

**THE INFLUENCE OF HYPNOSIS IN THE CONTEXT OF
SPORTS-INJURIES – AN ECOSYSTEMIC PERSPECTIVE**

by

ROLEEN SANDRA KAPLAN

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SUPERVISOR: PROF D.P. FOURIE

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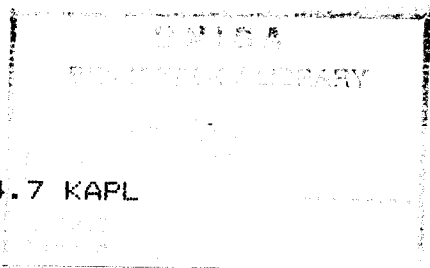
Finally, I acknowledge the courage and tenacity with which I continue towards my vision...

“As you begin to pay attention to your own stories and what they say about you, you will enter into the exciting process of becoming, as you should be, the author of your own life, the creator of your own possibilities” (Mandy Aftel)

DEDICATION

To all the pillars for participating in co-shaping my philosophy, I salute you.

"I touch the future; I teach" (Anonymous)



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TABLE OF CONTENTS

CHAPTER	Page
Acknowledgements	ii
Dedication	iii
Table of Contents	iv
List of Tables	v
Summary	vi
1 INTRODUCTION	1
2 APPROACHES TO HYPNOSIS	4
Traditional Hypnosis	5
Diagrammatic representation of traditional hypnosis	6
State approaches to hypnosis	7
Non-state approaches to hypnosis	8
Ericksonian approaches to hypnosis	10
The Interactional Theory of Haley	12
Traditional approaches to hypnosis as related to sport injuries	13
The Ecosystemic Perspective	14
Ecosystemic hypnosis	15
Diagrammatic representation of ecosystemic hypnosis	17
The ecosystemic approach to hypnosis as related to sport injuries	19
Conclusion	22
3 SPORT INJURIES: THE THEORY	24
4 RESEARCH DESIGN	31
5 CASE STUDIES, META-ANALYSES & RESULTS	38
Case Study 1: Kerry - no physiotherapy, only hypnosis	38
Case Study 2: Sarah – hypnosis and physiotherapy	47
Case Study 3: Joshua – hypnosis and physiotherapy	59
Case Study 4: David – no physiotherapy, only hypnosis	68
Concluding remarks	84
6 CONCLUSION	85
REFERENCES	90

LIST OF TABLES

Table	Page
3.1 Categories of sport injuries	24

LIST OF FIGURES

Figure	Page
2.1 Diagrammatic representation of traditional hypnosis	6
2.2 Diagrammatic representation of ecosystemic hypnosis	16

SUMMARY

In this study an ecosystemic approach to self-hypnosis was utilised as a tool to explore and describe the healing of sport injuries. Four injured Subjects, from four different sporting activities participated in the study. Self-hypnosis/hypnosis was used as a linguistic means to perturb the problem-defining ideas within which the sport injury was embedded. Problem dis-solution involved a process of reframing each Subject's current reality through dialogue, and a new reality for each respective Subject was co-constructed through consequent linguistic differentiation. The hypnotist, participating in the linguistic domain as an equal participant, looked for intended meanings in each respective conversational exchange with the athletes, and synthesised information creatively. This process and the thinking behind each case study is described in detail in this dissertation.

KEY WORDS

Sport injuries; ecology of ideas; self-hypnosis; hypnosis; post-hypnotic ritual; ecosystemic; perturbation of ideas; consensual domain; reframing ideas; co-construction; participant-observer.

CHAPTER 1

INTRODUCTION

Self-hypnosis/hypnosis is a technique that many athletes have sought out as a means of assisting their athletic performance. Defined as assisting with goal-setting, positive self-talk and mental rehearsal, hypnosis has been utilised in the performance area of sport. However, very little research has been documented on sport injuries and the use of hypnosis, traditional or otherwise, in this area.

The frequency of sport injuries has grown to a point where they have been described by De Loes and Goldie (Morris & Summers, 1995, p.456) as "a major public health problem". According to Peterson and Renstrom (1986) the reason for this could be related to the psychological complexity of sport injuries. Research by Hyde (Morris & Summers, 1995) estimates the contribution of psychological causes to sport injuries to range as high as 30%. According to Morris and Summers, psychological research into the area of sport injuries is limited with most attempts isolating anxiety as the psychological link to injury.

Research into sport injuries is not limited only on a psychological level, but also on a medical level. Using a medically based cause-effect philosophy, treatment procedures are conducted in a unilateral fashion with the explanatory mechanism of the injury seen as internal to the athlete. Context and process are ignored in the ecology of the sport injury and techniques employed thus far have been positivistic, based on a Newtonian epistemology of science.

While there seems to be a paucity of literature on the process of self-hypnosis in the context of sport injuries, what is frequently raised, is the utilisation of hypnosis in the control of pain. Although there is agreement that pain can be reduced and controlled hypnotically (Fass & Brown, 1990; Miller & Bowers, 1993; Sauer & Oster, 1997; Zahourek, 1985), disagreement around the mechanisms at work to attain this pain-free state, is seen in different theories such as the state and non-state theories, Ericksonian theories and Haley's Interactional theory. However, all adhere to a Newtonian epistemology that is based on reductionism, objective observation and linear causality (Fourie & Lifschitz, 1989).

Fourie and Lifschitz (1988) suggest that adherence to the Newtonian epistemology of science can be distinguished by the questions asked, the methodology that is followed and the conclusions that are drawn. Forming the basis of the medical model, the Newtonian epistemology has been criticised for being limited, reductionistic (Heather, 1976) and unsuitable for explaining complex human phenomena and behaviour.

Respecting the notion that science would not have reached the level of thinking it has without Newtonian epistemology, it is the aim of this study to view hypnosis and sport injuries differently. An Ecosystemic perspective is adopted in an attempt to study the application of self-hypnosis/hypnosis to sport injuries in a contextually sensitive way.

The ecosystemic perspective recognises the existence of many 'kinds' of hypnosis (Allan, 1994). This is because each consensual domain is recognised as evolving its own 'hypnotic truth'. One of these many 'hypnotic truths' can be found in what has emerged as self-hypnosis. Fourie and Lifschitz (1985) assert that self-hypnosis is one of those hypnotic truths because it is a linguistic differentiation which can be utilised to fit with the participant's frame of reference. In this interpretation of self-hypnosis, it is seen as a particular contextual definition and not as objectively different from hetero-hypnosis. The terms self-hypnosis and hypnosis are therefore used interchangeably throughout this study.

Little research has been documented in the area of hypnosis/self-hypnosis and sport injuries from an ecosystemic perspective. By employing such a perspective, sport injuries (the defined problem) no longer take on the original Newtonian definition of being problems needing solutions, but rather become linguistic differentiations of context.

Ecosystemic thinking understands human systems as an "ecology of ideas" (Fourie, 1991, p.468), complexly interwoven and consistently influencing the system to behave in certain ways. By perturbing the ecology of ideas through language, a new reality is co-constructed. In this way the old reality, the old problem, gets de-constructed and replaced, through a process of active co-construction, with a different reality where the problem ceases to be a problem. Intricately involved in the process is the researcher/hypnotist, who becomes part of the system as a participant observer.

Many situations lend themselves to be viewed ecosystemically. One such area is the process of self-hypnosis in the context of sport injuries. According to this view, the way an athlete thinks about his or her injury, about his or her pain and problems in relation to

that injury has implications associated with the control of physiological pain (Weiss, 1993) and particular implications for hypnotherapy (Fourie, 1995).

This research was aimed at exploring the ecology of ideas of each participant Subject, and the observer/hypnotist, using the Subject's sport injury as the point of departure. The study aimed not at proving observations, but at generating new theoretical principles and producing reconstructed understandings (Denzin & Lincoln, 1994). The Ecosystemic epistemology was utilised as the frame of reference and employed in the research design. This epistemology grew as a result of questioned limitations of traditional schools of thought. The following chapter illustrates the progression of scientific thought around hypnosis leading eventually to the development of the Ecosystemic model.

CHAPTER 2

APPROACHES TO HYPNOSIS

Hypnosis has always been linked to and understood according to the then current scientific views of human functioning (Fourie, 1995). Several theoretical explanations such as the state and non-state theories were developed in an attempt to further the understanding of hypnosis. The state theories were preoccupied solely with the individual while the non-state or contextualist theories attempted to consider the whole of the hypnotic experience. In contrast to the above-mentioned traditional theories, the ecosystemic perspective attempts to further an understanding of hypnosis by showing not only that it does work, but rather, *how it works* in certain situations.

More than most other approaches ecosystemic thinking sensitises the treatment agent to the idea that as observers we influence that which we observe (Fourie, 1991). This approach focuses on the ideas and attributions of the client through concepts used by the client. Whether the client is an individual with problems, a family with family issues, or an athlete with an injury, the ecosystemic perspective emphasises that as the treatment agent we cannot help being part of the situation.

When people go for treatment they have particular expectations and ideas about the process of treatment. Naturally these people include athletes, who, when encountering an injury through sport, go to treatment agents with particular ideas about the treatment they are to encounter. According to ecosystemic thinking, these ideas will have an influence on the treatment either directly or indirectly.

The following discussion attempts to introduce an ecosystemic view of hypnosis in the context of sport injuries. A diagrammatic representation of the traditional view of hypnosis is followed by an outline of the traditional positivist approaches to hypnosis namely,

- ♦ the state approaches
- ♦ the non-state approaches
- ♦ Ericksonian approaches and
- ♦ the Interactional approach of Haley.

It is useful to draw on a brief history as an approximate boundary around the concept of hypnosis so as to provide a perspective on discussing the more recent developments that centre around ecosystemic thinking.

Thereafter an Ecosystemic approach to hypnosis will be presented in diagram format followed by a discussion on ecosystemic thinking relating it ultimately to ecosystemic hypnosis in the context of sport injuries. This chapter will be concluded by illustrating that the 'power' of hypnosis lies in the process of co-creating a different reality through the introduction of new meanings within a consensual domain.

Traditional Hypnosis

Traditional approaches to hypnosis demonstrate their intrapsychic preoccupation with the hypnotized subject. They are all based on a Newtonian epistemology of science with explanations ranging from hypnosis being a sleep-like state, to a trance state induced by magnetism (Quixley & Kennedy, 1998). According to Lynn and Rhue (in Quixley & Kennedy, 1998) theories of hypnosis can be categorised into single or multiple-factor theories. The dissociation theories are in the single-factor category where it is maintained that a single process, trait or mechanism is at the heart of the hypnotic phenomena (in Quixley & Kennedy, 1998) while the ecosystemic approaches are in the multiple factor category. According to this category, multiple processes are involved in the hypnotic experience.

The following traditional approaches to hypnosis would fall into the single factor category. Fourie and Lifschitz (1989) show that, although these approaches differ in terms of what *causes* hypnosis, they all appear to agree that hypnosis is caused by certain factors in a linear manner.

Before moving into a more in-depth history of traditional hypnosis, it seems appropriate to represent it as follows:

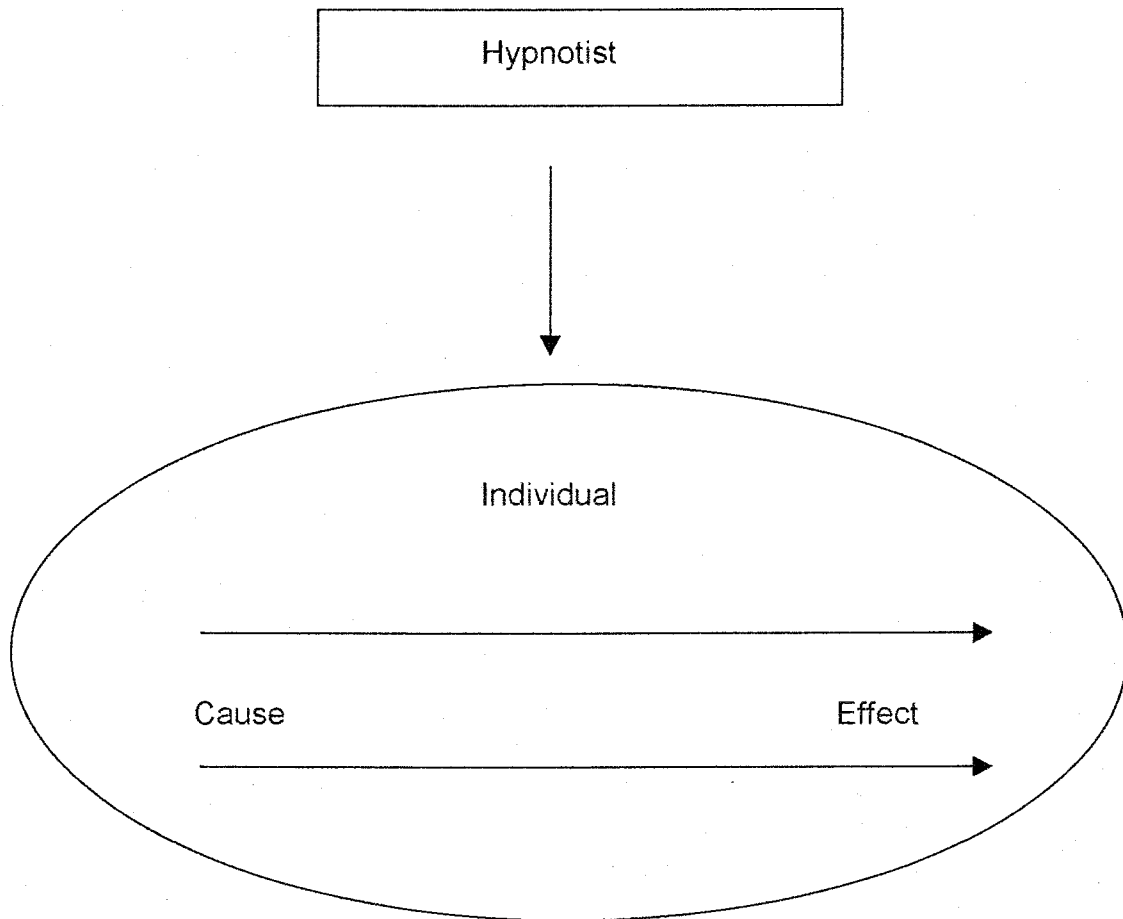


Figure 2.1. Diagrammatic representation of traditional hypnosis

The diagram presents an overview of the typical way that hypnosis was approached in the traditional schools of thought. The hypnotist separates him or herself from that which is being observed. He or she sees him or herself linearly as influencing that which is being observed. The hypnotist hypnotises the individual who then utilises internal resources made available by means of the hypnosis (Fourie, 1992). One could argue that the hypnotist, who is essentially influencing the system, is therefore part of the system. However, based on a Newtonian epistemology of analytical reductionism, linear causality and neutral objectivity, the argument that the hypnotist is part of the system is not acknowledged, since from the traditional perspective the hypnotist adopts the so-called 'black-box' approach and is understood to stand *outside* the system.

The 'black-box' approach appears to have been adopted by all the traditional schools of thought, namely, the state, non-state, Ericksonian and Interactional approaches. All these approaches developed their own understanding and explanations of the processes involved in hypnosis and each approach attempted to illustrate through experimentation that its view was the correct one (Fourie, 1992).

These approaches will be discussed, and explained with reference to their application in sport injuries.

State Approaches to Hypnosis

According to this school of thought hypnosis was viewed as an altered state of consciousness (Markman, 1998). Traditionally, this was how hypnosis was viewed (Quixley & Kennedy, 1998). It would be through this altered state that the individual was believed to be able to deal with issues such as the pain of a sport injury.

State approaches to hypnosis grew into the theory known as Dissociation Theory which has its roots in Freudian psychoanalysis (Markman, 1998). Dissociation is explained by Quixley and Kennedy (1998) as "the loss of familiar associative processes of consciousness" (p.88). The Theory of Dissociation proposed that under certain circumstances, conscious control at lower levels functions in ways that are dissociated from higher levels of conscious control. Further, sub-systems of consciousness remain responsive to locally significant information.

As explained by Spanos and Chaves, (1989) Dissociation Theory asserted that a specific mechanism, a certain barrier, comes into play once the individual is hypnotized. Consequently, it is this barrier which would separate or dissociate the cognition, the thinking, from the cognition responsible for communicating this experience. According to Reber (1985) the process involved is characterised by thoughts, attitudes or emotions becoming separate and functioning independently from the rest of the personality. As such, state perceptions of hypnosis were coherent with intrapsychic views of human functioning.

A theoretical controversy ensued between Hilgard and other proponents of Dissociation Theory and the sociocognitive theorists such as Spanos (Peter, 1997). Hilgard (in Peter, 1997) argued that hypnotic pain control differs from ordinary behaviour and hypothesised non-ordinary states of consciousness such as trance, and special psychophysiological mechanisms, for example dissociation. Hilgard conceptualised

hypnosis as an altered state of consciousness in which the subject becomes increasingly susceptible to suggestions. According to Anderton (in De Piano & Salzberg, 1986) Hilgard suggests that the subject loses the willingness to act independently, develops the readiness to engage in fantasy, tolerates a degree of reality distortion, experiences re-directed attention and changed perception, all of which are based on the demands of the hypnotist. Spanos (Peter, 1997) argued against Hilgard's suggestion of augmented amenability to suggestion and asserted that there is nothing special about the hypnotic situation in that it represents a simple salient example of social interaction variables. As such, by showing those in pain how to follow simple instructions and what the desired behaviour should be, the pain will dissipate.

This and earlier questioning of the efficacy and appropriateness of the State approaches by theorists such as Sarbin (1950) and Barber (1979) led to the emergence of Neodissociation Theory, which proposed that dissociations may be partial and incomplete (Markman, 1998).

According to Hilgard (Quixley & Kennedy, 1998) three assumptions underlie the theory of Neodissociation, namely that there is a structure that controls and monitors cognitive systems; that the interaction and competition among cognitive systems is managed by an hierarchical control, and that the cognitive systems are subordinate with each having some degree of unity, persistence and autonomy of function. These systems are also interactive but during hypnosis they can become isolated from each other.

According to Quixley and Kennedy (1998) Hilgard's current view suggests that the hypnotic state is simply a different state from being awake and that there can be partial dissociation.

Challenging the traditional view of hypnosis as an altered state of consciousness, Sarbin (1950), Barber (1979) and Spanos (1991) asserted that it was not necessary to resort to the explanation of hypnotic behaviour as being due to special psychological states or processes. This view led to the emergence of the so-called Non-state or Sociocognitive Theories of hypnosis.

Non-State Approaches to Hypnosis

The main assumption challenged by this view is that hypnosis is an altered state of consciousness. Spanos (1986), an important proponent of the Non-state or Social

Psychological explanation of hypnosis, explained hypnosis not as a state of consciousness, but as a particular use of socially influenced cognitive skills and abilities. Most of Spanos's work involved the hypnotist being the manipulator and manipulating the context as well as the expectation cues embodied in the context (Markman, 1998). The aim of this work was to show how hypnotic phenomena vary accordingly and how the effectiveness of hypnosis is a function of the subject's preconceptions and contextually influenced expectations.

Spanos (1991) postulated that hypnotic behaviours are ordinary behaviours that assume a non-ordinary appearance. As such these behaviours are similar to mundane forms of social action. Therefore attempting to explain hypnosis as a form of altered state of consciousness was nonsensical. Spanos (Quixley & Kennedy, 1998) was of the opinion that individuals are continuously involved in the organisation of sensory inputs into meaningful categories or schemas. These schemas are the mechanism that guide action. Further, Spanos (Quixley & Kennedy, 1998), argued that individuals who are hypnotised are those who are attuned to contextual demands and their behaviour is guided by how they understand the situation and by the goals they wish to achieve.

According to the Sociocognitive or Non-state approaches hypnotic behaviour is viewed as being a goal-directed and purposeful action. It is understood in terms of the subject's interpretation of the situation and how subjects attempt to present themselves through their actions (Spanos, 1986). Hypnotic performance is socially influenced and determined by the cognitive skills and abilities of the subject.

Spanos (1991) explains that interactions among people usually proceed through mutually negotiated self-representations and reciprocal role validation. There is the tacit understanding within this role enactment of how the situation is defined and which behaviours are considered appropriate to the definition of the given situation. As such, responding would be context specific. Therefore, in a situation defined as hypnotic, behaviour would be dependent on numerous factors namely the understanding of the situation, the willingness and interpretation of the ambiguous communication that constitutes hypnotic test situations, the ability to generate the imaginal and other experiences called for by suggestions given, and by how the individual is influenced by the feedback from the hypnotic practitioner as well as his/her own responding.

Clearly the Non-State and State approaches view hypnosis in fundamentally different ways. Neodissociation approaches explain hypnotic responsiveness as a trait (an

aptitude dimension), whereas Sociocognitive Theory suggests hypnosis to be a set of sociocognitive skills and attitudes (Quixley & Kennedy, 1998).

