words

### 2.2.1 Elimination of the context of utterance

As was said earlier, there is a sense in which the context of utterance does not contribute to the truth-conditions but only to the *failure* conditions of an utterance. This can be made precise by constructing for each sentence  $\varphi$  a 'stripped' sentence  $\varphi^*$  obtained from  $\varphi$  by replacing all multiply sorted individual and time variables by simply sorted ones and observing that if  $\varphi$  does not result in referential failure,  $\varphi$  has the same truth-conditions as  $\varphi^*$ :

#### (23) Elimination of the Context of Utterance

Let  $\varphi^*$  be obtained from  $\varphi$  by replacing pronouns and tenses with simple individual and time variables. Let  $true_{s,\theta}$  be the satisfaction predicate defined for a normal logic of demonstratives.

Then if  $\varphi$  is not weird<sub>s, u, θ</sub>,  $\varphi$  is true<sub>s, u, θ</sub> if and only if  $\varphi^*$  is true<sub>s, θ</sub>.

From this it also follows that we may recover the thought expressed by a sentence that does not give rise to any failure by simply disregarding the contribution of the Context of Utterance.

### 2.2.2 Recovering the Context Set

So far we have given a procedure that determines the truth-conditions of a sentence in Free Indirect Discourse. We could also attempt to recover the *thought* attributed to the agent. Following Stalnaker's work (Stalnaker, 1999) we identify the thought expressed by a sentence  $S$  with the set of contexts that make  $S$  true. In simple cases this yields the correct result. If no referential failure occurs, the procedure outlined in (23) can be applied to eliminate the dependency on the context of utterance by 'stripping' the sentence of its person and tense features. Applied to (24)b, this yields (24)b\*, which expresses the thought in (24)c:

#### (24) a. Now it was raining

b. now  $\lambda t_k$  rain(past<sub>k</sub>, actually)

b\*. now  $\lambda t_k$  rain( $t_k$ , actually)

c.  $T(b^*) = \lambda \theta$  [*now*  $\lambda t_k$  rain( $t_k$ , actually) is true<sub>s, θ</sub>] =  $\lambda \theta$  [it rains at the time of  $\theta$  in the world of  $\theta$ ]

In this case the procedure yields satisfactory results. But in other cases things aren't quite so simple. Consider for instance the sentence *Now his pants were on fire* (, John thought). John's actual thought was probably of the form 'Now my pants are on fire', but under special circumstances (e.g. if John is observing a scene through a mirror, as in (Kaplan, 1977, 1989)) it could also have been of the form *Now his pants are on fire*, where -unknownst to John- *his* referred to John himself. But if the procedure outlined above were applied blindly to recover the agent's thought, all we could obtain would be the following:

#### (25) a. His<sub>k</sub> pants were<sub>m</sub> on fire (, John<sub>k</sub> thought).

b.  $T(a) = \lambda \theta$  [*has-pants-on-fire*( $x_k$ ,  $t_m$ , actually) is true<sub>s, θ</sub>] =  $\lambda \theta$  [ $s(x_k)$ 's pants are on fire at time  $s(t_m)$  in the world of  $\theta$ ]

Obviously this fails to yield the desired difference between a reading on which the character thought *My pants are on fire*, and one where he thought *His pants are on fire*.

How can our procedure be improved? By resorting to the mechanism designed by Kaplan 1969 to analyze quantifying in across attitude reports, as in Quine's 'Orcutt' problem (Quine, 1956). The problem was that in Quine's story it is both the case that Ralph believes, of Orcutt (*qua* the man he saw in a brown hat), that he is a spy; and he also believes, of Orcutt (*qua* the man he saw at the beach), that he is not a spy. Still, we don't want to conclude that Ralph thinks that Orcutt is and is not a spy, which would make him irrational. Kaplan's solution was to assume that 'Ralph believes that Orcutt is a spy' asserts that (i) Ralph is acquainted with Orcutt under *some* description  $\alpha$  (e.g. 'the man seen at the cocktail party'), and further that (ii) he would assent to: ' $\alpha$  is a spy' (e.g. 'The

man seen at the cocktail party is a spy'). This leaves open the possibility that Ralph may also be acquainted with Ortcutt under some different description  $\beta$  (e.g. 'the man seen at the beach'), and he may assent to: ' $\beta$  is not a spy' (e.g. 'The man seen at the beach is not a spy'). As long as  $\alpha$  and  $\beta$  are distinct descriptions (as in our example), Ralph may hold both beliefs without thereby being irrational.

