CHRONIC HEADACHE: AN ECOSYSTEMIC EXPLORATION

by

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SUMMARY

Chronic headache may be the most frequently reported somatic symptom, yet it puzzles health experts and poses a considerable treatment challenge. It was suggested that this is because conventional views of headache, adhering to a Newtonian-Cartesian epistemology, focus almost exclusively on intrapsychic factors ignoring the wider social context in which the problem is embedded. An overview of the existing body of knowledge on the most widely researched headache conditions was presented, and it was argued that a conceptual shift is required to achieve a more comprehensive understanding of the problem.

This study was conducted within an holistic, ecosystemic epistemology. A qualitative approach employing a case study method was adopted to provide rich descriptions of the contexts in which two chronic headache sufferers' symptoms were embedded. The case study presentations also illustrated the attempts that were made to intervene into the headache contexts from a second-order cybernetics stance.

Key words: Chronic headache, tension headache, migraine, somatic symptoms, social context, context, ecosystemic epistemology, constructivism, second-order cybernetics, co-created realities, qualitative research.

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CHAPTER 1

INTRODUCTION

General Introduction

> **We are but whirlpools in a river of ever-flowing water. We are not stuff that abides, but patterns that perpetuate themselves.**
>
> **(Wiener, in Capra, 1996, p.52)**

This quotation captures the essence of one of the central premises on which this dissertation is based: that an individual is not a 'thing' characterised by an intrinsic and immutable identity that contains another entity in the form of a symptom or illness (Cottone, 1989). Rather, an individual is constituted by a closed network of interactions the outflow of which gives rise to further interactions in a process of continuous circularity. And as Wiener's statement poetically intimates, each individual is connected to other individuals through a closed network of patterned conversations which is continually sustained by further conversations (Capra, 1996). Therefore if, like Wiener (in Capra, 1996), we do not view a person in terms of substance, then it would seem logically coherent to view symptoms not as 'things,' but as communicational behaviours; symbolic expressions of a context of conversations in which a person is embedded.

It should already be clear that this dissertation embodies a conceptual shift from traditional ways of viewing headache symptoms. But perhaps it is important to set the stage first with a brief, general discussion of chronic headache.

Background to Headaches

Headache, like other pain disorders, is generally defined as chronic when the condition persists for a prolonged period (i.e. six months or longer) and is unresponsive to medical

intervention (Payne & Norfleet, 1986). Although not a life-threatening illness, chronic headache may be the most frequently reported somatic symptom (Holroyd, Andrasik & Westbrook, 1977). Its high morbidity exacts enormous economic costs and gives rise to significant individual discomfort as well as diminished mental, physical and social functioning (Micieli et al., 1995; Siegel, 1990). In a comparative analysis of the health status of 208 headache patients, for instance, Solomon, Skobieranda and Gragg (1993) found that chronic headache sufferers function at a worse level than sufferers of diabetes, arthritis, depression or back pain.

The headaches experienced by an estimated 95% or more of sufferers do not stem from any identifiable structural abberation or disease condition (Holroyd & Penzien, 1994) and most are diagnosed as migraine and tension-type headache (Siegel, 1990). Epidemiological studies conducted in the United States and Europe indicate a one-year prevalence for migraine of around 10%, and 20% to 30% for regular tension-type headaches with 10% to 15% of these individuals experiencing chronic tension-type headaches (Holroyd & Penzien, 1994). However, Silberstein (1994) puts the United States one-year prevalence figure for tension-type headache at 86% in women and 63% in men, while Haythornthwaite (1993) estimates that between an estimated 4% and 29% of the adult population experience migraine. Although no figures for South Africa were uncovered, there is little reason to expect that, proportionally, South African prevalence rates should differ from those found in other industrialised nations in recent years. The one figure that was found indicated that about 75% of all headaches diagnosed by the University of Pretoria's medical school are of the tension-type variety ("Headaches", 1989).

More females than males experience migraine and tension headaches (male to female ratio of about 1:2 or 3) (Essink-bot, Van Royen, Krabbe, Bonsel & Rutten, 1995; Holroyd & Penzien, 1994) and women are also more likely to consult physicians and

seek prescription medication for the pain (Holroyd & Penzien, 1994). Individuals aged between 15 and 55 are primarily afflicted (Essink-Bot et al., 1995) which accounts for a Danish population study finding by Rasmussen, Jansen and Olesen (in Holroyd & Penzien, 1994, p.53) that "1,090 workdays are lost each year per 1,000 employees from migraine or tension-type headache".

According to Rueveni (1990), many chronic headache sufferers experience repeated failure in their attempts to manage their headaches. Some resort to, and even become dependent on, addictive analgesics which in turn often perpetuate the pain, resulting in a vicious cycle. Sufferers are thought to cope less effectively than non-sufferers with stressful events, and to generalise their chronic pain behaviour to acute pain and other nonpainful sensations. Ukestad and Wittrock (1996) state that the recurrent headache sufferer's lower threshold for describing a stimulus as painful may either be a result of a predisposition or is learned from past pain experiences.

Failed efforts at symptom control may generalise to other areas of the headache sufferer's life. According to Rueveni (1990), the inability to prevent the reoccurrence of pain may erode the individual's self-confidence. Headache sufferers often harbour pervasive negative feelings and expectations about their pain, making it difficult for them to maintain a positive outlook. Consequently, the sufferer may feel like a loser, feel misunderstood by colleagues, friends and family members and expect to fail in his/her interpersonal relationships (Rueveni, 1990). Experiences of increased tensions and stress in relation to family members, as well as depression, a sense of isolation and hopelessness are often reported (Rueveni, 1990).

Clearly, then, the individual sufferer's headaches also impact on his/her wider social network. Yet, there is a paucity

of studies in the literature that have investigated the social context of headache sufferers. At the level of diagnosis, conceptualisation and treatment, chronic headache has been studied within the traditional positivistic Cartesian-Newtonian paradigm of classical science.

Assumptions of Newtonian Epistemology

Auerswald (1985, p.1) defines epistemology as "a set of immanent rules used in thought by large groups of people to define reality", or "thinking about thinking". Newtonian-Cartesian epistemology conceives of the universe as a machine, constituted from separate components analogous to "a system of small billiard balls in random motion" (Capra, 1983, p.62). The dominant epistemology underpinning scientific theories until the end of the 19th century, Newtonian thinking assumes that all phenomena can be explained through the postulates of reductionism, linear causality and objectivity. In strict adherence to these assumptions, Western scientists have attempted to define and classify headache disorders precisely, identify specific causes for the condition (either pathophysiological or psychological), and develop appropriate treatments that will eradicate the underlying cause (Capra, 1983). As these endeavours suggest, one consequence of the analytical, reductionistic method is that mind and body are viewed as "separate and substantially different entities" (Onnis, 1993, p.139). Another is that it has kept headache sufferers in a passive patient role whereby health professionals assume the responsibility for their treatment and well-being (Capra, 1983; McDaniel, Hepworth & Doherty, 1995). Moreover, despite the numerous theoretical expositions and studies - some of which are discussed in the next chapter - which have been presented from a biomedical or a psychosocial perspective, chronic headache remains somewhat of a mystery and continues to puzzle health experts. As Sandler and Collins (1990, p.1) state: "despite the appearance of furious activity, the migraine research scene is curiously static. People still

tend to measure the things they measured 20 years ago".

Problem Premise and Aim of the Study

As will become evident in Chapter 2, theorising and research on recurrent headaches have mainly focused on intra-individual (physio- or psychopathological) attributes of the individual headache sufferer. And the South African context has proved no exception; studies have been few and predominantly theoretical, concentrating on diagnostic issues, physiological causes and medical treatment options. Efforts to quantify sufferers' experiences by means of reductionistic cause-effect methodologies have resulted in the loss of potentially valuable information which could contribute towards a more comprehensive understanding of the phenomenon. In short, the mind-body problem is complex and conventional, reductionistic models have tended to ignore any aspects of the condition that cannot be reduced to biological or psychological pathology. This has yielded simplistic, dualistic explanations, inconsistent findings and a limited, decontextualised understanding of the individual and his/her symptoms. In agreement with Onnis (1993), therefore, the author believes that mind-body unification requires a perspective of complexity that recognises and integrates the multiplicity of interdependent and interconnected components of the problem. What seems to be required is a biopsychosocial conceptualisation of chronic headache that will take contextual factors into account and include into the treatment approach the individuals who are closely involved in the headache sufferer's world.

Adhering to an holistic, biopsychosocial stance, this dissertation proposes to explore the unique experiential world of the headache sufferer. The purpose of the study is to describe pertinent aspects of the context in which the individual's headache symptoms are embedded, including the interaction patterns between the individual and significant

others who are viewed as influencing, and being influenced by, the course of the problem. The researcher will also attempt to find ways to psychotherapeutically intervene into the headache context.

The study will be conducted within an alternative, and unifying, conceptual framework - the ecosystemic perspective. Ecosystemic epistemology is based on systems theory, cybernetics and ecology which means that it is attuned to holism, relationship, complexity and contextual interconnectedness (Keeney & Sprenkle, 1982).

Ecosystemic and Cartesian-Newtonian epistemologies are mutually exclusive (Fourie, 1996a) and thus yield different findings. Whereas the Newtonian paradigm is founded on a realist epistemology (i.e. reality is singular and absolute), the ecosystemic perspective embodies a constructivist epistemology (i.e realities are constructed, indeterminate and multiple). Thus, in an ecosystemic perspective the focus shifts from 'entities' to co-created linguistic realities or ecologies of ideas (Bateson, 1972).

This implies that an exploration of the context of the headache sufferer's symptoms will essentially elicit a description of the interconnected constellation of ideas and attributions of meaning about the sufferer and the symptom. This ecology of ideas will have been co-created by those individuals who interact with the sufferer about the problem, including the researcher. In ecosystemic epistemology, symptoms are relationship metaphors (Keeney, 1979) and therefore are not located exclusively in the body of the identified patient.

In attempting to intervene into the system, the researcher hopes to introduce new meanings and constructions that will facilitate the evolution of the existing ecology of ideas away from the problem theme so that new, more positive attitudes and

behavioural patterns may develop. As Penn (1982) suggests, the simultaneous reciprocal patterns of interaction between a family and researcher/therapist co-evolve a context which carries the possibility for change.

Design of the Study

A positivistic-empirical approach underlies the majority of studies about chronic headache. From this position, headache is viewed as a medical problem and as a "semi-concrete entity" with an "objective, context-independent existence" (Fourie, 1996a, p.15). Indeed, the effort that has been put into systematically defining and classifying headaches (see Chapter 2) implies that they are viewed as entities. Consequently, traditional reductionistic approaches employing quantitive methods have tended to focus on the 'illness' divorcing 'it' from the sufferer and his/her wider social context.

In moving away from a traditional approach, this study will widen the lens to capture a picture of the headache sufferer's world as seen from her perspective as well as the perspective of individuals who interact with her, including the researcher. To achieve this, a descriptive, qualitative research approach using a case study method has been chosen. A qualitative approach employs a flexible, emergent research design and is therefore coherent with the constructivist viewpoint that reality or knowledge is a fluid process which is socially derived through mutual consent (Gergen, 1985; Hoffman, 1990).

Sampling and Selection

In this study, purposive sampling and convenience selection will be used (Lincoln & Guba, 1985). Participants will be selected who can (1) meet the study's specified criteria for inclusion as outlined in Chapter 4, and (2) can

provide rich descriptions of their chronic headaches in the context of their life ecologies.

This study adheres to the aforementioned definition of 'chronic' and thus one of the criteria is that participants must have experienced recurrent headaches for at least six months. However, the conventional diagnostic system (see Chapter 2) defines and classifies headaches rather arbitrarily in the author's opinion. Referring, for instance, to the distinction between migraine and tension-type headache, Siegel (1990, p.181) notes: "recent evidence from psychophysiological investigations of headache patients suggests that this distinction between these two types of headache is not clear-cut". Therefore, this study will not distinguish between headache sub-types. To do so would be to revert to a reductionistic biomedical model and, thus, would reify headaches as entities with causal attributes. What assumes importance in this study are the participants' idiosyncratic definitions and descriptions of their headache conditions. Similarly, the complicated issue of whether an individual's headache problem is 'organic' or 'psychogenic' is considered to be essentially irrelevant since this dissertation conceptualises headache pain as the result of a complex interaction between biological, psychological and psychosocial factors. Therefore subjects will not be excluded on the basis of any presumed neurological pathology underlying their headache symptoms. Again, such an exclusion criterion would be coherent with a Cartesian mind-body dichotomy.

Data Collection

Information will be obtained by means of the unstructured interview, or conversation. Open-ended, discovery oriented questions will be used to encourage participants to tell their stories. The interviews will be tape recorded and transcribed.

Data Analysis

Patterns and themes idiosyncratic to the participant will be generated during the conversational process. Additional patterns and themes may also be identified after the tape recordings have been transcribed and summarised. A reciprocal relationship between the researcher and participants will form the basis of this study. One of the implications of this is that the researcher/therapist's reconstructions of the participant's constructions will be continually verified with the respondents to enhance the legitimacy of the study.

Chapter Review

This study will comprise a literature survey as well as theoretical and practical components.

Chapter 2 provides the point of departure for this study. It surveys the existing body of knowledge relating primarily to migraine and tension-type headache as conceptualised according to the biomedical and psychosocial models. The most recent headache classification system will be described, followed by a critical discussion of the physiological mechanisms, psychological characteristics, social issues and cognitive factors associated with the problem. Some of the nonpharmacological treatment methods for headache will be discussed briefly.

Chapter 3 will discuss ecosystemic epistemology, the theoretical foundation for this study. Some of the pertinent cybernetic concepts will be discussed with the emphasis on second-order cybernetics. An ecosystemic conceptualisation of chronic headache will be provided within the context of a co-evolutionary, constructivist perspective.

Chapter 4 will describe the research design to be used in the study.

Chapter 5 will contain case descriptions of two chronic headache sufferers. The main conversational practices used by the researcher/therapist to intervene into the participants' headache contexts will then be illustrated, followed by a discussion of what evolved from the conversations from the participants' perspectives.

Chapter 6 will provide an overview of the research findings. The researcher will construct a story about how each participant's headache problem co-evolved with her own unique context. Common themes will be articulated followed by a discussion of the outcome of the interviews in terms of the co-constructed shifts in the participants' attributions of meaning.

Chapter 7 will be the concluding chapter. The study will be evaluated and the implications of an ecosystemic psychotherapeutic approach for the treatment of chronic headache will be discussed. Recommendations for future research will also be made.

Conclusion

This study, adopting an holistic, ecosystemic conceptual framework and a qualitative method, will explore the chronic headache sufferer's unique social context. In so doing, it will complement existing medical and psychological views on the problem which by and large have decontextualised both the chronic headache sufferer and his/her symptoms.

CHAPTER 2

HEADACHES: A RESEARCH OVERVIEW

Introduction

In this chapter, an overview of the existing body of knowledge on benign headache will be discussed within the context of the biomedical and psychosocial models. For the purposes of this dissertation, benign headache is defined as head pain that is not caused by brain injury or a neurological disease such as meningitis, degenerative process, or tumour etcetera. Although this study will not exclude headache sufferers who have a neurological disorder which is considered to account for their head pain, this literature survey will only focus on benign headache as this has been studied extensively.

The most prevalent types of benign headache that have received the widest attention in the literature will be described, followed by a discussion of the physiological mechanisms, psychological characteristics, social issues, and cognitive factors associated with headaches. A brief discussion of some of the common nonpharmacological methods used in the treatment of headache will conclude this chapter.

Biomedical Model

It was noted in the previous chapter that research to date on headaches has been conceptualised within the Cartesian-Newtonian paradigm of classical science. The biomedical model which is committed to a reductionist experimental methodology is rooted in this classical scientific method, and views headache as a manifestation of some underlying pathophysiological process. Consistent with this viewpoint, the aim of research is to find specific cause-effect relationships between a hypothesised pathological condition and symptom development so that the headache disorder can be diagnosed and appropriate treatment provided. Although this

sounds scientifically reasonable enough, the literature uncovered for this research overview reveals that the analytic reductionism embraced by narrow, linear causal models at the level of conceptualisation, diagnosis and treatment of recurrent headache has generally yielded contradictory research findings and fragmented descriptions and explanations, as will soon become evident.

Diagnostic Classification of Headaches

The traditional conceptualisation of headache as a well-defined entity has led to various suggestions for the classification and definition of headaches since the early 1960s. The first of the two most widely used classifications was advanced in 1962 by the United States Ad Hoc Committee on Classification of Headaches. The most recent system was formulated in 1988 by the Headache Classification Committee of the International Headache Society (IHS), with the aim of providing greater consistency and replicability of headache diagnosis (Biondi & Portuesi, 1994; Marcus, Nash & Turk, 1994). Despite its wide acceptance, however, the clinical usefulness and validity of the IHS system has been contested, and while utilising some of the major IHS descriptors, many clinicians are reported to draw on other criteria in their diagnostic decisions (Marcus et al., 1994).

Of all the headache conditions, migraine and tension-type headache are the most frequently diagnosed and have received the most research attention. Consequently, they will be the main focus of this literature review. The IHS diagnostic criteria for migraine with and without aura as well as for episodic and chronic tension-type headaches appear in Tables 2.1 to 2.4 on pages 14 to 16.

Discrete Entities or Continuous Clinical Spectrum?

The belief that headache can be categorised and differen-

tially diagnosed on the basis of its psychophysiological etiology emerges out of the mechanical model of classical science which (1) views chronic pain as a physical entity (Bassett, 1992) not unlike the so-called particles of atomic physics, and (2) utilises a reductionist methodology which attempts to decompose phenomena into independently existing smallest elements (Lucas, 1985).

Although there is substantial evidence categorising headache disorders as discrete entities distinguishable on the basis of symptoms, biochemical and psychophysiological factors as well as disability and cognitive measures, a growing number of researchers are challenging the utility of traditional categorical diagnoses (Scharff, Turk & Marcus, 1995a). The relationship between migraine and tension-type headache is ambiguous and controversial and there is increasing support for the hypothesis that both headaches share many of the same symptoms as well as pathogenesis and natural history. This evidence supports the severity model which conceptualises different headache disorders as part of the same syndrome with the mild tension-type at one end of a continuum and the more severe migraine at the other (Merikangas, Merikangas & Angst, 1993a; Merikangas et al., 1995; Rose, 1992; Scharff et al., 1995a; Silberstein, 1994,1995). In some instances a migraine may start out as a tension-type headache. Silberstein (1994,1995), on the other hand, speculates that patients with both migraine and tension-type headache may differ from those with the pure tension-type and that what is known as tension-type headache may be two disorders: (1) mild migraine and (2) pure tension-type headache not associated with migraine attacks or characteristics.

Table 2.1: International Headache Society Definition of Migraine without Aura (in Patel, 1996, p.47).

Diagnostic criteria:

a) At least five attacks fulfilling b-d
b) Headache lasting 4-72 hours (untreated or unsuccessfully treated)
c) Headache has at least two of the following:
   1. Unilateral location
   2. Pulsating quality
   3. Moderate or severe intensity (inhibits or prohibits daily activities)
   4. Aggravation by climbing stairs or similar routine activities.
d) During headache, at least one of the following:
   1. Nausea and/or vomiting.

Table 2.2: International Headache Society Definition of Migraine with Aura (in Patel, 1996, p.47).

Diagnostic criteria:

a) At least two attacks fulfilling b

b) At least three of the following four features:

   1. One or more fully reversible aura symptoms indicating focal cerebral cortical or brainstem dysfunction.

   2. At least one aura symptom develops gradually over more than 4 minutes, or two or more symptoms occur in succession.

   3. No aura symptom lasts more than 60 minutes. If more than one aura symptom is present, accepted duration is proportionally increased.

   4. Headache follows aura with a free interval of less than 60 minutes. (It may also begin before or simultaneously with aura).

c) At least one of the following:

   1. History, physical and neurological exams. do not suggest one of the disorders in groups 5-11 (headaches associated with other neurological disorders)

   2. History and/or physical and/or neurological exams. suggest such disorder but it is ruled out by appropriate investigations.

   3. Such disorder is present, but migraine attacks do not occur for the first time in close temporal relation to the disorder.

Table 2.3: International Headache Society Definition of Tension-type Headache (in Patel, 1996, p.48).

Episodic tension-type headache:

a) At least 10 previous headache episodes fulfilling criteria b-d. Number of days with headache <180/yr (<15/mth)

b) Headache lasting from 30 minutes to 7 days

c) At least two of the following pain characteristics:

1. Pressing/tightening (nonpulsating) quality
2. Mild or moderate intensity (may inhibit, but does not prohibit activities)
3. Bilateral location
4. No aggravation by climbing stairs or similar routine activity

d) Both of the following:
1. No nausea or vomiting (anorexia may occur)
2. Photophobia and phonophobia are absent, or one but not the other is present

e) At least one of the following:

1. History, physical and neurologic exams. do not suggest neurological/metabolic disorders or substance use withdrawal etc.
2. History and/or physical and/or neurologic exams. do suggest such disorder, but it is ruled out by appropriate investigations.
3. Such disorder is present, but tension-type headache does not occur for the first time in close temporal relation to the disorder.

Episodic tension-type headache associated with disorder of pericranial muscles:

a) Fulfills criteria for episodic tension-type headache

b) At least one of the following:

1. Increased tenderness of pericranial muscles demonstrated by manual palpation or pressure algometer.
2. Increased EMG level of pericranial muscles at rest or during physiologic tests.

Episodic tension-type headache unassociated with disorder of pericranial muscles:

a) Fulfills criteria for episodic tension-type headache but no increased tenderness of pericranial muscles. EMG of pericranial muscles shows normal activity levels.

Table 2.4: International Headache Society Definition of Tension-Type Headache (in Patel, 1996, p.51).

Chronic Tension-Type Headache:

a) Average headache frequency >15d/mth (180d/yr) for >6 months fulfilling criteria b-d

b) At least two of the following pain characteristics:

1. Pressing/tightening quality
2. Mild or moderate severity (may inhibit but does not prohibit activities)
3. Bilateral location
4. No aggravation by walking stairs or similar routine physical activity

c) Both of the following:

1. No vomiting
2. No more than one of the following: nausea, photophobia, or phonophobia

d) At least one of the following:

1. History, physical and neurologic exams. do not suggest neurological/metabolic disorders or substance use withdrawal etc.
2. History and/or physical and/or neurologic exams. do suggest such a disorder, but it is ruled out by appropriate investigations.
3. Such disorder is present, but tension-type headache does not occur for the first time in close temporal relation to the disorder.

Chronic tension-type headache associated with disorder of pericranial muscles

Chronic tension-type headache unassociated with disorder of pericranial muscles

Cluster Headache

Cluster headache (also called 'periodic migrainous neuralgia,' 'particular type of headache,' or 'histamine cephalgia') usually occurs in males over the age of 20 with a male:female ratio of about 8:1 (De Villiers, 1987). Family history of migraine is unusual in this disorder. Onset of this

headache tends to be during sleep and almost always at the same times. Hence, they also have been aptly dubbed 'alarm clock headaches' (De Villiers, 1987). Attacks sometimes occur twice a day and generally recur at set periods of one to three months, then suddenly remit for months or years.

Cluster headache starts in one area - usually the eye or cheek - and quickly spreads to other parts of the face and head on the same side. The pain lasts for about 30 to 120 minutes, gradually intensifying as intracranial pressure mounts and creating intense agony for the sufferer. Fortunately, relief is sudden and complete (De Villiers, 1987).

Migraine

There are no consistent characteristics associated with the two types of migraine, namely migraine with aura (previously termed 'classic,' 'hemiplegic,' 'hemiparesthetic,' or 'aphasic' migraine) and migraine without aura (previously termed 'common,' migraine or 'hemicrania simplex'), and the literature generally does not distinguish between them (Bassett, 1992).

Migraine attacks often begin in childhood with boys experiencing them as frequently as girls before puberty. After puberty migraines occur more frequently in females (De Villiers, 1987).