Sociocognitive Theory, although reasonable and seemingly more encompassing than State Theory, appears on a level to deny the subject's experience as an integral part of the explanation (Quixley & Kennedy, 1998) and fails to demonstrate internal consistency. Further, it emphasises situational variables at the cost of developmental contingencies. However, despite its apparent weaknesses Non-State Theory offers an explanation of self-hypnosis where its occurrence does not necessarily depend on inputs from another person for the hypnotic state to occur. Both theories have been further criticised (Quixley & Kennedy, 1998) for not showing external congruency.

The diversity of the above two theories of hypnosis varies in the main in their ability to accurately explain hypnotic phenomena. Theory evaluation has demonstrated that no one particular theory explains all the required phenomena fully. In addition to the wide range of theories, explanations and models that exist is the approach of Milton Erickson who assumes a State position, and which appears to centre on techniques that are intended to create a conscious/unconscious dissociation (Lankton & Lankton, 1983).

Ericksonian Approaches to Hypnosis

It also becomes clear that one must view the hypnotherapeutic intervention in its totality and not piecemeal, and go even a step further by viewing it within the totality of its utilization. This ... takes the use of hypnosis out of the domain of the use of simple, magic formulas and places it within the framework of the science of interactional and communication frameworks (Erikson, Rossi & Rossi, 1976, p.xiv).

Erickson was the chief proponent of the idea that hypnosis is a discrete state of consciousness brought about by interaction. He emphasised so-called indirect techniques in this process (Markman, 1998). According to Erickson et al. (1976), hypnotherapists need to build their technique " around instructions that allow the conscious mind of the patient to withdraw from the task and leave it all up to the unconscious" (p.9). In this way, once the patient freed himself/herself from the conscious mind and allowed the unconscious to take control, the results of unconscious functioning could become conscious and hence apparent.

Rossi (Erickson et al., 1976) suggested that by giving each patient "illusory freedom" the person was manipulated by the therapist into believing and experiencing freedom of choice. Rossi (Erickson et al., 1976) explains that "...the art of giving suggestions is to give careful direction, but you let the person have a certain illusion of freedom within the framework you (the therapist) have constructed" (p.11).

What becomes apparent from the above is the conception of linearity and the power and control of the hypnotist who is seen solely to construct the reality of the subject. The aim of indirect techniques is to by-pass consciousness to reach the unconscious of the subject and plant an idea through the use of a metaphor, to make a bridging association of a story's relevance to the patient's problem or to offer suggestions (Hammond, 1990).

Erickson (Erickson et al., 1976) held the view that the unconscious was an intelligent, complex level of mental functioning. According to Siegel (in De Piano & Salzberg, 1984) Erickson, considered methods of induction as ways of focusing the subject's attention upon inner experimental learnings and capacities which he considered as being the raw material for hypnotic responsiveness. Erickson was critical of too much emphasis on external factors and argued (De Piano & Salzberg, 1984) that visual and/or auditory imagery produced better induction results than watching pendulums. A basic theme in Erickson's work is his indirect approach (Erickson et al., 1976).

Ericksonian thought appeared to be dominated by a sustained focus on the intrapsychic activities of the individual. This and the emphasis on the potency of the hypnotic techniques and of the hypnotist become apparent and yet were not widely questioned.

As a consequence of this 'black box' approach (Becvar & Becvar, 1996) to hypnosis, Ericksonian hypnotic techniques created the impression that the hypnotist and the technique of the hypnotist have a direct, linear causal influence on the intrapsychic activities of the individual at focus.

Possibly because the Ericksonian view embodied a very clear ontology (Fourie, 1992), followers of the approach did not feel the necessity to question or to prove its correctness. As a consequence, the limitations that the Ericksonian epistemology embodied were often overlooked. Fourie asserts that Ericksonian ontology can be seen to follow the logic of reductionism with processes being reduced to their perceived essential

elements by focusing on intrapsychic activity. Clearly, Erickson understood hypnosis as consisting of a discrete state of consciousness.

One of the major controversies in approaches to hypnosis has been between the traditional clinical view of trance as an altered state that is different and discontinuous from being awake versus theories of trance as a special form of role playing, goal-directed imagining or communication. Undoubtedly, Erickson (Erickson et al., 1976) maintains the traditional view of trance as a special state, but his indirect approaches to suggestion illustrate that he is non-traditional.

Inspired by Erickson's work, Haley (1963) produced the Interactional Theory of hypnosis which focused on the relationship between hypnotist and subject. This approach, although representing a shift in thinking from an intrapsychic to interactional understanding of hypnosis, does not constitute an epistemological jump. A brief outline will follow.

The Interactional Theory of Haley

Like the above three approaches, the Interactional Approach also demonstrates a linear orientation but carries with it the idea that complementary relationships have to be established before hypnosis can be achieved. In this way, Haley (Allan, 1994) suggests that a causal influence gives rise to hypnosis. By focusing on the relationship that was seen to cause hypnosis, Haley's (1963) Interactional theory represents a paradigm shift from the intrapsychic orientation of the state, non-state and Ericksonian approaches to hypnosis (Allan, 1994).

Haley (1963) explains hypnosis as the nature of the relationship between the hypnotist and how he or she defines hypnosis, and the subject's acceptance of this definition. According to Haley, hypnosis is a paradoxical relationship within a larger, encompassing complementary relationship. Evidently, this approach appears to be closely linked to the then developing cybernetics/general system theory (Fourie, 1995), with its emphasis on interpersonal interaction.

In summary, the State approaches postulate that hypnosis is an altered state of consciousness in the subject, and adhere to the belief in this as an objective reality. The Non-State approaches do not postulate a state of consciousness, but hold that socially influenced cognitive skills and abilities of the subject determine hypnotic performance. As stated by Markman (1998), the objective reality of hypnosis is an implied assumption in

both instances. The Ericksonian position centres on techniques that, as suggested by Lankton and Lankton (1983), are intended to create a conscious/unconscious dissociation. Specific emphasis on techniques (Weiss, 1993) creates the main difference between the state approaches and the Ericksonian approaches. What becomes apparent about Ericksonian hypnosis is the belief in the objective existence of the hypnotic state which can be caused by the application of a suitable technique (Markman, 1998). Haley's (1963) approach falls epistemologically in the same category as the previous three approaches, even though he describes hypnosis differently. In essence Haley's approach encompasses many of the traditional assumptions regarding hypnosis.

Consequently, although theoretically different at their respective levels of interpretation, the State, Non-State and Ericksonian approaches to hypnosis, as well as the Interactional approach of Haley have been illustrated by Fourie and Lifschitz (1989) as all reflecting a Newtonian epistemology of science.

Traditional Approaches to Hypnosis as Related to Sport Injuries

The traditional approaches are applied to problems as if these were regarded as objective entities (Allan, 1994). Accordingly, the 'expert' separates him or herself from the subject being observed/treated in such a way that the objective expert observer is understood by all involved, including him or herself, as the force controlling the situation from *outside* the subject's system. As a consequence any problem-solving that may occur is perceived as taking place in a linear fashion with A influencing B. In a simple diagram this can be depicted as follows: A \longrightarrow B.

Evidently, B (the subject) has no effect on A (the 'expert') This unequal distribution of power which forms the basis of Newtonian epistemology has translated itself into the dimension of sport in general and sports injuries in particular. The cause-effect relationship renders the practitioner as the 'expert' who causes an effect on the injured athlete. Despite its success, medical therapy in general appears to be built on this one-way relationship.

To prevent disease, medical therapy in the past consisted of physical and chemical interventions (Ornstein & Sobel, 1989). Following the same approach it was clear to practitioners of the psychological health and brain sciences that physiological problems had a clear cause and effect.

Built on this cause-effect premise, medical hypnosis gained relatively wide acceptance in the medical community (Pratt, Wood & Alman, 1988) and became an accepted means to *eliminate or ameliorate symptoms, to control* habits or behaviours and to contribute to overall patient management.

Clearly, individual issues were addressed by the hypnotist working as if from outside the system, as a neutral observer *inducing* hypnosis in order to accelerate some type of healing (Pratt et al., 1988). Little attention was paid to the context and meaning of the interaction between the individual and his or her environment. As a consequence of the perceived linear causality, the focus of the hypnotist was intrapsychic. Traditional *treatment* of the injury would, as a consequence, involve an 'expert' who placed himself or herself outside the system of the injured athlete.

This traditional intrapsychic focus in relation to sport injuries reflects the Newtonian epistemological orientation. As suggested by Allan (1994), this orientation tends to reduce the complexity of the hypnotic context and the web of relationships that comprise it. In doing this, traditional thinkers in hypnosis demonstrate adherence to the Newtonian principle of reductionism, construing discrete elements to be related in a linear way through cause and effect.

Early in this century, the natural sciences questioned and criticized the Newtonian notions of reductionism, linear causality and neutral objectivity (Fourie, 1991). Such notions appeared limited in explaining more obscure and complex phenomena. As the inadequacies of Newtonian epistemology became increasingly clear, researchers began to pay attention to the limitations of Newtonian thought. The eventual paradigm shift gave birth to post-modern ecosystemic thinking which became the new way of viewing human lives (O'Conner & Lubin, 1984). This paradigm highlighted the interdependence of contextual factors interacting with the individual system which was co-responsible for creating the individual's reality. This wider context included the observer.

The Ecosystemic Perspective

The term ecosystem originated in biology and refers to any organisational unit or interactive system composed of populations and their related environments (O'Conner & Lubin, 1984).

Through the biological experiments of Maturana (1975) and Varela (1979) as well as through the influence of Bateson (1972) it was realized that objective observation was impossible. The belief and implication that observation of a system's functioning can take place objectively shifted into a paradigm where theorists began to realise that observation was influenced by the observer's way of observing and by his/her way of thinking about human functioning. As a consequence the ecosystemic perspective or second-order view came to represent a shift away from both Newtonian and first-order thinking/first-order cybernetics.

Ecosystemic thinking offers a comprehensive conceptual framework for processing and utilizing a vast amount of information (O'Conner & Lubin, 1984). Part of this information involves and includes the observer himself or herself who becomes viewed as part of that which is being observed.

This implies a higher order of observation with the observer viewing himself/herself from a meta-level as part of the system being observed. According to this perspective, observation is understood as being coloured by the observer's own epistemology and the observer's role is included in the construction of the reality being observed.

Ecosystemic thinking acknowledges the complexity inherent in human lives. In relational dynamics the interplay between the person and the situation came to be viewed as a process of reciprocal causation and interaction. O'Conner and Lubin (1984) suggest that the interactionist synthesis transformed the simple linear, uni-directional cause-and-effect models into a multiple causation, bi-directional model.

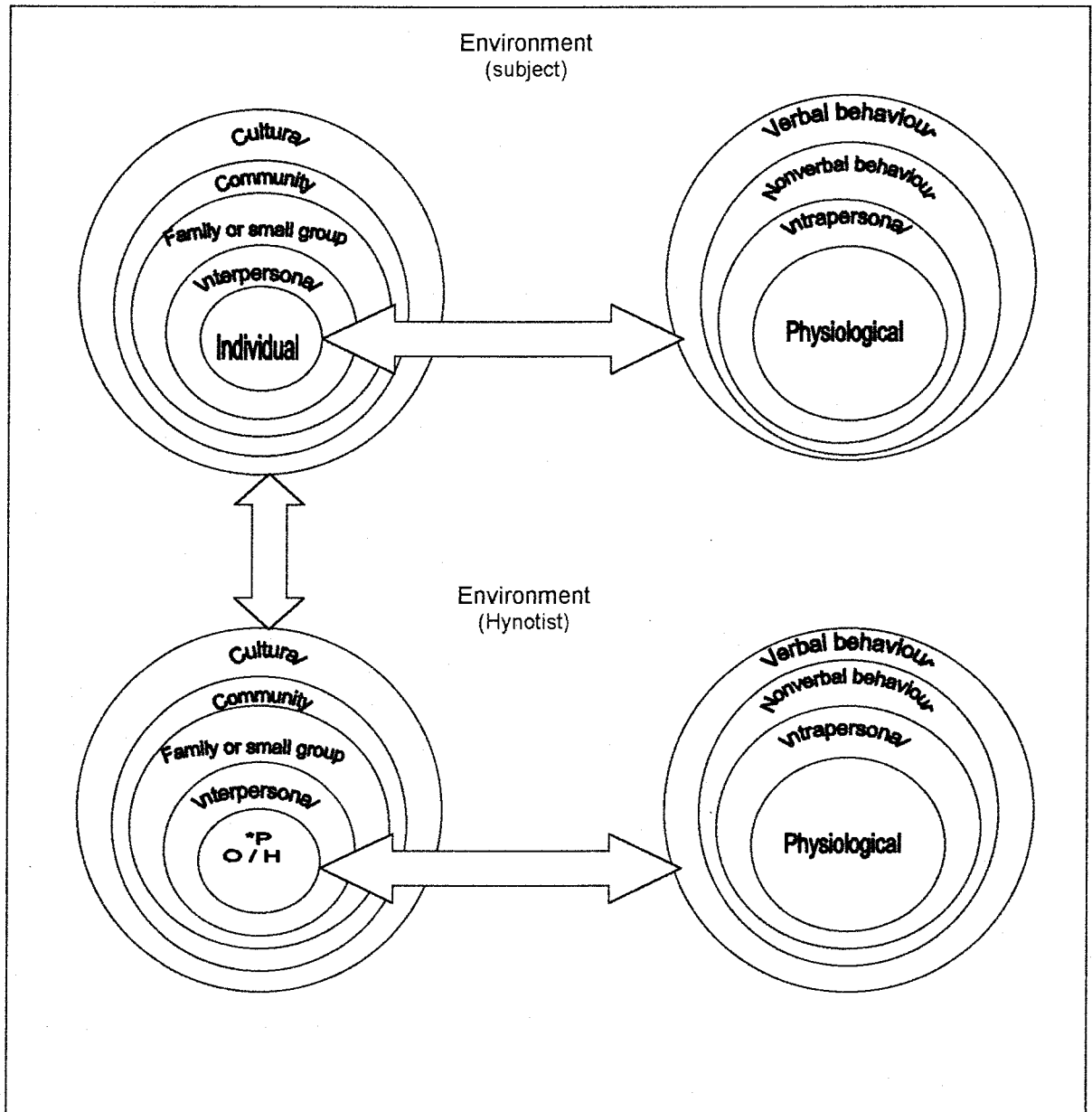
The shift in paradigm from first-order thinking to a higher order of observation involved a shift in theorising about hypnosis. Hypnosis could no longer be perceived in a linear fashion with the observer standing outside the system, and working from the power base as the expert, *inducing* hypnosis. Rather the observer/hypnotist could work only with his or her subjective experience of being part of the system.

Ecosystemic Hypnosis

Understanding hypnosis through the ecosystemic epistemology involves understanding a complex of systems. The human ecosystem can be understood as functioning within a structural framework, with the environment forming part of the overall

system. O'Conner and Lubin (1984) explain the environment as "the surrounding or context of the individual's experience and behaviour" (p.43).

In the human ecosystem all levels interchange with each other. Each level is a closed system in and of itself. The observer/hypnotist focuses on any level within the overall ecosystem. This enables a recursive exchange of ideas to take place. Becvar and Becvar (1996) explain that in the context of a common language system structural coupling generates consensual domains. Structural coupling can be explained as the mutual co-existing of the systems where the structures exist as a function of mutual influence. According to Becvar and Becvar there are two types of consensual domains, that of first-order thinking and that of second-order thinking. First-order consensual domains involves the observer 'looking in' and studying from the outside, while in second-order domains the observer forms part of that being observed. Broadly speaking, medical therapy conducted on sport injuries, based on Newtonian epistemology, adheres to first-order consensual domains with practitioners taught to operate as if they were external to the situation and merely observing it. Alternatively the position of second-order practitioners, such as hypnotists following an ecosystemic way of thinking, can be illustrated as follows:



*Participant observer/hypnotist

Figure 2.2. Diagrammatic representation of ecosystemic hypnosis (modified from O'Connor and Lubin, 1984)

Figure 2.2 illustrates a shift from the traditional, linear cause-effect approach to hypnosis to a different way of perceiving hypnosis namely, that the hypnotist no longer stands outside the system. Rather, as seen in the diagram above, the hypnotist (observer-observed) becomes part of the system.

Fourie and Lifschitz (1989) provide a list of the main ideas of an ecosystemic approach as applied to hypnosis:

1. Hypnosis is not an entity. Hypnosis is a concept used by an observer to describe behaviours occurring in a specific context. From this standpoint hypnosis cannot be understood as a state of consciousness or of internal focus. This standpoint stands in contrast to some Newtonian approaches which seek to reduce the hypnotic experience to a state of some sort.
2. Hypnotic behaviours are not caused. Approaches to hypnosis based on a Newtonian epistemology ascribe causative factors to the hypnotist, to the induction and/or to the subject. In contrast, an ecosystemic view suggests that the way in which the behaviours of the subject come to be defined as involuntary and thus hypnotic, is determined neither by the hypnotist nor by the subject nor by the induction, but is a product of the consensual domain formed by all participants.
3. Hypnotic behaviours exist within a domain of consensus. Each participant brings into the hypnotic situation certain attributions of meaning regarding hypnosis. These attributions contribute to the consensual domain in which the behaviour of the subject can be mutually qualified as hypnotic.
4. Hypnotic induction is a punctuating ritual. The ecosystemic perspective suggests that the induction process does not cause hypnosis. Rather it is a punctuating ritual which indicates, from its commencement that the behaviours of the subject can be mutually qualified as hypnotic.
5. Hypnotic responsiveness is contextually specified. According to ecosystemic thinking the qualification of a behaviour as hypnotic is a product of a consensual domain and hence cannot be attributed to the capacities or attributes of the hypnotized subject nor to the power or skill of the hypnotist.
6. Hypnotic depth is a culturally shaped experience. The expectation of those participating in hypnosis is the reason for the perception of "depth of trance". This is especially the case in Western cultures. Hypnosis is defined by consensus and has no definition aside from that determined by each consensual domain.

Ecosystemic hypnosis involves an active and inherently recursive exchange of information through both verbal and non-verbal language (Fourie, 1995). All systems in second-order thinking are seen as closed. Through dialogue individuals constantly change themselves structurally through meanings communicated and triggered by structural interactions. The observer-observed (hypnotist) asks the subject questions and makes comments. In this way, the process of reframing (a redefinition of the problem which offers an alternative understanding of it, and to which a different response and dis-solution

becomes amenable) takes place and the subject defines the problem situation differently. This redefinition allows for new, alternative behaviours and perceptions.

Maturana and Varela (1987) refer to the interactions between the subject and the observer-observed as *perturbations*. For an individual to be perturbed by a trigger, the individual would need to perceive a difference. It is this perceived difference and subsequent reframe that would, in effect, create the change to the structure of the organism.

In summary, it becomes important at this point to note that the ecosystemic conceptualisation of hypnosis does not present itself as an ultimate truth claim because there is no absolute truth. Rather, viewing hypnosis ecosystemically is one of many possible conceptualisations of hypnosis. As such, it must be realized that the ecosystemic conceptualization of hypnosis does not negate or disqualify traditional conceptualizations of hypnosis. Rather, it provides a different contextual perspective on hypnosis, thereby placing the theoretical and experimental issues in a different context of meaning (Fourie, 1997).

Examining the structure and function of ecosystemic hypnosis both diagrammatically and theoretically has prepared the foundation necessary for explaining how to utilise hypnosis from an ecosystemic perspective in the context of sport injuries.

The Ecosystemic Approach to Hypnosis as Related to Sport Injuries

Placing theoretical and experimental issues in a different context of meaning could apply to the area of sport as well. As has been discussed previously, treatment of the sports person currently appears to be built on the traditional Newtonian epistemology of cause-effect with the 'expert' as the neutral observer, treating the subject intrapsychically.

From the ecosystemic perspective the task of the therapy is to confirm the autonomy of the various levels of the system (Fourie, 1995), while simultaneously disconfirming the ecology of ideas around the problem. As a consequence the problem can disappear because it ceases to be mutually qualified as a problem. The 'old' reality gets deconstructed through language and is replaced with a newly constructed reality. Hypnotic imagery can be used as part of the exchange and deconstruction process.

Through dialogue the athlete could be asked to construct an image in his or her mind's eye (Fourie, 1995) of the actual injury, visualising the healed injury. At that point, suggestions could be given that the injured area was no longer injured, but rather, less painful and in the process of healing. In this way, imagery is used to link with the athlete's idea about the problem/injured area as well as linking with the view of the observer/hypnotist. And overriding it all is the usual view, shared by the athlete, that hypnosis is a powerful treatment modality. In this context what becomes important is the forming of a consensual domain in which events are construed as hypnotic. In this way it is not so much what is done, "but the manner in which the doing is conceptualized as well as the manner in which the conceptualization perturbs the problem for the significant system" (Markman, 1998, p.118). How the hypnotist approaches the subject, the meaningful dialogue which is reciprocal in nature, the construction of meaning and the reframing of ideas all make this approach different from traditional hypnosis. Importantly, the observer/hypnotist becomes *part of* the system being observed by bringing into the system a self-awareness of his or her own reality.