In this analysis De Re terms are replaced with variables over descriptions, yielding the following (where  $R(\alpha, Ortcutt, Ralph)$  abbreviates: 'Ralph is acquainted with Ortcutt under the description  $\alpha$ '<sup>12</sup>):

(26)  $\exists\alpha (R(\alpha, Ortcutt, Ralph) \ \& \ \text{Ralph believes: '}\alpha \text{ is a spy'})$

*Ralph is acquainted with Ortcutt under some description  $\alpha$  and believes: ' $\alpha$  is a spy'*

The same strategy can be applied to Free Indirect Discourse. However since we are claiming that a sentence in Free Indirect Discourse is not strictly speaking a report, but rather expresses a thought through someone else's mouth, we cannot follow Kaplan in claiming that the description is existentially quantified over. Rather, we must claim that the sentence in Free Indirect Discourse is *ambiguous* as to the descriptions that should replace the pronouns and tenses evaluated from the narrator's perspective. When the sentence (25)a is evaluated with respect to a context of thought  $\theta$ , a context of utterance  $\nu$  and an assignment  $s$  and does not lead to any referential failure, it can be taken to express -ambiguously- any thought of the form  $\lambda\theta'[has-pants-on-fire(\alpha, t_m, actually) \text{ is true}_{s, \theta}]$ , where  $\alpha$  is some description (possibly an indexical one) under which the author of  $\theta$  is acquainted with  $s(x_k)$ . Since John is certainly acquainted with himself under the description 'I', (25)a can thus express, among others, the thought  $T_1(25)$ , which corresponds to a direct discourse of the form *My pants are on fire*:

(27)  $T_1(25)=\lambda\theta'[has-pants-on-fire(I, t_m, actually) \text{ is true}_{s, \theta}]$

$=\lambda\theta'[\text{the pants of the author of } \theta' \text{ are on fire at time } s(m) \text{ in the world of } \theta']$

Obviously the same treatment can be extended to the time variable as well, which will allow (25)a to express, among others, the thought  $T_2(25)=\lambda\theta'[\text{the pants of the author of } \theta' \text{ are on fire at the time of } \theta' \text{ in the world of } \theta']$ .

### 2.2.3 Recovering the sentence

Unlike a clause in standard indirect discourse, a sentence in Free Indirect Discourse provides information about the *words* that the character's thought was supposed to be expressed in. The only proviso concerns tenses and pronouns, which give rise to multiple ambiguities, as was shown in the preceding paragraph (to put it differently, the mapping between a Free Indirect Discourse and the strings of words -or the thought- attributed to the agent is one-to-many). We can apply the same Kaplanian procedure to recover the sentence as we did to recover the thought, by replacing tenses and pronouns with vivid names that have the same denotations. In this fashion *His<sub>k</sub> pants were on fire* evaluated with respect to  $s, \nu, \theta$ , can be taken to correspond to any sentence of the form  $\alpha$ 's *pants be on fire at  $\beta$* , where  $\alpha$  and  $\beta$  are respectively a vivid name of  $s(x_k)$  and a vivid name of  $s(t_m)$  for the agent of  $\theta$ . One possible correspondent is thus the sentence *My pants are on fire*, as is desirable. (Note that once the *sentence* has been recovered in this fashion, the thought can also be recovered by a more direct method, i.e. by forming the set of all contexts that make the sentence true).

<sup>12</sup> Kaplan 1969 gives a more precise definition:  $R(\alpha, x, Ralph)$  [' $\alpha$  represents  $x$  to Ralph'] if and only if:

- (i)  $\alpha$  denotes  $x$
- (ii)  $\alpha$  is a name of  $x$  for Ralph
- (iii)  $\alpha$  is sufficiently vivid

### 3. The Historical Present

#### 3.1 Basic Facts

An interesting prediction can be derived from the theory developed so far. As we observed, in Free Indirect Discourse the Context of Utterance is set to the actual context, while the Context of Thought is taken to be different, with the effect that someone else appears to be talking through the speaker's mouth. What would happen if the opposite pattern were found, i.e. if the Context of Thought were set to the actual context while some other context played the role of the Context of Utterance? Let us concentrate on the case of time indexicals, and let us assume that the Context of Utterance is before the Context of Thought.