Flashing lights, and less often, bright spots or zigzag shapes appearing in one visual field and increasing to the point of blindness, may sometimes signal the start of an attack. As the hemianopia lifts, intense unilateral (sometimes bilateral) throbbing of the head and eye begins. The pain may be so extreme that the individual is unable to continue with what she/he has been doing and simply wants to be left alone to rest (De Villiers, 1987).

Tension-type Headache

Tension-type headache (previously called 'tension,' 'muscle contraction,' 'psychomyogenic,' 'stress,' 'ordinary,' 'idiopathic,' 'essential,' 'psychological,' and 'psychogenic' headache) (Rose, 1992; Silberstein, 1994) is one of the most diffuse headache disorders (Biondi & Portuesi, 1994). Diamond, and Waters (in Kearney, Holm & Kearney, 1994) estimate that 80% of all headaches are related to the tension-type variety. The lifetime prevalence of the disorder is almost 90% in women and 67% in men (Silberstein, 1994,1995).

Previously, the Ad Hoc Committee (1962) described tension-type headache as "an ache or a sensation of tightness, pressure or constriction, widely varying in intensity, frequency, and duration, long-lasting, commonly occipital, and associated with sustained contraction of skeletal muscles, usually as a part of the individual's reaction during life stress" (Silberstein, 1995, p.97). Silberstein (1994) points out that this definition inaccurately associated tension-type headache with muscle contraction and psychopathology. However, as shown in the tables, the IHS system distinguishes between the episodic and the chronic types, splitting them into two groups according to whether they are associated with the presence or absence of tenderness or increased electromyographic (EMG) activity of the pericranial muscles.

Episodic Tension-type Headache

This headache may be bilateral, occipital, frontal, or generalised. It is described as dull, tight, pressing, and steady and is commonly associated with back pain, abdominal pain and tiredness. Almost 50% of the time, a stress factor is cited as a precipitant (Rose, 1992). Although the IHS considers episodic tension-type headache and migraine to be separate disorders, the distinction is not clear-cut in epidemiological data. This is because both subtypes are epi-

sodic and both may be unilateral or bilateral and associated with anorexia, photophobia or phonophobia (Silberstein, 1995).

Chronic Daily and Chronic Tension-type Headache

Chronic daily headache has also been termed 'mixed' or 'combination' headache and 'transformed' or 'evolutive' migraine and used to be a synonym for chronic tension-type headache. However, some of the recent literature distinguishes between chronic daily headache and chronic tension-type headache, even though the IHS does not (Patel, 1996; Rose, 1992; Silberstein, 1994,1995). According to Silberstein (1994,1995), both headache varieties occur daily or almost daily, and concomitant behavioural problems and analgesic abuse is common. Yet, to many clinicians chronic daily headache occurs with superimposed migraine while the chronic tension-type does not. Nevertheless, the literature does not consistently distinguish between chronic daily and chronic tension-type headache and the distinctions made appear to be arbitrary and ambiguous, as will become more evident in the next few paragraphs.

Chronic daily headache has been described as a syndrome of disorders that can be divided into primary and secondary types. Primary chronic daily headache illnesses include (1) transformed migraine (2) chronic tension-type headache and (3) new daily persistent headache. Secondary disorders include post-traumatic headache, cervical spine disorders and headache associated with vascular disorders and nonvascular intracranial disorders (Patel, 1996; Silberstein, 1994,1995). These secondary causes of chronic daily headache will not be discussed as they fall outside the scope of this dissertation.

Transformed migraine is the most common cause of chronic daily headache. Patients report a history of episodic migraine in adolescence or early adulthood which becomes more frequent, changing into chronic daily headache with mixed features of

migraine and tension headache by the individual's 40s or 50s, either due to psychological causes or overuse of medication (Patel, 1996; Rose 1992). Pain is generally unilateral and frontal and usually there is a family history of migraine. There may also be menstrual aggravation and other identifiable trigger factors (Rose, 1992; Silberstein, 1994,1995).

Chronic tension-type headache may result from a history of episodic tension-type headache which converts into chronic daily headache, or may originate as the chronic tension-type variety (Patel, 1996; Silberstein, 1994,1995). It may have symptoms of migraine such as nausea or photophobia, making differential diagnosis difficult (Rose, 1992). The lack of a clear history of episodic migraine is said to distinguish the chronic tension-type from transformed migraine (Silberstein, 1994,1995).

Chronic tension-type pain is often described as a tight band, usually in the frontotemporal region with associated stiffness in the neck and sometimes scalp tenderness (Rose, 1992). In more severe cases, it may be a throbbing pain. Activity often reduces the intensity of the pain. Ziegler (in Glass, 1992) believes the headaches often occur in response to unpleasant work or emotionally stressful events, although Rose (1992) argues that stress precipitants are less easily determined for this type of headache, but that often it is related to depression.

New daily persistent headache sufferers do not have a history of episodic migraine or tension-type headache (Patel, 1996; Rose, 1992; Silberstein, 1994,1995). They are younger than sufferers of transformed migraine and tend to remember the onset of the problem clearly, despite it being unrelated to any recognised antecedent stressor (Rose, 1992). This headache tends to be self-limiting and is clinically similar to chronic tension-type headache with some migrainous elements (Patel, 1996; Silberstein, 1994,1995). Rose (1992) believes that it

is possibly a dysimmune disorder caused by a viral trigger.

Physiological and Biochemical Mechanisms

The traditional view of headache assumes that migraine is of vascular origin (Blanchard & Andrasik, 1982). Migraine without aura is believed to result from dilation of the cranial and cerebral arteries which is thought to produce swelling of the surrounding pain-sensitive fibres and inflammation of the arteries as the attack progresses, which causes pain (Bassett, 1992). In migraine with aura, head pain (vasodilation) is preceded by a brief period of excessive vasoconstriction which is assumed to account for the commonly experienced 'aura' (Bassett, 1992; Blanchard & Andrasik, 1982).

As noted earlier, it was believed at one time that tension headache results from sustained contractions of neck, shoulder, scalp, and facial muscles which produce an ischemic pain (Bakal, 1975; Bassett, 1992; Blanchard & Andrasik, 1982; Biondi & Portuesi, 1994; Feuerstein, Bush & Corbisiero, 1982; Glass, 1992; Peterson, Talcott, Kelleher & Haddock, 1995; Scharff et al., 1995a; Sexton-Radek, 1994; Siegel, 1990; Silberstein, 1995). However, the increased methodological rigor of the most recent research has resulted in less support for the traditional pathophysiological accounts of migraine and tension-type headache. Consequently, the IHS no longer assumes that tension-type headache is invariably caused by muscle contraction (Blanchard & Andrasik, 1982; Scharff et al., 1995a; Siegel, 1990; Silberstein, 1995; Williams, Raczynski, Domino & Davig, 1993). A few of the studies relating to the etiology of migraine and tension-type headache will be reviewed briefly below.

Muscle Contraction

Sustained skeletal muscle contraction is assumed to be reflected in raised electromyography (EMG) levels, yet conflic-

ting findings have been yielded by investigations of muscle tension levels during headache versus headache-free periods and in headache patients versus non-headache subjects, of muscular reactivity to stress in headache and non-headache individuals, as well as of the correlation between muscle tension and headache over time (Glass, 1992; Peterson et al., 1995).

While many studies have found elevated neck and frontalis muscle EMG levels in tension-type headache patients as compared with headache-free controls, as well as increased EMG activity in the former group following stressful conditions, other more recent findings have been contradictory (Bassett, 1992; Williams et al., 1993). Interestingly, some studies have revealed that muscle tension levels in migraine are as high, if not higher, than in tension-type headache (Biondi & Portuesi, 1994; Glass, 1992; Scharff et al., 1995a; Silberstein, 1995).

According to Epstein and Cinciripini (in Biondi & Portuesi, 1994) investigations into the correlation between pain severity and EMG activity have also yielded variable results. Rose (1992) reports that although EMG activity in frontal, temporal and trapezius muscles has been demonstrated to be higher in chronic tension-type headache patients than in control subjects, no correlation with headache severity, anxiety, or response to biofeedback has been found.

Although most of the literature suggests the frontalis muscle as the site for EMG biofeedback treatment of pain, Peterson et al. (1995) found that EMG levels and pain ratings were highest at the temporalis muscle. Despite this finding, however, Peterson et al. (1995, p.91) concluded that "neither subjective pain nor tension ratings appear to be significantly related to EMG levels in tension-type headaches".

Similarly, Silberstein (1995) contends that there is no correlation between muscle tenderness, elevated EMG levels and

the location of tension-type headache. "Therefore, tenderness cannot be due to increased EMG activity and headache cannot be due to abnormal muscle contraction" (p.99).

Vascular Activity

In addition to EMG levels, other physiological measures have been used to distinguish headache types and to clarify the role of vascular activity in causing headache. According to Anderson and Franks (in Williams et al., 1993) and Blanchard et al. (1983), temperature, heart rate, blood pressure, and skin conductance measures of tension-type and migraine headache subjects have been compared but, like the EMG studies, findings have been equivocal due to methodological shortcomings.

The temporal artery is assumed to be the major pain site in migraine (Feuerstein et al., 1982). Psychophysiological studies by Bakal and Kaganov; Cohen, Rickles and McArthur; and Price and Tursky (in Feuerstein et al., 1982) have suggested that the temporal artery constricts to novel environmental stimuli in both migraine and tension-type headache sufferers, while it dilates in headache-free individuals. On the other hand, there is also evidence that vasodilation correlates with headache state (Williams et al., 1993). Complicating the picture further, Feuerstein et al. (1982) found temporal artery dilation in both migraine and headache-free controls in response to pain stimulation.

The importance of cardiovascular responses in discriminating between headache and headache-free subjects during relaxation and stress conditions has also been reported. Williams et al. (1993) observed higher heart rates in tension-type headache subjects than in migraine (intermediate rate) and control subjects (lowest rate). However, these findings were not documented by Philips and Hunter (in Williams et al., 1993). Williams et al. observed no other significant psychophysiological differences between headache subtypes and

controls and concluded, in agreement with other researchers in the field, that "no simple direct relationship exists between pain and psychophysiological activity" (p.152).

Neurotransmitters

According to Moskowitz (in Haythornthwaite, 1993), recent research suggests that the vascular changes of migraine may be secondary to biochemical aberrations.

Attention was focused on the role of the pain inhibitory amine 5-hydroxytryptamine (5-HT serotonin) in the etiology of headache when it was observed that migraineurs have low platelet serotonin levels as well as impaired platelet 5-HT uptake. Serotonin is involved in the vasoconstriction of scalp arteries (Bakal, 1975). Platelets are known to store serotonin and other neurotransmitters (D'Andrea et al., 1995; Feuerstein et al., 1982; Nakano, Shimomura, Takahashi & Ikawa, 1993), and it is thought that reduced plasma serotonin leads to extracranial vasodilation which is experienced as migraine headache (Bakal, 1975).

In addition, epidemiological, clinical and family studies have found evidence for a strong link between migraine and depression and 5-HT is implicated in both. That both disorders have been treated effectively with antidepressants, including monoamine oxidase (MAO) inhibitors and tricyclics, is viewed as further testimony that depression and migraine share common pathophysiological mechanisms (D'Andrea et al., 1995; Merikangas et al., 1995).

It has been proposed that in the early stages of a migraine attack, platelets release serotonin into the bloodstream, causing the sufferer to feel agitated and altering cerebral and cranial blood flow. Serotonin depletion is said to follow, leading to the development of head pain and depression (D'Andrea et al., 1995; Glover, Jarman & Sandler,

1993; Nakano et al., 1993).

Nevertheless, clear differences in the biochemistry of migraine and depression have been documented. Glover et al. (1993) point out that between attacks, platelets of migraineurs show low monoamine oxidase activity while in major depression the findings are of raised levels of platelet MAO. Also, depression may last for weeks or months, while migraine is relatively short-lived. Therefore, "it may be appropriate to view migraine as analogous more to the brief recurrent depressions ... than to major depression" (Glover et al., 1993, p.228).

Furthermore, studies implicating serotonin and other monoamines as biochemical trait markers for headache, depression, and their combination, have produced contradictory findings (D'Andrea et al., 1995; Merikangas et al., 1995). In one headache study, D'Andrea et al. (1995) examined serotonin and its metabolite 5-hydroxyindoleacetic acid (5-HIAA) during a headache-free period and found high 5-HT and 5-HIAA concentrations in the platelets and plasma of sufferers of tension-type headache and migraine with aura. In contrast, migraine without aura demonstrated concentrations similar to those of normal controls. The same biochemical distinction has been suggested by studies that have measured the levels of these substances in serum. However, according to Ferrari, Odink, Tapparelli, Van Kempen, Pennings and Bruin; Ribeiro, Cotrim, Morgadinho, Ramos, Santos and de Macedo (in D'Andrea et al., 1995), studies of 5-HT and 5-HIAA in the platelets and plasma of migraineurs have produced mixed results.

Results of studies conducted on tension-type headache have also been inconclusive. Contrary to the findings by D'Andrea et al. (1995) and other studies that implicate serotonin in the etiology of tension-type headache (Scharff et al., 1995a), Ferrari et al. and Ribeiro et al. (in D'Andrea et al., 1995) found normal serotonin concentrations in plasma, platelets and

serum, and normal plasma 5-HIAA between headaches.

Other observations of biochemical deviations in headache sufferers have provided support for the theory that headache is a disorder of central pain regulatory mechanisms. For instance, according to Anselmi, Baldi, Casacci and Salmon (in Marlowe, 1995) cerebrospinal fluid (CSF) levels of the morphine-like substance, enkephalin, are lower during migraine episodes than between headaches. Also, according to Genazzani, Nappi, Facchinetti, Micieli, Petraglia, Bono, Monittola and Savoldi (in Marlowe, 1995) decreased CSF concentrations of another pain inhibitor, beta-endorphin, have been found in migraineurs during headache-free periods.

The hypothesis that central pain control systems are involved in the pathogenesis of headache implies that the nervous systems of sufferers may be more sensitive to sensory input than those of non-sufferers. Support for this viewpoint comes from three sources: (1) patient reports of hypersensitivity to light, noise and odours during migraine attacks, according to Lance (in Marlowe, 1995); (2) the observation that between attacks sufferers are more responsive to experimentally-induced pain in the head and finger; and (3) increased sensitivity to somatosensory stimulation in the nervous systems of sufferers, particularly in tension-type headache (Marlowe, 1995). Silberstein (1994,1995) argues that both migraine and tension-type headache may result from defective central pain control partly due to trigeminal neuronal hypersensitivity.

Trigeminovascular Theory

Recently, the role of the substance P (SP) in the development of migraine and cluster headache has been documented. SP is known as a neurotransmitter associated with pain and co-exists with 5-HT in many neurons.

Moskowitz (in Nakano et al., 1993, p.531) proposed the theory that SP released from the trigeminal nerve fibres which supply the scalp and pericranium "dilates pial arteries, increases vascular permeability and activates cells that participate in the inflammatory response and migraine develops as a consequence".

In a study measuring platelet SP and 5-HT levels in migrainous and tension-type headache patients, Nakano et al. (1993) found support for the trigeminovascular theory. These authors observed a significantly higher concentration of platelet SP in migraine and tension-type headache subjects as compared with normal controls. Concentrations of platelet 5-HT were significantly lower in tension-type headache patients and slightly lower in migraineurs as compared with controls. Although the platelet SP/5-HT ratio was significantly higher in both headache groups, a significant negative correlation between the level of platelet SP and that of platelet 5-HT was recorded. On the basis of these findings, the authors hypothesised that SP released from the trigeminal nerve endings "causes migraine either through direct actions on the vessels or by releasing 5-HT from the platelets" (Nakano et al., 1993, p.528). Although the relationship between tension-type headache and 5-HT remains unclear, it is believed that elevated platelet SP in this disorder may be due to platelet uptake of SP released from the pain sensory system.

Serotonin, Sleep, and Headache

Sleep disturbances are frequent among migraine sufferers. It is believed that fluctuating serotonin levels may hinder the transition from one sleep stage to another, resulting in somnambulism in some individuals (Robbins, 1995). The occurrence of migraine and cluster headache is connected to specific sleep stages; migraine is triggered by excessive amounts of stages III, IV and REM sleep, while cluster headache is connected to REM and occasionally NREM stages (Paiva,

Martins, Batista, Esperanca & Martins, 1994). According to Paiva et al. (1994) many headaches occur during either the second half of the night or at awakening. Thus, although sleep is the most common method of alleviating head pain and therefore has a restorative role possibly by lowering the brain's metabolism and facilitating normal serotonin functioning, it does not provide relief for everyone, and may even trigger a headache (Blau & MacGregor, 1995).

Nitric Oxide Supersensitivity

"Nitric Oxide (NO) is a relatively recently discovered messenger molecule with an impressive number of biological effects" (Olesen, Iversen & Thomsen, 1993, p.1027). It is located in nerves surrounding cerebral arteries and may be implicated in pain perception.

It has been found that cardiac patients treated with nitroglycerin experience headache as a side effect. This, together with the recent discovery that nitroglycerin is an exogenous source of NO and that migraine sufferers are highly sensitive to endogenous NO produced by histamine stimulation of endothelial H1-receptors in cerebral arteries, led Olesen et al. (1993) to speculate that migraine pain may be partially or entirely caused by NO.

In an experiment involving intravenous infusion of nitroglycerin to test their hypothesis, Olesen et al. (1993) found that non-headache controls experienced a mild to moderate head pain similar to migraine. Migraineurs experienced a markedly more severe headache than normal controls and in many cases developed a full-blown migraine within 24 hours. The tension-type headache sufferers reacted with pain which was intermediate in intensity and duration to the migraine and control groups. The authors concluded that "migraine attacks may be induced by a number of naturally occurring substances/ mechanisms which induce formation of NO in cerebral arteries"

(Olesen et al., 1993, p.1030).

Tyramine Conjugation Deficit

Merikangas et al. (1995) believe that a defective metabolisation of tyramine sulfate may be a biochemical trait marker for migraine, particularly when it co-exists with major depression.

Tyramine is obtained from many food sources and "may play a role in the turnover of norepinephrine and perhaps in the synthesis of dopamine, and may function as a false neuro-transmitter at noradrenergic terminals" (Merikangas et al., 1995, p.731).

Merikangas et al. (1995) recorded significantly lower tyramine sulfate urinary excretion values following an oral intake of tyramine sulfate among individuals with both migraine and depression compared to those with migraine or depression alone. They contend that the findings suggest that "comorbid migraine with depression may represent a more severe form of migraine than migraine alone" (p.730). Interestingly, subjects with tension-type headache and co-existing depression also exhibited a tyramine conjugation deficit in the study.

Psychosocial Model

Like the biomedical model, psychosocial theories of recurrent headache adhere to the traditional Cartesian-Newtonian paradigm of science. This means that they suffer from the same limitations as biomedical perspectives, that is, various fragmentary, unidimensional approaches are employed to explain headaches, based on the reductionist premises of classical science. On the other hand, the value of psychosocial perspectives is that they approach the problem from a broader frame of reference, recognising the importance not only of physiological factors but also of psychological and

psychosocial influences on chronic headache. Therefore, there is greater acknowledgement by psychosocial theories of subjective experiences as well as interindividual differences in the presumed etiology of headache disorders (Bassett, 1992).

Headache, Personality and Psychopathology

Personality Traits

Researchers have been interested in the personalities and psychological functioning of headache sufferers for many years. Traditional views contend that the personality of the headache sufferer differs significantly from that of the non-sufferer and that these differences are predisposing factors for headaches (Blanchard & Andrasik, 1982).

Wolff (in Merikangas, Stevens & Angst, 1993b) provided the first comprehensive description of the 'migraine personality' as excessively driven, perfectionistic, inflexible and orderly. The migraineur is also somewhat negatively described as being resentful and unable to express aggression constructively (Bakal, 1975; Blanchard & Andrasik, 1982). It has been postulated that these traits increase vulnerability to migraine through negative emotional reactions. One view is that migraine occurs in situations that produce feelings of hostility and rage which cannot be acknowledged nor expressed (Bakal, 1975). However, as noted earlier, the underlying pathophysiological mechanisms involved in the presumed association between negative emotion and the development of headache symptoms have not been clarified.

Tension-type headache sufferers have been portrayed as worrisome, depressed, anxious, hostile, tense, dependent and psychosexually conflicted (Blanchard & Andrasik, 1982). They describe themselves as more openly hostile and more disorganised than migraineurs, according to Bakal (1975).

Although there have been attempts to substantiate these early descriptions of the headache sufferer, the results have been relatively equivocal due to a number of methodological weaknesses (Andrasik et al., 1982; Blanchard & Andrasik, 1982). Evidence supporting the continuum approach suggests that headache intensity and duration may be more accurate indicators of psychological functioning than IHS diagnosis (Scharff et al., 1995b).

Some of the studies that have investigated the controversial relationship between psychological symptoms and headache are discussed below.

Psychological Disturbances

It has been argued that chronic headache sufferers consistently report more psychological disturbance than non-sufferers, yet research findings are inconsistent possibly because different studies have applied different headache diagnostic criteria, and traditional psychometric measures have been used which have not been standardised on medical patients. Another contributing factor is that traditional measures emphasise emotional symptoms and may not be designed to take into account a variety of cognitive variables that may interact with the experience of chronic headache (Scharff et al., 1995b).

Nevertheless, at least three hypotheses have been proposed to account for the findings that suggest an association between psychological disturbance and headache: (1) according to Martin, Rome and Swenson (in Holroyd, France, Nash & Hursey, 1993), psychological difficulties cause the development of recurrent headaches; (2) Sternbach, Dalessio, Kunzel and Bowman (in Holroyd et al., 1993), on the other hand, argue that psychological problems occur as a result of living with the discomfort of recurrent head pain; (3) Blumer and Heilbronn; DaFonseca; and Lopez-Ibor (in Holroyd et al., 1993) believe

that both chronic headache, especially the tension type, and psychological symptoms are manifestations of an underlying depressive disorder. According to the latter explanation, Lopez-Ibor (in Biondi & Portuesi, 1994) states that the depressive state is not consciously experienced but is converted into a physical symptom which is usually experienced as a chronic waxing and waning pain state. The literature uncovered does not address the question of why some individuals experience recurrent head pain rather than a different physical symptom, and the psychophysiological mechanisms involved in the conversion process are also unclear.

Migraine, Anxiety, Depression and Panic Disorder

Support for an association between migraine and anxiety/ depression is based on family, epidemiologic, and clinical studies but remains inconclusive due to a variety of methodological issues (Merikangas, 1994).

In one prospective study involving 1 007 young adults, Breslau and Davis (1993) found that a history of migraine was associated with a higher lifetime rates of depression, anxiety, drug use, nicotine dependence and suicide attempts. Female migraine sufferers reported increased lifetime rates of gynaecological problems (Breslau & Davis, 1993) and migraineurs of both sexes reported more somatic complaints compared to non-sufferers (Andrasik et al., 1982; Breslau & Davis, 1993). The data suggested that the relationship between migraine, major depression and anxiety probably reflects a shared vulnerability.

More recently Breslau and Andreski (1995) observed that both migraine varieties were strongly related to neuroticism irrespective of whether or not the headache problem was comorbid with psychiatric disorders. They concluded from this finding that the migraineur might be at a higher risk for future psychiatric problems.

A strong association between migraine and the affective and anxiety disorders across gender and age groups also has been found in a longitudinal epidemiologic study and in a controlled family history investigation (Merikangas, 1994; Merikangas et al., 1993a,1993b). Migraine with aura had the strongest correlation with major depression and anxiety, while migraine without aura was associated only with anxiety and phobic disorders. Furthermore, the evidence indicates that the onset of migraine is preceded by that of the anxiety disorders and followed by depression. This trend may indicate a syndromic relationship between anxiety/depression and migraine, rather than a common underlying etiology between the disorders (Merikangas, 1994; Merikangas et al., 1993a,1993b; Robbins, 1995).