The athlete, together with the hypnotist/observer, who would already have co-defined the process as hypnotic and meaningful through the process of dialogue or meaningful exchange, will then reframe and hence redefine the problem.

The hypnosis itself should not be considered as being the treatment. Rather, it should be perceived as a vehicle, a tool through which the ideas of the consensual domain are perturbed through language or the linguistic system. It is through this linguistic system that new revolutionary ideas regarding the injury can be introduced into the system and through a process of co-evolving, lead to the dis-solution of the injury. The dis-solution occurs through redefining the existing problem (injury) in such a way that new solutions become evident.

It is important at this point to explain how hypnosis works in relation to a problem associated with the body, for example, an injury. Von Foerster (1984) explains that we experience the reality we construct as objectively real. In other words, what we perceive at times may, in fact, not actually be there. Through "the principle of undifferentiated coding" (p.45), Van Foerster suggests that a nerve cell does not encode the physical nature of the stimulus, but rather the quantitative experience (the associated memory that is linked to the extent of an experience).

The physical effects of the quantitative experience are exacerbated by ideas surrounding that experience. This has been illustrated by numerous authors such as Hay (1984) who suggests that the thought process is represented through the symptoms of the body. Hay draws attention to the idea that an individual constructs his or her situations according to personally created definitions. Hay asserts that once an idea is framed differently, such as the idea of pain reframed as that of a different sensation, the quality of the physical effect will change. By framing a physical problem differently, an individual re-creates their current reality "which begins a new process" (Hay, 1984, p.43).

Studies by Chopra (1987) served to augment the understanding that the psychophysiological connection plays a crucial role in the onset of disease processes. He suggests that " ...it is the phenomenon of psyche affecting soma, mind affecting body" (Chopra, 1987, p.47).

In support of the physical effects caused through ideas, Von Foerster (1984) mentions that we are responsible for creating the quality attached to a specific quantity of experience. We are responsible for creating our own subjective experiences and ideas, which we generate through language. Therefore the experience of an injury for example, and the pain associated with that injured body part, is generated in language as a problem. Seen from this perspective, language-constructed problem-injuries become amenable to dis-solution through language. Understandably therefore, hypnosis can be used as a tool to perturb the injured system.

In the above example and discussion it was illustrated that hypnosis in the context of sport injuries can be introduced ecosystemically by deconstructing meanings and ideas within ecologies through the means of dialogue in a situation defined as hypnotic by all participants. It seems appropriate at this point to introduce the concept of self-hypnosis defined by ecosystemic thinkers (Fourie & Lifschitz, 1985), as merely a linguistic differentiation. Alman (1997) explains that each individual needs to find an own sense of understanding given that each individual is unique. Alman's (1997) suggestion fits with Becvar and Becvar's (1996) notion of the validity of many observer-dependent realities (multiverse) and with the ecosystemic postulation that there are many 'truths', all equally valid. The existence of these multiversal 'truths' extends into the hypnotic domain as well, (Allan, 1994).

Self-hypnosis or autohypnosis (Kohn, 1984) involves self-imposed suggestions or dialogue conducted by the subject in his/her chosen context. According to Spiegel (1986),

all hypnosis is really self-hypnosis. Because hypnosis is not an invariant state, it will be influenced by the epistemologies of all involved in the process. The same holds true for self-hypnosis which has emerged as a separate approach to hypnosis and is just another form or kind of hypnosis. Kohn (1984) explains that by experiencing the process of self-hypnosis the subject usually feels more responsible for any change/s that may occur, increases self-understanding and is better able to proceed at his/her own pace.

Within the context of ecosystemic thinking the debate around which self-hypnotic techniques are the most effective becomes a redundant argument since it alludes to hypnosis as an objective entity. Allan (1994) explains that ecosystemic thinking does not lend itself to the idea of self-hypnosis as a specific and objective form, rather "once the subject's behaviours are mutually qualified as constituent of self-hypnosis, the necessary/s' and sufficient conditions for the existence of self-hypnosis have been reached" (p.38).

Conclusion

This chapter dealt with the theoretical views around the concept of hypnosis and illustrated how different perspectives may approach the injured athlete. Emphasis was placed on the more recent ecosystemic understanding relating to hypnosis/self-hypnosis and the injured athlete.

In the Western world where hypnosis has been utilised in the field of sport it has reflected traditional conceptualizations of hypnosis (Allan, 1994) reifying the monistic mind-body connection. Problems of the sport individual were seen as existing as objective entities. As such, hypnosis was employed with the view of curing these problems directly. Conversely, the more recent ecosystemic perspective on hypnosis appears to approach the problem/s encountered by the sports person differently to that of traditional hypnosis in that it would see the injury of the athlete as a set of ideas amenable to change through the introduction of new meanings. Reason for the efficacy of hypnosis would lie in perturbing the ideas in a linguistic system.

In adhering to the ecosystemic conceptualisation of self-hypnosis in the context of sport injuries, it becomes possible to avoid the reified definitions of hypnosis which were recognised in the more traditional state and non-state approaches all boasting an intrapsychic focus. It is these reified definitions associated with traditional approaches to hypnosis which often lead to the belief that hypnosis is a 'powerful' and 'mystical' ritual

(Fourie, 1995) with inherent curative powers by means of which symptoms can be conjured away.

It is through the ecosystemic perspective that hypnosis is no longer perceived as a mystical force that cures symptoms. Rather, hypnosis can be perceived as a tool that can be successfully utilised in the process of co-constructing a different reality for the injured athlete by locating meanings and ideas and then de-constructing them through dialogue within a consensual domain. The same holds true for self-hypnosis that serves as a different 'kind' of hypnosis where subjects use their own capacity in a process defined as hypnotic to explore their context.

Exploring the ecology of ideas around sport injuries and related pain, is uncommon. Traditional theories of hypnosis have adopted a linear perspective in the treatment of pain by explaining hypnosis as the curative power in this respect. Although linear pain control techniques through hypnosis have merit, the over-all complexity of a sport injury (Peterson & Renstrom, 1986) would seemingly require greater contextual involvement than would otherwise be offered through linear thinking.

The following chapter outlines the theory of sport injuries and discusses traditional hypnosis in the management of pain. The discussion culminates in how sport injuries and the management of pain can be contextualised through the use of self-hypnosis from an ecosystemic perspective, and, be effective without discrediting traditional theories and without claiming to be a universal truth.

CHAPTER 3

SPORT INJURIES: THE THEORY

Sport injuries occur as a consequence of physical activity which may be recreational or professional in nature. Although these injuries are sustained during sporting activity, they do not necessarily differ from injuries sustained off the sports field (Peterson & Renstrom, 1986). However, this discussion will be limited specifically to sport injuries.

When athletes injure themselves playing sport, the injury may be severe enough to prevent continued sport participation over the short or long term, and even lead to the end of participation in sport. Being prevented from pursuing their physical involvement in sport because of an injury, minor or major in nature, can and often does have a psychological impact on the athlete (Peterson & Renstrom, 1986) because the athlete's quality of life becomes significantly altered.

Looking at the psychological complexity within the context of the injury (Peterson & Renstrom, 1986) it appears that treatment of the injured area should take place within a framework that does not isolate the physical realm to the exclusion of all other contributory dimensions involved in the healing process. Brewer, Jeffers, Petitpas and Van Raalte (1994) mention that sports medicine professionals are increasingly recognising psychological factors as important contributory factors in the rehabilitation of sport injuries.

As a consequence of this recognition, psychological interventions such as cognitive restructuring, goal setting and athlete counselling (Brewer et al., 1994) have been recommended to increase adherence to injury rehabilitation protocols and to facilitate the physical rehabilitation of injured athletes.

Despite the recognised psychological dimension in the rehabilitation of the sport injury, Meichenbaum and Turk (Brewer et al., 1994) point out that without confidence in the type of treatment, psychological intervention is unlikely to have an effect on the injured athlete.

The currently acceptable form of treatment for the majority of injured athletes appears to be based on the medical model where medical advisers such as sports doctors, physiotherapists and the like have proposed the separation of musculoskeletal injuries into five broad categories according to the severity of the injury. These categories have been

identified as follows: pain after activity, pain during activity (does not restrict activity), pain at beginning or middle of activity (restricts activity), pain preventing activity and pain carried over into everyday life.

This is represented in Table 3.1.

Table 3.1

Categories of Sport Injuries (modified from Noakes, 1985)

Grade of Injury	History	Physical examination
Grade 1	Pain only after exercise.	Generalized tenderness.
Grade 2	Discomfort in injured area during exercise but not severe enough to restrict activity or reduce sport performance.	Pain is localised but no discrete point of tenderness.
Grade 3	Severe discomfort and recognised pain experienced at the beginning or middle of the activity. The pain limits and restricts the training and performance of the athlete.	Point tenderness, with evidence of inflammation, swelling, heat, etc.
Grade 4	Pain so severe that any attempt at activity is prevented.	Point tenderness, swelling, inflammation, heat etc. Muscle atrophy with ROM (restricted overall movement).
Grade 5	Pain from the injury is carried over into everyday life.	

According to scientific understanding, muscle injury occurs in the weakest part of the musculoskeletal system (Van Velden, 1990). According to Van Velden injuries are often underestimated and are consequently insufficiently treated resulting in problems later on. Physiotherapists, or physical therapists as they are known throughout the world (Van Velden, 1990), use physical means to rehabilitate the athlete. In addition to the grade 1 to 5 classification, injuries are distinguished as contact sport injuries or overuse injuries.

Contact sport injuries are externally inflicted injuries. Rugby, for example, is understood to be a contact sport and an injury sustained playing rugby would be considered a contact sport injury. Overuse, over-extension or intrinsic injuries (Copeland, 1987), occur when an athlete makes excessive demands of his or her body over long periods. As a consequence, muscles, ligaments and joints are excessively taxed. Unlike contact sport injuries or extrinsic injuries, intrinsic injuries are understood to be due to internal factors peculiar to the body, rather than to external factors.

According to Van Gelder (1987), overuse injuries imply a chronic injury continually stressed, evolving eventually into an acute injury once again when an already stressed and weakened area is pushed beyond its limits and further weakened. Every time the weakened area is stressed, the injury is triggered. The stress referred to by Van Gelder as physical in nature.

Engelhardt and Kremer (1989) state that overuse injuries are due to the physical demands of training and competition that does not match an athlete's individual physical capacity, resulting in physical overload. As a consequence, a series of chronic injuries leads to general physical damage.

The objective of treatment strategies is to reduce swelling and pain, enhance blood supply and promote healing. Techniques to do so include rest, physical methods such as physiotherapy, medication, and/or an operative procedure. A physical fitness test concludes the treatment and serves to renew the athletes' confidence (Copeland, 1987).

According to Copeland (1987), rehabilitation is a continuous process. The maintenance process is considered effective as long as the pain, acute or chronic, is physically managed. Copeland adds that the athlete, coach, physiotherapist and doctor need to work in close collaboration with each other and that the athlete must understand the nature of the injury and be involved in the recovery process.

It can be argued that although the above-mentioned authors agree to the ecology of the sport injury, they fail to include the psychological dimension in their explanation of the process. Although Copeland (1987) in part does include the athlete himself or herself as well as the athlete's wider system in the recovery process, it appears that Copeland (1987) and the aforementioned authors confine the understanding of the sport injury and its associated pain in the main to the physical dimension.

Engelhardt and Kremer (1989) suggest that pain in moving parts of the body, which cannot be otherwise attributed to obvious injury, should always be considered as an indication of possible underlying problems that may not yet be apparent. These authors confine underlying alternative areas to include physical areas only, namely posture problems to do with the spine; legs of unequal length; bow legs, knock knees, and tendon problems. Underlying psychological dimensions are excluded as possible contributory factors.

Zahourek (1985), who addresses the link between physiological and psychological factors in pain, suggests that chronic pain triggers psychological responses and, contextual dimensions, such as pressure from a significant other in the presence of pain, affects pain intensity. According to Zahourek not only the severity and prognosis of the injury, but also the circumstances surrounding the painful experience affects the persons experience of pain and, exacerbates the pain perception.

Without the proof of an X-ray, it would appear that the presence of pain generally confirms the degree of the injury. The injury is made apparent by a verbal indication from the subject and the curtailed range of movement. According to Tarnowsky and Smith (De Piano & Salzberg, 1984) pain serves as an adaptive function for the subject. It is through the perception of pain that the subject is alerted to some type of damage incurred. Functioning as a discriminative stimulus, the pain induces the subject to engage in some type of remedial action.

Remedial action through medical interventions such as physiotherapy, electronic devices, drugs and perhaps even through surgical techniques have, in the past, been utilised to treat and manage the experience of pain. In addition, clinical applications of hypnotic procedures suggest that medical intervention involving pharmaceutical agents or hands-on treatment may not be the only means an individual in pain need employ to reduce his/her discomfort successfully.

The use of hypnosis in the control of pain is well documented (Burgess, 1997). Experimental and clinical studies in a number of settings such as oncology, obstetrics and dentistry (Weiss, 1993) have demonstrated that hypnotic methods may be successfully employed as well when managing and controlling physical pain (Peter, 1997).

Despite significant advances in diagnosis and treatment, cancer remains one of the most feared diseases because of the associated pain. Cancer pain, acute and/or chronic, occurs either directly or indirectly from tumour lesions and/or accompanying medical treatment (Peter, 1997). According to Spiegel (1986) pain always involves a combination of physical and psychological factors. Erickson and Sacerdote (Peter, 1997) provided some of the most well known contributions to hypnosis in the control of cancer pain. Spiegel (1986) points out that pain control techniques through hypnosis have been applied to at least two thirds of cancer patients in pain and was successful in controlling pain, reducing dependence on analgesic medication and giving patients a greater sense of mastery over their illness. Such studies have been qualified by more recent cancer research by Syriala, Cummings and Donaldson (Peter, 1997) who demonstrated that hypnosis was effective in reducing oral pain in haematological cancer patients undergoing bone marrow transplantations.

Dentistry, like oncology, has also shown positive use of pain management through the utilization of hypnotic techniques. Kent (Heap, 1988) postulated that hypnosis did have an effect on dental patients, by either helping patients to exert control or by more directly altering the interpretations of the patient. Similarly, Cheek (1994) mentions studies where hypnosis was instrumental in reducing the pain associated with the treatment of the gagging reflex and painful removal of teeth. Dentists have also managed to successfully treat hemophilia patients prior to surgery and to treat active hemorrhage. Researchers (Cheek, 1994) found that through the use of hypnotic relaxation, dentists were able to block the hemorrhagic tendency of their patients (Cheek, 1994). Further, Cheek (1994) mentions that these patients were also taught self-hypnosis as a protective mechanism against emergency situations.

Documented studies on the importance of hypnosis being taught as a self-protective technique were done by Ambrose and Newbold (1980) who pointed out that with proper training patients reduced their levels of anxiety by being able to induce hypnosis themselves without the hypnotherapist's assistance. This point becomes important in the discussion at focus in this dissertation, namely the use of ecosystemic hypnosis in the

context of sport injuries, in that this study involves self-hypnosis taught to the injured athletes in order for them to carry out the technique at home.

The analgesic effects of hypnosis were also employed in childbirth. Hilgard and Hilgard (1975) asserted that unlike the diverse areas found in cancer pain, obstetrics pains were located in specified regions of the body. According to these authors hypnotic procedures were successfully utilised with those who had received previous instruction in hypnosis as well as those who had not. These traditional clinical applications of hypnosis in the management of pain led Hilgard (De Piano & Salzberg, 1984) to argue that an individual can experience different levels of consciousness simultaneously. Accordingly, a hypnotised individual, given suggestions for analgesia, may report not experiencing any pain but on another level may be completely aware of the pain stimulus. This is the so-called hidden observer hypothesis.

Despite the possible truth of different levels of the pain experience, recent studies by Kiernan, Dane Phillips and Price (Peter, 1997) suggest that hypnosis significantly attenuates physiological variables, such as the R-III, a nociceptive spinal reflex. This indicates that hypnotic control of pain may truly represent not only the attenuation of sensory pain but also that of a peripheral process. Peripheral involvement was more recently examined by Markman (1998) in her study on hypnotic analgesia in obstetrics from an ecosystemic rather than a traditional perspective. As pointed out by Markman, adherence to a new paradigm of thinking does not eliminate older paradigms of thought but rather adds a different perspective to that being discussed. By outlining five case studies on how hypnosis could be utilised in obstetrics through the use of "communicated meaning" (Fourie, 1995, p.304), Markman (1998) drew attention to the ecosystemic rationale in this area.

In line with this paradigm of thought towards the management of pain, Von Foerster (1984) postulated that a nerve cell does not encode the physical nature of the stimulus but rather, the subject itself is responsible for creating the subjective experience of sensations, such as that of pain. Ecosystemically seen, an individual is understood as generating ideas and experiences through language. In this way pain becomes a problem constructed in language, and which can then also be deconstructed in language through the tool of hypnosis.

Viewed ecosystemically, pain associated with childbirth, for example, becomes amenable to language based dis-solution (Markman, 1998). Hypnosis can as such be used

as a tool to perturb pain-organising systems generally, and specifically in this context, in the area of sport injuries.

The following chapter outlines the method used in this research and clarifies how self-hypnosis can be utilised as a tool in the context of sport injuries when viewed ecosystemically.

CHAPTER 4

RESEARCH DESIGN

Methods of inquiry in qualitative research have become increasingly important for the social sciences and so new paradigms of inquiry have been introduced. A paradigm has been described by Garbers (1996) as comprising the "metaphysical, theoretical, conceptual and instrumental convictions of the particular scientist and those of the group which, in the scientist's discipline, has sanctioned the paradigm as the authoritative method of explaining the phenomenon in the field of study" (p.337). Guba (in Denzin & Lincoln, 1994) defines a paradigm as "the net that contains the researcher's epistemological, ontological, and methodological premises" (p.13).

Before elaborating on the paradigm adopted in this study, it is appropriate to expand briefly on the more traditional methods of enquiry in an attempt to explain why they were not adopted.

The most influential way of thinking introduced into the world of science is that of Isaac Newton (Fourie, 1991). As explained in previous chapters, Newtonian thinking is based on reductionism and atomism, linear causality and neutrality. When dealing with phenomena that could be perceived as relatively simple, this way of thinking is not only appropriate, but also useful. Quantitative research designs were and still are based on the view that if the researcher remains in the background and collects the 'facts', she/he could accurately diagnose the ailment, and fight and control the defects effectively (Garbers, 1996). A great deal of emphasis was and still is placed on the methodology used, the reasoning being that the correct method used will lead to the truth.

However, the more the various fields of inquiry encountered problems of greater complexity, the more the limitations of Newtonian thinking became apparent. It was soon realized that in order to understand the whole, one could not do so merely by looking at a synthesis of the parts (Fourie, 1991). As a consequence of much criticism and many questions from the natural sciences, the inevitable paradigm shift occurred away from traditional Newtonian reductionism, linear causality and objectivity.

This shift of paradigm involved a shift relating to methods of inquiry and research designs, from viewing the data quantitatively to perceiving the information gathered qualitatively. This approach clearly differs considerably from the approaches used by scientists from the past whom Marshall and Rossman (1995) dubbed as being dispassionate. Because of the different assumptions underlying a post-modern approach the qualitative researcher becomes more involved in the enquiry at hand than researchers working within a traditional Newtonian reductionism approach.

Epistemological theorising led to the post-modern movement (1990-current) (Denzin & Lincoln, 1994) which is characterised by the belief that any previous paradigm does not have a privileged position and implies doubt that any method or theory has a universal claim to authoritative knowledge. As such post-modern thinking encapsulates both linear and circular thinking.

Qualitative research, methods and approaches that fall into the post-modern qualitative research category can be defined as "multimethod in focus involving an interpretive, naturalistic approach to its subject matter" (Denzin & Lincoln, 1994, p.2). Denzin and Lincoln assert that qualitative research embraces two tensions at the same time. Firstly it is drawn to a broad interpretive, postmodern, critical sensibility while secondly it is drawn towards a more narrowly defined "positivist, post-positivist, humanistic and naturalistic conception of human experience and its analysis" (p.4).

Research of a qualitative nature is thus compounded by being multimethod in focus attempting to secure an in-depth understanding of the phenomena questioned. Surrounded by a complex, interconnected family of terms, concepts and assumptions, qualitative research aims (ultimate essence) to increase insight into the human condition by placing less emphasis on collecting 'factual information' that will lead to verification. Rather, focus is more on improving the understanding of the human condition by describing how different individuals make sense of their lives. Hence, the qualitative researcher is led by an evolving and flexible design (Garbers, 1996) since no theory or paradigm in qualitative research has a distinct set of methods that can be called entirely its own.