-Because the Context of Thought is the actual speech act, (i) indexicals such as *tomorrow* or *yesterday* should be evaluated with respect to the actual speech act, and (ii) the assertion should be attributed to the actual speaker.

-Because the Context of Utterance is located in the past, the present tense should denote some past moment.

Both properties are in fact found in narrations in the Historical Present. The following example displays the surprising co-occurrence of the indexical adverbial *fifty eight years ago* with a present tense (by contrast, what was surprising about Free Indirect Discourse was the co-occurrence of *now* or *tomorrow* with a past tense):

- (28) a. Fifty eight years ago to this day, on January 22, 1944, just as the Americans are about to invade Europe, the Germans attack Vercors<sup>13</sup>.  
 b. Fifty eight years ago to this day, on January 22, 1944, just as the Americans were about to invade Europe, the Germans attacked Vercors.  
 c. #Fifty eight years ago to this day, on January 22, 1944, just as the Americans were about to invade Europe, the Germans attack Vercors.

Although in (28)a both occurrences of the present tense denotes a past moment, *fifty eight years ago* is still evaluated with respect to the actual speech act, which thus serves as the Context of Thought. (Note that although the present tense could be replaced with a past tense, yielding a somewhat different literary effect, the replacement must be consistent and thus affect simultaneously both occurrences of the present tense morpheme; this explains the deviance of (28)c). As a result, the assertion is attributed to the actual speaker, as shown by the fact that the clause *This turned out/will turn out to be false* immediately transforms the discourse into a contradiction (by contrast, we saw before that in the case of Free Indirect Discourse a similar clause could be added, and contradicted only the character's, not the narrator's thought). The stylistic result is to present the scene in a particularly vivid way, as if the narrator were observing it directly. This can be explained by observing that the present tense is allowed to denote a past moment only because the narrator presents the Context of Utterance, which serves as the point of observation with respect to which the denotations of tenses and pronouns are classified, as having a time coordinate that lies in the past. In other words, by using the Historical Present the narrator presents the utterance as being made from a point that is simultaneous with the event described, and this accounts for the vividness of the description.

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<sup>13</sup>A reviewer writes that, in her judgment, this sentence is 'not acceptable or, at best, a performance error'. Another reviewer, by contrast, gives the following discourse as acceptable:

(i) Forty years ago today John Lennon is about to take to the stage at the Cavern. Tonight his life will change forever. The first sentence has exactly the same structure as (28)a, and makes the same point - an 'ago' indexical may co-occur with a present tense, contrary to the first reviewer's judgment. The second sentence raises problems of its own, since *tonight* is not evaluated with respect to the same Context of Thought as *forty years ago*. Any theory is presumably forced to posit that the Context of Thought was shifted between the first and the second sentence. I leave the issue of context shifts for future research.

Let us consider things somewhat more formally. The framework developed above yields the following analysis (for simplicity I treat *fifty-eight-years-ago*, *the-Germans* and *attack-Vercors* as unanalyzed expressions):

- (29) a. Fifty eight years ago, the Germans attack Vercors.  
 b. fifty-eight-years-ago  $\lambda t_k$  attack-Vercors(the-Germans,  $pres_k$ , actually)  
 b\*. fifty-eight-years-ago  $\lambda t_k$  attack-Vercors(the-Germans,  $t_k$ , actually)  
 c. (b) is weird $_{s,v,\theta}$  iff the time of  $v$  is not fifty eight years before the time of  $\theta$ . Otherwise (b) is true $_{s,v,\theta}$  iff the Germans attack Vercors fifty eight years before the time of  $\theta$  in the world of  $\theta$ .  
 d. (b\*) is true $_{s,\theta}$  iff the Germans attack Vercors fifty eight years before the time of  $\theta$  in the world of  $\theta$ .