Similar findings have been obtained in a number of other investigations. For example, Robbins (1995) reported that 58% of the migraine patients he studied experienced chronic anxiety; 19% had chronic depression; 27% suffered from sleep onset insomnia, while 26% had difficulty maintaining sleep. He also notes that individuals with combined migraine and depression are at a greater risk for suicide.

In a survey of over 10 000 individuals to examine the relationship between migraine and panic attacks, Stewart, Linet and Celentano (1989) found that migrainous headaches were reported more frequently by individuals with panic disorder than by those who had never experienced panic attacks. Males with panic disorder, in particular, were seven times more likely to report a migraine during the preceding week versus men without panic disorder. Several other studies have yielded similar findings (Breslau & Davis, 1993; Zaubler & Katon, 1996).

Stewart et al. (1989) explain that the apparent association between migraine and panic disorder may exist either because individuals with panic conditions overreport

headache problems possibly due to a greater tendency towards somatisation or hypochondriasis among these disorders, or head pain may be underreported by individuals without panic attacks. Alternatively, migraine and panic conditions may share another underlying etiology.

Tension-type Headache and Psychological Distress

Clinical wisdom generally associates tension-type headache with the most significant and varied psychological distress of all the headache groups. Nevertheless, some studies have not documented an association between tension-type headache and the major psychological disorders (Merikangas et al., 1993a, 1993b)

On the other hand, Andrasik et al. (1982) observed psychological symptoms most frequently in those tension-type headache sufferers depicted as highly sensitive, relatively hostile and resentful, perfectionistic, inflexible, self-critical and somewhat aloof. They report that psychological symptomatology correlates positively with headache frequency but negatively with severity, since tension-type headaches sufferers endure the most frequent but least severe headache of all the categories. Holroyd et al. (1993) found that recurrent headache sufferers, particularly those in the tension-type category, reported higher levels of psychological symptoms only if they were experiencing pain at the time of assessment. Therefore, in these studies, psychological distress was influenced either by pain state or pain frequency.

Williams et al. (1993) found that tension-type headache sufferers experience chronic anxiety and also demonstrate elevated heart rates. They believe that this type of headache may be part of a complex illness that affects an individual's physical and psychological functioning. Chronic stress is presumed to precipitate the onset of the headache disorder.

> Over time, the physiologic disturbance habituates, while the psychological difficulty manifests with a continued complaint of head pain. Hence, physical evidence of headache may be absent, though a physiologic manifestation of chronic stress may be observed in the cardiovascular system and chronic pain. (Williams et al., 1993, p.153)

Elwan et al. (1993) argue that tension-type headache sufferers exhibit more psychological difficulties than do patients with migraine or mixed headache symptoms. They observed that male chronic tension-type headache patients were significantly more neurotic and females significantly more depressed. These researchers concluded that headache severity or density were not sufficient factors to explain the pattern of psychological symptoms observed.

Social Factors

Stressful Life Events and Headache Distress

Parnell and Copperstock (in Feuerstein et al., 1982) cite anxiety, worry, physical and mental tiredness as the three most common headache triggers. Indeed, stress is widely acknowledged as the single factor underlying 80% of tension-type headaches and common to many migraines too (Bakal, 1975; Biondi & Portuesi, 1994; Ficek & Wittrock, 1995; Kearney et al., 1994; Marcus et al., 1994; Sexton-Radek, 1994). According to De Villiers (1987), individuals with tension-type headache have problems reconciling the demands they and others make upon themselves with their personal coping capacity. This leads to pervasive feelings of frustration and tension within the headache sufferer which may predispose him/her to headache (Glass, 1992). In addition, there is evidence that as headache chronicity increases, so do the frequency and intensity of minor stressful life events reported by tension-type headache sufferers (Sexton-Radek, 1994).

However, Biondi and Portuesi (1994) report that the relationship between stress and headache is based more on clinical assumptions than it is on experimental findings. Interestingly, Marcus et al. (1994) have found that many clinicians deviating from the IHS diagnostic criteria, view stress as less of a distinguishing feature for migraine than for tension-type headache. But how is stress perceived and defined? Bakal (1975) points out that potentially any situation can become stressful so can one use the term 'stress' in a specific manner? Moreover, as was indicated earlier, the psychophysiological mechanisms by which stress affects headache are still unclear.

It might seem obvious even to the layman that the sufferer's subjective distress is not only related to stressful interactions with the environment but also to the discomfort associated with recurrent headache attacks. Nevertheless, according to Bakal; and Hunter and Philips (in Demjen & Bakal, 1986), there is growing recognition for the role that subjective distress plays in both headache susceptibility and pain episodes. According to the severity model of headache, pain vulnerability becomes self-producing over time and thus, increasingly autonomous of specific psychological and physical triggers (Demjen & Bakal, 1986). To some extent, this assumption resonates with the aim of this dissertation, namely, to investigate how an individual's recurrent headaches and the context in which they are embedded modify and stabilise one another to create a pattern of symptom maintenance.

Data consistent with the severity model suggests that individuals who endure more severe headaches in terms of pain intensity, quality and duration - regardless of diagnostic category - shift their thinking away from situational and interpersonal stress towards headache-related distress and tend to deny problems that are unrelated to pain (Demjen & Bakal, 1986). This evidence seems contradictory to the association found between lengthening headache history and sufferer reports

of increased frequency and intensity of minor stressful events. Perhaps pain intensity is the crucial factor accounting for the seemingly opposing findings.

Social Impact and Disability

Recurrent headaches take their toll on many aspects of a sufferer's life. In their attempts to evaluate the social impact of headache and to quantify disability caused by the condition, Micieli et al. (1995) found that although headaches occurred infrequently during work hours, they generally handicapped the individual for work and nonwork activities "(social relations 69%, sport 57%, hobbies 58%, reading 78%, audiovisual entertainment 63.2%, and sexual relations 59%)" (p.135). Furthermore, different diagnostic groups displayed different patterns of disability with high work and social impairment observed in the episodic headache and migraine combined with tension-type headache patients, and higher use of healthcare resources evident in the chronic tension-type. Migraine patients appeared to be more handicapped than those with chronic tension-type headache. This is consistent with a previous observation by Pryse-Phillips, Findlay, Tugwell, Edmeads, Murray and Nelson (in Micieli et al., 1995) that 50% of migraineurs versus 25% of tension-type headache patients had to discontinue activities during a headache. According to Blau and MacGregor (1995), migraineurs tend to withdraw from stimuli that intensify the symptoms, seeking solitude in a quiet, dark room. Breslau and Davis (1993) found that migraineurs reported higher rates of job absenteeism, greater utilisation of mental health services, and rated their general health as fair or poor. However, a slightly different picture of disability is portrayed by Solomon, Skobieranda and Gragg (1994) who found that chronic tension-type headache and the mixed migraine and tension-type conditions were associated with markedly lowered physical, role and social functioning as well as with worse pain than migraine. In this study, the role functioning of migraineurs was more impaired than their physical and social

functioning, and thus could be expected to impact on work productivity levels. Surprisingly, migraineurs had the least amount of pain of the headache conditions although this level was much greater than that found in backache and arthritis in previous studies. Cluster headache sufferers, on the other hand, showed impaired social functioning, although physical functions and health perceptions were generally intact. Solomon et al. (1994) argue that the differences in functional status among headache categories disqualifies the continuum model of headache in favour of the view that headaches are discrete diagnostic entities.

Medication Use and Abuse

Headache sufferers are prone to use analgesics and/or ergotamine on a daily or weekly basis (Micieli et al., 1995; Silberstein, 1994). According to Gill, Spruiell and Spierings (in Glass, 1992), headache patients take medication to prevent anticipated pain, to alleviate fear of emotional stress triggers, to suppress upsetting feelings such as helplessness, humiliation and anger, and to avoid seeing themselves as ineffectual victims. Silberstein (1994) tells us that analgesic abuse occurs in about 88% of transformed migraine cases, 67% of chronic tension-type cases and 66% of new daily persistent headaches, although Micieli et al. (1995) argue that overuse is more prevalent in the chronic tension-type. Overuse may lead to drug-induced headache - although some claim that analgesic rebound does not exist - and may be partially responsible for transforming episodic headache into chronic daily headache, thereby compounding the initial problem (Silberstein, 1994). It may also lead to dependence on, and refractoriness to, symptomatic medication.

Interpersonal Relationships

In recent years, according to Croog and Fitzgerald; Maruta and Osborne; and Vaughan and Lanzetta (in Block, 1981), chronic

pain disorders have been found to influence many aspects of family life including sexual relations, income, and social activities. Not only may chronic pain disrupt family functioning, but research has begun to examine family processes that influence the development and maintenance of a sufferer's pain behaviour (Ehde, Holm & Metzger, 1991; Kopp et al., 1995). However, chronic pain disorders subsume a wide variety of illnesses and it appears that very few studies have specifically examined the relationship between chronic headache and family functioning. It seems reasonable to assume that the relationship between chronic pain and family factors will vary with the nature of the illness. Therefore, this section will emphasise the literature that has been uncovered pertaining to headache syndromes.

Family Structure

Ehde et al. (1991) suggest there may be a link between birth order, the development of particular personality characteristics and the onset of migraine following their finding that this headache is more likely to occur in older children. It is widely assumed that older children, particularly the eldest, have to deal with being 'dethroned' by subsequent siblings which can have various implications - positive and negative - for later personal adjustment. Moreover, the birth-order literature describes first-borns as "conservative, conscientious, responsible, methodical, organised, and as interested in maintaining order and authority" (Ehde et al., 1991, p.38). Interestingly, these descriptions are similar to the traditional portrayals of migraineurs discussed earlier in this chapter.

Family Climate

Roy (in Ehde et al., 1991) observed that many headache sufferers have stressful family problems which can exacerbate the headache syndrome. Although Ehde et al. report no differ-

ences in family functioning between tension-type headache sufferers and control subjects, migraineurs described their families of origin as valuing organisation, control and rules at the expense of emotional expression. Similarly, Kopp et al. (1995) found a high degree of organisation but a low level of communication, emotional expressiveness and activity in families where the mother suffered from chronic headaches (the study does not indicate which types of headache were investigated). Ehde et al. (1991) believe that their findings and similar reports by patients with other chronic pain illnesses, point to the possibility that pain behaviour may constitute a more acceptable means of expressing emotional distress and of gaining support and attention from family members. The pain may serve not only the individual but the family as a whole by diverting attention away from complex problems to the 'safer' territory of a medical condition.

Another interesting finding by Ehde et al. (1991) and other headache and chronic pain studies was that both tension and migraine headache sufferers reported being exposed to more familial pain models than did headache-free subjects. Yet, only migraineurs believed that the pain significantly interfered with family life (Ehde et al., 1991).

Effect of Pain on Spouse and Marriage

Flor and Turk (in Ahern & Follick, 1985) point out that chronic pain can impact negatively on the physical and psychological wellbeing of the sufferer's spouse. According to Block (1981, p.420) "the stress imposed on the family by chronic pain may vary with marital satisfaction". He observed that while spouses responded to painful facial expressions exhibited by actors as well as their partner patients with increases in skin conductance, the empathic responses to the painful displays of their mates were greater in those spouses reporting higher levels of marital satisfaction, than in relatively unsatisfied spouses. Therefore, spouses' increased

empathic responses to pain behaviour when marital satisfaction is high "may predispose them to develop psychophysiological difficulties" (Block, 1981, p.420).

Ahern, Adams and Follick (in Ahern & Follick, 1985) found that, consistent with other research results, a significant percentage of spouses of chronic pain patients reported high levels of marital dysfunction and emotional distress, the latter being only weakly related to patients' levels of emotional problems. They also found that patients' functional impairment, namely their social withdrawal and isolation, "and spouses' emotional distress levels appear to be associated with marital difficulties experienced by spouses" (Ahern & Follick, 1985, p.253). These authors discuss the possibility that spouses who become very involved in many activities perhaps due to their own depression or their partner's lowered activity levels, may desire more changes in the marriage than spouses who do not have these problems (Ahern & Follick, 1985).

In contrast to the aforementioned results, Basolo-Kunzer, Diamond, Maliszewski and Weyermann (1991) found that headache couples experienced similar marital adjustment and satisfaction to that of control groups and normative data. Marital distress was reported by only 20% of the study's headache sample. An intriguing finding was that better marital adjustment was indicated by patients who experienced continuous, rather than occasional, headaches. In addition, spouses' marital and family cohesion, affection and adaptability correlated positively with severity of headache pain. From their findings Basolo-Kunzer et al. (1991) speculate that pain in a spouse might elicit family affection and adaptability. "If this is so, what happens when the pain is gone?" (Basolo-Kunzer et al., 1991, p.145).

Cognitive Factors and Headache

Cognitive Coping Strategies

To date, the appraisal and coping strategies individuals employ to manage headaches and stressful life events have received little research attention (Ficek & Wittrock, 1995; Holroyd et al., 1993). Nevertheless, the available evidence, including the findings of Ficek and Wittrock (1995) and Feuerstein et al. (1982), indicates that both tension-type headache and control subjects respond similarly to stressful tasks in laboratory experiments on both physiological and subjective measures. Outside of the laboratory, however, tension-type headache sufferers are reported to identify significantly more daily stressors, to evaluate events more pessimistically and to use negative coping strategies such as avoidance, self-criticism (Ficek & Wittrock, 1995), catastrophising and other negative cognitions (Lefebvre, Lester & Keefe, 1995; Ukestad & Wittrock, 1996). A number of hypotheses have been proposed in an attempt to explain the inconsistent findings between the two experimental sites. Firstly, it is suspected that the selected laboratory tasks may be the 'wrong' tasks in that they may not be ambiguous (tension-type headache sufferers have been found to rate ambiguous events as making more of an impact and to report a lower level of perceived control over these events). Secondly, laboratory tasks may not be stressful enough or may be too dissimilar from natural situations. Thirdly, although people with tension-type headache may experience events in similar manner to that of other people at the time of an event, it is possible that they then focus on and re-experience the negative emotions of the stressful event, or their recall of the event may be biased (Ficek & Wittrock, 1995).

Locus of Control

Beliefs about pain are thought to influence coping efforts

and one's degree of adjustment to illness. Lefebvre et al. (1995) argue that a lack of understanding about the cause of headache and its future progress could lead to the sufferer feeling helpless when trying to manage the problem, particularly since physicians cannot provide adequate explanations for it and often base their treatment plans on trial and error (Martin, Davis, Baron, Suls & Blanchard, 1994).

In chronic illness, high internal locus of control is associated with reduced psychological distress, information-seeking, and active pain coping strategies while high external locus of control is associated with just the opposite (Scharff et al., 1995b; Ter Kuile, Linssen & Spinhoven, 1993).

Perhaps not surprisingly, the limited available evidence has indicated that chronic headache patients have a higher external locus of control than normal respondents, regardless of their pain state at assessment (Holroyd et al., 1993). Consequently, they tend to believe that their lives and symptoms are at the mercy of outside influences or fate and that personal efforts to influence their circumstances are futile.

Nevertheless, Scharff et al. (1995b, p.532) argue that "internal headache locus of control is not simply the inverse of external headache locus of control". They found that an external locus of control was associated with high levels of pain disruption and pain intensity. Yet, they did not observe a significant relationship between headache locus of control and other perceptions relating to life control, emotional distress and social support. Thus, higher headache internal locus of control was not necessarily associated with more adaptive coping behaviour, although adaptive copers may appear less inclined to attribute control of their headaches to chance or medical professionals, than dysfunctional people. Similarly, Kearney et al. (1994) failed to confirm the hypothesis that chronic tension-type headache subjects evaluate

control in a more pessimistic and/or more 'realistic' manner than non-sufferers. However, in situations in which they became actively involved, headache sufferers tended to appraise control more realistically than non-sufferers (Kearney et al., 1994). On the other hand, while Ter Kuile et al. (1993) found no significant correlations between locus of pain control and adjustment to pain, they did find that people who had an internal locus of pain control perceived themselves as more effective in managing and reducing pain. These individuals tended to cope by diverting their attention and ignoring pain. By contrast, those individuals with a 'physician' locus of pain control orientation were more catastrophising and coped by praying or hoping, while a 'medication' locus of control perspective was associated with greater analgesic use.

Attributions of Cure

Investigating lay attributions of cure may be another means of gaining insight into the cognitive or behavioural strategies that are utilised when people experience a psychological or physical problem, and may have important implications for psychotherapy. Furnham (1989) found that non-patients rated understanding, receiving help, followed by inner control, as the three most important factors contributing towards the cure of illnesses such as hypertension, peptic ulcers, asthma, dermatitis and migraine. He reminds us that in order to help people, the expectations and beliefs of the helper/s as well as of the person/s being helped should be taken into account.

Treatment

According to Olesen, Tfelt-Hansen and Welch (in Gauthier, Ivers & Carrier, 1996) the treatment approaches for recurrent headache that derive from the biomedical model are mainly pharmacological, classified as either prophylactic or abortive. The literature on these treatments will not be reviewed here

as they are beyond the scope of this dissertation. Suffice it to say that research on the effectiveness of drug therapies for headache has produced differential results. In his review of the conventional medical treatments used for chronic pain problems, Bassett (1992) argues that one of the reasons for their dubious effectiveness stems from the use of a reductionist methodology which has produced an inadequate understanding of chronic pain problems and

> has led to a situation in which the perpetuation of the problem is unwittingly encouraged through the inappropriate extrapolation of knowledge and methods of treatment derived from the field of acute medicine to that of chronic pain theory, research and therapy. (Bassett, 1992, p.78)

Psychologically-based treatment approaches have sought to offer a broader conceptualisation of recurrent headache (Bassett, 1992), although investigations into their efficacy in the management of the problem have produced variable results (Gauthier et al., 1996). According to Gauthier et al., the evidence suggests that the most commonly employed of these methods, namely biofeedback, relaxation, and coping skills training, appear to be more effective when combined with drug therapies than when either pharmacological or nonpharmacological treatment is used alone. However, these authors propose that in order to develop more effective therapies, we must reach a better understanding of the ways in which physiological and psychological processes interact to produce headache, since the mechanisms whereby nonpharmacological therapies have their effects on headache are unclear. This dissertation takes their argument a step further in its contention that any treatment that does not view an individual's headache symptoms from within his or her broader social context, or does not consider the possible effects that a successful disruption of pain will have on the sufferer's psychosocial domain, is likely to fail.

The nonpharmacological treatments of biofeedback, relaxation, and coping skills training are discussed briefly below.

Biofeedback Training

Biofeedback is a physiologically-based treatment approach which is used to help patients to become aware of and achieve voluntary control over physiological responses that are believed to be involved sometimes in the pathophysiology of pain (Gauthier et al., 1996).

Electromyographic (EMG) Biofeedback

In this method, individuals are trained to reduce pericranial muscle tension. According to Bild and Adams (1980) as well as Gamble and Elder; Lake, Rainey and Papsdorf; and Sargent, Solbach, Coyne, Spohn and Segerson (in Gauthier et al., 1996) EMG biofeedback for migraine has been found to be more effective than no treatment. Studies on tension-type headache by Andrasik & Holroyd; Bell, Abramowitz, Folkins, Spensley and Hutchinson; Budzynski, Stoyva, Adler and Mullaney; Cram; Holroyd, Andrasik and Noble; and Janssen (in Gauthier et al. 1996) have reproduced these findings. However, other studies by Chesney and Shelton (in Gauthier et al., 1996) and Holroyd et al. (1977) have not replicated the findings. Neither did studies by Blanchard et al. (1983), and Richman and Haas (1994). Therefore, it appears that the benefits of EMG biofeedback training, at least in tension-type headache, are equivocal.

Thermal Biofeedback

This method is used mainly in the treatment of migraine. It involves teaching patients to increase their finger temperature, thereby stimulating vascular dilation of intra- and extracranial arteries, as well as providing them with temp-

erature feedback (Gauthier et al., 1996). Research on thermal biofeedback, like EMG biofeedback, has produced disparate findings and after reviewing the literature, Gauthier et al. (1996, p.549) concluded that the effects of this therapy on migraine do not appear to be "treatment specific". Two studies by Mullinix, Norton, Hack and Fishman; and Reading (in Gauthier et al., 1996) have, for instance, yielded similar results for both false and true temperature biofeedback conditions. Furthermore, according to Gauthier, Bois, Allaire and Drolet; Gauthier, Doyon, Bois, Leblond and Drolet; Hermann, Turner, Peters and Blanchard; Kewman and Roberts; as well as Largen, Mathew, Dobbins and Claghorn (in Gauthier et al., 1996), several studies have reported a positive treatment response for both hand-warming and (the purportedly counter-therapeutic) hand-cooling.

Blood Volume Pulse (BVP) Biofeedback

According to Koppman, McDonald and Kunzel (in Gauthier et al., 1996) this technique teaches migraineurs to reduce and voluntarily control the temporal artery pulse amplitude so as to provoke vasoconstriction in the extracranial arteries and thus, eliminate pain. Several authors including Bild and Adams (1980); Gauthier, Doyon, Lacroix and Drolet; as well as Gauthier, Lacroix, Cote, Doyon and Drolet (in Gauthier et al., 1996) have found BVP biofeedback to have significant benefits. The available evidence, according to Gauthier et al. (1996), suggests that the efficacy of BVP biofeedback is comparable to that of thermal biofeedback, relaxation, and coping skills training. Surprisingly, however, Gauthier et al. and Lisspers and Ost (in Gauthier et al., 1996) found that BVP training in a counter-therapeutic direction was equally effective in relieving headache activity. To explain these paradoxical results, Gauthier et al. argue that training in temporal constriction and temporal dilation may both have the same effect of providing a physiological condition that counters extreme vasomotor activity, thereby stabilising cerebral vas-

culature.

Relaxation Training

This method is believed to lower the psychophysiological effects of stressors by operating directly on the putative mechanisms involved in tension-type headache and migraine (i.e. muscle tension, and vasoconstriction or excessive general sympathetic arousal, respectively). The most commonly used relaxation methods in the treatment of headache include progressive relaxation, autogenic training, and relaxation response (Gauthier et al., 1996).

As with the aforementioned treatment procedures, the therapeutic value of relaxation methods remains an issue. In summing up the available evidence, Gauthier et al. (1996) conclude that relaxation has been found to be an effective treatment for tension-type headaches when compared to headache monitoring and attention-placebo conditions. However, in migraine studies the findings have been inconclusive.

The biological and psychological mechanisms underlying relaxation training, as with EMG, BVP, and thermal biofeedback, remain uncertain. Morrill and Blanchard (in Gauthier et al., 1996) believe the key mechanism to be a learned physiological response that mitigates excessive autonomic arousal. In another study, Blanchard, Kim, Hermann and Steffek (1993) concluded that belief in one's ability to achieve relaxation formed a crucial part of the therapeutic mechanism of relaxation training.

Coping Skills Training

Coping skills training procedures were adapted from cognitive-behaviour therapy, originally for the treatment of tension-type headaches, but they are also used for migraines. These procedures involve stress-coping skills, based on a

rationale that psychological stress causes headaches. They also encompass headache-coping skills which emerges from the notion that symptoms are precipitated and worsened by maladaptive responses to headache (Gauthier et al., 1996).

According to Holroyd and Andrasik; Newton and Barbaree; Richardson and McGrath (in Gauthier et al., 1996) and Holroyd et al. (1977), several studies have found coping skills training to be effective in the treatment of migraine as well as in tension-type headache. However, Blanchard, Appelbaum, Radnitz, Morrill, Michultka, Kirsch, Guarnieri, Hillhouse, Jaccard and Barron; and Holroyd and Andrasik (in Gauthier et al., 1996) note that other studies did not replicate these results.

Newton and Barbaree (in Gauthier et al., 1996) argue that headache sufferers perceive their illness more positively after coping skills training, and experience more problem-solving thoughts. However, according to Gerhards, Rojah, Boxan, Gande, Petrik and Florin; Mizener, Thomas and Billings; and Sorbi and Tellegen (in Gauthier et al., 1996) changes in cognitive coping strategies do not appear to be unique to coping skills training but may also follow relaxation and biofeedback training. Hence, Holroyd and Andrasik (in Gauthier et al., 1996) have proposed that it may be more important for headache sufferers to monitor their symptoms and to be able to respond with a cognitive or behavioural strategy that mitigates against pain, than providing them with specific coping activities.