Emphasis is placed on process and meanings that cannot be rigorously examined or measured in terms of quantity, amount, intensity or frequency. An 'intimate' relationship is created between the researcher and his/her subject using the understanding that contextual emphasis builds and shapes the enquiry. Adhering to this philosophy and

utilising an abstract outlook, the qualitative researcher is able to stress the socially constructed nature of reality.

The qualitative methodology and research design adopted by this study is as a result of seeking answers to questions that place emphasis on how social experience is created and given meaning.

As it is exploratory in nature, this study attempts to investigate the little-understood phenomenon of the hypnotic process in the context of sport injuries, and to identify important areas in order to generate hypotheses for future research. The attempt was not to discover the truth, but to explore a process. Conducted within an ecosystemic framework, this research is based on a cybernetic rather than a Newtonian epistemology. The research focused on the injured athlete within the context of sport. Participation and injury were perceived as representing the expression of the entire system within the wider ecosystem. As such, it seemed appropriate to use a design that was in line with cybernetic thinking and that was contextually based rather than Newtonian.

Cybernetic epistemology suggests that an observer actively co-constructs what is observed (Allan, 1994). This act of construction renders the notion of objective observation meaningless. Cybernetic epistemology calls for the researcher to explain research findings based on the theoretical or epistemological perspective which, in effect, determined and constructed that which was observed (Keeney & Morris, 1985).

Positivistic/post-positivistic criteria of internal and external validity, reliability and objectivity, although appropriate in traditional science, are replaced by the criteria of trustworthiness, authenticity, credibility, transferability and confirmation (Denzin & Lincoln, 1994). As explained by Allan (1994), proponents of a specific view/paradigm are convinced of their correctness regarding the legitimacy of their research. Different communities of scientists adhere to different criteria in order to determine the legitimacy of their research methodologies based on their perspective of the multiverse. Becvar and Becvar (1996) define multiverse as each individual living in and creating reality in a slightly different manner based on unique combinations of heredity, experiences, presuppositions and thus perceptions. Becvar and Becvar continue that "for each of us this reality is both true and valid. From this perspective we can no longer talk about a universe. Instead we must

concede that we live in a multiverse of many equally valid observer-dependent realities” (p.82).

From this viewpoint, living systems each have, within their different consensual domains, their unique version of ‘a legitimate truth finding’ which would be as valid in reasoning as that which is used by the next scientific community. The same is true for second-order consensual domains where second-order epistemological premises as a research methodology can only be legitimised by those who conceptualise according to this framework.

This study is based on a second-order cybernetic epistemology where the researcher becomes intrinsically involved in the observation and is part of the system under examination.

Method and Strategy of Inquiry

In keeping with this approach, the essence of respectful and caring dialogue in the studies that follow becomes imperative so that reality is not seen as ‘out there’ which would denote an objective/subjective split. Rather, reality is contextualised to facilitate and accommodate the needs and desires of all participants. Although ecosystemic-based paradigms have been criticized by authors such as Gergen (Becvar & Becvar, 1996) as a form of manipulation calling essentially to unconscious persuasion, this model serves as a form of autonomy, by not imposing a normative way of what a client system should be. The use of language through conversation is a vehicle through which meaning is perceived, made sense of and co-constructed by reframing, mutual feedback and interaction. The reframed perception creates the opportunity for alternative patterns of behaviour and becomes conducive to change.

Researcher bias is explicitly made known during the studies of the injured participants. It becomes important to mention this bias, since as explained by Reason and Rowen (1981), it maintains a clear perspective on the researcher’s involvement in the context. Further it allows not only the observer but also readers of the research an opportunity, as pointed out by Markman (1998), to consider the involvement of the observer in the role of the observed as concisely as possible.

The research was conducted with four injured Subjects of different personal circumstances, and involved working with each one through a series of six weekly

conversations. The first Subject, a school teacher, was recruited from the school at which she currently teaches, while two of the other Subjects were recruited from different physiotherapy practices in Johannesburg whom the researcher had previously approached about the research. The fourth Subject was a close, personal friend who wanted to partake in the study. In each case the first and fifth conversations with the Subjects involved a face-to-face dialogue while the second, third and fourth interactions were telephonic conversations. The last interaction involved a meeting with Subject 1 and telephonic conversations with Subjects 2,3 and 4. While working with Subjects 2, 3 and 4, it was co-decided that a follow-up telephonic discussion six weeks after the one-month period would be appropriate for further investigation. Subject 1, whose closing session took place three months prior to that of Subject 2, was the only Subject whose follow-up discussion, in the form of a face-to-face meeting, took place three months after the closing fifth session. Subjects 2, 3 and 4 were contacted telephonically six weeks after their closing fifth sessions.

Drawings were introduced during the first face-to-face session with each Subject. It was agreed by the participant Subjects and the researcher that drawings made by the Subjects of their perceived injury in its current state and subsequently one month from that time, would be appropriate guides for each of the Subjects in the visualisation process during self-hypnosis. According to Gawler (1998) there is a healing centre in the brain that has the capacity not only to control pain, but also to regulate healing throughout the body. Gawler (1998) suggests that imagery/visualisation, especially symbolic or abstract imagery, provides the link to this brain function and acts as a vehicle to carry specific messages (concerning the need to heal in a specific manner) directly to the healing mechanisms of the body. Alluding to its helpfulness in the treatment of cancer patients, Gawler also emphasises the use of meditation or hypnosis in combination with visualisation by asserting that the use of both together provides a stable foundation within which to heal.

In this study, the Subjects used the process of hypnosis experienced during the first session to hypnotise themselves for the remainder of the study. Self-hypnosis, also known as auto-hypnosis (Hilgard & Hilgard, 1975), has been taught to cancer patients in other studies where the subject produced her/his own results through his/her own efforts. In this way, the patient was believed to have gained a measure of control over a previously perceived helpless situation. This form of 'self-help' was illustrated by Maher-Loughnan (in Heap, 1988) who suggested that self-hypnosis could also be used effectively in the treatment of asthma and supported this claim through a study where the frequency and severity of asthmatic attacks was reduced. Through further controlled studies, Heap

qualified this suggestion by adding that the success of self-hypnosis in the treatment of asthma is probably due to patients learning and subsequently assisting themselves in a myriad of areas. One such area was where patients perceived a sense of being able to control their breathing patterns.

Self-hypnosis has presented its effectiveness not only with cancer patients and those suffering from breathing difficulties, but also in various other domains, such as obstetrics. In his study of pregnant women in labour, Cheek (1994) alluded to self-hypnosis as a tool of self-assistance by pointing out its usefulness in the preparation for easy and short labour.

Lawbaw (in Hilgard & Hilgard, 1975) remarked on the importance of self-hypnosis as a process whereby individuals re-introduce self-control into their context permitting a reconstruction of their reality. It was in this sense that self-hypnosis was introduced into the world of the injured athletes in this study.

Reconstruction and the co-creation of a new reality through reframing was introduced into the first session for each Subject through dialogue and was consolidated at the end of the first session by the researcher introducing the daily self-healing chart. This chart, carefully framed as 'daily self-healing', was given to each Subject to complete. The researcher requested that each day the Subjects indicate whether they had or had not done the self-hypnosis by making a mark in the appropriate block.

The first meeting with each Subject explored the Subjects ideas around hypnosis and the cause of their injury. Throughout this first dialogue, ideas about hypnosis established the consensual domain and were incorporated into the hypnotic experience. The Subjects' individual pertinent themes also became apparent. The researcher incorporated these themes to meet with the Subject's and researcher's needs. Hypnosis was introduced by the researcher who suggested that the Subject may prefer to re-arrange the context of the room before the hypnotic procedure began.

One case involved two extra observers in the first meeting, both sitting in to learn the self-hypnotic technique. The remaining three first meetings involved the researcher working alone with the Subjects. The physiotherapists who referred two of the Subjects from the respective physiotherapy centres were interviewed briefly to ascertain their perspectives in the context of the injury. Both physiotherapists alluded to the grade of injury and the time period they felt it would take for each Subject's injury to heal.

The process of the research is presented to the reader through four case studies. Diagrams of the injury drawn by each Subject respectively were used by the participant Subjects and the researcher to guide the process of self-hypnosis. In certain instances the researcher's own self-awareness is also presented in order to reflect the researcher's epistemological base and reality. In this way the researcher wishes to illustrate how the observer's epistemology presented itself within the broader system.

A meta-analysis follows each case study and explains the co-constructions from interactive dialogue and the data resulting from the communication relative to each study.

The paradigm followed in this study is based on a naturalistic set of methodologies. This suggests a relativist ontology (multiple realities) and a subjectivist epistemology. In each case study all participants were involved in reframing and co-constructing a different contextual reality through dialogue, using self-hypnosis/hypnosis as the exploratory tool and the sport injury as the point of departure. This is illustrated further in the following chapter.

CHAPTER 5

CASE STUDIES, META-ANALYSES & RESULTS

Four case studies of injured Subjects are presented and each study is described in narrative form. Central themes pertinent to each Subject's context is alluded to by the researcher who links this to her own context. In this way the researcher illustrates the inextricable participant observer-observed influence. Further, the studies show how employing the idea of hypnosis/self-hypnosis serves only as a tool to perturb the ecology of ideas around the defined problem (the injury) which is perceived by each Subject as the central theme. A meta-level commentary follows each case description. Each commentary elucidates the researcher's ecosystemic rationale behind each case. In the interest of confidentiality, the names of the Subjects have been changed.

Case Study 1

Subject	Kerry (pseudonym)
Process:	No physiotherapy, Only hypnosis.
Injury:	Painful hamstring.
Sport:	Tennis.
Age:	23 years old.

The First Meeting

The first meeting with Kerry, a second-year primary school teacher, took place in the school staff-room. She had injured her hamstring while playing tennis and found it difficult to walk. I had worked with Kerry a year prior to the injury, both as colleague and as a tennis player. During the year Kerry's perceptions of her context became clearer to me, and I noticed how often she was injured or suffered from a physical ailment. I perceived the injured hamstring as embedded in a complex of ideas about herself and her context.

The fear of being controlled by others was pertinent in Kerry's complex of ideas. She agreed to participate in the study, but wanted to understand more about the process to alleviate her tension and gain for herself a sense of control. I decided to explain the process to her to build the trusting relationship necessary between 'hypnotist' and participant.

Kerry asked if she would be fully conscious during the process. She voiced her fear of losing control and letting someone else control her. I suggested to her that if she chose to be conscious, she would be. My response was aimed at encouraging her to feel a sense of her own power and control. She seemed less uneasy and looked more relaxed.

The Second Meeting

The second meeting took place in Kerry's classroom after school had ended. She was wearing a tightly wrapped crepe bandage around her thigh and said she had found it difficult to walk up and down the stairs or sit on her classroom stool.

Although she was willing to participate in the study she appeared tense saying that she only had fifteen minutes for this meeting. I asked her to draw her injury as she experienced at the time and as she thought it might look in one month's time.

When I placed my chair opposite her and asked her how she wanted to organise the classroom before the hypnosis began, she closed the classroom door, thereby defining what was to follow as confidential.

Once again she alluded to her nervousness because she had heard bad things about hypnosis, and feared she would become "unconscious-sort-of-thing" and under the control of the hypnotist.

Based on her fear of losing control, I pointed out that different people conduct hypnosis in different ways, and emphasised that I would not be in control of her and invited her to keep her eyes open throughout the process. This eased her tension visibly.

We were silent for a while before I asked if she was aware of experiencing any tension (her arms were folded tightly across her chest and her legs were crossed). I explained my understanding that muscle tension wastes energy and that learning to identify areas of tension, and how to relax, leads to a more constructive use of the energy. Incorporating the theme of control, I suggested that heightened self-awareness could lead to greater control over the body. Kerry listened, bowed her head as if to feel for tension, unfolded her arms hesitantly and uncrossed her legs. I suggested that she breathe slowly and deeply. She breathed out heavily and commented that she needed to begin the process.

I reminded her that she had the choice of opening or closing her eyes while learning the hypnotic procedure. I mentioned that generally I preferred closing my eyes because it assisted me in keeping focused. I assured her, however, that the choice was hers since she was in control. She closed her eyes.

Lowering my voice to mark the beginning of the hypnotic process, I suggested that she relax before focusing on the injury. Smilingly, she commented that while it was a good idea she did not know how to do so.

I suggested that she think of a calm and peaceful place and imagine herself there. We sat quietly for a while. Asking her to concentrate on the tension in her body, I suggested that she might begin to notice changes and experience a sense of lightness. I waited.

Kerry became distracted when there was a knock at the classroom door and opened her eyes briefly and closed them again. Although the knocking also distracted me I ignored it and I suggested that she allow herself to return to her place of relaxation. She kept her eyes shut. Wondering (silently) about the significance of the distraction, I suggested that she focus on her injured hamstring, using the drawings as a guide. In so doing I was attempting to co-construct a reality whereby Kerry could rely on herself (symbolised by her using her own drawings to guide herself), and hence self-empower.

Again there was a knock at the door. Kerry opened her eyes looking angry. A child walked in. Kerry stood up and shouting angrily, asked what he wanted. Her tension and quick anger was apparent. The boy answered, she replied and he left the classroom.

Kerry apologised, sat down, closed her eyes and asked to continue. Feeling tense, I was aware of my own annoyance at the disturbances. I realised that my tension centred on time, and that Kerry had not locked the door to prevent intrusion during hypnosis. I linked this with my own need for clear boundaries and my own tension around intrusive encounters.

I took a deep breath, and released the tension I was feeling by visualising an exhalation of dark breath. Aware of my influence, I re-established my sense of ease and felt confident that I had not allowed my reaction to infiltrate Kerry's current apparent tranquillity. The intrusion became a significant factor for me as observer and I wondered about its significance for Kerry whose angry reaction was apparent to the boy.

Once again we resumed the hypnotic procedure. I suggested that she visualise her injury in one month from then using her previous drawing as a guide. I suggested that, as she felt more relaxed, she might see the pain in her injured leg relaxing too and 'melting away'. I was aware that we had now run out of time and sensed the tension.

Kerry indicated that she wanted to continue and visualised the injury a month into the future. I remained quiet for a while before suggesting that she open her eyes when ready. I suggested that she sit quietly, allowing herself to become aware of any differences she may feel.

She commented on feeling relaxed despite the two interruptions. I agreed that she appeared more relaxed than when we started and how quickly she appeared relaxed after being so angry. I said that I had felt tense as a result of the interruptions and had found it difficult to return to feeling relaxed. She looked startled saying that she hadn't been as angry as I had thought, just "bloody irritated" with the teacher who had sent the boy to give her the message.

I considered the symbolic connection between the interruptions and Kerry's lack of boundaries, and that Kerry's unexpressed anger was inwardly directed to create consistent tension and physical injuries. She dismissed the discussion and her anger by saying how easy it actually all was, how she enjoyed the process and that she would not have thought that hypnosis would be so easy. She commented enthusiastically at how she had enjoyed seeing the pain 'melt away', and how the diagrams had helped her to keep focused.

She asked if she should hypnotise herself in the same way that I had hypnotised her. Using her need for control as the point of departure and, introducing the theme of self-empowerment, I explained that in the following month, during self-hypnosis, she should use a quiet place of her choice, one that was free of possible distractions (introducing the theme of boundaries), focus on how relaxed she was, and then focus on the injury as it may look in a month's time. How she self-suggested was her choice.

We agreed that the 'daily self-healing chart' (carefully framed as 'daily self-healing...') would be a useful tool to remind Kerry to do the procedure. I said that I would contact her at the end of each week to see how she was *progressing*.

Follow Up Meeting After Week One

The follow-up meeting took place face-to-face at the school. Although the crepe bandage was still wrapped around her thigh, she was not limping. I asked Kerry how she was progressing. She admitted that the hamstring was a little better but that she still had difficulty sitting and taking the stairs. She said that she had practiced self-hypnosis daily except for one day when she had forgotten. Attempting to perturb Kerry's ecology of ideas in which the injury was embedded and defined as a problem, I asked if there was anything else she may want to discuss in relation to her level of relaxation and control. Her reply was that she didn't have time and needed to leave. Once again the theme of avoidance was apparent.

Follow-Up After Week Two: Telephonic Discussion

Kerry claimed to be feeling less pain in her hamstring and was able to walk with greater ease. She had removed the bandage. She did not mention her wider context and the researcher did not perturb the context further since, as born out of her avoidance, Kerry may have felt too uncomfortable to focus on contextual issues, other than her injured hamstring.

Follow-Up After Week Three: Telephonic Discussion

After the third week Kerry said that her injury was different and that the pain had decreased significantly. I asked if she had done anything else, besides self-hypnosis, to create greater comfort. She explaining that, in addition to the self-hypnotic procedure and not doing any form of physical activity, she had put ice on her leg and done some stretching exercises. She sounded and agreed to feeling more relaxed. She also agreed that she was experiencing a greater level of self-control. I suggested that through self-hypnosis she may have allowed herself to connect with a greater sense of self-control and in doing this, experience a greater sense of her own power, which was relaxing. She sounded unsure of the connection but allowed the possibility to exist by saying that it could be true. Once again, she expressed her need to leave explaining that she had a lot to do.

Follow-Up After Week Four: Closing Session

The last meeting took place four weeks after starting with the self-hypnosis. Her daily self-healing chart indicated that Kerry had missed doing self-hypnosis only four times

in the one month period. She told me that her perception of hypnosis had changed and that she had realised that “*you* can actually control what is happening consciously”, and that “*you* decide what you are going to do, not someone else controlling you”. She went on to confess how frustrated she had been before learning self-hypnosis and had regarded her physical symptoms as negative, focussing on the pain and the restriction. Asking about the self-hypnosis, she said that she focused on feeling relaxed as opposed to feeling pain and restriction. Asking after the role of the drawings, she said they had helped her to feel more in control and guided her structurally and positively towards healing herself. She added that “once I had focused on that I started seeing the injury healing in my mind”. Perturbing the context further, I suggested to her that creating visual goals seem to create structure in her life, which allow her to experience greater self-control. Without committing herself to an answer she thought about the connection.

Asking about her level of relaxation, she said she had focused more readily on feeling relaxed during self-hypnosis. Remarking that she seemed more relaxed, I suggested it may be because she experienced more self-control. She agreed and said that feeling in control did enhance her level of relaxation.

Shifting focus to the previously defined problem, I asked about her leg. She admitted to rare twinges but on the whole, no pain at all. Enquiring whether she had gained anything new or different from her participation over the past month, she said that she had learned to think differently about pain and hypnosis as positive as opposed to negative. She included that she had learnt how to relax. Agreeing that she did seem more relaxed, I suggested that she was more positive and possibly more confident about herself. She agreed. She attributed this to feeling greater self-control. I concluded the discussion by suggesting that the change in how she thinks about herself might allow her to influence her future differently.

Follow-Up Meeting After Three Months

In the follow-up meeting, Kerry said that she had had no more problems with her hamstring. Saying that she had not practised self-hypnosis consistently but had used the technique two or three times on a sore thigh, she had found the outcome positive because the pain had disappeared. Reflecting on her level of relaxation and self-control, Kerry said she generally was tense and did not feel in control of her life.

In keeping with the theme of avoidance, she diverted the dialogue, saying that she had not experienced any other injuries, except for a pinched nerve in her back that had become a chronic pain. To 'cure' the pain she had sought out physiotherapy. When I suggested that she may want to use self-hypnosis as a tool to help her relax as she had with her injured hamstring, Kerry replied that physiotherapy would be more beneficial. Kerry had framed a definition of her present context in the manner she felt comfortable with, and I decided to no longer perturb the system by further questioning.

Meta-Perspective

At the outset, Kerry had attributed great power to hypnosis, to the extent of believing that the hypnotist would have total control over what she thought, and that being hypnotised meant being unconscious and "not knowing what goes on around you". This attributed power created the possibility of using self-hypnosis as a tool in exploring the ecology of ideas in which the injury (the defined problem) was central. The healing of the injury was used as the point of departure and Kerry made it clear that she believed that self-hypnosis would help her leg feel better and heal more quickly.

The consensual domain (Maturana & Varela, 1987) was initiated by a discussion about what Kerry thought hypnosis to be and her questions about ecosystemic hypnosis. Further, closing the classroom door, the arrangement of the chairs, and eye closure were tacitly agreed to be appropriate behaviours toward the induction of hypnosis and clearly served as a punctuating ritual. Post-hypnotic-induction rituals served to further confirm the experience as hypnosis. These rituals were established by such behaviours as breathing, eye-closure and the tone of the researcher's voice, all of which served as a punctuating ritual. Opening of the eyes and sitting quietly served as a "coming out of hypnosis" ritual. Post-hypnotic rituals involved weekly discussions around the post-self-hypnotic experiences.