As before, the Context of Utterance does not contribute to the truth-conditions proper, but only to the *failure* conditions of the sentence. In other words, if the time of the Context of Utterance  $v$  is indeed fifty eight years before the time of the Context of Thought  $\theta$ , (b) is true $_{s,v,\theta}$  if and only if (b\*) is true $_{s,\theta}$ , where (as before) (b\*) is obtained from (b) by replacing  $pres_k$  with the time variable  $t_k$  (and the predicate true $_{s,\theta}$  is the truth-predicate for an extensional logic of demonstratives). When this condition is satisfied we may, as before, recover the thought T(29) that corresponds to (29)a-b<sup>14</sup>:

- (30) T(29)= $\lambda\theta$ [fifty-eight-years-ago  $\lambda t_k$  attack-Vercors(the-Germans,  $t_k$ , actually) is true $_{s,\theta}$ ]  
 = $\lambda\theta$ [the Germans attack Vercors fifty eight years before the time of  $\theta$  in the world of  $\theta$ ]

### 3.2 The Necessity of Improper Contexts

At this point the following variant of the preceding example would seem to be problematic:

- (31) Fifty eight years ago to this day, on January 22, 1944, just as the Americans are about to invade Europe, the Germans attack Vercors. My grandfather tries to escape...

What is the context of utterance  $v$  in this example? For the present tense to be licensed the time coordinate of  $v$  must be set to January 22<sup>nd</sup>, 1944. However since *my* refers to me, P.S., and since I was not yet born in 1944, we must posit that  $v$  is an *improper* context, i.e. a context whose agent does not exist at the time of that context in the world of that context. How worrisome is this? I would argue that this result is just as it should be. The effect of (31) is precisely to give the impression that somehow the scene taking place on January 22<sup>nd</sup>, 1944 is vividly present to the speaker's mind *as if* he were attending it. In other words, the literary effect obtained through (31) can arise precisely because the context of utterance is taken to be improper.

An alternative would be to posit that tense is somehow special, and that only *it* (unlike indexical pronouns) can be given a value different from a coordinate of the actual context. In the case at hand, however, this would appear to be too restrictive. For given the right set-up it does appear to be possible to create narrative situations in which the author of the Context of Utterance is not the author of the actual context. Consider the following:

- (32) *Situation*: Mary, a psychic, is sitting at a café in Clamart with a journalist in 2002. They are trying to reconstitute what happened during the attempted assassination of de Gaulle in 1961 at the Petit Clamart. Mary utters the following:  
 It's April 2, 1961. I am de Gaulle. I am on my way here in the presidential car. Two snipers appear...

The entire passage is in the Historical Present. But in addition the first person pronoun appears to refer to de Gaulle, not to Mary. Of particular interest is the second sentence, which would normally be infelicitous in any situation: *here* requires a context in which the speaker is located at the place

<sup>14</sup> In the general case the thought cannot be recovered unambiguously, as was remarked above when we analyzed Free Indirect Discourse.

designated by the word *here*. But then *I am on my way here* should be infelicitous. It appears that *here* is evaluated with respect to the Context of Thought, and thus denotes the place where Mary's speech act is taking place some time in 2002. By contrast, the present tense *and the first person pronoun* are evaluated with respect to the Context of Utterance, set to de Gaulle in the presidential car in Clamart in 1961<sup>15</sup>. As a result, the discourse is felicitous, although it requires one to take de Gaulle's perspective in describing the scene. This suggests -somewhat tentatively- that a first person pronoun may display the equivalent of the Historical Present, and be evaluated with respect to a Context of Utterance whose speaker is not the actual one.