Conclusion

Chronic headache is a complex, poorly understood disorder which, although not life-threatening, has a deleterious effect on all aspects of the sufferer's life and also has an impact on those who are interpersonally connected to the problem.

Although the research reviewed in this chapter offers dif-

ferent views on headache, it is apparent that by and large conventional medical and psychological thinking reifies headache as a pathological entity existing within the physical boundary of the individual who is the recipient of linear causal effects (Cottone, 1989; Keeney, 1979). This assumption gives minimal recognition to the important influence of a variety of contextual factors on the development, persistence and management of headache, and fails to consider the dynamic recursive patterns of interaction between physiological, psychological, cognitive and social factors. As Stapp (in Lucas, 1985, p.166) cogently points out, even "an elementary particle is not an independently existing unanalyzable entity, but a set of relationships".

This study aims to provide more metaphorical forms of description and explanation of chronic headache than has been allowed by conventional approaches. In Chapter 3, the theoretical foundation on which this study is based will be discussed.

CHAPTER 3

ECOSYSTEMIC EPISTEMOLOGY

Introduction

> **Some tools of thought are so blunt that they are almost useless; others are so sharp that they are dangerous. But the wise man will have the use of both kinds.**
>
> **(Bateson, 1979, p.34)**

This chapter will provide a description of the ecosystemic approach followed by a more thorough discussion of some of the key principles of second-order cybernetics on which this alternative worldview is primarily based. Before concluding the chapter, an ecosystemic conceptualisation of chronic headache will be furnished together with a brief overview of the implications of this perspective for psychotherapy.

The Dominant Worldview De-throned

The key assumptions of Cartesian-Newtonian thinking were highlighted in Chapter 1 and therefore will not be reiterated here. It is important to note, however, that during the 20th century, revolutionary trends in physics - specifically, Einstein's relativity theory and quantum theory - highlighted the limitations of Newtonian science in understanding complex phenomena. For instance, the observation that light may appear as electromagnetic waves or as particles depending on how it is observed, made uncertain the classical assumptions of objectivity and of the reality of matter (Capra, 1983). A discussion of the discoveries and assumptions of quantum physics is beyond the scope of this dissertation. What is important to note is that quantum physics led to a dramatic revision of our concepts of reality, rocking the very foundations of traditional thought. The result was the emergence of a radically different worldview which, while not

necessarily negating Newtonian thinking, nevertheless captures the essential interdependence of all phenomena and can be described through words like "organic, holistic and ecological" (Capra, 1983, p.66).

Ecosystemic Epistemology: A Paradigm of Pattern

The shift in scientific thinking introduced by the revolutionary discoveries of quantum physics is mirrored in the ecosystemic paradigm. In contrast to the Newtonian emphasis on linear causality and subject/object dualism, the ecosystemic approach attunes itself to holism, relationship, complexity and contextual interrelatedness since it is a conceptual framework based on systems theory, cybernetics and ecology (Keeney & Sprenkle, 1982).

Capra (1983) defines a system as "... an integrated whole whose properties cannot be reduced to those of its parts" (p.266). Thus, general systems theory emphasises a shift from focusing on the parts to viewing the whole system. 'Cybernetics,' a term coined in the 1940s by mathematician Norbert Wiener, refers to the "science of control and information feedback in systems" (Loos & Epstein, 1989, p.153). According to Keeney (1983a, p.61), "cybernetics belongs to the science of pattern and organisation which is distinct from any search for material, things, force, and energy" associated with classical science.

As the alternative epistemology to conventional ways of knowing, the ecosystemic paradigm proposes a communicational/ mental world of abstract 'ideas' and their relations. Bateson (in Keeney, 1983a) argues that this communicational world, being mentally determined, cannot be described with metaphors of substance, energy and quantification appropriate to the Newtonian world of 'entities.' Bateson (in Keeney, 1983b, p.47) points out that communicational events are "triggered by difference". Thus, for instance, the difference between what

a student receives for a test (a low mark) and what he expected to receive (a high mark) may prompt him to interact (differently) with his lecturer. A difference, therefore, entails a relationship of change between two parts. Accordingly, communicational events, or information, can only be understood and described using conceptual tools that highlight process, pattern, relationship and form (Keeney, 1983a). Like ideas, pattern and form have no 'realness' and thus cannot be discussed as though they do; neither can they be quantified (Keeney, 1982).

The ecosystemic approach developed from the study of families - as opposed to individuals - in the context of sociocultural systems (Auerswald, 1985). Cybernetics and general systems theories were first applied to the field of psychopathology in the 1950s by a team of researchers which included, among others, anthropologist Gregory Bateson, and psychiatrist Don Jackson (in Anderson, Goolishian & Windermand, 1986). This research team conceptualised an individual's behaviours and symptoms as related to the family organisation (Anderson et al., 1986) through recursive feedback processes. The family therapy movement subsequently emerged from this theoretical position with its own distinctive language, one in which cybernetic concepts served as elegant metaphors for understanding family processes in a systems framework that precluded seeking the truth, insight, causal factors, or intrinsic forces (Anderson & Goolishian, 1987; Doherty, 1991).

Some of the cybernetic concepts which this researcher deems particularly pertinent to an ecosystemic epistemology will now be discussed.

Feedback

"Feedback refers to the process whereby information about past behaviours is fed back into the system in a circular manner" (Becvar & Becvar, 1996, p.64). In early cybernetic

thinking the family was regarded as a closed system feeding information back on itself in the form of a symptom. The symptom was viewed as a control mechanism or governor in a cybernetic loop of mutual causality and circularity which prevented change by conserving family stability and role and relationship definition (Anderson & Goolishian, 1987; Anderson et al., 1986). At the level of simple or first-order cybernetics (to be defined more fully later) both positive and negative feedback processes are said to occur. Whilst negative feedback opposes change-producing fluctuations in a system, thereby preserving the status quo, positive feedback is an error-activated process that introduces systemic alterations (Becvar & Becvar, 1996). These feedback processes or self-corrective mechanisms are assumed to inhere in all families, providing stability for the whole family organisation (Keeney, 1983a).

The assumption that a symptom served a homeostatic function was associated with a first-order cybernetics viewpoint. This notion was later rejected by Bateson (in Loos & Epstein, 1989) and other cyberneticians as a reductionistic flaw in that it emphasised only one part of a recursive interaction, or whole circuit, which excluded the participation of the observer (Atkinson & Heath, 1990; Hoffman, 1985; Keeney, 1982). In other words, at the level of first-order cybernetics, the system is considered analogous to a black box with input and output relations, and the observer (in a separate black box) remains outside of it (Becvar & Becvar, 1996). The black box view of systems articulates a lower order of recursive process, one in which the outsider is seen as being able to observe the system objectively and to unilaterally control or manipulate it (Atkinson & Heath, 1990; Keeney, 1983a).

Keeney (1983a) points out that feedback processes are hierarchically (recursively) arranged in complex systems so that while simple feedback maintains the symptom in a family,

higher order feedback (feedback of feedback) preserves this lower order recursive process. Higher order feedback is associated with a second-order cybernetics viewpoint.

Recursion

In cybernetic epistemology the emphasis is on reciprocity and recursion. Whole systems are organised in a circular or recursive fashion where every part interacts with every other part. Consequently, individuals and events are viewed in the context of their bi-directional interactions and reciprocal influence (Becvar & Becvar, 1996). In this regard, Bateson (1972, 1979) defines a cybernetic circuit as a recursive linkage of differences which are transformed by information or 'news of difference' (i.e. "a difference which makes a difference") (Keeney, 1983b, p.47). A consequence of this recursiveness is that information can redundantly inform (in-form or loop back on) itself in a circuit, which is what Bateson (1972) calls 'ideas'.

Relationship/Double Description

Two individuals interacting together mutually influence one another, each punctuating the flow of interaction from his/her frame of reference. When the views of both members are combined, however, a pattern that connects them emerges giving an impression of the whole interactive system (Keeney, 1983a). According to Bateson (in Keeney & Ross, 1992), a systemic view of human interaction can only be discerned from multiple descriptions. In this regard, Bateson (1979, p.146) notes that

> it is correct (and a great improvement) to begin to think of the two parties to the interaction as two eyes, each giving a monocular view of what goes on, and together giving a binocular view in depth. This double view is the relationship.

Therefore, to preserve a sense of the whole, it is essential that our descriptions do not slice interactions into isolated parts (Keeney, 1983b; Keeney & Sprenkle, 1982). Bateson (in Keeney, 1983a) argues that to speak as if relationship is located in one person is to create a 'dormitive principle.' For example, to describe someone as dependent or aggressive etcetera, is to fractionate a description of relationship by isolating and reifying some 'characteristic' with assumed residence 'inside' one of the parties to an interaction (Keeney, 1983a; Keeney & Sprenkle, 1982). The ramifications of this perspective for viewing symptoms are significant, for when one widens the lens to focus on the matrix of ongoing relationship patterns, the assumption that the individual contains pathological process disappears, along with blame and cause-effect thinking.

Context

One of the fundamental assumptions of a systemic orientation alluded to so far, is that phenomena do not have an invariant existence but rather can take on different forms depending on the context against which they are viewed (Bopp & Weeks, 1984). Context is linked to meaning and in a communication world, words and actions - indeed all mental process - derive their meaning only from the network of relationships or context in which they occur (Bateson, 1979). Thus, this study assumes that symptomatic behaviour such as headache pain can be understood and transformed only by considering and working with the social context in which it occurs.

Second-Order Cybernetics: A Constructivist Approach

First-order cybernetics or the 'black box' view of systems enables therapists to view a system in the context of its interactions with other outside systems (Becvar & Becvar, 1996; Keeney, 1982, 1983a), and thereby, to discern patterns main-

taining symptomatic behaviour. However, the basic concern over the disadvantages of applying a first-order approach to human phenomena was that "it failed to prescribe higher-order punctuations that connect the therapist or observer to the client or observed" (Keeney, 1983a, p.158). This limitation carries the potential danger that the observer may attempt to purposefully control the observed system (Atkinson & Heath, 1990; Keeney, 1983a).

On the other hand, von Foerster (in Hoffman, 1985) reveals that from a cybernetics of cybernetics or second-order cybernetics perspective, the therapist is inextricably a part of the system under observation - a central premise of constructivism (Golann, 1987, 1988). Thus, a second-order, constructivist perspective removes the dualism between observer and observed so that the two separate 'black boxes' become one whole recursive system (Keeney, 1983a) with the emphasis falling on the observing system (Boscolo, Cecchin, Hoffman & Penn, 1987; Golann, 1987). One of the implications of shifting to a second-order 'observing system' perspective is that it is no longer possible to observe and describe a system objectively as if it exists 'out there' because as Keeney (in Loos & Epstein, 1989) tells us, the act of observing complex situations such as those concerning human interaction, alters the observed as well as the observer (Golann, 1987; Loos & Epstein, 1989). This perspective stems from early findings in quantum physics that indicated that observation and description do not occur independently of the observer's construction processes (Fourie, 1996a). Indeed, description is assumed very often to reveal more about the observer than about the system being observed (Golann, 1987; Loos & Epstein 1989).

Before discussing the concepts of second-order cybernetics, constructivism will be defined more fully.

Constructivism

"Constructivism means that all knowledge of the world is the result of our own constructing, ordering, inventing, languaging, constituting, creating (and so forth) processes, and not the result of our discovery of how the world really is" (Held, 1990, p.180). In short, it is impossible to observe reality as it is - assuming that a stable reality exists. Instead, reality is invented (Watzlawick, 1984) through the individual's ability to create mental images (Howard, 1991). However, Kenny (in Fourie, 1996a) notes that the brain does not function like a camera, carrying pictures of the objects we 'perceive' but rather, generates ideas about objects, ideas which are coloured by the perceiver's existing attributions of meaning and idiosyncratic ways of experiencing (von Glasersfeld, 1984). Nevertheless, because the individual is unaware of his act of creation, she/he experiences the world as something that exists 'out there' (Watzlawick, 1984).

The relationship of constructivism to ecosystemic thinking will be highlighted further in the following discussion of the most important concepts of second-order cybernetics.

Autonomy and Self-reference

The contribution to second-order cybernetics by biologists Humberto Maturana and Francesco Varela is that in grappling with the question 'what is the organisation of the living?' they discovered that the nervous system closes on itself; indeed, it has to in order for an organism to think about its thinking. Maturana and Varela's studies on perception led them to propose "a description of whole systems from the perspective of a whole system itself, without any reference to its outside environment" (Keeney, 1982, p.159). Thus, the term 'autonomy' refers to the identity of a system (Keeney, 1982, 1983a) which is always being conserved so as to maintain the system's viability. Since systems are recursively organised with every

part interacting with every other part, the whole cybernetic system interacts with itself and is, therefore, a self-referential system (Keeney, 1983a, 1983b). In other words, living systems recursively feed upon themselves (Keeney, 1983a) and, since they can only be described through reference to themselves, they are considered to be informationally and organisationally closed (Dell, 1985). Behaviour, according to this second-order cybernetics perspective, is a product of the interactions among the components of the system (i.e. a function of the system's internal structure) serving to conserve the organisation of the system (Griffith, Griffith & Slovik, 1990).

A system's highest order of recursion or feedback control regulates and maintains its autonomy (Keeney, 1983a). In speaking about autonomy, therefore, first-order terms such as 'homeostasis,' 'feedback,' 'circular organisation' and 'change' are replaced with notions such as feedback of the system's own feedback, homeostasis of homeostasis, and change of change (Keeney, 1982).

An autonomous, recursively organised, or closed system, is impervious to linear influences from the outside. As Maturana and Varela (in Keeney, 1982) remind us, when we interact with an autonomous system, we affect its whole organisation and not simply one part of it. Therefore in second-order cybernetics, our interactions with a system represent 'perturbations' rather than 'inputs' to remind us that our behaviour cannot be 'instructive' (Anderson et al., 1986; Becvar & Becvar, 1996; Keeney, 1982, 1983a). According to Varela (in Keeney, 1983a), the whole system may or may not compensate in response to a perturbation. If a system (e.g. a family) compensates, it will change its structure but its organisation or identity (as a family) will remain invariant (Keeney, 1982, 1983a), otherwise it will cease to function as a system.

In sum, therefore, this epistemology emphasises recursion and self-reference while issues of power and control have no place (Anderson et al., 1986).

Structure Determinism

Central to Maturana's thinking and linked to the view that systems are closed, self-organised entities, is the concept of 'structure determinism' which refers to the idea that living systems behave in accordance with the way they are built (in Anderson et al., 1986; Becvar & Becvar, 1996; Dell, 1987; Efran & Lukens, 1985). This implies that it is the structure of the system - and not the environment - that determines what the system can and cannot do. Structure determinism also reinforces second-order cybernetics' rejection of the assumption of instructive interaction since, at best, the environment is a perturbing agent which merely provides the context for what the system does (Anderson et al., 1986; Becvar & Becvar, 1996). As Efran and Lukens (1985, p.25) state: "people do what they do because of how they are put together, and they do it in connection with (but not on direct instruction from) the medium in which they exist, which includes other people".

Objectivity-in-Parenthesis

Maturana (1991, p.382) contends that: "... if we accept structural determinism, we have to accept that there is no way we may say something that represents the external world that we claim for epistemological reasons must contain us". In other words, since a living system is unable to step outside of its own activity (Efran & Lukens, 1985), and since it determines what is an interaction for it and the nature of such interaction, information/reality has no objective existence (Dell, 1985). Bateson agrees, stating: "our brains make the images that we think we perceive" (1979, p.38). "The mind contains no things, no pigs, no people, no midwife toads, or

what have you, only ideas (i.e. news of difference)" (Bateson, 1979, p.145). Obviously Maturana and Bateson are expressing constructivist views. What is less obvious, perhaps, is that this viewpoint applies to pain, for although pain may be located somewhere, it too is a created image (Bateson, 1979). One point of difference between Bateson and Maturana is that while Bateson (1979) contends that all experience is subjective, Maturana more accurately points out that "since there is nothing objective, there is also nothing subjective. There is only 'objectivity in parentheses'" (in Efran & Lukens, 1985, p.25). Bateson's (1979) contention implies linear cause-effect thinking since it assumes that the construction of reality has a starting point (i.e. inside the person), and ignores the recursive connection between the concepts 'subject(ive)' and 'object(ive).' However, as Varela (in Watzlawick, 1990, pp.161-162) tells us

> that the world should have this plastic texture, neither subjective nor objective, not one and separable, neither two and inseparable, is fascinating. It shows, indeed, the fundamental groundlessness of our experience, where we are given regularities and interpretations born out of our common history as biological beings and social entities.

In this statement Varela is alluding to the concept of 'structural coupling' which is discussed further on in the chapter.

The notion of distinctions gives further credence to the concept of objectivity-in-parenthesis and constructivist epistemology.

Drawing Distinctions

"The fundamental act of epistemology is to draw a distinction - distinguishing an 'it' from the 'background' that

is 'not it'" (Keeney, 1982, p.156). In cybernetics, what one perceives and knows about the world always follows from drawing a distinction (Keeney, 1982, 1983a). This is a recursive process meaning that what one draws, one observes, and vice versa (Keeney, 1982). Therefore, reality as a realm of things, is brought forth by an observer who makes distinctions (Maturana, 1978) in language. Thus, reality is not singular but comprises multiple versions. The implication of this for therapy/research is that therapists and their clients mutually construct a shared reality through the distinctions or punctuations they carve (Keeney, 1983a). According to ecosystemic epistemology, events can be patterned or organised in countless ways depending on how an observer chooses to see them. A system, for example, can be punctuated as an autonomous whole with no reference to external events, in keeping with a second-order view, or as interconnected with other systems, consistent with a first-order perspective (Keeney, 1982, 1983a). We also can choose to punctuate events in a linear fashion and/or to see them as recursively linked (Keeney & Sprenkle, 1982). This implies that ecosystemic epistemology represents a both/and, that is, a nondualistic, perspective.

Structural Coupling

It was noted earlier that from a second-order perspective, two systems are considered to be unable to influence one another directly. However, according to Maturana, in the process of interacting together they are considered to couple structurally, forming a larger self-regulated system in the process (Fourie, 1996b). In other words, by coupling structurally systems are able to mutually co-exist or fit together. As Becvar and Becvar (1996, p.80) explain: "organisms survive by fitting with one another and with other aspects of their context, and will die if that fit is insufficient".

Although systems couple structurally, they remain organisationally closed from one another (Fourie, 1996b) and thus their interactions continue to be determined by their individual structures (Becvar & Becvar, 1996). Nevertheless, as long as systems fit or couple, their reciprocal perturbations trigger structural changes in one another (Maturana & Varela, 1987) such that they may each begin to think and behave differently. These ideas are coherent with Bateson's (1979) contention that "information consists of differences that make a difference" (p.109).

How does structural coupling take place? According to Anderson and Goolishian (in Fourie, 1996b), individuals become structurally coupled through sharing ideas (i.e. verbal and non-verbal communication). Each system attributes meaning to the words and behaviour of the other system, meanings which are determined by the perceiving system's structure (Fourie, 1996b). As Reddy (in Fourie, 1996b) points out, the meanings attributed by the recipient/s may or may not be what the communicator/s intended to convey.

An important point to note is that the notion of structural coupling prevents constructivism from being mistaken for a solipsist 'anything goes' approach whereby all (constructed) realities are considered equally valid (Fourie, 1996a). As von Foerster (in Hoffman, 1985, p.384) points out, reality is a "consistent frame of reference for at least two observers". Thus, notwithstanding the impression that is sometimes created, constructivism does not postulate that all realities are equally legitimate or useful. Even though each individual creates a slightly different reality according to his or her own unique biological makeup, experiences, attitudes, etcetera (Becvar & Becvar, 1996), our ideas about the world are largely shared ideas, shaped by culture and language (Hoffman, 1985). This means that the validity of a particular reality is determined by the way it fits with the beliefs, attributions, and presuppositions etcetera, of the

people participating in its co-creation (Fourie, 1996a). Bogdan (1984) says that a process of confirmation facilitates the fit of one person's ideas to those of another person. Therefore, when we believe something to be true, any event that is interpreted as compatible with that belief tends to strengthen our conviction of its truth (Bogdan, 1984).

When the aforementioned ideas are extended to the domain of therapy and research, one realises that (1) therapists/ researchers are unable to describe any therapeutic/research situation without including themselves in the description; (2) "different couplings cause different, but compatible, worlds to emerge" (Elkaim, 1990, p.69). Therefore, if the constructions co-created by members of the therapeutic system present a solution to a problem, it simply means that they happened to fit with the ideas and meaning systems of those members. It means that consensus was co-created and not that the therapist found the right answer (Elkaim, 1990).

Language and the Construction of Meaning

Reality (meaning) is constructed through the distinctions we make in language and does not exist prior to language (Dell, 1985). However, language (verbal and non-verbal communication) not only enables us to make distinctions, but also to take action based on these distinctions, such as to describe or interpret our constructions (Anderson & Goolishian, 1987; Loos & Epstein, 1989). In this regard, Maturana argues that language is based on human action, namely, "the co-ordination of co-ordination of behaviour" (in Loos & Epstein, 1989, p.154). Another way of explaining it is that language arises from the reciprocal structural coupling of members of a system (Dell, 1985; Maturana, 1975) who evolve a consensual domain through an ongoing process of mutual perturbation of one another's ideas and behaviours (Maturana, 1975). In this sense, language both modifies and is modified by experience (Anderson & Goolishian, 1987). It is important to point out

that although consensual domains denote consensus about certain matters, agreement is not necessarily forthcoming; nor are consensual domains static, since ideas and actions are continually evolving through ongoing reciprocal perturbations.

What these ideas suggest, then, is that meaning is dialogically constructed and, thus, intersubjective and always changing (Anderson & Goolishian, 1987; Anderson et al., 1986; Loos & Epstein, 1989).

This perspective is shared by Bateson and expressed in his related concepts of 'mind' and 'ecology of ideas' (Bateson, 1972, 1979). Bateson (1979) defines mind as "an aggregate of interacting parts" (p.101) that is triggered by difference, resulting in transformations of the preceding events/ experiences which are also referred to as 'ecologies of ideas' (Anderson et al., 1986; Bateson, 1972, 1979). Thus, mind is found in communication networks; it is a process and not something inside a person's skull (Anderson & Goolishian, 1987; Capra, 1996; Golann, 1987; Loos & Epstein, 1989), while ecologies of ideas are the shared linguistic discourses through which our actions are co-ordinated to derive co-created realities and, thus, meaning (Anderson et al., 1986).

In the light of these views, participants' ideas and beliefs about their experience of chronic headache will be dialogically co-created in this study through the epistemological lenses of both the researcher and her research subjects.

A Brief Word on Social Constructionism

Although constructivism appears to emphasise the individual's internal structure, it is closely aligned with social constructionist thinking in the importance it places on the role of language in the creation of meaning, as well as its opposition to the modernist idea of the existence of a 'real'

world that can be discovered (Hoffman, 1992).

Replacing cybernetic analogies with metaphors that originated in semiotics and literary criticism such as narrative, text, and story, social construction theory argues that ideas, beliefs and memories emerge in social exchange through language. Accordingly, all knowledge is seen as evolving "... in the space between people, in the realm of the 'common world' or the 'common dance'" (Hoffman, 1992, p.8). Therefore there is no absolute truth or reality, only co-created stories about the world (Hoffman, 1992). Maturana's constructivist theory clearly supports the view that the world we live in is created in social discourse (Anderson et al., 1986).

An Ecosystemic Conceptualisation of Headache

In contrast to the traditional assumption that problems reside within the individual, ecosystemic thinking conceptualises chronic headaches as a problem that exists in a network of meanings constructed by those persons who interact around the issue (Griffith et al., 1990). In coherence with the notion of structural coupling, headaches are an indicator of the sufferer's "ecology of relationships" (Keeney, 1983a, p.124). In this sense, "the symptom, though physical, acquires a 'symbolic' significance that expands from individual symbol to become a 'family metaphor'" (Onnis, 1993, p.142).