It was essential to create a hypnotic experience for Kerry where she felt in control of herself throughout the dialogue, as well as one that was *incongruent* with her idea of being "controlled" and/or "not being conscious". Hence the researcher co-constructed a context in which Kerry could experience a sense of her own control within a preconceived framework. Therefore she was given a choice to keep her eyes open or closed during the procedure, and given as much control as she would need.

The first session involved an experience of intrusion and distraction in the form of one of the school children. Her tension and aggression, recognised by the researcher in her work with Kerry as colleagues, was confirmed. The researcher also recognised her own tension during the distraction experience and chose to disclose it appropriately during the post-hypnotic discussion. The researcher's aim was to normalise Kerry's awareness of her apparent tension. However, Kerry refuted the researcher's sense of her anger and tension and dismissed them, commenting instead on the ease of hypnosis, and how wonderful she felt. Her dismissal opened up the theme of avoidance, and the idea that Kerry's unexpressed anger was inwardly directed, leading to consistent tension and physical injuries. Not locking the classroom door to prevent intrusion pointed to Kerry's possible lack of boundaries. This gave rise to the possibility of unformed boundaries between Kerry's emotional level and physical level, causing tension and ultimately injury. By focusing on relaxation as a theme, Kerry would be less inclined to become tense, would feel more in control of herself, and in doing so, would feel more powerful to affect her context positively. This would lead to a new reality and problem (the injury) dis-solution.

During the course of the next three interactions it became clear that Kerry was going to limit the discussions to her injured hamstring only. She kept the conversations short and focused on her injury. When asked about how she was feeling, her response was limited to her experience of the pain around the injury which was "getting better". It was the researcher's perception that Kerry's experience of the injured hamstring was exacerbated by the themes of tension and her need to avoid how she was feeling emotionally.

The self-hypnotic procedure that Kerry had to practice for one month at home, in a place of her choice, created a context in which she could feel more in control, spend time learning how to relax herself, become more aware of the difference between her tension and relaxation, and ultimately, to self-empower. The self-hypnotic intervention was meant to perturb (Maturana & Varela, 1987) the way Kerry organised herself around this context which would allow her to entertain other possibilities. As a tool, self-hypnosis became part of the system to address the ecology of ideas that would evolve the defined problem (the injury) towards dis-solution. Self-hypnosis was not seen as a powerful tool to induce change, although this is the way Kerry saw it.

The idea around thinking differently, greater control by feeling more relaxed, and self-empowerment, was acknowledged in the last meeting. Kerry admitted that she had focused on being relaxed and had experienced a greater sense of control in her life. Further, it was established that Kerry's experience of control was assisted because she

followed structured guidelines with set goals. She acknowledged that she had learnt to think differently about pain by reframing it and that generally, she felt far more relaxed. The researcher supported and reinforced her statement and alluded to Kerry having allowed herself to think differently about her self-control, which in turn allowed her to think and cope differently with herself and her injury.

The outcome of the interaction with Kerry over this time confirmed that Kerry's experience of her injured hamstring was exacerbated by tension and emotional avoidance.

The follow-up meeting after three months found Kerry free of pain, not only from the previously injured hamstring but also from a subsequent injured thigh. Kerry also mentioned that she had gone for physiotherapy for a chronic pain in her back diagnosed as a pinched nerve. Using her previous belief that hypnosis had been powerful, not only in the context of the hamstring but also her injured thigh, the researcher questioned Kerry about the use of self-hypnosis in the context of her pinched nerve. Kerry replied that she preferred to continue physiotherapy, framing it and the physiotherapist as a positive means of healing for her present condition, thereby dismissing the previously learnt use of hypnosis.

Although Kerry pointed out that her thinking had changed from negative to positive in relation not only to hypnosis, but to her general level of tension and relaxation, the researcher feels that the process would have been more effective if the more sensitive areas in the context of Kerry's life had been perturbed further. Furthermore, not only does the time factor need to be acknowledged as a possible healing tool for Kerry's injury, but also the fact that Kerry was able to verbalise her feelings about her injury over the month. The follow-up meeting after three months was very different. It appeared that Kerry had abandoned her belief in her own power and in the process of self-hypnosis in favour of the more conventional type of healing methods such as physiotherapy.

Since a change in her thinking around the process of tension, relaxation and pain seemed to be initiated through the process of the self-hypnosis study, the question remains whether Kerry's reframed definitions in these areas had also been abandoned or, were they simply being avoided? Given this situation, a follow-up study seems appropriate.

Case Study 2

Subject	Sarah (pseudonym)
Process:	Hypnosis and physiotherapy.
Injury:	Injured calf muscle.
Sport:	Netball.
Age:	31 years old.

The first meeting with Sarah, a provincial netball player, took place on the day after she had injured her calf-muscle.

The First Meeting

The first meeting occurred at the physiotherapy centre. Sarah consented to audiotaping. She was not sure how she had injured herself, but said it had happened during a game the previous evening, and that it was the first time she had been chosen for a Provincial netball team, and the first time she had been injured. She was determined to speed up her recovery before the following Thursday's first tour game.

Sarah did not know much about hypnosis, but commented on having attended numerous hypnosis shows. She had never been hypnotised and said a friend had been hypnotised to help her deal with traumatic childhood issues. Sarah had witnessed the positive effect that hypnosis had had on her friend. Sarah's opinion was that hypnosis is very powerful but that in order for it to work, one had to be open to it.

I asked how she was feeling about her injury. Her response she was that she was angry, resentful, and disappointed since this it was her first time on a provincial side. She went on to draw a parallel between her age and the effect on her body physiologically, how at the age of 31, it was taking her far longer to get fit. She attributed her muscle injury to her age and commented that she was getting older.

She also alluded to how limited her time was and how it affected her training schedule. Sarah has two children, rushes around a lot, and had very little time for herself to relax. She also referred to the demands of her job as a university lecturer.

I asked Sarah to draw her injured calf-muscle as she perceived it then, and perceived of in a month's time. Discussion around setting and sitting positions, set the

scene for hypnosis. Sarah said she preferred the room darker and adjusted the light accordingly. She changed positions with me because she decided she would be more comfortable to sit on the chair I was seated on, than on the plinth. Because Sarah had attributed power to hypnosis and to me, the hypnotist, the changing of positions could be attributed to Sarah's need to ease her discomfort and place herself in what she might have perceived as the seat of 'power'. Further, a plinth in this setting is used for injured patients. Hence, by changing positions, Sarah had begun to reframe her current reality by taking herself out the injured position symbolised by the plinth. It was agreed that Sarah's organisation of the room was symbolic of her co-constructing a new reality.

Just as the setting for the hypnosis began we were interrupted by a knock on the door and one of the physiotherapists walked in saying that the room was needed for another patient. I checked with Sarah whether she would be comfortable moving to another setting, and she agreed. This occurrence illustrated her general willingness and openness to change.

The second setting, an office with two chairs, was quieter than the first. The first setting suggested a patient-expert relationship, while the second setting seemed to suggest more equality in the relationship. Sarah said she felt more comfortable in this room which seemed to extend our expectations of an hypnotic environment. I gave Sarah the drawings again. Being presented with a choice, she chose to keep her eyes closed. I lowered my voice slightly saying that visualisation could be a powerful part of the hypnotic process because of the pictures one could create as guidelines. Sarah nodded and I quietly asked if she knew anything about visualisation. When she confirmed that she did, I asked if she would use visualisation in the process of hypnosis. She nodded that she would.

Focusing on her injury as the point of departure, I asked if she would share how she injured her calf-muscle. She explained that while catching the ball, she felt something "happening" in her leg, after which she had to leave the field because of the pain.

After a moment of silence I asked Sarah whether she was aware of her body while sitting in the chair and she nodded. I requested that she allow herself to become aware of areas of tension by scanning her body, and asked Sarah if she knew what 'scanning' meant. She nodded and said that she felt tension in her shoulder and thigh area, explaining that the tension in her thigh area was caused by how she was sitting. She chose to remain seated as she was rather than shift her position.

Continuing I asked her to take herself *off* to a place of relaxation in her mind. Deliberately framed in this way, *off* was used as a further point of departure. Using Sarah's comment that she has little time to herself, I suggested that she allow this place to be *her* place to find time for herself to relax. I asked her to describe it to me. She described it as an "isolated place with lots of trees ... a place of safety". Needing to feel safe appeared as a theme, not only physically in the domain of sport, but emotionally safe too.

Drawing her attention to her shoulders I suggested that they were feeling more relaxed. I asked her to continue breathing deeply while being aware of relaxing any remaining tension in her body.

After a short while I suggested that she scan from her feet upwards to her head. I asked her not to focus on her calf for the moment but rather on relaxing all the other muscles of her body. On a metaphysical level, I was thinking of the ecology of the injury forming part of the general ecology of the Subject. Metaphorically, if a Subject's body reflects his or her context, perturbing other 'muscles' would symbolically, be a perturbation of Sarah's general ecology of ideas. Unprompted, she placed both feet on the floor and unclasped her hands. I suggested that she concentrate on the sensations in her body and notice the changes, if any. I intimated that she may want to describe her progress and as she did her voice was very low and much slower. The lids of her eyes appeared heavier and almost inaudibly she said that she was relaxed.

Using the first diagram as a guide, I asked her to focus on the pain of her injured calf muscle and attempt to experience the injury as it felt then. Interestingly, Sarah responded that she was not experiencing pain, but anger and resentment. I asked if she wanted to explore these two areas and she said that she would feel resentful towards the rest of the team if she was unable to go on the tour. As she spoke, her level of relaxation changed. This was indicated by a change in the tone of her voice that was no longer slow and quiet. I acknowledged her feelings. The importance of this acknowledgement became evident in the study later on. She fell silent as she completed her explanation.

When asked if she was still in her place of relaxation she said no. After some moments she said that she was "back there". Asked how she was feeling, she replied that she felt calm. I guided her to focus on how she may experience her injury in a month's time, once again referring to the drawing as a guide. I suggested that after she had done that she may want to remain in her place of relaxation until she was ready to open her eyes. A brief moment of quiet was followed by what appeared to be a slight panic from Sarah

A brief moment of quiet was followed by what appeared to be a slight panic from Sarah exclaiming "Oh, I can't open my eyes" and subsequently forced her eyes open quickly. She explained that she was enjoying feeling relaxed so much that she didn't want to *come out*, and didn't want to open her eyes.

The post-hypnotic discussion began with us talking about Sarah's apparent fear at not being able to open her eyes. She explained that she had feared being unconscious and that I would take control even though she was aware of being in control of herself and conscious throughout the whole process. Again she mentioned how she enjoyed feeling "completely relaxed", which she said was a first for her. I referred to her feeling anger and resentment rather than pain from her injured calf. I suggested that there was a possible connection between her feeling relaxed and being free of pain. Sarah replied that she found the analogy interesting but was in a rush and needed to know what I required from her, and where she should practice the self-hypnosis. Taking her need for control into account and introducing the theme of self-empowerment into the system, I suggested that she practice self-hypnosis wherever it was she would feel most comfortable.

Part of my objective was to respect the power Sarah attributed to hypnosis and to me as the hypnotist, while co-constructing a context with her where she could experience her own competency and make decisions based on her own *expertise* rather than mine. We agreed that practicing self-hypnosis in her office at work would be effective since she felt comfortable there. The she asked what would happen if she did self-hypnosis before going to sleep, and was unable to wake up the following morning. Before I could respond, she re-framed her thought, saying she was joking and knew that that would not happen.

She asked what she should say to herself while practicing the self-hypnosis. Once again, creating and reinforcing a context of consensus rather than *expert-client*, I asked what she thought she could say and she suggested the same process we had used. When I commented how confident she sounded and how determined she seemed, she acknowledged both feelings saying that she was going to play in the tournament.

Sarah's reply to my question about what she would do with the anger and resentment if it came up again in her self-hypnosis, was that she would avoid it. We agreed that avoidance could lead to a build up of negative energy. I suggested that she may want to acknowledge her anger and resentment as she had today during hypnosis and perhaps visualise it transforming into positive energy. She agreed. (Instead of reframing it for her, I could have let her go with the avoidance of the anger and resentment because to her,

avoidance was positively framed. Clearly, the need for reframing the energy was mine rather than Sarah's and this was confirmed in subsequent dialogues).

I asked Sarah to fill in the daily self-healing chart (deliberately framed as daily self-healing) as a method of keeping track of the times she practiced self-hypnosis. She asked me if I would call her, and I confirmed that I would, in two days' time, and then on a weekly basis. I asked Sarah if she was feeling relaxed and she replied that she was. She also said that her calf was painless and that she was afraid to put pressure on the leg by walking in case the pain should come back. When I asked if this was what she was expecting, she said it wasn't and walked effortlessly to the door. She had re-framed her idea, and was not limping.

Afterwards, I spoke to her physiotherapist who labelled her injury as a Grade 1-Grade 2, which he expected to take *at least* three weeks to heal, if not more. He was of the opinion that Sarah would be unable to play in the tournament the following week because the muscle was badly injured and was unlikely to be strong enough. In his experience, calf-muscle injuries take longer than other injuries to heal properly. He felt that if Sarah did play, she would probably damage the calf further. He said that Sarah was taking Voltaren anti-inflammatory tablets to help reduce the swelling, was icing the injured area and was doing mild stretching exercises.

Follow-Up After Two Days: First Telephonic Discussion

Asked how she was progressing, Sarah said she was "feeling great" and had practiced self-hypnosis in her office for 20 minutes the previous day. She also had been icing the muscle. She explained the process of self-hypnosis that she was following and told me that the change that had taken place in her calf was that she was able to walk faster without any pain. Saying that she was aware of calf pain only when on her toes, she was not allowing herself to be aware of her calf muscle, supposedly putting it out of her head. She had returned to her positive frame of avoidance of the actual pain itself.

I refrained from disclosing this recognition since the issues around reframing avoidance from negative to positive energy was my need rather than Sarah's. She said that she had gone for her second session of physiotherapy earlier that day and that the injury had somehow affected a nerve in the leg, and even though there was no pain, her balance had been affected. It was the aim of physiotherapy, she said, to re-teach the muscle in the leg to *re/ax* and contract appropriately, since these properties had been

damaged. (This idea of re-teaching the injured muscle to relax could be connected to Sarah needing to find time to relax, and reinforces the earlier connection between the ecology of the injury forming part of Sarah's general ecology of ideas). Her physiotherapist had suggested that she began running on the treadmill.

Because Sarah had time constraints, her context could not be perturbed further. Saying that I would call her the day before she left on the netball tour, she ended by self-suggesting that she'd definitely be able to play in the tournament.

Follow-Up After Week Two: Second Telephonic Discussion

When asked her how she had progressed, she first alluded to her context replying that she had not done self-hypnosis over the past two days because of time constraints. She changed focus to her leg, saying that she had not been back to physiotherapy. Her shift of attention from context to injury whereas previously it had been from injury to context, seemed to suggest that Sarah was beginning to think differently about her reality, born out further by not having gone for physiotherapy. Although Sarah explained it as due to time constraints, the possibility existed that the pain in her leg had reduced in severity. If the pain had been intense she would have been unlikely to miss treatment.

She mentioned that her calf muscle was feeling a bit stiff and attributed the stiffness to not having done her stretching exercises consistently. When asked about her self-hypnosis and how she was going about it Sarah replied that until two days ago she had been practicing the self-hypnosis in her office at work and had included a new dimension of 'seeing' herself on the netball court, playing the game with the leg feeling stretched and warm.

Interestingly, in the self-hypnosis she would see herself wearing a bandage around the calf-muscle. She was giving herself the message that a bandage was holding her calf and that her calf would be supported. In effect, it appeared that Sarah was attributing power to the strength of the bandage rather than to herself, and that she needed support. She seemed to find this support in physiotherapy and the bandage, which allowed her *leg* to feel fine. It was interesting that she had not mentioned self-hypnosis in her being "OK". She had not mentioned self-hypnosis (self-empowerment?) as part of being safe from injuries. However, seeing that she had framed the presence of a bandage, and physiotherapy as keeping the leg "OK" (a positive reframe) I chose not to perturb this idea since she was leaving the following day for her netball tournament.

I was aware of the tension in her voice and that her replies were short and to the point. According to Sarah, even though the past few days had been tense, she was feeling relaxed. Again I sensed her hurry and asked if there was anything more she would like to discuss about her progress and healing. She replied that she didn't, and that she was fine.

Follow-Up After Week Three: Third Telephonic Discussion

Asked how she was progressing, Sarah related that a strange thing had happened during the netball tournament the week before. A team mate rubbed her leg which Sarah strapped up (making her visualisation a reality). The leg had been feeling sore and she felt that "it wouldn't last". She had suggested to herself continuously that her leg was not going to hurt because hurting was not an option, that there was no-one else to play for her, and that she could not let her team down. So she put "it" (the pain) "behind" her (a parallel can be drawn to Sarah *taking herself off* to a place during self-hypnosis, and behind her) and that by the end of the day (playing), her leg was fine.

She speculated that playing in the tournament may have healed her leg because by the end of the first day, "it" (Sarah's reframe of her pain), had disappeared. Sarah had re-framed her pain as 'it', giving me the sense that she had objectified and removed the pain from her immediate reality. She said that she had done all the exercises advised by the physiotherapist. With every game she felt the leg improving, and had continued "keeping *it* behind her". The second day was the same, the only difference was that she had not strapped the leg up at all saying that she could even stand on her toes "without feeling anything".

I perceived Sarah's confidence and drew her attention to this. She agreed, framing confidence as "feeling good". Since Sarah had not mentioned the self-hypnosis in any way, I asked if she applied it while on tour. She said that she had on the Wednesday before leaving for the tournament, but that she hadn't practiced self-hypnosis at all while away because "there were too many people in the room". She said that she had talked to herself, saying things like "it's not sore" and "it won't happen". For me, Sarah's self-suggestions implied attributional changes and hence a co-construction of a different reality.

Changing the focus of the dialogue, Sarah stated that she had been sensible about looking after her calf muscle as she ritualistically rubbed the calf, stretched it, and slept with a plaster on her calf to keep it warm. She assured herself that it all helped to heal her muscle. I was aware of Sarah's transference of power onto the more concrete tangible

externalities and how she attributed her healing to the external factors of the warmth of the plaster, the security of the bandage, and the stretching exercises prescribed by her physiotherapist. Sarah's ecology of ideas suggested her own lack of power, a theme which emerged earlier on in the study when she had formally attributed immense power to hypnosis and to me as the hypnotist. By focusing on the externalities, Sarah defined them as being healing and created a context in which the healing took place.

Unbeknown to Sarah, the continuous positive self-talk and insistence on putting the pain "behind" her could be seen as in itself self-hypnotic and used to construct a different reality. Similarly her strong belief that the self-adhesive medicated plaster, warm-up and stretching would ensure that the leg would not hurt or injure further. For Sarah hurting "was not an option" because she could not let her team down. (In this way Sarah could have been suggesting that emotional hurt was not an option because in its expression she would let herself down). I wondered about Sarah's relationship with her husband whom she had not yet mentioned. However, suggesting to herself that her leg would not hurt she had re-framed the pain. She "put it behind" her and believed that this was a positive action in the healing process. In effect, it was by reframing the pain (as 'it') and using other factors as support mechanisms, that Sarah was co-constructing a different reality.

Sarah said that she was ready to be active again. She felt that the practice of self-hypnosis would depend on how her calf was feeling and whether *she* felt that it was necessary. By this response Sarah had indirectly attributed power to self-hypnosis as one of her healing tools and claimed greater self-empowerment. Arrangements were made for the final meeting at her office.

Follow-Up After Week Four: Closing Session

As planned, the last meeting with Sarah took place at her work. Using her previously injured calf muscle as the point of departure, I asked if it was feeling stronger. She affirmed that it was, and that she had recently gone on a 10km run without any difficulty. Interestingly, other muscles were stiff from the uphill run, and drawing a parallel between these other muscles, as reflecting her general ecology of ideas, I wondered about areas of her life that she had not openly explored.

She mentioned wanting to have called the physiotherapist to ask how it had been possible to have played in a tournament with an injury where it had healed with activity instead of deteriorating. Saying she had not called because she would have been

embarrassed had he forgotten who she was, or been disinterested, or misconstrued the call as a come-on. Nevertheless, she would have liked to tell him that she had not re-injured the muscle and that she was fine.

Sarah told me that when she first went for physiotherapy, the physiotherapist asked her if she had a deadline for the calf to be healed, and she mentioned the tournament in two weeks. The physiotherapist expressed his scepticism saying that calf muscles usually take the longest to heal. Sarah had replied, "Well, this one won't". The physiotherapist then went on to say that she would probably not be able to make it through the tournament without pulling the muscle again. At the time, although he had asked what she and I had discussed, Sarah chose not to tell him. Using this as an opportunity to perturb her wider context, I asked after her apprehension and she replied that she had not wanted to be demeaned, or told that self-hypnosis would be unsuccessful, so had terminated the conversation with him.