#### 4. Conclusion

The facts we have discussed suggest that two notions of context are distinguished in the grammar of natural language: while person and tense (analyzed as multiply sorted variables) are evaluated with respect to the Context of Utterance, all other indexicals, including in particular the demonstratives, depend on the Context of Thought. The Context of Utterance is presented as the point at which the thought is articulated; it serves as a referential with respect to which the denotations of sorted variables are classified. The Context of Thought is presented as the origin of the thought expressed; this presumably explains why it fixes the reference of the demonstratives, which depend on the referential intentions of a thinking agent<sup>16</sup>. In ordinary discourses the Context of Utterance and the Context of Thought are identical, and both are taken to be the actual (physical) context in which the speech act is taking place (in the notation used above, this means that  $c=\theta=v$ ). In Free Indirect Discourse, the actual context is the Context of Utterance, but the Context of Thought is presented as distinct, with the effect that someone else appears to be talking through the actual speaker's mouth ( $c=v, c\neq\theta$ ). In narrations in the Historical Present the opposite pattern is found: the actual context is the Context of Thought, while the Context of Utterance is presented as having its time coordinate in the past ( $c=\theta, c\neq v$ ). In both cases one of the two contexts was identified with the actual (physical) context of the speech act. What would now happen if *both* contexts were taken to be distinct from the actual context? The simplest case would be one in which the context of utterance and the Context of Thought are identical, but are both different from the actual context ( $\theta=v$ , but  $c\neq\theta$  and  $c\neq v$ ). Such a situation would yield the same results as a quotation, but through entirely different means: instead of citing the words that someone else used, the actual speaker would simply present the Context of Utterance and the Context of Thought as being what they *would* be in a different context of thought and of utterance. In other words, the facts of Free Indirect Discourse and the Historical Present suggest that some instances of quotation should be analyzed, not as the *mention* of some words in the actual context, but as the *use* of those same words in a shifted context - or rather, in a pair of shifted contexts (see (Recanati, 2000), Chapter 12 for other arguments in favor of the same conclusion).

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<sup>15</sup> However see (Banfield, 1982) pp. 122ff for an alternative account of related facts, based on the 'echoic' use of certain assertions.

<sup>16</sup> I have not explained, however, why the Context of Thought also fixes the reference of other indexicals, such as *today*, *here* or *now*. I leave this question for future research.



## *Appendix: A Simple Logic with Two Context Parameters*

### ◆ Definitions

*Note:* This is a minimal logic designed to illustrate the main claims of the paper. It could be enriched with individual and time quantifiers, as well as world variables and world quantifiers (as the system is set up the only world term is the indexical *actually*, which depends on the Context of Thought).

#### • *Vocabulary and Syntax*

-Vocabulary

Terms:

(i) Simply sorted variables:  $x_k$  (individuals),  $t_k$  (times) for each  $k \in \mathbb{N}$

(ii) Multiply sorted variables:  $I_k, you_k, he_k, she_k$  (individual variables),  $pres_k, past_k$  (time variables)

(iii) Names: *the-Germans* (individuals)

(iv) Indexicals: *now, today, tomorrow, fifty-eight-years-ago* (time indexicals), *actually* (world indexical)

(v) Functions: if  $\tau$  is a term,  $\tau$ 's *grandfather* is a term.

Predicates:

-of type  $\langle 0, 1, 1 \rangle$ : *it-is-raining*

-of type  $\langle 1, 1, 1 \rangle$ : *be-rich, attack-Vercors, escape*

-Formulas

If  $i$  is an individual term,  $t$  is a time term and  $w$  is a world term, and if  $P$  and  $Q$  are predicates of type  $\langle 0, 1, 1 \rangle$  and  $\langle 1, 1, 1 \rangle$  respectively,  $P(t, w)$  and  $Q(i, t, w)$  are (atomic) formulas.

If  $\varphi$  is a formula,  $i$  is an individual term and  $t$  and a time term, and if  $k$  is an integer, then:

$i\lambda x_k \varphi$  and  $t\lambda t_k \varphi$  are formulas

If  $\varphi$  and  $\psi$  are formulas, then  $(\varphi \ \& \ \psi)$ ,  $(\varphi \ \vee \ \psi)$  and  $\neg \varphi$  are formulas

*Note:*  $i\lambda x_k \varphi$  and  $t\lambda t_k \varphi$  are treated syncategorematically. In a more elaborate system  $\lambda x_k \varphi$  and  $\lambda t_k \varphi$  would be treated as complex predicates.

An assignment function  $s$  is a function that assigns to each variable  $x_k$  an individual and to each variable  $t_k$  a moment. If  $\xi$  is a variable, we say that  $s'$  is a  $\xi$ -variant of  $s$  if for each variable  $\zeta$  different from  $\xi$ ,  $s'(\zeta) = s(\zeta)$ .