Seeing that it is a physical symptom frequently accompanied by intense pain and discomfort, it may sound nonsensical to argue that a headache, like any other problem, is a socially constructed reality existing only in language (Anderson & Goolishian, 1987). However, without detracting from the perceived realness of the pain, or the possibility of an underlying pathophysiological contributor, the ecosystemic perspective argues that the participants involved in the headache problem, including the sufferer and those individuals

who have to deal with his/her discomfort, inadvertently perpetuate the problem by the story they co-create about it (Griffith et al., 1990). This story contains their private explanations about the way mind and body communicate to produce headaches. As such, it substantiates and organises the symptoms as well as everyone's behaviour in relation to the problem (Griffith et al., 1990; Sluzki, 1981, 1992). As Sluzki (1981, p.275) puts it: "symptom-maintaining patterns ... ensure family rituals and routines, they introduce order, they become cherished markers of collective identity".

According to the ecosystemic perspective, therefore, headaches are not regarded as existing 'in' a system - individual or otherwise - or even in social objectivity (Hoffman, 1985). In this regard, Anderson et al. (1986) refer to problem-determined systems. A problem-determined system is defined by those individuals who actively communicate (or try not to communicate) about something that is a problem for them, regardless of whether their ideas, beliefs, perceptions and experiences about the issue and its solution concur (Anderson & Goolishian, 1987; Anderson et al., 1986; Loos & Epstein, 1989). The problem-determined system, therefore, is not a predefined social structure, but rather "an observer-dependent construction about those persons in active communication around what is being called a problem" (Loos & Epstein, 1989, p.158). Once the participants believe either that the problem no longer exists or that it is no longer troublesome, the problem-determined system dissolves. Therefore, just as a problem is created in language, it also dissipates in language as new meanings about it are co-constructed, usually in conversation with a therapist (Anderson & Goolishian, 1987; Griffith et al, 1990; Loos & Epstein, 1989).

When the conceptual lenses are widened to include members of the larger system, it becomes clear that they too are afflicted by the sufferer's symptoms (Fourie, 1996b; Onnis, 1993), and that the story they construct provides them with a

sense of meaning about the problem. However, it also restricts them from perceiving events which do not fit with their beliefs and attributions, preventing the emergence of alternative ideas, problem-solving behaviours and patterns of interaction (Griffith et al., 1990). In other words, the headache problem becomes stable and chronic as the discourse around it coalesces. This is compatible with Keeney's (1983a) argument that pathology is "a sort of escalating sameness" which results from "a system's effort to maximise or minimise a particular behaviour or experience" (p.123). What is the reason for a system maximising or minimising a certain behaviour? The answer can be found in the concept of 'autonomy' which, as was pointed out earlier, must be conserved to ensure a system's survival. This brings us to Fourie's (1996b, p.56) contention that symptoms are "communications about the conservation of autonomy in the face of perceived threat".

Conservation of Ambivalence

Every behaviour can be regarded as a system's attempt to conserve its autonomy or identity. According to Fourie (1996b), symptomatic behaviour represents an extreme attempt by a system to preserve its life as a system. Thus, chronic headaches are "stopgaps, non-ideal ways (as defined in language by the sufferer and/or others) of behaving" (Fourie, 1996b, p.57). Fourie (1996b) further argues that the autonomy which sufferers of somatic disorders (and their families) attempt to conserve in verbal and non-verbal language can be viewed as an ambivalent one. In terms of this theory, therefore, chronic headaches can be regarded as linguistic expressions of the ambivalence or conflicting discourses in which the sufferer (and members of his/her social context) participate(s).

At this point in the discussion, it is necessary to expand on how headaches and their context become intertwined and evolve together.

A Co-evolutionary Approach

The ecosystemic approach encapsulates a co-evolutionary model in which systems are viewed as continuously changing in unpredictable and nonlinear ways. This perspective is parsimoniously expressed through Ilya Prigogine's concept 'order out of chaos' (Anderson et al., 1986). According to this theory, a system experiences fluctuations around its range of stability. At any point in time, a fluctuation may become amplified surpassing the system's existing threshold of stability and pushing it into a new, dynamic range of functioning. According to Prigogine, Nicolis and Babloyantz (in Dell & Goolishian, 1981) and Prigogine and Stengers (in Anderson et al., 1986), many paths of change are available to the system as it becomes unstable, the direction chosen being determined by chance. The ramifications of this evolutionary process, according to Prigogine et al. (in Dell & Goolishian, 1981), are that one cannot control or predict when or how the system will reorganise; one can only 'bump' the system in the direction of instability by 'perturbing' it.

In this evolutionary systems model symptoms are conceptualised as a "critical point of instability" (Onnis, 1993, p.142) which can signal an opportune moment for a system to grow toward new and more complex levels of organisation. However, this optimistic view of symptoms is tempered somewhat in the case of a chronic problem for if symptoms are enduring, it means they have successfully modified the context in such a way as to improve their fit with the wider system (Bloch, 1987). Bloch explains that at its onset, a chronic problem such as headache may represent a random, destabilising event which is relatively uncoupled with its context and thus, has little meaning for the family system. Over time, however, as the symptoms recur they become anchored to, and take on meaning for, the family/health care systems. In turn, as a consensual domain develops, the symptomatic pattern is repeated; the process is recursive. Thus, the headache problem and aspects

of its surround (for instance, the conflicting discourses in which family members participate) co-evolve together, changing each other and improving their mutual fit over time so that a self-maintaining headache pattern forms (Bloch, 1987). As a result, symptomatic patterns may endure even though the original context no longer exists (Sluzki, 1981).

Implications for Psychotherapy

The aim of an ecosystemic approach to psychotherapy with headache sufferers is to engender a conversational context through which the participants collaborate to co-construct the meaning system of what is defined as a problem (Griffith et al., 1990; Hoffman, 1985; Loos & Epstein, 1989). Through dialogue the concretised ecology of ideas about the problem evolves and, as new linguistic constructions are made by the participants, shifts in meaning and behaviours emerge enabling new avenues to the dissipation of the problem to be explored (Anderson & Goolishian, 1987; Anderson et al., 1986; Griffith et al., 1990; Loos & Epstein, 1989). Fourie (1996b) explains that to facilitate the dissolution of the ambivalent ideas and, thus, the headache symptoms, the therapist should confirm the autonomy of the individual(s) concerned, while simultaneously disconfirming the ambivalent ideas.

In accordance with constructivism, there is no single objective truth about the family or its problem; rather there are multiverses. Since the researcher in this study will be an integral part of the problem-determined system, her descriptions will be only one of many possible constructions that could be made (Anderson et al., 1986). Moreover, while the researcher can interact with the headache sufferer and perturb his/her ideas, she cannot unilaterally control the pace, direction or timing of change, or even whether change will occur (Anderson et al., 1986). In ecosystemic epistemology, the task of the researcher/therapist is simply to explore realities that fit the particular individual's idio-

syncratic manner of attributing meaning to events (Anderson & Goolishian, 1987). In this regard, Doherty (1991, p.42) states: "the healing occurs during the process of searching for meaning, not in the answer".

Conclusion

The ecosystemic perspective represents a 'quantum jump' from an anticontextual and reductionistic epistemology concerned with objectivity and truth, to a worldview which encompasses complexity, contextual patterns of relationship and multiple realities. This radically different conceptualisation of chronic headache may be unfamiliar and disconcertingly abstract and diffuse to most health-care experts working in the field of somatic disorders. However, it is this researcher's opinion that a unified conceptual framework which views individuals and their problems as an evolving flow of interconnecting ideas and co-ordinated actions (Anderson & Goolishian, 1987), facilitates a more flexible and aesthetic understanding of the problem, one in which static, piecemeal and reified explanations are avoided.

CHAPTER 4

RESEARCH DESIGN

Introduction

> **Stories are habituations. We live in and through stories. They conjure worlds. We do not know the world other than as story world. Stories inform life. They hold us together and keep us apart.**
>
> **(Howard, 1991, p.192).**

Traditional Cartesian-Newtonian epistemology has formed the bedrock of developments within the behavioural sciences. One classic example is the Cartesian split between mind and body which, since its incorporation into Western thought, has produced numerous theories and research projects concerned with hypotheses about mind-body interaction generally aimed at identifying which one causes which (Colapinto, 1979). However, the issues relating to the behavioural sciences are so complex that despite the wealth of 'empirical evidence' that has been amassed in these disciplines, paradigmatic agreement remains elusive (Auerswald, 1985). "The epistemological 'cracks' abound, not only in the form of unexplained phenomena, but also between the plethora of paradigms" (Auerswald, 1985, p.5).

The approach to chronic headache by the conventional models of illness has proved no exception, as the literature reviewed in Chapter 2 indicates. In that chapter, the mind-body dualism is reflected in the numerous narrowly defined perspectives in which the conceptual 'whole' is reduced into its putative constituent elements. The result of this conceptual fragmentation is a lack of consensus as to whether mind or body takes causal precedence, a perpetuation of the 'body is machine' notion and a concomitant failure to treat the whole person (Capra, 1983) - in sum, an inadequate understanding of how to address the problem of chronic headache.

The present dissertation describes the problem of chronic headache from an ecosystemic perspective using a qualitative rather than a quantitative methodology. Since it is a unifying conceptual framework which emphasises contextual and attributional factors, an ecosystemic perspective not only provides a reconceptualisation of chronic headache, but also espouses a view of science that is incompatible with many of the assumptions underlying the positivistic scientific methods of the traditional Western paradigm (Hoffman, 1990).

Quantitative and qualitative research will now be compared briefly in order to elucidate the rationale for the use of a qualitative methodology in this dissertation.

Quantitative versus Qualitative Research

Qualitative research differs fundamentally from conventional quantitative methods in its conceptions about 'reality,' 'truth,' 'knowledge' and 'objectivity.' Rooted in positivism, quantitative approaches insist on unequivocal knowledge based on the assumption that reality can be discovered (Atkinson & Heath, 1987, 1991; Fourie, 1996a; Hoffman, 1990; Lincoln & Guba, 1985; Shapiro, 1986). To attain an accurate map of reality, quantitative research is a method-centered undertaking designed to capture sensory data that either support or reject postulated hypotheses. Accordingly, stringent efforts are made to remove every aspect of subjectivity and researcher bias from the inquiry since it is believed that values are distinct from facts and will only contaminate the data (Atkinson & Heath, 1987; Lincoln & Guba, 1985; Shapiro, 1986). Moreover, to be able to measure the data so as to arrive at an unequivocal outcome reflecting the 'truth,' the intricate complexities of social relationships and contextual factors must be eliminated or controlled as far as possible (Fourie, 1996a; Keeney, 1979).

Comfort (in Wassenaar, 1987) states that in recent times,

the so-called 'hard' sciences of physics and biology have called positivistic methods into question. This being the case, psychologists may be even more justified in questioning the applicability of Newtonian research criteria to psychological phenomena, especially when, as Lincoln and Guba (1985, p.114) point out, "it is difficult to imagine a human activity that is context-free". The qualitative, or naturalistic, research paradigm could be regarded as more suitable for investigating social science phenomena since it relies on the research participants' perspectives to make total sense of complex situations and interactions (Moon, Dillon & Sprenkle, 1990). Since meaning is contextual, not atomistic, qualitative and descriptive research explores complex interrelationships amongst events in their meaning-creating natural settings (Lincoln & Guba, 1985; Moon et al., 1990).

With this in mind, it is not surprising that qualitative approaches associated with new paradigm research and dialectical science turn the tenets of the traditional scientific paradigm upside down and inside out. For instance, qualitative research posits that the contention that the 'right' method will yield the truth is merely a myth. Instead the qualitative paradigm emphasises multiple kinds of knowledge obtained through a variety of methods (Gergen, 1985). This is because it recognises that "the rules for 'what counts as what' are inherently ambiguous, continuously evolving and free to vary with the predilections of those who use them" (Gergen, 1985, p.268). Hence, 'facts' can be accounted for meaningfully by a number of different theories, and are therefore theory-determined, having no absolute meaning per se (Lincoln & Guba, 1985; Sargent, 1997). In addition, the new science paradigm recognises that 'reality' and thus, understanding, is continuously changing from moment to moment (Bopp & Weeks, 1984). On a practical level, these assumptions translate into flexible research designs which evolve in response to data (Moon et al., 1990) and inductive data analysis (Lincoln & Guba, 1985). According to Glaser; Goetz and LeCompte; Miles

and Huberman; and Strauss (in Moon et al., 1990) and Lincoln and Guba (1985), inductive proof, unlike the deductive proof of atomistic science, cannot be conclusive since it seeks to generate theory through rich descriptions of phenomena, not to confirm hypotheses.

As the aforementioned implies, descriptive, qualitative approaches do not subscribe to the notion of 'objectivity.' Instead it is assumed that any social phenomenon can be described 'accurately' from many viewpoints and, paradoxically, that any point of view can only be partial (Atkinson & Heath, 1991; Lincoln & Guba, 1985). In addition, as Lincoln and Guba (1985) and Tomm (in Atkinson & Heath, 1991) point out, new paradigm approaches recognise that observers tend to see and construct what they want to find. According to Bateson (in Colapinto, 1979, p.428), "there is no such thing as a 'neutral' or 'uncontaminated' grasping of 'reality' but rather a patterned approach to it after a set of categories that regulate both our perceptions of and our action on reality". Thus, Minuchin, Rosman and Baker (in Colapinto, 1979) remind us that the researcher's frame of reference determines which data are highlighted, which are ignored and the way in which they are arranged (Keeney, 1979). Clearly, then, subjectivity and investigator bias are intrinsic to the research process and cannot, and should not, be eliminated but rather should be made explicit and taken into account as far as possible (Lincoln & Guba, 1985; Moon et al., 1990).

Congruence between the Qualitative Paradigm and Ecosystemic Epistemology.

Epistemology, as was pointed out in Chapter 1, is concerned with the cognitive operations involved in acquiring knowledge. Therefore, epistemology underlies the research approach that is used in an investigation (Wassenaar, 1987).

Ecosystemic epistemology specifies that observers actively

participate in constructing their observations and that the act of observing influences what is observed (Atkinson & Heath, 1987; Hoffman, 1990; Keeney & Morris, 1985). Thus, observation is always theory-laden and self-referential although, as pointed out earlier, positivistic science contends otherwise. In this regard, Keeney and Morris (1985, p.549) state that qualitative approaches represent "a shift from a monological paradigm in which the observer is not allowed to enter his descriptions, to a dialogical paradigm in which descriptions reveal the nature of the observer". Consistent therefore with the constructivist view that all observations are self-verifying, qualitative research does not set out to prove observations, but to generate new theoretical principles (Keeney & Morris, 1985).

Moreover, the coherence between qualitative research and ecosystemic epistemology is evident in the emphasis both place on social context, recursion, self-reference, whole systems and multiple realities (Atkinson & Heath, 1987; Moon et al., 1990; Sells, Smith & Sprenkle, 1995). In descriptive and qualitative research, the whole self-referential system includes researcher, research participant/s, research problem and other aspects of the inquiry context, in simultaneous recursive interaction (Keeney, 1979). From a second-order cybernetics view, the two separate systems comprising the researcher and research participants come together to form a new and larger composite system.

In qualitative research, open-ended exploratory interviews are used with the intention of generating rich descriptions and emergent themes (Sells et al., 1995). According to Hammersley and Atkinson (in Fourie, 1996a), research results are not 'facts' representing a fixed reality; consistent with a second-order, constructivist perspective, they are social constructions co-created by both the researcher and respondents in the flow of an evolving conversation in a particular social context.

Finally, qualitative research is believed to be more appropriate and effective than traditional positivistic methods in grappling with, and preserving, the tangled complexity of meaning-generating problem-determined systems and in accounting for how systems change. As such, qualitative research is believed to approximate the world of the clinician more closely.

The Focus of the Study and the Role of the Researcher

By shifting from an emphasis on intrapsychic factors towards an understanding of contextual elements, this study aims to fill a gap in the research literature on chronic headache. The investigation seeks a more holistic understanding of the headache sufferer's experience, exploring how an individual's headaches and the context in which they occur have evolved together to derive a fit that stabilises each other (Bloch, 1987). This 'fit' will have evolved out of the 'ecology of ideas' (Bateson, 1972) which has organised around the problem theme. Since headache symptoms are viewed as communications whose meaning is unique to the idiosyncratic interpersonal context of the problem, there is no focus on etiology, cause and effect, truth or proof. What assumes importance in this study are the recursive connections between recurrent headache pain and the individual sufferer's life ecology, including her interpersonal relationships. Against this background, the study furnishes a descriptive account of the network of ideas and attributions of meaning that the headache sufferer and those people who recursively interact with her - including the researcher - attribute to the problem. Incorporated into this interlinked matrix of ideas are, among other conceptions, beliefs about the origin and perpetuation of the problem (Griffith et al., 1990) as well as perceptions about the effect of the symptoms on the sufferer's interpersonal relationships.

In keeping with ecosystemic reasoning, the study does not

seek the 'objective truth' about the participants, their headache conditions and relationships. As Lincoln and Guba (1985, p.212) state: "the outcome of naturalistic inquiry is a reconstruction of the multiple constructions that various respondents have made". Consistent with second-order cybernetics, the theoretical perspective of this study, the researcher cannot stand outside the system but is intrinsic to it and, thus, must be included in any description of it. As Keeney (1979, p.124) says: "the therapeutic situation is therefore a whole system consisting of the simultaneous interactions of all parts. These simultaneous interactions self-referentially identify, define, and constitute the whole system". Thus, the researcher's and participant's relationship and interactions at a specific time in a particular context create the whole system. Moreover, the researcher's description of her observations reflects her epistemological lenses which guide her behaviour. Consequently, the distinctions drawn in the study reveal as much, if not more, about the researcher as about the research participants.

This study also does not focus on finding solutions or a 'cure' to the headache disorder - this would be an expression of linear control and reductionistic thinking. In this study it is assumed that the researcher and the participants view their worlds and make sense of experiences in idiosyncratic ways. Therefore, both the researcher and the respondents bring their own realities to the inquiry context. In becoming part of the problem system, the therapist/researcher acts on the participants while the participants simultaneously act on the researcher. Through dialogue, the researcher and research participants actively collaborate to co-create the reality of the problem. The ideas that co-evolve from this recursive interaction result in what Maturana (1975) calls a 'consensual domain.' However, it must be remembered that just as realities are constructed in language, they can be de-constructed linguistically and new realities created (Fourie, 1996a; Hoffman, 1990). Since the researcher is a newcomer to the

problem-determined system, she will have a somewhat different perspective to that of the research participants and thus she might be able to introduce alternative constructions and meanings. Indeed, in this study the researcher/therapist investigates both the headache context and ways to therapeutically intervene into it. Consequently, she will attempt to perturb the existing ecology of ideas and help it "to evolve in a direction where the consensual definition of the problem as a problem is no longer central" (Fourie, 1996a, p.15). In this way, the problem may partially or completely dissipate or take on a different meaning thereby facilitating different action possibilities for the headache sufferer. However, this process is by no means certain and thus, change is not guaranteed. Firstly, living systems are unpredictable and cannot be influenced directly since they are structure-determined, as was noted in the previous chapter. Thus, the system's response to any perturbation will be determined by the structure of that system, not by the perturbation. Nevertheless, it is assumed that different perturbations will elicit different responses from a particular system. Secondly, an ecosystemic perspective does not conceptualise change in a finite, linear manner, but as part of an ongoing process. Therefore, deciding what is an outcome is rather arbitrarily determined by the time period of the inquiry and the researcher's and participant's definition of outcome (Wassenaar, 1987).

Some Important Ideas which Formed Part of the Researcher's 'Reality'

1. Concerning the use of techniques/interventions in the research/therapeutic process, the researcher believes that (i) by merely entering the system as a newcomer she is already intervening, and thus, perturbing it; (ii) the use of any particular technique/interpretation/construction stems from her 'structure' at that moment, just as it is the participant's 'structure' at a given time that determines the latter's res-

ponse (Efran & Lukens, 1985); (iii) 'diagnosis' and 'intervention' are not two separate activities but are part of the same continuously evolving process (Andolfi, 1979). Therefore, the researcher/therapist considered the use of specific directives and interventions (e.g. reframes, paradoxical tasks, rituals, etc.) to be a means of providing valuable information about the structure and organisation of a participant's system, and introducing alternative meanings and connotations. The use of a particular intervention therefore was not viewed as an 'input' into the system made by an outsider and aimed at unilateral change.

2. The researcher believes that although the aim in qualitative research is to form close relationships with the participants, the individual 'structures' of the researcher and participant determine how they will couple or fit with one another at any point in time.

3. Patterns and themes are distinguished by an observer and cannot be reified (Keeney, 1982) since different observers will identify different patterns, punctuating them into sequences in different ways depending on his/her frame of reference. In this regard, the researcher found Keeney's (1982) words compelling: "we are free to carve the world as we like as long as our carvings are remembered to be approximations for the more encompassing patterns from which they were demarcated" (p.162).

4. The researcher's thinking embraces a dialectical outlook which views any particular reality as transitory and events/phenomena as embodying a complex interaction of bipolarities, inconsistencies and oppositions (Bopp & Weeks, 1984). As Rychlak (in Bopp & Weeks, 1984, p.51) comments: the "external thing-in-itself" (i.e. discrete entities) associated with traditional conceptualisation "is now a many-in-one".

The Research Method

The epistemology according to which the research problem is defined determines the research method and the particular way in which the observed data is organised in order to generate what will be regarded as knowledge (Keeney, 1979; Wassenaar, 1987). "And what is recognised as knowledge eventually becomes what is consensually defined as reality" (Wassenaar, 1987, p.25).

Since the research design of a qualitative, naturalistic inquiry unfolds as the study develops, it is not possible to formulate a research design in a conventional manner. Nevertheless, data collection and analysis are guided by the research questions which also may change as the study progresses.

In this investigation the problem of chronic headache will be explored and described using case study illustrations. This is coherent with an ecosystemic, constructivist epistemology. Only by employing a case study design could due consideration be given to the uniqueness of the life ecology of an individual.

The Case Study Method

Naturalistic investigations take an emic position, that is, they tend to provide a reconstruction of the respondents' meanings. Positivistic research, on the other hand, generally focuses on etic inquiry whereby the research is directed toward a construction that is brought to the study a priori. The case report is more appropriate for emic inquiry (Lincoln & Guba, 1985).

The case study provides a 'thick description' of contextual information and thus, is an effective means for conveying the interplay between researcher and respondents, an

interaction which influences data interpretation and reporting (Lincoln & Guba, 1985). Both the sending and receiving contexts can only make judgments of transferability on the basis of adequate knowledge. By presenting a vivid, lifelike description and allowing readers to achieve a personal understanding through their own tacit knowledge, the case study permits an assessment of transferability (Lincoln & Guba, 1985). "The reader has an opportunity to judge the extent of bias of the inquirer, whether for or against the respondents and their society or culture" (Lincoln & Guba, 1985, p.359).

One of the disadvantages of the case report from a positivistic perspective is that generalisation and prediction cannot be made from the research 'findings.' However, an ecosystemic perspective does not regard this as a limitation since every research context differs because individuals have different 'structures' - which are continuously altered through experiences - and the circumstances vary. Whereas this approach aims to increase complexity, prediction and generalisation are considered to "represent a special case of reductionism" (Lincoln & Guba, 1985, p.117).

Recruitment of Research Participants

Purposive sampling and convenience selection were used in the study (Lincoln & Guba, 1985). The case report material furnished in the next chapter was obtained from two headache sufferers who were referred to the author.

It should be mentioned that while the study was not restricted intentionally to a particular gender or race group, only female Caucasian headache sufferers were referred to the author.

The reseacher made initial contact with the participants by telephone and briefly explained the nature of the investigation. Once she was satisfied that the individuals met

the research criteria, their co-operation and participation in the project was solicited.