Sarah then alluded to her *husband's* scepticism of "this kind of thing" and "things to do with psychology", and defended him by saying that, "men in general are sceptical about this." In my mind I drew a parallel between Sarah not wanting to pursue the conversation with the physiotherapist (a male whom she possibly perceived as demeaning of her) and her husband's scepticism about what she believed, which she generalised to all men. Further, Sarah's reply, "Well this one won't" attests to the theme of feeling emotionally unsupported by her husband, and her need to prove and assert her own power (hence the theme of self-empowerment). I asked if her husband had been present during the telephonic follow-ups, thinking that his presence may have contributed to Sarah's 'time-constraints' and she confirmed that he had.

I perturbed further by suggesting that her tension during our telephone conversations could be indicative of her need for acknowledgement and support from her husband. She hastened to assured me that her tension was only because she herself had been occupied with other activities when I had called.

Shifting the focus of the dialogue, I asked Sarah about the messages she had given herself and she replied that she felt they had influenced the healing. She also mentioned that her team members had been supportive and had affirmed that "there is just no way that you can get hurt". Unknowingly Sarah then confirmed the theme of support and acknowledgement with, "They all helped by encouraging me to stretch and by rubbing my leg".

These themes were confirmed again when Sarah exclaimed that the study had impacted her life, and that it was 'weird' to have someone interested in a part of her life that "no one else gave a damn about". Alluding directly to the theme of support, she said, "... the fact that you were there as a support system assisted in the healing because you were interested in my progress". Her need for support and acknowledgement was resoundingly confirmed.

She was more relaxed in general, and had experienced only one day of tension over the past month. She felt positive about self-hypnosis as a healing tool and insisted that it played a more important role than what she called "the physiological structure". I asked if she was going to continue self-hypnosis, given her experience. If it would help to relax her six-year old daughter, she said, she would teach her because she is so easily distressed. Ignoring the relationship I had alluded to between self-hypnosis and relaxation, Sarah confirmed that she would use self-hypnosis if ever she was injured again or experienced any physical problem.

She mentioned marking the daily self-healing chart consistently, even when she had not consciously or actively practised self-hypnosis, even though she did "think about it all the time" and "gave myself positive messages" (Intimating that Sarah was consistently perturbing and reframing her reality).

In conclusion, I asked if there was anything else about the study she wanted to discuss. She said that because her calf healed so quickly - much quicker than anticipated - she had wondered if she had just imagined the injury. Reminding herself that it had been real, she asked for my opinion about the healing. I explained the contextual nature of the study and its exploration using self-hypnosis as a tool, I also explained the perturbation of Sarah's general ecology of ideas and how through dialogue and re-framing she co-constructed a new reality for herself. As a consequence the defined problem (the injured calf) became less of a problem until it eventually disappeared.

Using my disclosure as an opportunity, Sarah said that she had been for some psychotherapy sessions for a domestic situation but that the hypnotic sessions were very different because they were more empowering.

Again the theme of self-empowerment came up, this time more directly. I elected not to probe the domestic situation referred to, feeling that it would be inappropriate given the context and the aim of the meeting. However, I did ask Sarah if she had expected the

psychotherapy sessions and this study to be the same. She said that she had not and that she enjoyed participating in this study. I assured Sarah of the confidentiality of the study, and concluded by acknowledging her increased levels of relaxation and confidence.

Follow-Up Telephonic Discussion After Six Weeks

Sarah measured her progress by having run her first half-marathon and her self-confidence which had increased. She said she had not been practising self-hypnosis but had been self-motivating by positively 'self-suggesting' messages of achievement and personal success. We agreed that she was more relaxed and positive, and that she felt more self-empowered. She reminded herself which calf had been injured, and marvelled, "It was as if it never happened". In keeping with her 'new' reality and the themes of self-empowerment and acknowledgement, I ended the conversation reiterating that she was more confident than a month ago, and that her personal growth had been exciting to watch.

Meta-Perspective

At the outset, Sarah had attributed great power to hypnosis and to the researcher - the hypnotist. The hypnotic intervention required this reality be taken into account. It was part of the process used by the researcher to cultivate Sarah's belief that hypnosis is very powerful, and use her belief to perturb her ideas and co-construct different ways of thinking. Given that from an ecosystemic viewpoint the observer / hypnotist has no linear effect on the client system (Fourie, 1992), the researcher was aware that the hypnotic technique was merely to act as a catalyst / vehicle for creative change.

From the very first interaction and dialogue, it was apparent that Sarah had little time for herself, and found it hard to relax. According to Sarah she had rushed onto the netball field without considering the importance of stretching her muscles. Given this, the consensual domain appeared to adhere to the idea that self-hypnosis could act as a tool to perturb the ecology of ideas around the defined problem area (the injury). By employing visualisation in the hypnotic process, Sarah could become more relaxed, create more time for herself, and through suggestion, think differently about her injury. Her goal was to play in the netball tournament without discomfort in her leg.

One of the most prominent processes/themes in the follow-up discussions and the two face-to-face meetings with Sarah, was her external attribution of power. This was apparent in the amount of power she believed hypnosis held; and later by comments like:

"the rubbing, the stretching and the medicated plaster must have had something to do with it"; "the tournament must have healed it"; "they told me I can't get hurt"; and "I must ask the physiotherapist what happened at the tournament, maybe he can explain it."

There were times Sarah attributed power to herself, even though she may not have actively recognised doing it. Comments like, "I gave myself positive messages all the time", or telling the physiotherapist, "Well not this one." suggested that Sarah was not only self-empowering, but thinking differently about her reality. However, internalisation of power was seemingly less obvious than the external attributions.

Sarah's need for support and acknowledgement was prominent in the closing meeting where she mentioned her husband's scepticism of anything related to psychology, and that "men in general" were the same. Also, she mentioned that the researcher's support was "weird" because the researcher cared for a part of her life that "no-one else gave a damn about".

The telephonic dialogues were in and of themselves a continuation of positive suggestion. Each conversation was framed in a way that perturbed Sarah's existing reality. The perturbation began with the question "How is your *progress* coming along?" This implied progress. By Sarah's suggestion that her calf was improving and that she was feeling more relaxed, she was reframing her reality and constructing a new one. This construction became evident when Sarah focused only on positive messages and used self-hypnotic imagery, if only in thought, as a tool in the process of her healing and self-empowerment. Further co-construction was obviated because of Sarah's awareness of the researcher's support (as someone who "gave a damn") and her perceived support from her team members. Sarah had co-constructed the expectation that she would cope and play the tournament without any pain.

A further indication that the process of co-constructed realities was at work was Sarah's use of self-talk (self-hypnosis) to overcome the pain of the injury, and how her team members helped by telling her that there was just no way she could get hurt. Together everyone within the consensual domain co-constructed a new reality by perturbing an existing reality and re-framing the definition of support around pain.

Sarah did not include self-hypnosis as one of the tools in the healing process directly but alluded to its power by affirming that she would definitely employ the use of self-hypnosis in the event of a further injury. Although the perturbation of existing ideas

occurred, and Sarah co-constructed a different reality, it would be counterproductive contextually to overlook the contribution made by the more tangible forms of intervention, namely anti-inflammatory medication, ice and physiotherapy. Further, it would be a mistake to exclude the themes of *increased relaxation*, and *support* both from the researcher (as perceived by Sarah) and from her team, all of whom served to perturb Sarah's context and assist in its re-definition.

This study illustrates that self-hypnosis cannot be seen as having "healed" Sarah's injury, but rather as a tool used to perturb an "old" reality (Fourie, 1995, p.305). The problem (the injury) was deconstructed in language and replaced with a newly constructed reality. It appears that through a process defined as self-hypnosis, Sarah unearthed important contextual themes, all of which contributed towards the process of healing the injury.

Case Study 3

Subject	Joshua (Pseudonym)
Process:	Hypnosis and physiotherapy
Sport:	Rugby
Injury:	Torn hamstring
Age:	26 years old

Joshua heard about the study through the physiotherapy centre I had previously approached.

The First Meeting

The first meeting took place at the physiotherapy centre immediately prior to Joshua's second physiotherapy treatment. He had injured his hamstring playing rugby at his club. At first he had not considered the injury serious, and started physiotherapy only after it became very painful. He limped into the room, wearing a bandage around the injured area. He was using ice as well as anti-inflammatory medication (Voltaren). He and the physiotherapist agreed that he would be able to start with light training in three weeks, and that it would take at least six to eight weeks for full recovery.

According to Joshua he had not been hypnotised before and he knew little about hypnosis. He appeared apprehensive about it and answered questions monosyllabically. After the two drawings, he referred to himself as "not much of an artist", indicating a possible lack of self-esteem. However, he called the drawing of the injury as it would look like in a month's time, "a completely healed leg", indicating an expectation of full recovery in less time than the six to eight weeks previously predicted.

In an attempt to start defining the situation as one of hypnosis, I closed the window against the noise outside and enquired whether Joshua would prefer to sit in a chair or lie on the plinth during hypnosis. He chose the latter, but rested his head on his hand and faced me. I enquired whether he was relaxed in what seemed like a fairly awkward position. He sounded frustrated when he replied that he was relaxed.

Although I asked him twice more whether he was uncomfortable in that position, he insisted that he was not. I realised that although he attributed control and power to me as the hypnotist he also experienced a strong need for control himself.

I suggested that Joshua 'take himself off' to a chosen place of relaxation. He was still looking at me. I closed my eyes and talked softer. I asked him to share what his place looked like. I opened my eyes and saw that his were closed but fluttering slightly. The tone of his voice was lower as he described the beach, the water and the difference in climate. His eyes opened again. I closed my eyes and asked Joshua how he would describe himself. He said that he was energetic, spontaneous and has a good sense of humour. He had found it difficult to relax, especially during the last few months. His wife was in the final stages of her pregnancy and he was nervous because she could go into labour at any time.

I shifted the attention away from his wider context and asked Joshua to focus on his leg. He had not pulled a hamstring before, and had felt tense and anxious the night of the injury, occurring towards the end of the practice session.

Joshua was perspiring, possibly an indication of his nervousness. It had been clear that uncertainty left Joshua feeling tense as evident by his uncertainty about the hypnotic process and his need to start quickly.

Joshua was unable to associate the connection I had made between his injury and his general discomfort over the past few months. I asked him to focus on how his body felt in the visualised environment and quietly he said he was feeling relaxed. Shifting the

dialogue to his injury I asked him to allow himself to experience the pain of the injury as he had drawn it. Reframing pain as discomfort, I asked Joshua to focus on the second diagram of “a completely healed leg”. I suggested that the more relaxed he felt, the less discomfort he would experience and that he should allow himself to remain with that feeling for a while.

After about 30 seconds Joshua quickly opened his eyes and asked if he could sit upright on the plinth. He commented that his leg was no longer sore, and that the tone of my voice had helped him relax. He pronounced this to be “amazing”.

Post-hypnotic discussion continued as I asked Joshua about opening his eyes as quickly as he had seemed to. Without elaborating, he agreed that he had opened his eyes quickly and stated repeatedly how relaxed he was. Asked where his tension and anxiety was, he jokingly said that he had left them at the sea. According to Joshua he often felt tense and he expressed the hope that self-hypnosis might help to alleviate his tension. We agreed that self-hypnosis seemed to be a valuable tool in the process of relaxation.

I asked Joshua to practice self-hypnosis daily in a tranquil setting, and to focus on relaxing and to view his injury as “a completely healed leg”. He agreed to the process probably being more effective in a quiet place and settled on the couch as the most suitable. Joshua stated that practising self-hypnosis would become “my own personal time to relax”. Asked if he often took time to relax, he replied that the kind of relaxation he practised was different to this experience. He framed the experience as an opportunity to relax differently. I agreed, affirming that relaxation takes on different forms and that he seemed to have found a way that worked for him.

I asked him to mark the daily self-healing chart and reminded him that I would call him on a weekly basis to monitor his progress. When asked how his leg was feeling, he described it as relaxed. He was aware just how tense his muscle had been, even after slight relief from the first physiotherapy treatment, and how different after hypnosis. Joshua then mentioned his initial fear of me, admitting he was afraid I might do “all kinds of funny things” to him and take control of him. I had concluded that thanking him for his honesty about disclosing his fear, would communicate respect for him in his earlier difficulty and would contribute to building a trusting relationship and assist with disclosure of other contextual issues. He concluded the interaction with an enthusiastic avowal to continue self-hypnosis after the study to maintain his newly defined relaxation.

Follow-Up After Week One: First Telephonic Discussion

When asked how he was progressing, Joshua said he had started practising rugby again. Though he was no longer limping, he said, and walking and sitting with ease, he was only jogging. He framed his existing discomfort in the hamstring as stiffness rather than pain, and explained it as a consequence of lack of exercise. Joshua had reframed his current context and in thinking differently about his reality was constructing an alternative

I asked Joshua if he was aware of feeling more relaxed in general. He said he was not, but expressed surprise to find himself more patient. He felt that self-hypnosis had helped in the speed of the healing. Once again he said that his muscle felt much better after he talked to me. Joshua had placed vast importance on being relaxed, and asserted how it had assisted his injury to heal. He had been off the anti-inflammatory medication for four days and was no longer going for physiotherapy of which he had attended five treatments.

Joshua was practising self-hypnosis every evening and said it was helping him to "feel so good" and relaxed. I agreed that he sounded more relaxed than the first time we had met and suggested that using self-hypnosis as a tool to relax seemed to be assisting him towards full recovery. Agreeing with my suggestion, he expressed amazement at the power of self-hypnosis.

After establishing that there was nothing more that Joshua wanted to discuss, I reminded him that I would contact him the following week to monitor his progress.

Follow-Up After Week Two: Second Telephonic Discussion

Joshua described his leg as stronger. He had been sprinting and training as hard as the other team members. He was still feeling very relaxed and expressed strongly that he would continue self-hypnosis after the study had ended because of his certainty that self-hypnosis was responsible for his continued feeling of relaxation.

I used the theme of relaxation to expand the context of the dialogue. Continuing the process defined as hypnotic at the first meeting by both Joshua and myself, I asked Joshua about his increased level of patience alluded to during the previous week's discussion. Joshua was disinclined to have the conversation, replying that he was happy with the way

he was feeling. Respecting his response, I concluded the conversation reminding him that I would call again the following week.

Follow-Up After Week Three: Third Telephonic Discussion

Joshua was "back in form" and maintained that he was feeling "100%". He was sprinting during practice sessions and was pleased that he was playing well even though overweight for his position on the field. His leg felt fine. Again he attributed his recovery to the power of self-hypnosis. He confessed that before the study he was of the opinion that "hypnosis was bull... for people not right in their minds" but that he changed his mind after the first meeting. In this way a new reality was co-constructed. He had not trained or practised self-hypnosis since the previous week because his wife had been delivered of the baby. Despite this, he felt relaxed, as did his hamstring.

He explained how, when practising hypnosis, he emulated the first session in the physiotherapy rooms. According to Joshua self-hypnosis had helped him recover and return to sprinting a week earlier than anticipated by the physiotherapists. He would recommend it to any sportsman.

Attending to his wider context, Joshua mentioned how serious he was about teaching his wife self-hypnosis because she was "very stressed out". Even though he felt exhausted, he was excited about having a baby and felt that the exhaustion was all part of the process. I was aware that he was possibly framing exhaustion differently for himself. Joshua's communication was less monosyllabic as he continued to express his amazement at self-hypnosis, and self-suggested how it was helping him. We arranged for the last meeting to be at the physiotherapy rooms. Still attributing power to me (the hypnotist), Joshua thanked me for all I had done. In keeping with the themes of equality and reciprocity of power, I thanked Joshua for his commitment to the study and to his progress in all areas of his life.

Follow-Up Meeting After Week Four: Closing Session

The final session at the physiotherapy centre held a specific importance for me because on a symbolic level it meant the completion of a process. Joshua was still feeling positive and excited about his progress. Although he was waking up at night to assist with the baby he was also finding time each evening to practice self-hypnosis. He expressed

concern about falling asleep during self-hypnosis but re-assured himself in a self-suggestive sentence that he would feel great when he woke up the following morning.

Joshua was also finding self-hypnosis beneficial in relaxing the after-game muscle stiffness. He communicated easily, and without interrupting his flow of thought, he reflected on his progress and how much earlier than predicted he had begun training. He attributed this to self-hypnosis.

Alluding to his wider context, I asked Joshua about his general level of relaxation and patience. He said he was far more patient than before the study, and regarded this as necessary, especially so at this time in his life. He commented that his fatigue was due to waking up to attend to his baby daughter so that his wife could rest. He was sure that his patience with his daughter would not have been the same, had he not done the study, and concluded that he would never know either way. With certainty he attested to experiencing a greater level of relaxation, daily, and attributed this to the process of self-hypnosis.

Perturbing the context further, I asked Joshua about his wife's involvement in the study and how she viewed his practice of self-hypnosis. He said that she was not involved in the study other than being curious about whether hypnosis worked, and he had assured her that it did. He commented on his distress at his wife's level of stress and said that he was aware of "the pain on my wife's face from all the stress of having the baby". He expressed certainty that self-hypnosis would help her to relax. Without giving me an opportunity to interject, Joshua pointed to his own fatigue and lack of fitness asserting that he probably was in need of some vitamins to 'pep' himself up.

I suggested that Joshua seemed more in touch physiologically than he had been in the first meeting we had, and how much more communicative he was. He agreed and spoke about his difficulty in talking seriously about issues but that the study had somehow allowed him to feel more "open" to discussion and hence more supportive. I suggested that this new way of behaving must be a part of him that his wife appreciated. He agreed and recalled that his support had brought her to tears, and believed that "there is actually no other answer" except the power of self-hypnosis.

He had also changed towards his game of rugby. He was more focused, less inclined to waste time "like some of the guys on the team" and that he was more assertive. He recognised his assertiveness when he expressed his need to his coach that they play more as a team and less as individuals.

A new theme had emerged in Joshua's context. With the birth of their baby, a sub-system change had taken place in his life. The spouse sub-system now included the parent sub-system. Joshua's awareness of this and his need that he and his wife work together as a family, communicated itself when he told his coach that the team (symbolised by the family) should be less individualised and play more like a team. Joshua's focus as a husband and father communicated itself to his rugby context where he reframed and redefined his perception of himself as a player.

The connection husband↔father↔player had evidently become part of Joshua's goals. He alluded to being a father and the increased responsibility that it brought. He shifted focus and talked about being a good rugby player at school, and having achieved Southern Transvaal status. In the past month he again realised his potential, his confidence as a "great player" (and as a person), and his goal was to confirm his potential by making the Presidential Transvaal Team in two seasons' time. It appeared that by perturbing his ideas through self-hypnosis, Joshua and I co-constructed a different reality by reframing his self-perception. This was evident in the reframe from "good" player to "great" player. His changed perception was further augmented by a changed diet and by training differently.

He highlighted what seemed an additional area of self-change, saying that "now I'm opening up my mouth and telling the coach what I want". Before the study, he had not stood up for himself but generally did whatever coaches told him to do. I reinforced his new frame of reference and acknowledged his confidence. He agreed and added that he had made it clear to his coach that he, Joshua, would no longer go onto the field without warming up and stretching properly. I affirmed his behaviour by saying that he seemed to have developed greater insight into his needs and awareness of how important the health of his body was to him. He agreed and framed this as being more self-aware.

The final meeting ended with a reminder to Joshua of his newly defined co-constructed reality. I summarised our meaningful interactions and acknowledged Joshua's positive support of his wife, the patience he had developed, his confidence in communicating, his renewed insight into his physical health, and his seriousness towards and focus on his rugby. Joshua acknowledged all the affirmations and agreed that he had worked consistently on self-hypnosis, and that it did suggest his willingness and commitment to self-improvement.

I thanked him for his participation in the study and wished him continued success. He firmly shook my hand thanking me for all my help.

Follow Up Telephonic Discussion After Six Weeks

I asked after Joshua's continued self-improvement. He was feeling very good and his leg was fine. He practised self-hypnosis during times of stress or insomnia. I confirmed that for him self-hypnosis had always been a good method of relaxation. He agreed, self-suggesting that he used it specifically to help him to relax. Aware, from his tone of voice that he seemed rushed, I asked Joshua if there was anything else about the study he wished to discuss. Declining, he said that he was pleased to have participated.

Meta-Perspective

From the outset Joshua had attributed great power to hypnosis and to the hypnotist even though he had not verbalised it until the very last meeting. Joshua's unmentioned attribution of power, communicated rather through the perspiration on his forehead and interpreted by the researcher as nervousness, made hypnosis a useful tool to work with, even though his limp handshake and lack of eye-contact alerted the researcher of a possible dis-belief in hypnosis. However, these two former observations further opened up the thematic possibility of Joshua having a low self-esteem. This theme was affirmed in the last session, when Joshua admitted that he had thought hypnosis "was bull", yet had been afraid of the researcher controlling him. Perceiving himself differently communicated itself by his assertiveness towards his coach, and his firm handshake at the end of session four.