#### • *Denotation*

Let  $k$  be any integer and  $s$  be an assignment function. Then:

$x_k$  denotes <sub>$s, v, \theta$</sub>   $s(x_k)$

$t_k$  denotes <sub>$s, v, \theta$</sub>   $s(t_k)$

$I_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(x_k)$  isn't the speaker of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(x_k)$ .

$you_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(x_k)$  isn't an addressee of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(x_k)$

$he_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(x_k)$  isn't a male who is neither the speaker nor a addressee of  $v$  at the time of  $v$  in the world of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(x_k)$

$she_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(x_k)$  isn't a female who is neither the speaker nor a addressee of  $v$  at the time of  $v$  in the world of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(x_k)$

$pres_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(t_k)$  isn't the time of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(t_k)$

$past_k$  denotes <sub>$s, v, \theta$</sub>  # iff  $s(t_k)$  isn't before the time of  $v$ . Otherwise it denotes <sub>$s, v, \theta$</sub>   $s(t_k)$

*now* denotes<sub>s, v, θ</sub> the time of θ

*today* denotes<sub>s, v, θ</sub> the day of the time of θ

*tomorrow* denotes<sub>s, v, θ</sub> the day that follows the time of θ

*fifty-eight-years-ago* denotes<sub>s, v, θ</sub> the time which is exactly fifty-eight years before the time of θ

*actually* denotes<sub>s, v, θ</sub> the world of θ

*τ's grandfather* denotes<sub>s, v, θ</sub> # iff *τ* denotes<sub>s, v, θ</sub> # or *τ* does not denote<sub>s, v, θ</sub> a human being. Otherwise it denotes<sub>s, v, θ</sub> the most salient of *τ*'s grandfathers.

*Note 1*: we could avoid recourse to the notion of 'salience' in the definition of *τ's grandfather* if the latter expression were replaced with *τ's paternal grandfather* or *τ's maternal grandfather*.

*Note 2*: In the present system each term has a denotation, which may be #. In what follows we write as  $\tau^{s, v, \theta}$  the denotation of the term *τ* under the assignment *s* in the Context of Utterance *v*, in the Context of Thought *θ*.

• *Truth*

-If  $\varphi$  is an atomic formula  $P(t, w)$  (resp.  $Q(i, t, w)$ ),  $\varphi$  is weird<sub>s, v, θ</sub> iff at least one of its arguments denotes<sub>s, v, θ</sub> #. Otherwise it is true<sub>s, v, θ</sub> iff  $\langle t^{s, v, \theta}, w^{s, v, \theta} \rangle$  satisfies  $P$  (resp.  $\langle i^{s, v, \theta}, t^{s, v, \theta}, w^{s, v, \theta} \rangle$  satisfies  $Q$ )

-If  $\varphi$  is a formula  $\tau \lambda \xi \psi$ ,  $\varphi$  is weird<sub>s, v, θ</sub> iff  $\psi$  is weird<sub>s', v, θ</sub>, where  $s'$  is a  $\xi$ -variant of  $s$  such that  $s'(\xi)$  is the denotation<sub>s, v, θ</sub> of  $\tau$ . Otherwise  $\varphi$  is true<sub>s, v, θ</sub> iff  $\psi$  is true<sub>s', v, θ</sub>

-If  $\varphi$  is a formula  $\neg \psi$ ,  $\varphi$  is weird<sub>s, v, θ</sub> iff  $\psi$  is weird<sub>s, v, θ</sub>. Otherwise  $\varphi$  is true<sub>s, v, θ</sub> iff  $\psi$  is not true<sub>s, v, θ</sub>

-If  $\varphi$  is a formula  $(\chi \ \& \ \psi)$  (resp.  $(\chi \ \vee \ \psi)$ ),  $\varphi$  is weird<sub>s, v, θ</sub> iff  $\chi$  is weird<sub>s, v, θ</sub> or  $\psi$  is weird<sub>s, v, θ</sub>. Otherwise  $\varphi$  is true<sub>s, v, θ</sub> iff  $\chi$  is true<sub>s, v, θ</sub> and  $\psi$  is true<sub>s, v, θ</sub> (resp.  $\chi$  is true<sub>s, v, θ</sub> or  $\psi$  is true<sub>s, v, θ</sub>).