Specific inclusion criteria for this study were: (1) the participants must have experienced chronic or recurring headaches for at least six months (see Chapter 1); (2) headache should occur with sufficient frequency as to be mutually qualified by researcher and respondent as interfering with quality of life. Because the frequency and duration of headache pain varies so widely from person to person and from headache to headache, this criterion was defined very loosely. However, participants were included if they rated themselves as averaging one headache a week or, if the pain occurred less frequently - for example once a month - but lasted for a prolonged period of time (i.e. a few days); (3) the headaches were rated subjectively as moderate to severe in intensity.

Consistent with an anti-reductionistic stance, this study did not distinguish between headache sub-types - for instance, between migraine and tension-type headache - neither were subjects excluded on the basis of any neurological disorder which was presumed to account for their headache symptoms (see Chapter 1).

Another noteworthy point is that without any 'objective' means of determining the severity, frequency and duration, or even the authenticity of the individual's symptoms, it was considered necessary to base the study on the assumption that the research participants were indeed genuine headache sufferers who fulfilled the research criteria. However, questions relating to the study's criteria were only put to the individual headache sufferer; confirmation was not sought from her medical practitioner. Although it appeared from the initial telephone call to the participants that they had each sought extensive medical advice and treatment for their headaches and in each case it appeared that no organic etiology had been found, it must be pointed out that one of the respon-

dents (Sarah) was diagnosed with Temporal Lobe Epilepsy (TLE) subsequent to the research interviews. It is believed that TLE often causes headaches (Selemani, personal communication).

It was considered ethical practice to ensure that each participant signed a letter of consent (see Appendix A) prior to her first interview with the author. The letter briefly outlined the aims of the research project and details pertaining to the nature of the individual's participation. That is, the participants were told the researcher was interested in finding out what effect their headaches have on their day-to-day functioning and relationships as well as their views about the origin of the problem, how they cope with it, and their ideas about a possible solution, etcetera. For reasons that are explained below, it was not possible to stipulate how many interviews would be conducted. The participants were informed of this during the initial telephone call and the letter stated that they were free to withdraw from the investigation at any time should they wish to do so. The letter also contained the assurance that all information supplied by the participants would remain confidential and would not be communicated to anyone not directly connected with the study. (To ensure anonymity, all names and identifying details have been changed in the case report material provided in Chapter 5.) Finally, the respondents were informed that the researcher could not guarantee that any benefits (in terms of headache relief or otherwise) would be derived from their participation in the study.

Data Collection and Analysis

Unstructured interviews were used to obtain information. The interviews each lasted about one hour and were carried out in the respondents' homes approximately once a week or once every two weeks. It was not possible to specify at the outset the number of interviews that would be conducted in each case, although practical considerations and the limited time avail-

able dictated a shorter time frame than that suggested by Keeney and Sprenkle (1982). Accordingly, the researcher decided to cease data collection once redundancies and/or a shift in meaning occurred. Since it was reasoned that a longer time frame of, say, six months would increase the likelihood of the participants withdrawing from the project, the respondents were told at the outset that the interviews would span one to two months. Ultimately, four sessions were conducted in the first case study and three in the second case study.

To create a collaborative context with more equitable roles between researcher/therapist and respondent, the interviews were designed to resemble a conversation more than a strict question and answer session. The interviews were flexible and flowed in the particular direction that each conversation took. Each conversation was tape recorded, listened to and transcribed. The researcher studied the transcriptions for patterns and themes, and briefly reviewed the salient points of the interview with the participant at the next meeting. It must be pointed out, however, that data collection and analysis were not two separate activities for they essentially occurred simultaneously throughout the project. As Sells et al. (1995, p. 207) state: "findings from the data analysis of each interview or observation then provide the researcher with new questions, and the alteration of earlier questions, to ask participants in the next series of interviews". There was little planning prior to each session. Lincoln and Guba (1985, p.60) point out that "planning is less a matter of prediction and control than of detecting errors (twists, shifts, unexpected developments) and responding to them". Hence, the case studies were approached on a session-by-session basis with the content (including the interventions) generally evolving out of the 'here-and-now' conversational process. Nevertheless, in the first interview, the onset of the problem, treatment/s sought and the sufferer's description of her headaches were investigated. Subsequent questions in-

vited descriptions of the interpersonal context of the symptom. Certain patterns and themes emerged from these descriptions. Specific 'interventions' were employed where these were considered potentially useful in (1) perturbing the existing realities and interaction patterns and (2) providing additional information about the system's functioning. In the course of the conversations, therefore, as the participants related relevant aspects of their stories, the researcher took an active role, offering alternative ideas and interpretations. Realities that were not helpful were deconstructed and new meanings co-constructed which were coherent with each participant's unique 'structure.' Thus, the researcher and the participants co-created a "shared domain of meaning" (Anderson & Goolishian, 1990, p.162) through the epistemological distinctions they established (Keeney, 1982).

Difficulties Encountered

For reasons that remain unclear, the researcher experienced problems with her tape recorder in three of the four interviews conducted in the first case study (Ronel). While small segments of the first two interviews did not record, the third recording was barely audible. Thus, transcribing proved a little frustrating but fortunately it was done shortly after each interview which meant that the missing/inaudible portions of the conversations could be reconstructed from memory. Hence, the researcher does not believe that data collection and analysis were compromised by important information being lost.

In the first interview with Ronel, the context markers which defined the conversation as research proved anxiety-provoking for the researcher. Firstly, conducting an interview with people unknown to her in their home coupled with the fact that she, and not they, had requested the interview, made the researcher feel like an intruder. Secondly, the researcher was constantly aware of the tape recorder. This, together with the

knowledge that the interview would form part of this dissertation, produced in the researcher a disquieting sense of 'finality' and feelings of 'stuckness' for which she compensated by talking too much. Fortunately, the researcher had overcome these issues by the second session.

One difficulty the researcher did not manage to overcome, however, was her discomfort at interacting with the participant's husband, John, despite her perception of him as an affable man. As a result, she found herself addressing most of her questions and comments to Ronel. Although the researcher's behaviour towards John provided important interactional information, it was also unfortunate as the headache problem was redefined in interpersonal terms. Therefore directing more circular (systemic) questions to John would have increased the complexity of the descriptions that emerged.

Despite these difficulties, however, the researcher believes she managed to develop a positive relationship with Ronel and John and that the interviews were mutually satisfying.

A third case study was referred to the researcher and one interview was conducted with the woman. However, she failed to keep three different appointments for the second interview stating reasons such as family commitments and a busy work schedule. The researcher gained the impression that the respondent was not sufficiently motivated to participate and since attempts to gain her co-operation proved to be both frustrating and time-consuming, it was decided that little purpose could be served by pursuing the matter any further. Moreover, the researcher decided not to include the interview information in the case reports since it was based on a 45 minute encounter which she believed would contribute relatively little to the study as a whole. Consequently, the case studies presented in Chapter 5 are those of the two participants who

completed all phases of the inquiry.

Conclusion

Although chronic headache is an illness of the body, it acquires a meaning that "if decoded, reveals a knot of suffering in which biology, emotion, interpersonal relationships, and the rules of communication relative to the context in which they appear are all entwined" (Onnis, 1993, p.141).

Employing an ecosystemic approach as its theoretical foundation, this study aimed to create a conversational context to facilitate both the exploration and the evolution of ideas and meanings attributed to an individual's experience of recurrent headache. The aim was not to solve or cure the headache problem but to construct a language about it that made sense to everyone involved, a language which would hopefully deconstruct the central headache theme.

The case descriptions occur in the following chapter.

CHAPTER 5

CO-CONSTRUCTED STORIES ABOUT THE PARTICIPANTS

Introduction

This chapter contains two case presentations of chronic headache sufferers. In presenting the participant scenarios, the setting of the interviews will be described as well as the researcher's impressions of the subjects. Each participant's headache history will then be sketched, followed by a discussion of the context of the problem. Examples of the main conversational practices employed by the researcher will be highlighted, followed by a discussion of what evolved from the conversations from the participant's perspective. Each case description is then summarised in a conclusion. To ensure confidentiality the names and identifying data of the interviewees have been changed.

It must be reiterated that the observations and descriptions presented have been punctuated according to the researcher's particular epistemological frame of reference in interaction with the rest of the system. As such, they do not represent 'objective' statements about the participants or their symptoms. As co-constructed scenarios, therefore, the case descriptions not only tell a story about the participants but they also reveal the researcher's value system, way of thinking and making sense of the world. This is coherent with ethnographic research practices (Lincoln & Guba, 1985).

It should be pointed out that the researcher chose to write the case reports in the first person, rather than in the third person. She believed that the informality of this format demonstrated her position as an 'insider' to the interactions with the participants more effectively than the conventional passive format, and highlighted the collaborative stance she adopted. She also wanted to encourage readers to dialogue with the text and believed that this style made the stories more 'reader-friendly.'

Ronel: Case Description

The Conversational Setting

Four one-hour long interviews were conducted with Ronel and her husband, John, in their attractive, pastel-coloured sitting room. Their home, situated in a quiet, picturesque suburb in the east of Pretoria, was a double-storey house set above a small garden. Although I only saw the downstairs portion, the house seemed quite small but well-appointed. It was very tidy with comfortable furnishings and a welcoming ambience.

My Impressions of Ronel and John

At each meeting, Ronel and her three dogs met me in the driveway. She had a friendly disposition although, at first, she seemed reserved and a little guarded. By the third interview, however, she seemed more open and relaxed and I felt more comfortable talking to her. Her relationship with her dogs informed me that she was probably a nurturant person whose pets were like children to her since her own adult children were living independently. Her two tiny Yorkshire Terriers shadowed her every move and sat on her lap throughout each interview.

She asked John to join us in the first interview, gesturing to him to sit beside her on the couch. He participated willingly in every conversation. In the first interview he added his comments and opinions freely without waiting for a question to be directed specifically to him. He spoke less in the third and fourth interviews, commenting only when addressed directly either by Ronel or myself.

John was a big friendly man who struck me as a practical, strong-charactered, logical-thinking person. He also impressed me as a solid, forthright man who was easy to get along with.

Ironically, though, I never felt completely at ease with him and tended to direct too few of my questions and comments to him. I believe my lack of confidence in interacting with John stemmed partly from my own biases around issues such as life experience, gender and age differences.

Headache Description

Ronel, a 54 year old secretary, had experienced frequent headaches most of her life. The onset of the problem coincided with an illness she contracted in standard eight initially believed to be Rheumatic Fever but then diagnosed as an infection in a leaking heart valve. She recovered after a three-month absence from school but the headaches continued, usually occurring when she became tired after playing sport for example.

The problem escalated over the years to the point where she experienced frequent episodes of almost daily 'tension' headache, as well as 'migraine' - which started around the age of 32 - about once a month. She attributed this to life becoming 'more hectic' over the years, bringing more responsibilities. She believed, therefore, that the headaches were mainly tension-related but cited menopause, hot weather, fatigue and bright light as contributing factors. Interestingly, the couple agreed that Ronel's headaches became more frequent and severe around the time of John's retirement about three years ago. On the other hand, there were periods where Ronel wouldn't experience a headache for about a week. She said that during these periods she felt 'fantastic' and as if she could 'turn the world around.'

Ronel described her migraines as a 'throbbing' pain which was sometimes accompanied by nausea but not an aura. She claimed she sometimes woke up with a tension headache which she experienced as a 'terrible pressure' behind her eyes and in her temples as well as a stiff neck. The headache pattern seemed

variable; sometimes getting involved in her daily activities prevented her from focusing on the pain and resulted in spontaneous remission. At other times, however, the pain might steadily worsen and could last for days or evolve into a migraine.

Ronel conceded that she had done little to try to overcome the problem, attributing this to her 'lack of knowledge.' Instead, she relied extensively on medical expertise.

> I always wanted the doctors to do something to get me over this.

She had consulted a variety of health care specialists over the years including neurologists, a headache clinic, homeopaths, a physiotherapist, reflexologist, and acupuncturist. However, none of the treatments, including various preventative medications, had produced long-lasting results and she felt powerless and helpless in overcoming the problem.

> Doctors never tried to get to the root of the problem and I have come to the point where, umm, I don't see the point of going to [them] anymore.

She tried to cope with the problem by using analgesics when she suffered intense pain and changed her medication often in order to prevent tolerance. Usually if she had a 'tension' headache while she was at home she tried to avoid medication. She used an effective but very expensive nasal spray to alleviate migraine pain. Although Ronel thought that people sometimes regarded her as a hypochondriac, she believed her current doctor was genuinely interested because he was referring her to more specialists. Paradoxically, though, she wasn't confident they would be able to help her. This, together with the information supplied by John that 98% of their medical expenses were Ronel's, of which about 85% went on headache treatments, led me to hypothesise that Ronel was maintaining

"a homeostatic bond" with her general practitioner (Selvini-Palazzoli, Boscolo, Cecchin & Prata, 1980, p.3). Moreover, this homeostatic relationship would likely compromise the success of any treatments she explored. Lending support to this hypothesis was Ronel's claim that she had started to learn to live with the problem and generally managed to 'go on' unless she had a migraine. As she put it:

My body gets used to having this problem.

John endorsed her view using the metaphor of a person with a wooden leg who has no option but to carry it around.

The Context of the Problem: Emerging Themes

Ronel and John (60) had been married for 35 years. They had two children who lived in Pretoria: an unmarried daughter (32) and a married son (29) who had a toddler and whose wife was pregnant with their second child. Prior to his retirement three years ago, John had been employed as a buyer, having originally qualified in a technical field. My last interview with the couple coincided with Ronel's retirement from the university where she had been a secretary for almost 25 years.

Ronel described herself as a very 'caring' and 'loving' person who coped quite well but had a low self-esteem and was a little 'negative' and sensitive. Her self-esteem had been poor since high school when her peers had teased her for being tall and big breasted and she had been unable to share her vulnerability with anyone. Although she believed she was generally able to fool other people that she was self-confident, her definition of herself as someone who tended to see the 'bad side of things' was mutually qualified by John who apparently pointed it out to her often. His attitude - that it was pointless to worry about uncontrollable events - highlighted the complementarity of their relationship. Her daughter would also advise her to be more positive and appar-

ently believed that such an attitude change would alleviate Ronel's headaches. On enquiry into what concerned her, Ronel replied that she worried about the situation in the country and what would become of them. She couldn't see a future here and would emigrate if she were younger. She also had arthritis and worried about her health in the future. Thus, the theme of control was apparent; anticipating what could go wrong was a means of trying to control what happened in her life.

The ambivalence of Ronel's situation (i.e. having to live in a country in which she no longer believed or felt secure) seemed to be mirrored in her work context, and emphasised the theme of wanting to control situations/events that cannot necessarily be controlled.

Although Ronel had previously enjoyed her job, she reported that recent changes at the university hampered her efficiency and made her 'furious.' It was difficult for her to witness the university 'deteriorating.' She no longer felt loyal to the institution and was relieved to be leaving since she felt powerless to change anything and was unable to deal with her frustration through confrontation. As she put it:

I'm not a person who can fight anybody.

In avoiding potential conflict, she tended to 'bottle up' her feelings since sharing them amongst close colleagues usually only compounded her sense of frustration and powerlessness. She viewed this situation as one of the reasons why she suffered so many headaches. John added that if Ronel expected to have a busy day at work she would get a headache beforehand. She reported that if she had a headache at work she would usually take analgesics to help her get through the day, taking time off only occasionally if the pain was very severe.

She was also ambivalent about having married young.

Although marrying at the age of 20 had been positive in the sense that she felt she had been more flexible then which had enabled her to adapt easier, it had also meant sacrificing her ambitions and starting a family young, both of which she regretted somewhat. She revealed that John had forced her to choose between a career and marriage. She chose marriage, exchanging a teaching career for a job as a typist and the role of wife and mother. In retrospect, though, she thought she had been too naive to fully appreciate the responsibilities of motherhood. Moreover, she continued to believe she had failed by not completing her teachers' training course.

> I never had the confidence to improve my qualifications [because] I didn't want to face another failure.

Not only had she disappointed her mother by not pursuing her career, but as a child her daughter would ask why she hadn't made anything of herself. Although her daughter no longer viewed Ronel in this light, her childish comments had painfully reinforced Ronel's sense of failure. As she said:

> Things like that stick in your head.

That Ronel had worked for one employer for almost 25 years and had been married for 35 years highlighted her loyalty and commitment. Indeed, she believed her marriage had survived because of 'love, perseverance, and commitment.' Furthermore, the theme of dependability characterised Ronel and the rules she imposed upon herself. As she stated in one of the interviews:

> When John was at work I made this rule that I had to be at home in the evenings and couldn't be even five minutes late. And even now ... I work until one o'clock and I know John's here so I don't want to go to the shops because I feel I must come home. These

> are not his rules, they're mine, and I think I can't put myself in a box like that anymore. I can see I put the pressure on myself.

Being 'dependable' meant that Ronel allowed herself to be easily influenced by other people to meet their expectations and needs. She viewed herself as tending 'to give too much.' Ronel cared very much what people thought of her. Therefore, putting other individuals' needs - specifically those of her immediate family - before her own was a means of trying to secure their approval and avoid conflict. She revealed, for instance, that she always obliged her daughter and would feel guilty if she refused her requests. As she explained:

> The thing with my daughter is that she has a very strong personality. I'd rather go along with her than against her because I can't stand the conflict. And my son is exactly like me.

She also tended to go along with the decisions John made even though she often disagreed with them and secretly wished he would be 'a little more sensitive' to her preferences and needs. She told me, for instance, that they had celebrated their wedding anniversary recently at a restaurant of John's choice. Although she had gone along with his choice amicably, she felt angry inside the whole evening because she did not want to be there.

Therefore, it appeared that Ronel continually tried to do the impossible; impossible because in pleasing some people she would surely displease others, often herself. Indeed, she conceded that she often resented putting other people first. In her opinion, though, she would need more self-confidence like her daughter and husband in order to defer less to others without being concerned about upsetting them.

Linked to the theme of being influenced by other people,

was the theme of having to do things the conventionally correct way. She said:

> I always want to be dressed right and everything must be right. I must be on time [for an appointment] ... My mother taught me [this] and I'm completely lost if I don't do things the right way.

The theme of being organised and efficient was also apparent. Being organised was one way in which Ronel could be in control of situations and ensure predictability. However, to be organised and efficient usually requires other people's co-operation and compliance. When this was not forthcoming and Ronel's efficiency was hampered as a result, she would feel frustrated and tense. For example, three months before John's birthday, she wanted to start planning a celebratory function. Instead of enjoying the task, however, she experienced it as stressful. She said she was 'worried' because John was not co-operating with her since he felt it was unnecessary to make arrangements so far in advance. It seemed that John felt Ronel went too far in her efforts to be organised. He was also less concerned about doing things the conventionally correct way. He said, for example, that he wouldn't be embarrassed serving guests bread and jam for lunch whereas Ronel would ensure visitors sat down to a meal. Again, this highlighted the complementarity of their relationship. While she conceded that John's style had actually influenced her to be a little more easy-going about such matters today, she nevertheless viewed her approach as positive in some ways especially since her daughter apparently attributed her own good taste to Ronel's example of doing what was considered conventionally correct.

On the other hand, Ronel's definition of herself as someone who always had to behave 'appropriately' meant that she found it difficult to express her feelings, needs and desires spontaneously for fear of being misunderstood and criticised, making a fool of herself, or inconveniencing the other person.

She said:

> Quite often I will feel like doing something but I'm scared to ask him [John] because I'm afraid of how he will respond to that ... because I know he doesn't want to do it.

She defined men as 'less emotionally involved' and less understanding than women. This definition would probably elicit certain behaviours from John (and exclude others), behaviours which reciprocally maintained Ronel's fixed ideas. This was highlighted in the following statement:

> Quite often I tell him about something that bothers me and he'll say 'that's nothing, you can't worry about it.'

Thus, Ronel felt powerless to make herself heard and this made her feel resentful and frustrated. The following statement illustrates the theme of powerlessness:

> I say, 'oh well I'm not going to achieve anything [by asserting herself] so why try, why worry?' Then again, you've got those bottled up feelings which you can't get rid of because you can't do it your way.

Thus, in avoiding discussing matters that affected her relationship with John, Ronel would often feel tense, irritable and frustrated. And when she felt like this she tended to avoid John rather than start an argument. Thus, a vicious cycle was created. She was also very sensitive to John's moods and said that if he was in a bad mood she would also be in one and would withdraw because 'it influences me.' However, the theme of avoidance was not only evident at an individual level (Ronel), but also at the level of the couple system. Ronel complained that John did not open up to her enough and this

frustrated her. She said:

> I think it's me that's causing the mood if you don't share it with me.

In John's opinion, however, it was Ronel who 'bottled up' while he only kept 'little things' to himself which were unrelated to their relationship.

Nevertheless, it seemed that they had evolved a pattern of communicating in a 'masked' and 'indirect' manner. For instance, while they acknowledged that John's retirement about three years ago had been a stressful period and that Ronel's headaches had deteriorated around this time, they seemed reluctant at first to elaborate on how the retirement had made them both more 'uptight.' Instead, they got side-tracked discussing how the retirement had come about, and later in the interview they channelled complaints about one another through me instead of interacting together. Ultimately Ronel revealed that she had found it 'abnormal' to go to work while John stayed at home, and had worried about their financial situation and future. She had also expected John to take over more chores but as she explained:

> I don't say it, I just expect it but don't say anything.

It seemed, therefore, that the couple had found it difficult to adapt to the role changes associated with retirement.

It also appeared that Ronel and John avoided openly defining many of the rules of their relationship as well as who would be the one to make the rules (Haley, 1963). This pattern is illustrated further in the following excerpt taken from the second interview around a discussion of how Ronel planned to use her time when she retired:

R: Well, I know John doesn't mind if I go and have tea with friends. But then, on the other hand, I know if I stay away too long, I may come back and he's a bit 'dikbek' [sulky].

J: You're wrong. The only time I'm 'dikbek' is when you say you're just going to have tea and come back at five o'clock. [To me:] If she says she's going the whole day and will be back at five, I haven't got a problem.

R: But still, even if I go to my parents for the afternoon I can't stay too long because I know you will be cross. [To me:] Sometimes I come back and he's all smiles and sometimes he's not but he won't say anything. And I don't know what it's about.

Interestingly, Ronel reported that a headache would often occur as she started to feel 'uptight' (either as a result of an argument or when she and John avoided one another) and would steadily worsen. However, John almost always noticed if she had a headache, even if the couple were keeping their distance, failing which she would tell him. The headache would have the effect of bringing them together again. As John explained:

> I never get headaches but I can see what it's like. I think I'm a lot more considerate when she has a headache.

Ronel agreed, saying that John would show concern and offer to do things for her. In turn, she would become more 'loving' towards him. From a systemic perspective, therefore, Ronel's headaches could be viewed as a homeostatic device functioning to regulate interpersonal closeness between the couple (Hoffman, 1981). In other words, once the distance between

them reached a certain threshold, her headache would reunite them. Moreover, when she had a headache it seemed that her well-being came first whereas at other times she tended to put other people's needs first. And whereas she often felt that her feelings and wants weren't taken seriously, it was fascinating to learn that John apparently took her headaches very seriously and was still sympathetic to the problem 35 years later, even though he did not suffer from headaches. Ronel's headaches also seemed to evoke the sympathy of her colleagues who were amazed that she generally managed to work when she had a headache. It appeared that Ronel's headaches gave her a 'voice.'

This led me to hypothesise why Ronel might have experienced far fewer and less intense headaches whilst holidaying at the coast during our association. John reported that Ronel was 'more relaxed' on vacation while Ronel said that John became 'more easy-going.'

> He falls in with whatever I suggest, which isn't always the case when we're at home. He tries to please me [when we're on holiday].

On holiday, therefore, Ronel was not in the ambivalent position of feeling 'displeased' about pleasing John and putting him first; he did things that pleased her. She felt that what <u>she</u> wanted was taken more seriously and thus, she had more influence over him. Therefore the usual conflict, which she tended to express (indirectly) through her symptom, was not present when they were on holiday, or at least not to the same extent. From a first-order cybernetics perspective, this also means that there was less occasion for the symptom to fulfil its usual function of drawing the couple closer.