Joshua's initial nervousness was evident in his facial perspiration. The researcher undertook to alleviate his anxiety by starting the dialogue with general questions about his injury. Questions and comments led Joshua to verbalise that he was unfamiliar with hypnosis, except that it involved the hypnotist asking questions. A consensual domain was reached with the agreement that the hypnotist would ask the questions and in doing so, hypnotise Joshua. Joshua's setting up of the room and the position he took (lying down, then propping himself up as the procedure was about to begin). Even though the position seemed awkward to me, Joshua had defined it as appropriate for hypnosis, and in so doing, created the scene for hypnosis to take place.

The induction process became interesting because, although it involved visualisation and breathing, it only involved eye-closure for Joshua once he had seen the 'hypnotist' close her eyes. The change in the tone of the hypnotist's voice was agreed as appropriate induction behaviour. The opening of Joshua's eyes and 'coming back' served as a waking-up ritual. Post-hypnotic rituals involved discussion around Joshua's experience that further confirmed the occurrence of hypnosis. During hypnosis it was imperative to focus on the actual healing of the injury as well as the wider context because it was important to create an hypnotic experience that was congruent with Joshua's agreement (healing his injury) to participate in this study.

Various themes became prominent throughout the first half of the study as perceived by the 'hypnotist': themes of anxiety (termed, nervousness by Joshua); fear (of the unknown); impatience; tension vs relaxation; and power and control. Follow-up telephonic discussions served as punctuating rituals and importance was attached to each one beginning with the hypnotist framing a question around Joshua's progress, and ending the conversation with an acknowledgement of progress made. The telephonic dialogues also focused on Joshua's self-suggestion of increased relaxation (co-constructed through reframed dialogue with the hypnotist) and patience, which were identified by Joshua as due to self-hypnosis, and had affected his sporting and social life positively.

Weekly follow-up discussions revealed the emergence of themes such as greater self-awareness; more effective communication; increased patience and relaxation. It was during the third follow-up discussion and then in the closing session, that Joshua appeared to have confirmed his belief in the power of hypnosis and in the researcher, the hypnotist. Joshua thanked the researcher for all that *she* had done and attributed the pace of the healing to the practice and experience of self-hypnosis.

The theme of directed confidence also emerged with Joshua asserting himself with the coach and re-recognising his playing ability, "...I'm still a great player...". An additional theme, worth mentioning, is his awareness of his 'supportive side' in relation to his wife, an area that Joshua claimed not to be aware of, and so attributed to self-hypnosis. These themes all created the possibility for Joshua to deal more effectively with his torn hamstring and the associated pain of the injury, which seemed to 'knit together' as the process unfolded and the themes presented themselves.

The study illustrates that self-hypnosis acted as a tool to perturb (Maturana & Varela, 1987) the way Joshua saw hypnosis. This was done through the use of language

and was constructive because Joshua perceived self-hypnosis as the powerful technique that healed his injury. It became clear that Joshua began to attribute the power of self-hypnosis to other areas of his life, especially in relation to the family system and the spouse relationship. The hypnotist ended the final meeting by acknowledging all the areas that were co-constructed. The firmness of Joshua's handshake indicated a different reality to the limp handshake at the beginning of the study. It was the researcher's need to close the study with positive suggestions that could be continued as self-suggestions by Joshua.

Although the process of self-hypnosis in the healing of the injury seems to have met with favour by Joshua, other areas need to be included as part of the healing process since no-thing occurs in isolation (Becvar & Becvar, 1996). The physiotherapy treatments, the anti-inflammatory medication and the time factor are important considerations in the healing process, as well as the rest that Joshua took from work in the first week that the injury had occurred. Further, the researcher was aware that greater perturbation of existing themes could have occurred if the study had continued for longer than one-month.

Case Study 4

Subject:	David (pseudonym)
Process:	No physiotherapy, only hypnosis.
Sport:	Weight training.
Injury:	Painful mid-back.
Age:	25 years old.

David, a friend, had hurt his back while weight training in the gym. He wanted to participate in the study because he regarded hypnosis as a healing tool and was interested in learning more. We met at his home one day after the injury had occurred.

The First Meeting

David's anxiety at participating was quite obvious. He was tense when he asked me where I would like to hypnotise him and we agreed on the bedroom where he could lie flat.

He was experiencing intense pain on the right, mid-back section, beneath his rib cage, and this made it difficult for him to stand upright. The injury was a recurring one of at least five years, which David speculated, was probably due to the old injury not healing

properly. He said that normally he would have to stop training for three to four weeks, depending on how much pain he was experiencing.

The pain in his back made breathing difficult and was preventing him swinging a golf club. The previous evening he had taken an anti-inflammatory, Myprodol, which had in the past alleviated the pain until it gradually subsided and he was again mobile.

In David's experience the injury and its associated pain, without treatment, took four weeks to heal. Sometimes, five or six weeks after having injured the same area, he would be aware of back pain when waking up. His back had been painful for three weeks before the current injury, which he thought, might be because he was playing golf. His right shoulder felt slightly painful too.

He had not gone for physiotherapy because of the expense and feeling too lazy. He was, however, a firm believer in physiotherapy and had had treatments for other sport injuries in the past. His choice to "be hypnotised" was as a result of his interest in different healing techniques and because he felt that hypnosis might heal his back.

His anxiety was apparent by the slight tremor in his hands. I guessed that his nervousness was caused by the power he may be attributing to the concept of hypnosis. I asked whether he had ever been hypnotised before and he explained that he was frightened of hypnosis because it suggested having no control. He asked me if I had ever hypnotised myself. Sensing the extent of David's fear and feeling that self-disclosure would be appropriate and reassuring, I said I often do self-hypnosis. David seemed somewhat eased.

Further dialogue around hypnosis revealed that David did not really know what happened during hypnosis, explaining it as a possible dream state and being out of control. He explained that on shows "hypnotists were in control of all those people" and his nervousness and fear centred on not being able to get out of the hypnosis. I asked what he thought would happen if that fear became a reality, and jokingly he replied that he would probably "lie dormant" for the rest of his life "listening to people's voices".

Alluding to his disclosure, I asked if he felt that he was taking a risk participating. He said, "Who says I'm taking a risk?" I realised that my perception and bias had framed his reality as risk-taking, which was not the case for David. Attempting to rectify, I re-framed the question and reflected that participating in this study was, to him, a new

experience. Agreeing, he said it was something that he was curious about. A recognisable, different reality had been co-constructed and David's existing fear had been reframed as curiosity.

Using his need for control as the point of departure, I asked David how he would like to organise the room. He dimmed the light and said that he preferred to lie down rather than to sit. Jokingly he asked if I was going to put him into sleep for the next forty days. These jesting comments were David's way of alleviating his fear, and I replied that he attributed great power to me. He nodded ruefully and asked how long the hypnosis would take. Recognising the consistent theme of needing control, and wanting to co-construct a different reality with David, I asked how long he would want it to take. Saying that he would like it to take five minutes, he ended by saying "No, we'll work on it" and then asked if I would make him play better golf.

At this point I made direct reference to David's nervousness, and recognising my need to comfort what I perceived as his vulnerability, I gently reframed his nervousness as anticipation. David agreed that this perception was accurate because he did not know what he was going to face, but was curious. He admitted to experiencing this type of anticipation in unfamiliar situations. By knowing what lay ahead, he was able to control his anxiety. Once again introducing a reframe, I asked him if it was anxiety or excitement he was feeling since both had similar physiological properties. He said that it was anxiety.

We agreed that the setting was conducive for hypnosis, and David promptly lay down on the bed. Just then, his wife knocked on the door and asked if she and Barbara (pseudonym), a mutual friend of theirs, could observe. They were curious about the hypnotic process and wanted to observe how I, as the hypnotist, actually performed hypnosis.

David had no objection to their presence. They both sat on the floor. I asked David to draw the injury as he perceived it at present and then to draw the same area a month later. He asked his wife how she thought he could draw his pain and his ribs. She assisted willingly, expressed her excitement about being part of the study, and was perplexed about how she could be involved if she knew nothing about hypnosis. She said to her hypnosis was "something in the mind", a process whereby the subject is made to relax and is then put under "some kind of something". David completed his drawings, explained them to us and lay down.

David closed his eyes and waited to be hypnotised. I continued the dialogue with his wife, asking her if she thought hypnosis was powerful. She replied that the input of energy and effort of the person being hypnotised determined its power. She said she had not ever been hypnotised.

I asked David and his wife about their expectations of hypnosis. David's wife replied that she was expecting hypnosis to give David and her some form of relief, if not long-term then definitely short-term. Asking her to explain what she meant, she said David's relief from back pain, her relief from concern, and from David's constant complaining. The laughter elicited by this comment introduced a sense of ease especially for David, who sat up and joined the conversation about the benefits of hypnosis. Barbara sat quietly, observing.

David expected hypnosis to help in some way but was not quite sure how because he did not know what was to about to happen. Although he agreed with his wife that hypnosis might bring him some form of relief, he felt greater certainty that physiotherapy delivered a definite result after four or five sessions of treatment.

Everyone, except Barbara who was silent, agreed that hypnosis was powerful enough to create some sort of difference. The consensual domain had been established and everyone was ready to begin hypnosis. At that moment David asked me to pause because he decided that he would rather switch off the light because he would feel much better if no-one could see his eyes.

Using his wife's definition of hypnosis, a form of relaxation, as the point of departure, I asked David to breathe deeply and allow himself to become aware of the tension in his body and if he could, to exhale the tension. I suggested that as his tension melts away he would experience greater relaxation and asked him to think of himself in a tranquil place, and suggesting that this would increase his relaxed state. I asked him to share this image with us.

He described a calming beach setting with white sand, blue water and sunshine. He mentioned feeling relaxed after the pressures of the day. Two themes emanated, identifying colour and calm, and the relationship between daily pressure and feeling tense. Expanding on the latter, I asked David about his experience of pressure. He replied that he had been feeling very pressurised recently and very tense. I combined the two themes and asked David to become aware that his tension was 'melting away' as he lay on the white

sand. Scanning for tension from his feet up to his scalp, and allaying his need to know what was to happen next, I suggested that he would begin to feel a tingling sensation which meant that he was allowing himself to become more and more relaxed.

I looked around the room, David's wife had closed her eyes in the quietness and from Barbara's lowered head in the corner of the room, I noted that both observers were involved in the process. I suggested to David that he might be feeling more relaxed to which he replied in a perky voice that he was. His tone alerted me to the possibility that his fear of losing control was distracting him from what he had previously referred to as 'going under'.

I lowered the tone of my voice and used colour imagery in the dialogue that followed. I suggested that David choose a colour to mentally wash through his body and melt any remaining tension away. Co-constructing a reality whereby David chose a suitable colour reinforced the theme of self-empowerment. I waited a while and then suggested that he may be feeling more relaxed. This time his voice was deeper and his tone lower. Shifting focus, I asked David to pay attention to his injury and suggested that he choose a colour that represented the pain in that area. David was quiet, as were the two observers. David agreed that sharing how he was feeling at the moment was in itself healing and in a lowered tone he explained the pain in his back to be throbbing and that he was feeling pressure in the area.

I asked David how he had felt when he hurt his back. He said he felt tired and that the pressure he experienced in the injured part of his back and his tiredness was similar to the pressure and tiredness experienced daily in his work life. He was feeling especially tense because he was doing work that he did not enjoy. Keeping within the context of work, I asked him about his job. David did not feel in control at work because it involved being submissive and doing what he was told to do without question. He experienced pressure being controlled by his boss, who treated him disrespectfully and placed an enormous and unrealistic workload on him. The themes of disempowerment and lack of assertiveness became apparent. There was silence that continued for a while without interruption

Continuing the focus on the injury, I asked David to choose another colour to filter into the area of discomfort (reframing the pain) and wash away (water theme that David had alluded to previously) the throb, the pressure, and the tension. David was silent. Introducing freedom of choice consistently, to suggest greater self-empowerment, I

mentioned that a serene colour may be beneficial for this part of the hypnosis but that David should choose a colour that he preferred.

David was quiet. I suggested that he allow himself to experience that level of relaxation as long as he wished and that when he felt ready to do so, he could open his eyes and remain in the dark or switch on the light. Only a couple of seconds passed and David switched on the light, by which time both his wife and Barbara had opened their eyes.

Post-hypnotic discussion began with Barbara who explained her relaxation as deeper than ever before. David's wife exclaimed that she had fallen asleep. She remembered looking at the clock to time the process, but could not remember what had happened next and wondered whether it was the darkness that made her so sleepy. Asking if she had heard me give David the option of opening his eyes when ready, she replied that she had not. Barbara said that she had steeled herself to open her eyes when David switched on the light. She had felt great reluctance about opening her eyes because of how pleasant the experience was but did not want to impinge on the study by still having her eyes closed. (This may be because Barbara preferred not to be the centre of attention, and/or, to her respectfulness of the objectives of the situation).

She described her experience as "floaty and heavy", and said she had already gone into a relaxed state while David and his wife were exchanging ideas about hypnosis. I explained that I had sensed this and had felt that it would be more appropriate not to interrupt her defined context in any way.

David had found himself worrying about how I would get him out of "going too deep", and succeeded in distracting himself by concentrating on the neighbour's voice outside. However, he did manage to relax and explained that he had felt his hands tingling. Barbara interjected that her hands had felt as if completely numb. David alluded to the safety of the darkness, feeling calmer that no one could see his eyes, and as if he was in the room alone with me.

Using this to perturb his wider context, I asked David if he felt pressurised when he was the centre of attention. When David said that he did, Barbara questioned why he agreed to let them observe the process. Before David could reply, his wife interjected, saying that the kind of hypnosis that had just been done was not the same as "that sort of (clicks fingers) where 20 years later the same hypnotist has that same power over you and says start barking like a dog and you do". She suggested that this hypnosis might be the

same thing, but that it was done in a different way since in “normal hypnotist” shows, the hypnotist seemed to have control over the entire audience making them do what he asked them to. She asked if this hypnosis was similar, questioned the danger of constantly being in a hypnotic state, and asked whether my effect on David would last all the time. Then Barbara introduced a reframe by commenting that what happened on stage was a different approach with a different objective. Stage hypnosis was entertainment and this was self-hypnosis to heal an injury.

The post-hypnotic consensual domain was created as each participant constructed an understanding/definition of what had just transpired. David reiterated that the type of hypnosis that had just occurred was not what one saw on stage but more like relaxation. At his wife's request, I explained that it was my opinion that they had hypnotised themselves by my questions and suggestions. Through active, verbal participation I joined the co-construction. David's wife insisted that she had fallen asleep rather than been hypnotised, nevertheless questioned the possibility since there were obviously different forms of “relaxation”. We all agreed that there were different forms of *hypnosis*. David and his wife defined what had happened as a different form of relaxation, safer than “normal hypnosis” because I had not controlled them. Barbara chose to define the process as pure self-hypnosis.

David shifted the discussion to the colours he had chosen during hypnosis and described how he equated blue with relaxation, red with the throb and pain of the injury and white with healing. Barbara asked with curiosity how David's back was feeling and he explained that although he could still feel “a twinge” (David had reframed pain), it felt far more relaxed.

I asked David to practice self-hypnosis on a daily basis and mark the daily self-healing chart. Using his definition of hypnosis as a different form of relaxation, I asked David to focus on feeling relaxed whilst doing self-hypnosis and incorporate his chosen colours to help him do so. He was to focus on ‘melting away’ the twinge in his back. I suggested that his wife practice relaxation with him since they both share the same definition of it being a form of relaxation. (This would reinforce the apparent, existing theme of mutual support in unknown situations). I said I would speak to him in a week to check on his progress

Follow-Up After Week One: First Telephonic Discussion

David said he had hurt his back in the same place while carrying boxes. He had not been doing daily self-hypnosis. However, he and his wife practiced together the previous evening. He focused on his back and his wife wondered if practicing "relaxation" would help her ease the pain of a spastic colon (irritable bowel syndrome) attack. Self-hypnosis had worked well for his wife because her pain had disappeared and she managed to fall asleep soon after. In keeping with his definition of hypnosis, I asked David if the relaxation he practiced had the same positive effect on him as it did on his wife. He said it was difficult for him to say but that the discomfort in his back was "much easier". David had reframed the pain as discomfort and so had constructed a different reality. He mentioned with surprise that he had gone back to gym six days after the first session of "relaxation" and that he experienced only a slight twinge when lifting weights. He also felt relief from the massaging received from his wife. (Interestingly, relief, a theme alluded to previously, had transpired for them both. However, the separate forms of relief that each had expected, occurred by way of connecting physically with each other, rather than separately through the "healing technique" of hypnosis).

I suggested that he and his wife seem to be using self-hypnosis effectively together as a tool to relax. He agreed stating that his wife's stomach, although still tender, was not as stabbingly painful as it would normally get. In suggesting that it was getting easier for David to focus on feeling relaxed, he agreed and said that he concentrated on feeling relaxed before focusing on "taking the pain away" in his back. (If the ecology of the injury forms part of the general ecology of ideas, and the body reflects the context, David had perturbed his 'old' reality by focusing his whole body (context) on feeling relaxed (rather than tense) before focusing on the initial, defined problem (injury). His point of focus had been perturbed, since David's initial focus was on healing the pain in his back).

David followed the procedure learnt from me. He still turned the lights off. It was interesting, that although there was no one present who could see David's eyes, he still switched the lights off before practicing self-hypnosis. The possibility existed of a ritualistic connection between self-hypnosis and the theme of darkness which was born out later in the study when I learnt that David did associate the two. He was also concerned about falling asleep while doing relaxation. I suggested that self-hypnosis was helping him to relax enough for his body to want to sleep. He denied this and explained that his general difficulty sleeping at night was related to stress and tension. Using these themes to perturb further, I asked him what he meant. He was unwilling to elaborate and was also reluctant to

discuss anything further about self-hypnosis and relaxation. Respecting this, I ended the conversation suggesting that there was a positive relationship between his choice of colours and his relaxation, that he continue using colour during relaxation, and that he incorporate an additional colour to 'melt' away the stress he had alluded to earlier. I reminded him that I would call in a week's time to note his progress.

Follow-Up After Week Two: Second Telephonic Discussion

When I called David about his progress he reported that he was feeling good. I suggested that self-hypnosis had helped to strengthen his back. He was unsure if his back was strengthened but said that it was 90% recovered. When I asked if he recognised how much more relaxed he was feeling he asked if I was asking about his personal life or generally. I considered the distinction David had drawn between personal and general and replied that I was referring to his personal life since general change, for me, was an extension of personal change. David said that at night he felt more relaxed "after the therapy" (interesting that self-hypnosis was being perceived as therapy) but not really so during the day. I suggested then that self-hypnosis was helping him to feel more relaxed generally. He agreed it was.

David said that he had not done any weight training over the past week and emphasised his belief that rest and refraining from "physical stress" on the back should be considered as contributing factors in the healing process. I agreed and suggested that rest, together with relaxation (David's reframe for self-hypnosis), were measures that David could employ to re-charge his body from the stresses of his week and he agreed that a combination of both worked well for him.

He had not practiced daily self-hypnosis. When he self-hypnotised, usually at night before going to sleep, he would get no further than his "place of relaxation", which I reframed as his "stress free environment", before falling asleep. Because he did not get to visualising the actual injury, he felt that he had not actually self-hypnotised. I suggested that he had used self-hypnosis as a tool to help him relax and to sleep better at night. David disagreed that it helped him to sleep better, emphasising that he had not slept at all the night before and so was very tired anyway. He did agree that somehow it had enhanced his level of relaxation.

Two themes surfaced from this interaction. The first involved the theme of avoidance, evident by how David described himself falling asleep just before focusing on

his injury, and intimating that he finds it difficult to look at/confront 'painful' areas of his life. The second theme illustrated David's 'all-or-nothing' approach. Expanding on the latter, I asked David if he was someone who needed to complete a task entirely or otherwise feel that he had not done it at all. He agreed and defined himself as an all-or-nothing person.

He changed the direction of the dialogue and discussed the importance of physical touch (massage and/or physiotherapy) in combination with the relaxation process being more effective than self-hypnosis on its own. David quickly acknowledged that his understanding was purely a subjective one and that someone else may well have a different perspective. I acknowledged his self-awareness and non-judgemental attitude. He agreed that he respected individuality, but avoided further discussion about himself personally by shifting the focus back to injuries and expressing his belief in the importance of the physical element in the healing process.