◆ *Examples*

(i) a. Now it was raining

b. now  $\lambda t_k$  rain(past<sub>k</sub>, actually)

c. (b) is weird<sub>s, v, θ</sub> iff rain(past<sub>k</sub>, actually) is weird<sub>s', v, θ</sub>, where  $s'$  is a  $t_k$ -variant of  $s$  such that  $s'(t_k)$  is the time of  $\theta$ , iff the time of  $\theta$  is not before the time of  $v$ . Otherwise, (b) is true<sub>s, v, θ</sub> iff rain(past<sub>k</sub>, actually) is true<sub>s', v, θ</sub>, iff it rains at the time of  $\theta$  in the world of  $\theta$ .

(ii) a. Now he was rich (, John thought)

b. now  $\lambda t_k$  be-rich(he<sub>i</sub>, past<sub>k</sub>, actually)

c. (b) is weird<sub>s, v, θ</sub> iff be-rich(he<sub>i</sub>, past<sub>k</sub>, actually) is weird<sub>s', v, θ</sub>, where  $s'$  is a  $t_k$ -variant of  $s$  such that  $s'(t_k)$  is the time of  $\theta$ , iff the time of  $\theta$  is not before the time of  $v$  or  $s'(x_i)$  (i.e.  $s(x_i)$ ) is not at the time of  $v$  in the world of  $v$  a male who is neither the speaker nor the hearer of  $v$ . Otherwise, (b) is true<sub>s, v, θ</sub> iff be-rich(he<sub>i</sub>, past<sub>k</sub>, actually) is true<sub>s', v, θ</sub>, iff  $s(x_i)$  is rich at the time of  $\theta$  in the world of  $\theta$ .

(iii) a. Fifty eight years ago, the Germans attack Vercors.

b. fifty-eight-years-ago  $\lambda t_k$  attack-Vercors(the-Germans, pres<sub>k</sub>, actually)

c. (b) is weird<sub>s, v, θ</sub> iff attack-Vercors(the-Germans, pres<sub>k</sub>, actually) is weird<sub>s', v, θ</sub>, where  $s'$  is a  $t_k$ -variant of  $s$  such that  $s'(t_k)$  is fifty eight years before the time of  $\theta$ , iff the time of  $v$  is not fifty-eight years before the time of  $\theta$ . Otherwise (b) is true<sub>s, v, θ</sub> iff the Germans attack Vercors fifty-eight years before the time of  $\theta$  in the world of  $\theta$ .

(iv) a. Fifty eight years ago, the Germans attack Vercors. My grandfather escapes.

b. fifty-eight-years-ago  $\lambda t_k$  (attack-Vercors(the-Germans, pres<sub>k</sub>, actually) & escape(I<sub>i</sub>'s

grandfather,  $pres_k$ , actually)

c. (b) is  $weird_{s, v, \theta}$  iff (*attack-Vercors(the-Germans,  $pres_k$ , actually)* & *escape( $I_j$ 's grandfather,  $pres_k$ , actually)*) is  $weird_{s', v, \theta}$ , where  $s'$  is a  $t_k$ -variant of  $s$  such that  $s'(t_k)$  is fifty-eight years before the time of  $\theta$ , iff the time of  $v$  is not fifty-eight years before the time of  $\theta$  or  $s(x_j)$  is not the speaker of  $v$ . Otherwise (b) is  $true_{s, v, \theta}$  iff the Germans attack Vercors fifty-eight years before the time of  $\theta$  in the world of  $\theta$  and the (most salient) grandfather of the speaker of  $v$  escapes fifty-eight years before the day preceding the time of  $\theta$  in the world of  $\theta$ .

*Note:* All the sortal requirements are satisfied if I (P.S.) utter the sentence on January 22, 2002 and present (i) the Context of Utterance as having me, P.S., as its speaker and January 22, 19944 as its time coordinate, and (ii) the Context of Thought as having P.S. as its agent, and as occurring on January 22, 2002. The Context of Utterance may be an improper context (its author may not exist at the time of the context in the world of the context).

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Department of Linguistics, UCLA  
& Institut Jean-Nicod, Paris