On the other hand, the preventative headache medication that Ronel started taking on holiday might also explain the decrease in headaches. However, she reported that this medi-

cation was specifically for migraine headache, and while she experienced no migraines on holiday, there was also a dramatic reduction in the tension-type variety. Could this decrease in tension-type headache activity be attributed solely to the work of the medication? Also, what made her decide to take preventative headache medication at that specific time and during our association? Although I neglected to ask this question, it is possible that the previous interviews had perturbed her ideas and triggered her decision to take the medication.

Exchanging Ideas: My Conversational Practices

Our Communicational Pattern

On meeting Ronel, I experienced her as polite and co-operative but somewhat introverted and guarded. Conducting an unstructured interview with an unfamiliar couple in their home made me feel a little like an intruder, and Ronel's admission that she had a mild headache did nothing to alleviate my anxiety. How did this impact on the interview? I spoke too much and listened too little. Although I elicited a description of Ronel's headaches and explored the contexts in which they occurred, the interview was disjointed because I tried to cover too much territory in the space of one hour. I attempted to manage my anxiety by focusing on Ronel, directing too few questions to John with whom I felt particularly uncomfortable interacting in the first interview. By the end of this interview my tendency to focus more on Ronel had become a pattern of interacting with the couple which remained throughout the interviews even after my anxiety had dissolved.

Self-disclosure

I used self-disclosure as a means of connecting with Ronel and of establishing an "ethic of participation" (Kogan & Gale,

1997, p.112). I revealed how I coped with headaches and how they sometimes helped me to procrastinate or to avoid certain situations. This established a conversational frame of 'despite our differences, we share common ground' and helped to position me as an 'insider' to the interaction.

Acknowledgement and Affirmation

Ronel presented herself non-verbally as a positive person - she smiled and chuckled often even when she and John started disagreeing with one another in the interviews. Verbally, however, she was self-critical and quick to point out her perceived weaknesses. She struck me as unsure of herself and sensitive. It therefore became important for me to acknowledge her regrets, feelings and perceived weaknesses, and instead of minimising them, to explore them further, allowing her to set the pace. For instance, after telling me that she regretted marrying and having children so young, I asked:

What other missed opportunities have there been?

I acknowledged her frustration over the unfair policies at the university which hindered her ability to work efficiently, adding:

> ... particularly as you are not able to direct your frustration at the people ... those above you ... who frustrate you.

At the same time, however, I wanted to offer her an alternative to her feelings of inadequacy so that she might begin to construct a new, more empowered narrative about herself (White, 1992). Therefore, I affirmed her success as a mother in spite of her belief that she had been too young for the job and too strict. Also, although she claimed she had not done much to overcome her headache problem due to her lack of knowledge, I affirmed her perseverance in trying to combat it

and her ability in not allowing the headaches to defeat her. I also challenged her fixed ideas.

Challenging Fixed Ideas with Alternative Perspectives

I acknowledged her description of herself as lacking self-esteem by enquiring when she had first started to think this about herself. In this way, I introduced the idea that this description was not 'fact' but rather her perception which could change. I also subtly perturbed her description by being curious as to how, as a successful mother, she could still feel unconfident since it was my opinion that parenting was the most difficult job in the world. Despite my attempts, however, Ronel continued to speak in terms of her low self-esteem through to the third interview.

Ronel was brought up to do everything the 'right' way. Doing things the 'right' way precluded spontaneity since it meant she always had to be organised, efficient, well-groomed and punctual etcetera. She seemed to put a lot of pressure on herself to conform to conventional standards of correctness and would feel 'nervous' and 'guilty' if she arrived late for an appointment for example. I challenged these unrealistic rules she had formulated, saying:

> [Behaving like] this is all very well if you could control the world and what happens. But you can't ... so you can't do everything the right way all the time either.

Ronel was sensitive to, and influenced by, the needs and feelings of members of her family. She often found it difficult to assert herself and to do what she wanted to do for fear of being criticised or upsetting someone. Her behaviour was consistent with traditional discourses about the role of women (White, 1992), yet she seemed ambivalent about the dominant discourse. Furthermore, she and John had not clarified

the rules about how they should spend their free time. In exposing the dominant discourse, I challenged her ideas about submissiveness, offering a different idea (i.e. that she is responsible for writing her own script).

> [To John] It could be just her idea that you will be more annoyed about things [i.e. Ronel asserting herself and putting herself first] than you really will be ... because ... [to Ronel] that could be an excuse to always bring you back ... close to him again, to see to his needs.

Confirming her Autonomy

The theory of the conservation of ambivalence (Fourie, 1996b) was discussed in Chapter 3 and therefore will not be detailed here. Suffice it to say that from a second-order cybernetics perspective, Ronel's chronic headache problem represented the conservation of an ambivalent autonomy (Fourie, 1996b). In other words, her symptoms were the medium through which conflicting discourses were communicated in verbal and non-verbal language (Fourie, 1996b).

From the descriptions constructed in the interviews, it appeared that Ronel attempted to conserve her autonomy (identity) as a 'sacrificer' - a woman who put other people first - and who was afraid of confrontation and criticism (Fourie, 1996b). She was loyal, dependable and careful to do everything 'right' so as to avoid disapproval and conflict. There was, however, a complementary side of the autonomy which she also had to conserve. This was that she often resented being the sacrificer and was frustrated by her inability to assert herself. She lacked self-esteem and as much as she tried to do her best for other people to win their approval, she was not satisfied with herself. She was therefore trapped in conflicting discourses which put her in a paradoxical or no-win situation.

I attempted to ask questions and make interpretations that confirmed both sides of her autonomy. For example, by stating:

> It sounds like you seek more closeness than he [John] does. I think he's more independent and quite happy doing his own thing.

this confirmed the loyal, dependent side of her autonomy, whereas the following question confirmed her autonomy as a person in her own right:

> How are you going to relax a bit [when you retire]?

At the end of the second interview, I asked Ronel to arrange another interview with me only if she really wanted to. I emphasised that I would not feel comfortable if she granted another interview solely for my sake. This request not only confirmed the dominant, independent side of her autonomy (i.e. her freedom to put herself first) but the sacrificing side too, since it implied she would be complying with my wishes whatever her choice. I did not realise at the time, however, that if she did not comply with this request and thus reluctantly arranged another interview solely for my benefit, then the task would have served to entrench, rather than to perturb, the conflicting discourses.

When she later revealed that she set up the third interview because she felt she was benefiting from talking to me in that she had started to think about and question certain things she did, I acknowledged this with:

> It seems that you are doing something that is for you ... and I'm more comfortable knowing that you are not sacrificing your time just for me. Which makes me think that other people would also like to see you put yourself first more. [Later] On the other hand, I don't know ... they might not because

then you wouldn't be so available to them.

Reframing

Reframing involves conceptualising a viewpoint, situation or problem differently but in such a way that the new explanation fits the 'facts' as well or better than the old one (Watzlawick, Weakland & Fisch, 1974). Hence, a reframe, or a redefinition of the problem/event (Andolfi, Angelo, Menghi & Nicolo-Corigliano, 1983) alters the meaning of the existing explanation.

Ronel respected her daughter because she viewed her as knowledgeable, self-confident and a strong, assertive individual. In all these qualities Ronel viewed herself very differently. In confirming the side of her autonomy which strived to meet other people's expectations, I reframed her behaviour as being indicative of a strong personality. In other words, I attempted to construct a different, equally valid perspective on the supposed 'facts' so as to facilitate a shift in attribution of meaning.

> There are two types of strong personalities: those who are direct, forthright and actively pursue what they want ... like your daughter; and those who go out to make other people happy even if this means putting their own desires on hold ... like you. It takes a lot of strength and tolerance to be unselfish.

The following was another example of a reframe that was intended to fit with her ideas of herself as a 'giver' and to perturb her perception that John did not understand her viewpoint on certain issues such as planning ahead.

> I see that he's been able to teach you how to relax a little more about certain things which shows a lot

about your flexibility. So I wonder if you're going to teach him to see things the way you see them ...? [Later] It could be that you are depriving him of a valuable learning opportunity when you just go along [with things].

Redefining the Meaning of her Headaches

Ronel described herself as 'a highly strung' and 'tense' person. She therefore located certain attributes within her, believing they were the main cause of her headaches. I attempted to redefine her headaches away from an intrapsychic explanation towards a more metaphorical and contextual one. In redefining the meaning of her headaches in the second interview, I simultaneously acknowledged the conflicting discourses in which she participated.

To me it's as if your headaches are like a ... red ... light indicating that you should do something for you ... put yourself first, because you're so busy sacrificing for others. On the other hand, if you had to start living more for yourself, doing what you want to do more, this might be problematic to the people in your life ... who've come to expect you to always put them first. And this would make you feel guilty which might be worse than headache pain.

I also hinted (somewhat humorously) at the function of Ronel's symptoms at regulating interpersonal closeness in the couple system when I said:

[To John] So her headaches keep you in check!

And later in the same interview:

It would make sense that it [the headache] takes a

long time to go away, [it has to] to give him time to do lots for you!

Constructing a Sense of Mutuality

I attempted to decentralise certain perspectives which located enduring traits within Ronel and which restricted new narratives of self (and others) from emerging (Kogan & Gale, 1997). For example, although Ronel was described as an inassertive person who hid her feelings, it also came to light that John withdrew from her when something bothered him and this made her feel tense because she would not understand his reasons. I attempted to circulate the attribute of 'bottling up' and, thus, create a mutuality of context (Minuchin & Fishman, 1981), by turning to John and commenting:

So you 'bottle up' more than her?

This gave John the opportunity to accept or refute the assessment and to clarify for Ronel the types of things he did not share with her.

I also tried to perturb Ronel's idea of herself as the 'giver' by pointing out occasions when John had 'sacrificed' for her.

Although there were other instances where I attempted to create a sense of mutuality, I believe that conversational turn-taking could have been managed more deliberately and effectively.

Hypothetical and Future Questioning

Hypothetical and future questioning cut into the rules that determine what is allowed in a system and suggest alternative solutions (Boscolo et al., 1987; Penn, 1985). As Boscolo et al. (1987, p.134) point out, future/hypothetical

questions are "a way of saying that there could be a difference".

I questioned Ronel about her ideas on the positive and negative aspects of her impending retirement. Thus, the question of how she would like to be in the future was addressed, giving her a glimpse of her own potential to shape the future of her choice. Among other future questions, I asked:

> Will you do this because your son will expect it from you?

after she had mentioned she hoped to spend more time with her grandchild in the future. And,

> Who do you think will be the one who mostly decides how [your free-time together gets spent]?

These questions projected into the future the premise that as a wife and mother she had to defer to the wishes of her family.

I also asked questions that predicted change. For example:

> What would happen if you announced one day that you felt self-confident?

Other questions explored her ideas about the outcome of her headaches in the future. For instance,

> How might what you have learned about yourself ... impact on your headaches in the future?

And:

> I'm wondering, if you were less influenced by people

in the future - you know by sacrificing yourself less - might this mean you'd also be less influenced by the headaches or not?

The Conversations 'Opened a Little Door'

In the fourth interview I asked Ronel and John to review our three conversations honestly in terms of what had been useful/helpful as well as unhelpful, adding that this would greatly benefit my research and possibly other headache sufferers too. Before we discussed this, however, I reviewed what had happened in the previous two weeks with Ronel.

Ronel had experienced about five tension headaches in the two weeks but they had been mild and, therefore, had not interfered with her daily activities. She was still taking preventative medication for migraine and had not experienced one in several weeks. She reported that she had one week left at work and had suggested to John that they discuss how they were going to spend their time, divide their tasks, manage their finances etcetera once she retired, but that they had not done so yet. She said:

I tend to push it away all the time.

On the other hand, she reported that she did assert herself on another matter which constantly irritated her but which she tended to keep quiet about until, unable to ignore it any longer, she would become angry. On this occasion, however, she behaved differently; instead of remaining silent and suppressing her annoyance until she lost her temper, she politely asked John to keep things in their proper place as this made her job of tidying the home easier. On enquiring into what her change in behaviour meant, she replied:

... I learned that I've also got rights to ask other people to do things the way I want them to do it.

> Not demanding it ... but ... I mean if I can get John to not leave post on the table, for instance, it makes my life easier. [Usually] I don't talk soon enough. I wait and bottle up until I get cross and then it's tension from both ways. [Later] The whole thing is that you've got to think about it and not just act on the spur of the moment, like one used to do. Think around the problem and then it looks quite easy to solve. [Later] I realised I gave him unclear messages. So I realise now I must call a spade a spade if I want him to understand it. I mustn't expect him to know what I'm feeling because ... there's no way he can know if I don't say it.

Both John and Ronel alleged that Ronel was more sure of herself and as a result she felt more relaxed. She said she was worrying less about the future and other people's opinions of her.

> I'm trying now to let myself be who I am and that's something I've got to get used to; it doesn't just happen. You've got to think about it and act on it. [Later] I always worried about what people were saying. Did I do it well or didn't I? And what they would say if I didn't do it well. And now I know I've done it well, and that's that.

According to John:

> I think if you ask Ronel, one of the things I complained about was her self-image and I always said to her 'forget what other people think.' And I think because that's changed now, I've also changed.

He alleged that Ronel's 'attitude change' (i.e. her greater assertiveness) had the effect of making him feel more 'guilty'

with the result that he was somewhat more considerate and co-operative towards her. Ronel agreed, saying she felt the interviews had given them a better understanding of one another, and added:

> I would say that in the last week or so, he was really trying hard to please me in whatever way he could and that was ... perhaps again ... because I was conveying more what I feel. As we said now, just by doing something a little bit different, it creates a more positive reaction. And I think that's what came out of the last two or three interviews. [I've realised] I've got my rights to live up to things that I like and not always just to please other people.

With regard to her headaches, it emerged that Ronel had not paid much attention to them in the past two weeks - she simply took medication and then forgot about the pain - and John had not always known when she had one either. She believed the headaches had been less bothersome because she was more relaxed. We co-constructed the view that whereas Ronel usually noticed John's consideration when she had a headache, in recent weeks his thoughtfulness had become more apparent to her even when she did not have a headache.

In conclusion, Ronel said that she found the interviews very useful and the only unhelpful comment was my self-disclosing statement that headaches help me to avoid certain things. She did not think this applied to her. She mentioned she found it helpful to discuss things she would not normally think about and believed that the conversations 'triggered something.' She said that the interviews:

> ... just opened a little door that I never knew was there.

Conclusion

The co-constructed ecology of ideas about Ronel's headaches can be summarised as follows:

Ronel started experiencing headaches as an adolescent. The problem worsened with the responsibilities of adulthood and in her thirties she started getting migraines in addition to tension headaches. Around the time of John's retirement three years ago, the problem became even more severe. Wide-ranging medical interventions had only produced short-term headache relief. She felt helpless and powerless in overcoming the problem and had lost confidence in medical experts, although, paradoxically, she continued to seek medical advice.

It seems that Ronel's headaches were embedded in, and an expression of, a series of conflicting discourses in which she took part. For instance, she was a South African living in a beautiful home, yet she worried about the country's social, economic and political situation and felt insecure about their future here. She was in the ambivalent situation of wanting to emigrate but believed she and John were too old to start again in another country. The theme of ambivalence was also evident in her work and family life. For example, she had been a loyal employee at a university for almost 25 years and, whereas she had once enjoyed her job and felt proud of the institution, recent changes at the university hindered her efficiency. In addition, she was ambivalent about marrying and starting a family young. She believed that John had forced her to choose between marriage and a career and she regretted sacrificing her ambitions. A consensual domain had evolved between Ronel and John that Ronel had a low self-esteem and a rather 'negative' outlook. Thus, not completing her teachers' training course had made her feel somewhat of a failure which had reinforced her idea that she lacked self-esteem. Ronel's ideas about herself had been mutually qualified by the behaviour of her daughter who, as a youngster, would ask her

mother why she had not done more with her life.

Her headaches seemed to be linked to another paradoxical or incompatible discourse. For instance, she was organised, efficient and liked to be in control of situations. At the same time, she gave John the responsibility for much of the decision-making, thereby putting him in charge. However, she sometimes disagreed with his decisions and wished he was more sensitive to her needs and desires. Yet, coherent with her 'identity' as a dependable and 'sacrificing' person who put other people's needs first, she found it difficult to express her feelings and tended, instead, to 'bottle up.' Moreover, since there was consensus between the couple that Ronel always behaved 'appropriately,' her difficulty in asserting herself and expressing 'negative feelings' for fear of making a fool of herself, attracting criticism and conflict or upsetting someone, was consistent with this belief system. Although Ronel sometimes resented putting other individuals' needs first, her definition of herself as loyal and dependable meant that she felt guilty if she did not meet other people's needs. This contributed to her sense of powerlessness, perpetuating her lack of assertiveness and her pattern of meeting other people's expectations. Thus, a recursive pattern of interaction was created and maintained. Not only were her headaches a physical metaphor for this ambivalence, but they provided an occasion for her needs and wellbeing to come first since John was especially supportive when she had a headache and would do things for her.

It seemed that another recursive pattern of interaction that had evolved between the couple over the years both maintained and was reciprocally maintained by Ronel's headaches. The pattern was that Ronel and John withdrew from one another when one of them was in a bad mood, and tended to avoid discussing relationship issues and open conflicts. It appeared that many of the rules of their relationship, as well as who would be the one to make the rules, had not been clearly

defined, including a rule for dealing with conflict (Haley, 1963). Therefore, Ronel would often get a headache once she started to feel 'uptight' with John. But since he almost invariably noticed when she had a headache and was sympathetic to the problem, the headache would serve the function of reuniting them and defusing conflict. This first-order cybernetics conceptualisation implies that Ronel's headaches operated like a homeostatic mechanism regulating interpersonal closeness.

An interlinked network of evolving ideas was co-created and re-created by Ronel, John, and myself into the above case description. However, this is only one of many stories that could have been told about Ronel and, thus, it says as much about me as it does about her. As such, the themes that emerged from Ronel's story flowed out of the researcher's idiosyncratic way of drawing distinctions at a specific time in the research process. Another researcher undoubtedly would have identified different themes. A summary of the interconnected themes that emerged from the interviews follows:

- The theme of ambivalence.
- The theme of control.
- The theme of dependability.
- The theme of being organised and efficient.
- The theme of being influenced by other people and putting others first.
- The theme of powerlessness.
- The theme of avoidance.
- The theme of behaving in the conventionally correct way.

The conversational practices which were utilised during the course of my structural coupling or interactions with Ronel and John in order to perturb their belief systems, include the following:

- Self-disclosure, as a means of connecting with Ronel and of establishing an ethic of participation.
- Acknowledgement and affirmation, which included expanding Ronel's narrative about herself.
- Challenging fixed ideas which included exposing dominant discourses and offering alternative perspectives.
- Confirming both sides of Ronel's ambivalent autonomy which included exposing conflicting discourses and an attempt to disconfirm her ambivalent ideas.
- Redefining the meaning of her headaches away from an intrapsychic explanation towards a contextual one, and simultaneously acknowledging conflicting discourses.
- Constructing a sense of mutuality or complementarity which involved expanding certain perspectives and decentralising others.
- Reframing which included attempts to offer different perspectives that fitted with Ronel's 'structure.'
- Future and hypothetical questions which predicted change and introduced alternative possibilities.

Following this was a discussion of (1) the shifts in behaviour or attribution of meaning which had taken place during the interviews as co-constructed by the participants in the final session; (2) what had been helpful/unhelpful from Ronel's and John's perspectives.

- Ronel's headaches had been milder in the two weeks prior to the last interview and she had paid less attention to them. Thus, the problem theme had been alleviated somewhat in language.
- She had asserted herself instead of remaining silent about something that irritated her.

- Ronel had realised the importance of communicating more clearly and directly.
- Her attribution of meaning about herself as someone who lacked self-esteem and had to defer to others shifted towards a more empowered self-definition.
- She felt more relaxed.
- Ronel and John claimed they had a better understanding of one another.
- They shared the opinion that John was more considerate towards Ronel.
- Ronel had found it useful to discuss matters she would not usually think about.
- Ronel found my self-disclosing statement that headaches help me to avoid certain things unhelpful.

Sarah : Case Description

The Conversational Setting

Three interviews were conducted with Sarah - the first two lasted about one hour and the third almost 90 minutes - in the living room of the large, rather beautiful house she shared with her fiance, Dave, and her two children. Their single-storey home, situated in an upmarket suburb in the east of Johannesburg, was stylishly decorated with several solid wood antique-looking pieces of furniture, and always appeared immaculately tidy.

My Impressions of Sarah

I liked Sarah instantly. She seemed vibrant, outgoing, frank and open. She spoke animatedly, answering my questions with long descriptions and explanations which meant that I rarely had to prompt her for additional information. I was grateful that the tape recorder served as my memory since the

discussions tended to meander in several different directions all at once which often made it difficult to keep track of the information I was gathering.

Sarah was easy to get along with and I felt comfortable with her immediately. She was an attractive woman who dressed casually for our interviews. She struck me as a very intelligent, energetic person who invested herself completely in activities that interested her, and she seemed to participate enthusiastically and wholeheartedly in our conversations. She also seemed somewhat highly strung and theatrical: the content of her conversation as well as her lively communicational style seemed to suggest a tendency to dramatise.

Sarah asked Dave to participate in the interviews but he declined and I did not push the matter. I only met him once very briefly. He was a large man several years older than Sarah. He struck me as introverted and unfriendly (or perhaps he was just shy), quite the opposite of Sarah. I did not meet Sarah's high-spirited children, James (9) and Caryn (12) until the last interview as they were spending the school holidays in Durban with Sarah's mother. During the third interview, the children played happily with their friends in a bedroom, only interrupting Sarah twice to remind her of their outing to the cinema after our meeting.

Headache Description

Sarah, a 39 year old divorcee, had suffered from headaches since about the age of 15. The onset of the problem had occurred sometime after her parents' divorce. She said that the headaches might have started as a form of 'attention-seeking' since she had perceived her mother as being overly concerned about her younger sister, Julia, after the divorce. Sarah had felt jealous about this and had resented having to take care of her seven year old sister after school.

The headaches had worsened after Sarah had her children and she had started experiencing migraines in addition to severe tension-type headaches. She said she would be plagued by a headache - most frequently a tension headache - at least once a week and often it would last a couple of days. She described her migraine as less intense than a tension-type headache and accompanied by nausea but not an aura. A migraine would dissipate after vomiting and therefore would not last as long as a tension headache. She experienced the onset of a tension headache as neck stiffness. Although she took anti-inflammatory tablets or analgesics 'as a matter of routine' when the pain was intense, medication was usually ineffective for both types of headache. Often the pain was so debilitating that she was forced to retire to a dark, quiet room. Sometimes for a severe migraine she would be put onto a drip.

Sarah believed her headache was mainly stress-related but added:

> It's also hormonal because I get them spot on at the end of the month ... I think that is when I ovulate ... I've had a hysterectomy although ... I still have my ovaries.

She had been treated at a headache clinic where she was informed that her neck had a structural problem - it was 'too straight' - and that she clenched her teeth.

> I've woken up at night and I'm grinding my teeth down and the neck is tense. I've literally got to force my shoulders to relax to get my body to relax.

Ultimately the treatment she received at the headache clinic had proved ineffective.

Sarah said that if she felt tense she would inevitably get a headache. As soon as she had an inkling of a headache, her

attention would be focused on it.

> ... and it's the minute it has been taken notice of, it [headache] doesn't stop growing and building up bigger. That's the problem.

As the pain intensified, she would become impatient to alleviate it and would ingest more and more pain killers in the hope of finding quick relief.

Sarah believed that her need to be in control of events created the inner tension that gave rise to her headaches. She described this need to be in control as a desire to accomplish many things, and in this regard it seemed that she experienced life as hectic and somewhat overwhelming. She felt that she did not live up to her own expectations and claimed that she was constantly striving and rather 'obsessive' about getting things done. As a result she would feel 'tense' if she procrastinated and this could cause a headache. Keeping busy was an effective means of releasing tension and anxiety.