I was aware that the dialogue had come full circle and that by not elaborating he was possibly avoiding issues that made him feel uncomfortable. This was confirmed when he said there was nothing else he needed to discuss. I reminded him that I would call the following week to see how he was progressing

Follow-Up After Week Three: Third Telephonic Discussion

I asked David about his progress and was immediately aware, from the tone of his voice, of the amount of tension he was experiencing. He said that his back felt fine but that he had been sick with the flu for the past week. He said that in the week just past he had experienced immense pain in his right shoulder and across his chest, had decided to take the anti-inflammatory, Myprodol, and do self-hypnosis. By the following morning the pain had disappeared. I asked David what he thought restored the comfort (reframing ache/pain) to his shoulder. He regarded the hypnosis as largely responsible and explained how much easier it had been to visualise an exact pain as opposed to a general one. Because of this he was able to relax quicker and fall asleep more easily. The security of exactness correlated with David's need for control. This was also seen in his taking Myprodol with the knowledge that the end result would be that of pain relief. He had managed to carry the self-hypnosis to the point of incorporating colour as a means of 'melting away' the shoulder pain. He experienced his whole body tingling and was relieved that he had managed to capture "real, real relaxation".

David had been practising self-hypnosis daily even though he had flu. He contracted the flu because he was run down. Asking him to explain about being run down, he replied that it was probably stress from work. I asked about the kind of stress he had been experiencing and he replied, "Everything".

David did not elaborate and I sensed his discomfort. I chose not to perturb the context further and suggested instead that self-hypnosis may be effective in alleviating his flu symptoms. He was unsure how he could utilise it in this context and asked for my input. Using the theme of self-empowerment as a point of departure, I suggested that we co-construct a reality in which David could experience and trust his own abilities. We agreed that he could use colour to visualise the tightness of his chest 'opening up' and employ an additional colour to help him relax, since relaxation for him was generally physically healing. I perturbed the context further by asking David what it was that he needed to 'get off his chest' and what was 'sitting so heavily'. David suggested that it was probably work and his demeaning boss.

His boss was putting a lot of pressure on him and David felt angry every day. We agreed that David's anger was something he needed to 'get off his chest'. Going with the sense from previous discussions that David tended to avoid uncomfortable situations, I asked if he had addressed his boss about the issues he was angry about. David said that he had not and could not because he could not change the man's behaviour. Creating a reframe, I suggested that David may be able to change his own behaviour, to which he agreed, adding that he did not know how that was going to solve anything. It was something he would have to endure for the year and then it would be over.

Using the theme of avoidance versus taking action, I suggested that David would assist himself if he addressed his boss. He retorted that he could not, and added that he did not know. Sensing both reluctance and anger, I asked David if perhaps he felt uncomfortable confronting people in authority. He admitted that he did and that in this situation it would be better not to confront. We agreed that it would be better to address his boss through self-hypnosis and visualisation, and co-created the image of David 'lifting his boss off his chest'. By doing this David would co-construct a different reality using self-hypnosis, introduce the themes of enhanced self-confidence and self-empowerment, and the possibility of eventually being able to confront his boss directly, hence changing his current reality. David sounded tired and said that he wanted to go to sleep.

I ended the conversation by intimating that the new exercise could help him to 'loosen' his chest. I said that I would call in a week's time to note his progress and set a final meeting with him.

Follow-Up After Week Four: Closing Session

I asked David how he had progressed. He said that he felt very good and that his back was completely healed. He attributed his present condition to a combination of rest, refraining from physical training and self-hypnosis. He felt that rest was the biggest factor in the healing process because there was no physical strain on his back.

I drew attention to his level of relaxation to which he said that he was still feeling tense and that self-hypnosis had not contributed to his relaxation. He felt that it had helped to alleviate the pain in his back, but that it had done so in conjunction with no physical training. David said that he had practiced self-hypnosis daily except in the last three days because he had not experienced any discomfort and did not feel the need to do so.

Reflecting the conversation from the previous week, I suggested that the tightness in his chest seemed to have disappeared and that the visualisation exercise of 'lifting his boss off his chest' was successful. David was unsure about this and said that although he tried the exercise three times, he felt that it did not really work. He was aware of the success of self-hypnosis on his back rather than on his chest. He had gone to his doctor for his chest and had received antibiotics for bronchitis. I asked David how he distinguished between self-hypnosis and visualisation. He said that one could incorporate visualisation into self-hypnosis which according to him, is more of a relaxation technique, whereas he did not have to self-hypnotise in order to visualise.

I used his response to suggest that self-hypnosis had had an effect on his life. He alluded to it healing his injury but felt that it was unsuccessful in helping him to relax. I agreed that it could be used to enhance relaxation and mentioned this effect on David's wife, recalling her relief from her spastic colon pain. David said that self-hypnosis had helped in this manner and recalled experiencing an overwhelming feeling of relaxation during self-hypnosis but felt that it was short-term.

David stated that self-hypnosis was not a long-term stress reliever. Using the theme of self-empowerment, I asked him how *he* could use it to achieve longer lasting relief from his stress to which he replied that he could practice it more consistently and more

frequently. I agreed. David emphasised that he would like to use self-hypnosis for stress relief and we agreed that he would visualise the release of stress in the same way that he had released himself from his injury and its associated pain. Because David felt a connection with certain colours, he felt that they would assist in the active release of stress.

He said that he would include his wife in this process and that he would suggest that when practicing together, they sit up rather than lie down, so that there was less chance of his wife falling asleep. When doing self-hypnosis by himself, he would do so in the bath, because he found the heat of the water relaxing. We agreed that the use of candlelight and soothing music would enhance the relaxation. I mentioned that David seemed to enjoy using outside triggers such as music and candles to help him relax. He agreed without elaborating.

I asked David if there was anything else he wanted to discuss and he said that from the study it became apparent that self-hypnosis alone was not enough to *cure* an injury. In agreement I added that nothing exists in isolation and that often many contributory factors are involved. I reminded him that I would call in six weeks to see how he was using self-hypnosis to help feeling more relaxed.

Follow Up Telephonic Discussion After Six Weeks

David said that he had not practiced self-hypnosis and that he would just get into bed at night and fall asleep. He was still very tense and feeling stressed. I asked after his back, to which he replied that it was feeling fine. I suggested the benefit of practicing self-hypnosis as a means to relax and alluded to how relaxed he had felt when he did practice the technique previously. He agreed that he should, and apologising that he could not continue the conversation, stated that he had to go because his boss was calling him.

Meta-Perspective

The problem of an injured back began as the central theme in this study. The study differed somewhat from the previous three as the researcher knew David personally, and there were additional observers present at the first meeting. When the researcher introduced the idea of hypnosis to David, he assumed that hypnosis was going to be used to heal/cure his injury. By not perturbing this assumption the researcher confirmed the autonomy of the system (Fourie, 1995), but throughout the study consistently framed hypnosis as a process rather than a cure. As in all three previous studies, the researcher,

through language, perturbed the attributions that were maintaining David's ecology of ideas, and the injury.

From the outset, hypnosis was perceived as a mystical force. This was evident in David's fear of hypnosis and in the curiosity of both David's wife and Barbara, who wanted to observe. Clearly there were different agendas operating within the system. David wanted to see how hypnosis could be used to heal his injury. His wife and Barbara were curious about how hypnosis worked and how the researcher did hypnosis. The researcher's intention was an attempt at understanding David's context through the process of hypnosis using his injury as the point of departure. The researcher was also curious about how the process would work with other observers present.

The consensual domain was established through the agreement that something unusual could transpire and hence all participants allowed the 'mystery' of hypnosis to direct their actions. Further, the consensual domain adhered to the idea that there were different types of hypnosis and, relaxation was one such type.

David's difficulty with being the centre of attention was an additional area of interest and was witnessed when he switched the light off so as not to be seen. This ritual became an important induction behaviour for David who reportedly turned the light off before doing self-hypnosis. This was reinforced in the six-week follow-up where it seemed that David restricted the practice of hypnosis to the evenings.

David needed to focus on the neighbour's voice as a means to prevent against going "too deep". This behaviour highlighted the extent of David's fear of losing control. This theme was also seen in David taking Myprodol and his belief in the power of physiotherapy, both of which David believed were inducing definite forms of relief. It was this relief from the pressures of the day that he was seeking through the theme of relaxation.

David's need for exactness led to the agreement that he was an all-or-nothing person. The theme of fear in lacking control was further seen in David's work place and the stress he experienced in his submissiveness in relation to his boss. This introduced the themes of avoidance and disempowerment and was reinforced by David finding external triggers, such as candles, music or a hot bath, as more powerful than himself to induce relaxation.

It was agreed that David enjoyed using outside measures as a means to help him to relax and appeared to place great emphasis on *himself* and his worth on outside factors. This became evident in the work context and in the difficulty in confronting his boss who David perceived as disrespectful. The theme of external locus of control was also seen in David's fear of being "put under" by the hypnotist.

The theme of colour and its use in healing became important for David throughout the study and was understood by the researcher to be an induction behaviour.

Trust as a theme is also worth mentioning. Clearly, David, his wife, and Barbara placed a large measure of trust in the researcher as the hypnotist by allowing the researcher to hypnotise them. However, David found it difficult to trust that he would be safe and feared that the researcher would be unable to "bring him back". As a theme, trust was comprised of various combinations throughout the study. In certain areas of his life such as addressing his situation with his boss, it appeared that David did not trust himself enough to do so and did not trust his own power. This was born out with David trusting medication and/or physiotherapy, where power and trust were vested in a definite solution. A similarity can be drawn in the case study of Sarah, where power was placed on external factors rather than on herself.

Alluded to previously, the theme of avoidance became most apparent in the second telephonic discussion. David preferred not to confront painful areas of his life. This was illustrated by David choosing to be submissive in the situation with his boss rather than assertive, exclaiming that he "couldn't...". This theme can be further symbolised by David turning off the light prior to hypnosis. Perhaps it was David who did not want to 'see' himself, and found safety in the darkness? The presence of observers in this respect could have symbolised his vulnerability that he wanted to hide from.

It was imperative for the researcher to create an hypnotic experience for David that would be incongruent with the above mentioned themes. In light of this, post-hypnotic discussions attempted to co-construct a context that would linguistically challenge David's attributions so that a different reality could replace David's existing one. For this reason the researcher framed the dialogues in a way that gave David the choice to experience his own power rather than attribute power to the researcher.

The myriad of themes that emanated from this study serves to confirm David's definition and belief that self-hypnosis alone "is not enough to cure an injury". Becvar and

Becvar (1996) explicitly explain that post-modern thinking adheres to the belief that nothing occurs in isolation. In this case, David recognised that the healing of his back involved a combination of factors namely, anti-inflammatory medication, rest from physical activity, as well as the practice self-hypnosis. It can be said that in the acknowledgement of David's understanding, the researcher attempted to co-construct a different reality with David (greater self-empowerment) by confirming the autonomy of the system while simultaneously disconfirming the ecology of ideas around the problem (Fourie, 1993).

Self-hypnosis, defined as a deeper form of relaxation by David's wife, served also to assist her in her pain (from a spastic colon), but she abandoned the process once the pain had "been cured".

The theme of David taking too much responsibility was seen in various situations. An example was David's explanation of how *he* would suggest that his wife and he practice self-hypnosis together sitting up in order to prevent his wife falling asleep. Another situation where this theme surfaced was in David's work place where he felt that the workload he was "being made to carry" by his boss was actually not his responsibility but something he "had" to do. Interestingly, this theme also became apparent for the researcher who experienced a large measure of responsibility towards David, not only because of ethical responsibilities but also because she knew David personally. This was seen in her need to be gentle when approaching David's nervousness.

The six-week follow-up telephonic discussion found David fatigued, tense and stressed from his job. He had not practiced self-hypnosis. His back was feeling fine. Although this indicated that David had somewhere co-constructed a new reality, since the initial problem (the injury) had dis-solved, it also confirmed that the attributions surrounding the ecology of ideas around his 'old' reality, namely his avoidance, still existed.

Although the personal element was present, the researcher did not feel that knowing David detracted from the study. David seemed to feel free to challenge the researcher's ideas and seemed uninhibited. As a participant-observer in a system involving personal knowing, being acutely aware of personal bias, such as feeling responsible for David, it became imperative for the researcher, who realised the potential disaster to the therapeutic relationship if left unchecked. The theme of self-awareness throughout the study assumed importance for the researcher. Hence the importance of self-awareness for researchers, therapists and/or hypnotists in any study.

Concluding Remarks

The case studies of Kerry, Sarah, Joshua and David illustrate the process of self-hypnosis when viewed ecosystemically. The aim in each case was not to utilise self-hypnosis as a means to heal the injury, but rather to use the injury as the point of departure to perturb each Subject's ecology of ideas. Healing of the injury did occur though, earlier than anticipated by each Subject.

The ecology of each injury was seen as forming part of the general ecology of ideas of each Subject. As such, injury dis-solution can be viewed as a consequence of a general changed reality for each one. In this way, the process of self-hypnosis is 'powerful', but it can be stated that its power is that attributed to it by each Subject respectively, rather than hypnosis itself. This will be elaborated on in the concluding chapter.

Symptoms are located in ecologies of ideas within systems (Anderson & Goolishian, 1988; Griffith, Griffith & Slovik, 1990). Viewed in this way, ecosystemic self-hypnosis could not only be effective in the context of sport injuries, but elsewhere as well, for example, in cases of physical abuse and consequent injuries.

CHAPTER 6

CONCLUSION

This study aimed at exploring the process of self-hypnosis in the context of sport injuries using an Ecosystemic perspective rather than a Newtonian approach. Newtonian-based conceptualisations of problems and of hypnosis were identified as decontextualised, uni-dimensional and hence inappropriate to the aim of the research.

Sport injuries are psychologically complex (Peterson & Renstrom, 1986) and demand contextualised insight into problem identification. Traditional understanding and treatment of sport injuries have been shown to be linear and reductionistic. Graded within a framework of linear causality, according to severity of pain and range of movement (Noakes, 1985), the injury is treated symptomatically. The wider context of the athlete is excluded from this process.

Traditional conceptualisations of hypnosis have also been documented in the area of sport psychology (Allan, 1994) where problems were seen as objective entities and hypnosis was used as a means to cure these areas.

Although successful, especially in pain amelioration, traditional hypnosis is limited by virtue of the fact that it ignores contextual issues and, because it disempowers the participant/s who is/are of the assumption that power lies with the hypnotist only. This was demonstrated in the discussion on the different schools of thought where adherence to the Newtonian perspective was seen in theories based on objectivity, linearity and analytical reductionism.

Because the research aimed at exploring contextual issues using self-hypnosis/hypnosis as an exploratory tool as opposed to a curative measure, a different approach was required. Ecosystemic thinking was adopted and delimited the problem by contextualising it and by creating a new reality in the way of understanding of sport injuries.

Adopting the Ecosystemic perspective as a means of exploring the Subject's context involved perturbing the existing ideas within which the defined problem (the sport injury) was based. Using the injury as the point of departure in each case, perturbation involved reframing and co-constructing definitions through dialogue in a way that ensured

attributional change for each injured Subject respectively, and for the researcher who was actively part of the process.

Through an altered frame of reference each Subject's existing reality was influenced through the perturbation of ideas within a linguistic domain. Further, reified definitions of hypnosis associated with traditional approaches were avoided. In so doing, the potential range of behaviours that could be qualified as hypnotic was limitless.

Fourie and Lifschitz (1989) explain that when new ideas regarding the nature of a problem are introduced into a linguistic domain through hypnosis, those ideas could aid the problem definition to evolve toward dis-solution. The process of such dis-solution through reconstructed realities was illustrated in four case studies.

Each case study represented a Subject who had injured himself/herself during a sport activity. How each Subject perceived self-hypnosis/hypnosis became important. Each one spoke of hypnosis as being a powerful force. Although this perception was also the case in study four, it was the only one that included additional observers other than the Subject and the researcher. By attributing power to hypnosis in study four, the spouse strengthened the belief in hypnosis being powerfully effective in some way or another. Further, the researcher questions whether problem dis-solution in case study four was reached specifically as a result of perturbing the problem-defining set of ideas. It appeared that the time factor and abstaining from physical activity presented as more specific reasons for injury dis-solution.

Ecosystemically, the belief by all participant Subjects in the power of hypnosis was seen as imperative in setting the stage for using self-hypnosis as a tool to explore each Subject's ecology of ideas within the context of his/her injury.

Meanings, patterns and processes were identified and perturbed through dialogue. The researcher was careful to allow each athlete the opportunity to explore his/her own sense of power by asking him/her to make choices rather than by making decisions for him/her. This is evident in the construction of the questions asked by the researcher, such as "What do *you* think?" and "Where would it be most comfortable for *you*?"

Dialogue was constructed in a manner that influenced the attributional context of each Subject and hence each one's existing reality. The active participation and influence of the researcher was made reference to in each observer-observed context. This

influence was especially demonstrated in the researcher's presence, eye-closure and tone of voice, and by merely being mutually defined as the hypnotist.

The ideas of the researcher were introduced into the system during each study. In this way the researcher attempted to illustrate the inextricable observer-observed relationship and the researcher's participation in the process of co-evolving the problem definition. The bias of the researcher was presented on numerous occasions with the aim of demonstrating the importance of researcher self-awareness for future research.

Perturbing the attributional context continued through the post-hypnotic ritual of weekly telephonic conversations with each Subject. Consistent reframing of the Subject's ecology of ideas and co-construction led to attributional change and each Subject respectively came to a different perspective on his/her current reality.

In the case study of Kerry, it was illustrated that greater structure in her life was needed in order for her to feel more in control of herself. This in turn allowed her to feel a greater sense of power and to be less tense and more relaxed. How she viewed pain also changed. In case study two, Sarah's need to acknowledge and support herself emotionally became obvious when she externalised these elements, and externalised control. This reality changed to a context of greater self-empowerment. Joshua, in case study three, framed self-hypnosis as a tool to relax differently. He also developed more patience, greater confidence in himself as a rugby player, and felt more assertive and self-empowered. The spouse relationship was also perturbed. In David's case (case study four), problem dis-solution seemed not to be directly related to a change of ideas but rather to the time factor. However, if the ecology of the injury is perceived as forming part of the general ecology of the Subject, then problem dis-solution could point to a perturbation of David's existing reality. David returned to weight training after two weeks with only a 'twinge', and reported being free of pain six weeks after the completion of the study, which serves to confirm that a perturbed ecology should not be ruled out as part of the problem dis-solution.

For each Subject by replacing the 'old' reality with a new one, the originally defined problem (the injury) was no longer defined as such, and disappeared.

Although self-hypnosis was not employed as a curative measure, problem dis-solution enabled each Subject to return earlier than anticipated by the Subject and/or physiotherapist to his or her respective sporting activity. Metaphorically, the general

ecology of the person was understood as being reflected in the ecology of his/her injury. In terms of an ecosystemic approach it can be predicted that changing the Subject's attributions and co-constructing a different contextual reality could play an important role in early and improved recovery. In addition, anti-inflammatory medication, the time factor, rest and each Subject's *belief* in the power of hypnosis/self-hypnosis (rather than hypnosis itself) were included as possible contributory factors in the recovery process.

Each case study gave substance to the idea that sport injuries are embedded in an ecology of ideas and can be effectively explored, ecosystemically, through the process of self-hypnosis/hypnosis. However, this study did not intend to undermine the contributions made by traditional paradigms of thought. Instead, an attempt was made to illustrate that a different perspective can be effectively utilised in the context of sport injuries. This approach to sport injuries is a recent development, and was constructive in offering a description of self-hypnosis/hypnosis as a consensual product of a linguistic system within the context of sport.

In conclusion, although ecosystemic thinking is not a universal truth, a meta-theoretical contribution has been made. This contribution lies on the following levels: self-awareness of the researcher is imperative in any study; a sport injury no longer has to be defined as a problem if the ecology of ideas within which the injury is embedded, is perturbed; problems reframed as opportunities can elicit greater self-empowerment which plays a significant role in the healing process; and, the ecology of the injury can be perceived as forming part of the general ecology of the person.

Despite the above-mentioned advantages when presenting self-hypnosis ecosystemically, there are also limitations to the study. The traditional notions of objectivity and causality were replaced by the researcher assuming responsibility for the interpretation of the results. Although reflecting the construction of an alternative truth, the results might have been interpreted differently by another observer since the set of constructions of the researcher did not represent a universal truth.

Although each Subject's reality was perturbed, and complete recovery did occur within the period of one month, the life span of an injury is not generalisable, but is rather unique to each Subject. Hence it is possible that the time factor rather than perturbation of ideas could have been the main mechanism in the recovery process.

Perhaps the biggest limitation of this study was that only the Subject himself/herself was seen, and not members of his/her wider system, e.g. family, team mates.

Finally, because the case studies were of limited duration (on average three months), exploring contextual themes further did not occur. It can be argued that further perturbation could have assisted in further self-empowerment through continued self-discovery. Realistically however, self-discovery is a life-long process of continuously evolving stories.

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