> Look, I've had financial burdens, a divorce, I've had my ex-husband die, but those things have almost been manageable compared with those things that I need to do. I basically think it's almost self-persecutory and if I don't get something done properly, I don't let up on myself.

She explained that if she awoke with a vague sense that something would go wrong that day, she would become acutely sensitive to even minor events. For example, if Dave so much as glanced at her strangely she would:

> ... want to go to bed and not deal with the world. I want to then take Valium [an anxiolytic].

In addition to headaches, Sarah also complained of recurrent

'depressive spells' which she believed started about 10 years ago when a neurologist prescribed Inderal, a beta blocking agent, to control her migraines. She later learned that beta blockers can cause depression. She said that while she was taking Inderal, she did not want to be in control of her life and felt like escaping but did not know how to get out of the 'rut.'

About three years ago she went for psychotherapy and was referred to a psychiatrist for her 'depressive' episodes. She was prescribed an antidepressant, Prozac, and found that her headaches and her 'obsessiveness' in particular, improved. Seemingly, though, she still experienced 'depression.' The initial 20mg dosage of Prozac was soon increased to 40mg daily, and a year later she was admitted to hospital for sleep therapy and prescribed 60mg of Prozac a day. She continued to rely on Prozac, believing the 'depression' was 'biological' and, therefore, beyond her control. Although she described Prozac as 'great,' it had not controlled her headaches for long.

> It was as if something triggered it [headaches] again and it became a regular thing again.

Furthermore, she said she sometimes felt suicidal but that she neither acted on these feelings nor voiced them.

Shortly after the interviews for this study, Sarah was diagnosed with Temporal Lobe Epilepsy and prescribed an anti-epileptic.

The Context of the Problem: Emerging Themes

Sarah described herself as a 'good mother figure' who was inclined to 'over-empathise' with people and always worried about their wellbeing. She regarded herself as honest and forthright, though paradoxically, she was afraid of upsetting people and said she tended to internalise anger.

> Instead of saying to someone 'excuse me, you're this, this and the next thing' I turn it inwards ... I take the blame for everything. [Later] ... and it's so difficult for me to hurt anyone, to have conflict with anyone, because that's really not what I want to do.

From an early age Sarah had been an achiever. She was a qualified teacher who had taught on and off for 15 years and had run her own nursery school. She had also recently graduated with an Honours Bachelor of Arts degree in Psychology from Unisa. She was, therefore, versed in ecosystemic theory. At the time of the interviews Sarah was running occasional study skills courses. She was also doing a part-time Bachelor of Education degree in the hope of eventually enrolling for a Master of Arts degree in Educational Psychology, as well as counselling and neuropsychology courses and a psychometric internship.

Notwithstanding her academic achievements, Sarah described herself and her sister, Julia, as dependent people. Using the metaphor of an ostrich, she said that she and Julia did not like to deal with problems but preferred other people to solve them. By contrast, their mother (62) was a 'pillar of strength' who was able to confront any obstacle. According to Sarah, her mother was a domineering, strong-willed, and somewhat over-protective woman who had devoted herself completely to her three children after her divorce when Sarah was 15 years old. Seemingly, her life continued to revolve around her family. Thus, when Sarah's nursery school had run into financial trouble, her mother, who had been her bookkeeper, took over the responsibility of trying to sort out the problems. The following statement highlights the theme of dependency:

> I never want to have a business on my own again. I want to be dependent on Dave. I really don't want

to be in a position where I need to be depended on.

Sarah was the eldest of three children. She claimed that she had been sensitive and highly strung but also a 'model child' in contrast to Julia whom she characterised as a rebellious child who had not continued her education beyond matric. Sarah had never liked her father much; she recalled that he used to throw 'wild parties' and would verbally abuse her mother. She had, however, been close to her mother whom she said had 'over-compensated' for her father's shortcomings and had always been there for her. However, her relationship with her mother seems to have been an ambivalent one because she remarked:

> I also remember not wanting her to be there for me. I wanted her to be a little more distant because she's overbearing.

Sarah described her brother as 'capable, level-headed' and a 'workaholic,' in contrast to Julia who had been diagnosed with 'Bipolar Mood Disorder' early in adulthood and did not cope well with life. Although Julia had apparently disappointed her mother in many ways, Sarah believed the mother was more tolerant and sympathetic towards her sister because she had been in and out of a psychiatric hospital and had made several suicide attempts. She claimed that Julia's 'illness' had been one of the reasons for her mother's relocation to Durban where Julia lived because social welfare had threatened to take Julia's son away after she had overdosed on tablets.

Sarah described her relationship with Julia as close until they spent time together. Then she experienced Julia as somewhat irritating. She explained that Julia would boast about her and at the same time envied her.

> She wants everything I've got. She turns to me for comfort and support but she doesn't realise she

> tries to destroy me. She would take my clothes when we stayed together and ruin them.

Sarah explained that she and Julia competed for their mother's attention when she was around and conflicts would arise between the sisters. Sometimes when the three women were together, Sarah and Julia would both get headaches. Thus, the theme of competitiveness between the sisters was apparent. It seemed that Sarah's mother was a central figure in her daughters' lives and the themes of family loyalty and protectiveness were evident. As Sarah revealed:

> Even in therapy I wouldn't talk about my mom. I didn't want her [therapist] to take my mom off her pedestal. She's been such a sacrificing person that one can't think badly of her. [Later] ... we just try to placate her [mother]. If she's happy, then it's alright. Which is why I couldn't live with her ... I'd be far too tense.

The relationship between Sarah - and indeed, all the siblings - and their mother could be described as enmeshed. According to Minuchin (1991), an enmeshed system is characterised by a strong sense of belonging at the expense of the autonomous functioning of its members. This means that the system boundaries are diffuse or blurred (Minuchin, 1991). Sarah's complaint illustrates the enmeshed mother/daughter subsystem:

> She's constantly there. She almost monitors me. She's always phoning. [Later] She phones every two days and jumps on my back at least once a week.

It seemed that Sarah and Julia continually failed their mother in different ways. Julia did not have a tertiary education and did not function well because of her 'mental illness.' Sarah, on the other hand, had achieved much academi-

cally, had a beautiful home and a successful fiance whom her mother liked, but in her mother's eyes she was not a good enough mother to her children - she concentrated too much on her studies and did not spend enough time with them. In addition, she had disappointed her mother when, at the age of 20, she had moved in with her much older first husband. Thus, the theme of failing to live up to expectations was evident; Sarah not only failed to meet her own expectations but also her mother's and she believed her mother expected more from her than from Julia. She explained:

> [My mother] will stand here and say 'if only you spent more time with your children'... and you see the children agreeing with her. She is forever on at me.

Sarah also failed her mother by experiencing severe headaches and bouts of depression.

> Lately I've tried to talk to her [mother] about this because I feel as if I've let her down with my headaches and depression and so I sit and try and explain it to her. And often she seems to understand but then she also throws it in my face. She'll say 'you're studying psychology, don't you know what you are doing is wrong?'

She explained that if she so much as mentioned having a headache her mother would become angry.

> She can't see why I drive myself to the point where I get headaches, why I allow things to accumulate to a point where I can't control it anymore. [Later] [When I've got a headache] she shouts at me over the phone ... she'll want to hit me. She gets very angry. With Julia she's more tolerant.

She said that her mother firmly believed her grandchildren should be protected from Sarah's and Julia's problems and that Julia should be protected from experiencing stress. As Sarah put it:

> ... if it means manipulating the environment to enable her [Julia] to function, then that must be done. So I mustn't give her too much to do. If she can't work then she can't and we must keep the stressors away from Julia. She often doesn't tell Julia things because she doesn't want Julia to worry about them. Yet she tells me and says 'but I can only talk to you. Who else have I got to talk to? ... But don't go funny or depressed or into a decline.'

Linked to the theme of striving and failing to live up to expectations and demands, was the theme of being unable to relax. Sarah found it difficult to imagine herself relaxing. She said that she did not really relax even on holiday, especially if her mother was around. She claimed that her mother would urge her to relax but at the same time made it difficult for Sarah to do so.

> If I'm involved with the kids it's fine. If I'm studying, it's not good. If I have a headache and sleeping, it's not good. If I want to lie on the bed and relax, then I'm not being a good mother in her eyes. So although she [mother] wants me to relax, she doesn't want me to relax.

Despite the appreciation and loyalty Sarah felt towards her mother, it seemed that she also resented her mother for reacting negatively towards her headaches and for her lack of emotional support, particularly as she perceived her mother to be sympathetic towards Julia. Thus, the theme of resentment highlighted the on-going ambivalence of the mother-daughter

relationship.

> I don't want her to interfere. I feel like saying 'leave me.' Don't tell me to be grateful for my children, for Dave, for my health, because I don't feel like thinking like that.

Sarah's feelings of resentment and the competitiveness between the two sisters seemed to be fuelled by the mother's frequent comparisons of the sisters' differing circumstances. Sarah revealed, for instance, that her mother repeatedly pointed out how fortunate she was compared to her sister. Sarah said that it was as if her mother was always warning her against getting 'too comfortable' with her situation. Sarah responded to these comments with feelings of guilt, and thus the theme of guilt was also apparent. This recursive pattern of interaction between mother and daughter underscored the ambivalence of their relationship and appeared to maintain, and be reciprocally maintained by, the pattern of Sarah constantly striving - and failing - to live up to expectations and be 'perfect.'

It seemed that the underlying conflict between Sarah and her mother would often manifest in, or exacerbate, a headache. Sarah complained:

> She [mother] can give me a headache very easily, just by talking to me. But there are times when she talks and I hold my head and she asks if I have a headache and I tell her 'no' but I feel as if it's coming. [Later] I get anxious about having a headache with my mother around because she 'freaks' when I have a headache and says 'I worry about you taking so many pills,' and my anxiety about her knowing that I have a headache ... and ... I can't keep it a secret from her, makes the headache worse.

I was intrigued to learn that Sarah's fiance colluded with her mother when Sarah had a headache or felt depressed. Sarah revealed that Dave would secretly telephone her mother and 'tell on her' if she was having a difficult time 'and ruined his day.' Inevitably, Sarah's mother would then telephone her to find out what was wrong and Sarah would confide in her.

Dave was not aware that Sarah knew about his regular telephone calls to her mother as her mother told Sarah it should remain their 'little secret.' Sarah explained that in the course of these telephone calls her mother would advise her to 'pull herself together' and to be grateful for all that Dave provided. Thus, it appeared that Dave and Sarah's mother had formed a coalition.

It seemed to me that perhaps one of the ways Sarah had tried to meet her mother's expectations and, therefore, win her approval, was to choose Dave as her prospective spouse. Sarah and Dave had been together for four years. He was divorced with three children and seven grandchildren, and was, therefore, several years Sarah's senior. In fact, the 17 year age difference between them made him close in age to Sarah's mother. Sarah explained that Dave and her mother got along:

> ... like a house on fire. She [mother] feeds his ego. In this situation, he's the good one and I [inaudible] of her expectations for him and I must be forever grateful for what he's provided.

Sarah illustrated the closeness of the relationship between Dave and her mother by saying:

> Dave said that if another man came between us, I could go my way and he would keep the kids [her children] and move granny [her mother] into the house. And something else ... my mom hugs and kisses Dave continuously. She even makes inferences

like 'can I come and sleep in between you two?'

Sarah described her relationship with Dave as good. She said he had 'old school' attitudes which meant that he was very comfortable in the role of provider and protector. This suited Sarah.

> He [Dave] does the shopping every Saturday morning. If I need something I can just phone him ... that kind of thing. [Later] He's the one who looks after us; he's the one who provides for me; he's the one who, if the kids need school uniforms, goes and gets them.

Interestingly, she stated that she did not always experience such intense headaches when he was around. She thought that perhaps this was because she knew she could depend on him to look after her. However, she remarked that it was not always easy living with Dave as he liked her to be close at hand.

> And he is a little over-sensitive to feelings as well and if I'm not giving him a lot of attention, he takes it personally. [Later] If he watches TV here in the evening, no matter how much work I've got to do - if it's on the computer or whatever - I must be here sitting with him.

Nevertheless, Sarah believed that Dave was more 'accepting' of her than her (late) ex-husband had been. She explained:

> My previous husband thought I was lazy if I went and lay down whereas Dave is more accepting. So when I say I have a headache, he knows I have to go to the room and rest.

Thus, it seemed as if Sarah had not only succeeded in finding a suitable partner for herself but in getting engaged

to Dave she had, metaphorically, also selected an eligible 'second husband' for her mother. She alleged that she felt comfortable about Dave and her mother's mutual fondness because, as she put it:

> My mother is very powerful in my life and she has destroyed relationships for me. She was a big factor in my divorce because she used to point out my ex's weaknesses to me which made me look at him in a different way. And I don't want her to do that with Dave.

She later admitted, however, that it bothered her a little when her mother flirted with Dave.

Choosing a good future son-in-law and 'husband' for her mother could be viewed as one way in which Sarah demonstrated love, gratitude and loyalty towards a 'perfect' mother who had declined marriage proposals after her divorce to devote herself selflessly to her children's upbringing. It was one way in which Sarah could be a good daughter and, at the same time, help Julia because as Sarah explained:

> She [mother] says she is so happy that I am now looked after and protected and that she can now devote more attention to Julia. That's also the reason why she moved down to Durban.

The above suggests that, on one level, Sarah's involvement with Dave helped Sarah and her mother to disengage to some extent and, recursively, having her mother in the picture helped Sarah and Dave disengage from one another when she needed to be alone. As she revealed:

> Sometimes I like to use my mother as a substitute for me. And when they [Dave and her mother] are chatting, I leave them. But it doesn't always work

> because Dave still wants me around... and my mother, in a way.

One another level, however, the triangulation of Dave in the mother/daughter relationship seemed to maintain the over-involvement between Sarah and her mother. Similarly, a circular punctuation of the situation would view Sarah's relationship with her mother as helping to maintain Sarah's relationship with Dave.

Sarah's headaches seemed to serve a similar function. On the one hand, they were functional in enabling her to get distance sometimes from her interpersonal relationships and in providing temporary respite from meeting other people's wishes and expectations. Illustrating the theme of wanting freedom from demands and responsibilities, Sarah admitted, for instance, that she sometimes 'used' her headache to avoid a 'very demanding' friend and she felt 'guilty' about this. In keeping with her definition of herself as a 'good mother figure' she found it difficult to assert her own needs if that meant refusing other people.

> Possibly because I'm so forthright, I like her [friend] to know I have a headache so that she knows I can't be there for her. So I have an excuse and I'm not really letting her down.

The headaches and the 'depression' were, as Sarah put it:

> ... a way of opting out when I'm not coping. I can see how they [headaches] help me get out of the enmeshment. [Later] Let's say I want to 'crash' in the evening; I'm not interested in talking or watching TV. I don't really stay in the lounge because I want to. I stay here for him [Dave]. I'd rather go to bed. And that's how the headaches are functional because they allow me to go to bed.

In helping her to escape from demands, the headaches afforded Sarah an opportunity to 'relax.'

> Maybe it's my body's way of saying 'you've had enough. Get into bed and cover your head and sleep because otherwise you'll burn out.'

In regulating interpersonal distance, Sarah's headaches also helped to maintain the close bond between Dave and her mother. One evening when I telephoned to arrange an interview Sarah had a headache. She later explained that her mother was visiting from Durban this particular evening and:

> ... they [Dave and her mother] were sitting together and I said 'you've got my mom tonight' and I went to bed [at 7 o'clock].

On the other hand, the headaches helped to maintain the involvement of Sarah's mother in her life and her mother's autonomy as the perfect, sacrificing matriach. For instance, by temporarily incapacitating Sarah, the headaches sometimes enabled her to hand some of her responsibilities over to her mother. Thus, by 'failing' her mother (by having a headache), Sarah gave her mother a 'reason' to be concerned and involved in her life. In this way the headaches were also an expression of Sarah's view of herself as a 'dependent' person.

> It's almost as if she won't let me get through a headache by myself. I tried to tell her to leave me one day when I had a headache. But then again I rely on her to keep the house going ... this is when she comes up ... not often ... but when she does she keeps things going. [Later] She helps me and takes care of the children. I really appreciate that. I've just got to bear with the moaning and groaning. The minute I'm not fine and when I need her most ... is when I have my headaches.

Exchanging Ideas: My Conversational Practices

Our Communicational Pattern

As mentioned earlier, Sarah was a good conversationalist and I found it easy to establish rapport with her. She communicated freely and was open to new ideas. Our conversations conjured up images of an archaelogical excavation, with me asking questions - many of them relational or circular questions (Penn, 1982) - and offering interpretations, and Sarah responding with insightful descriptions and explanations. My impression was that our curiosity increased as we explored the context in which Sarah's problem operated, and we might have continued our discussions for hours had the cassettes not run out. I found the interviews stimulating, intense and somewhat exhausting, and I think Sarah might describe them in similar terms.

The to-and-fro nature of our conversations meant that we both actively participated in 'unearthing' and reconstructing meanings. Sarah was knowledgeable about systemic thinking and the questions I posed helped her to connect various bits of information for herself and these connections triggered other connections in a recursive fashion. The pattern that emerged from the distinctions we drew and the connections we made, created a story about her headaches that fitted, and thus, made sense to us both.

Offering Alternative Perspectives

Life for Sarah was somewhat demanding and stressful especially since she was not satisfied unless she immersed herself thoroughly in her studies and did her work properly. As an achiever who set high standards for herself, Sarah needed to feel in control of what she set out to do but she often felt overwhelmed and found it difficult to cope. She would want to 'opt out' and sometimes even fantasised about suicide. I

thought that she equated suicide with loss of control and therefore I reframed suicide as an action over which she had control, pointing out that she could choose to live or to die. However, it seems that Sarah felt that I had not heard her and my reframe did not fit with her attributions of meaning because she replied:

> Yes, but at that stage I don't want to make a choice. I don't want to think. When I'm like that I don't want to make decisions and I get this overwhelming urge to take Valium.

Sarah strived for perfection in her work but did not seem entirely satisfied with what she produced. Although her mother's frequent reprimands constantly reminded Sarah of her perceived inadequacies, she remarked more than once that she failed to live up to her own expectations. I attempted to perturb this intrapsychic description by framing it in interpersonal terms. I said:

> So then the stresses aren't generated within ... you've always got to strive to meet her [mother's] expectations. How do you continue to fall into the trap?

When she commented that she had 'a strong need' to fulfil Dave's needs, I again offered an interpersonal description, thereby highlighting that she was part of "an entity that is larger than the individual self" (Minuchin & Fishman, 1981, p.193). I remarked:

> That's part of all the expectations that are imposed upon you.

Sarah felt ambivalent towards her mother. On the one hand, she experienced her mother as 'overbearing' and wanted distance from her. She complained about her mother in the interviews

and seemed to resent her mother for not encouraging her in her studies or showing sympathy towards her symptoms. On the other hand, she admired her mother's strong personality and was grateful that her mother helped her with her children and had supported her through crises such as her divorce and the sequestration of her nursery school. Sarah felt that she had disappointed her mother. She asked me in the second interview if I thought she had a 'perfect mother.' In my response I attempted to reframe the meaning of perfection by introducing a 'both/and' perspective to what is generally construed as an 'either/or' concept (i.e. I implied that perfection did not only encompass the positive but also the negative). At the same time, I positively reframed Sarah's 'disappointing' behaviours. I replied:

> Yes. And I wonder if she didn't get disappointed in you sometimes whether she would actually love you as much. Maybe that's what keeps her such a loving mother.

Sarah described herself as dependent. She insisted that she did not want anyone to be dependent on her and, with the crash of her business, never wanted financial responsibilities again. She associated independence with demands and responsibilities which she preferred to live without. Yet, she had been a distance education student which requires the ability to work independently. She also had her own opinions and struck me as a responsible mother, daughter and fiancee. Since she seemed to perceive independence and dependence as discrete all-or-nothing attributes instead of as recursive complementarities, I framed her unwillingness to be financially independent and responsible as a sign of independence and commented:

> I think that to stand up and say 'I don't want to be in charge of this kind of thing anymore' is a [mark] of a very independent-minded person.

This generated a discussion around the theme of independence/dependence and introduced other new ideas. For instance, I again highlighted the recursive complementarity of independence/dependence when I said:

> And while you're depending on them, they're also very dependent on you. So other people will be dependent on you by virtue of you depending on them.

In our discussion about the demands associated with being independent versus dependent, I challenged her idea that depending on other people meant freedom from responsibilities, and introduced a different perspective with which she agreed.

> ... I have a different idea. I see it that if you are dependent on people and you need people, then the demands are greater because it [dependency] comes at such a high price. For instance, look at how you need your mother, but look at the price you pay. She's wonderful in taking care of so much for you and looking after your kids, but look at the price.

I also introduced another perspective on her headaches. Keeney and Ross (1992) argue that a symptomatic system presents contradictory communications of both change and stability. This implies that headache sufferers want to remove the discomfort, while retaining the social benefits, of the symptom. For Sarah, the positive social consequences of having a headache were that it enabled her to withdraw from her relationships and 'opt out' of responsibilities in order to focus on, and create space for, herself. As she said:

> ... there's nothing but headache on my mind. But in a way it's nice when there's nothing but me on my mind.

However, she not only felt guilty about the 'benefits' her illness provided, but she was also concerned about damaging her system with large quantities of pain relievers and it was difficult for her to function the day after taking a lot of headache medication. I perturbed the idea of symptoms being involuntary by suggesting that she might learn to choose when she wanted to get a headache. This was coherent with addressing the system's stability/change communications (Keeney & Ross, 1992). Furthermore, reframing an involuntary behaviour as voluntary was an attempt to capitalise on Sarah's supposed need to be in control. In this sense it was also consistent with Haley's (1963) argument that therapy should "encourage the symptom in such a way that the patient cannot continue to utilize it" (p.55). I told Sarah:

> Perhaps you can get to a point where you just give it [headache] to yourself at times when you'd rather have a headache than go out or ... you can decide when you want to have one. [Later] ... because quite clearly you need these things [headaches and depression] in your life and what better way if you can decide when to have ... because I think if you can control that, maybe you can control the severity of it [headache].

Constructing a Sense of Mutuality

I challenged Sarah's presentation of herself as a whole autonomous system by asking questions that constructed a mutuality of context (Kogan & Gale, 1997; Minuchin & Fishman, 1981). For example, Sarah described herself as someone who did not confront obstacles directly and needed to escape when she was not coping with life pressures and problems. In contrast her mother was perceived as able to cope with anything. I attempted to challenge Sarah's experience of reality when I asked:

How does your mother exit from things?

Sarah described her mother as 'dominating' and 'overprotective.' I challenged the notion of hierarchy (Minuchin & Fishman, 1981) that her attribution implied with the statement:

> What strikes me is that the three of you [Sarah, Julia, their mother] are all so protective of one another.

This generated a conversation about the different ways in which Sarah, her mother and her sister protected and helped one another.

If Sarah argued with her mother (or had a headache) she would feel guilty and then try to make amends. Sarah's mother also evoked guilt in her by comparing Sarah's fortunate circumstances to Julia's plight, and by pointing out what she perceived to be Sarah's faults as a mother. In the third interview, we discussed Sarah's recent visit with her mother in Durban. An argument with her mother was apparently followed by a shift in Sarah's behaviour (this is discussed further on). Nevertheless, the guilt Sarah had felt about the argument prompted her to invite her mother to her Durban flat. Since Sarah experienced herself as acting and reacting, I attempted to inject reciprocity into her experience of reality (Minuchin & Fishman, 1981), by asking:

> So was she [mother] doing this [spending the evening with Sarah] for you because maybe she felt guilty?

Later in the interview I again highlighted mutuality with the comment:

> So by you doing something different allowed her to do something different.

Sarah perceived herself to be the one who wanted more distance from her mother. In her opinion, the family was enmeshed because her mother needed closeness with her children. Sarah believed her mother 'benefited' when she had a headache whilst she was in Durban because it kept her under her mother's watchful eye. She did not see the other side of the coin - that she had invited her mother to spend time with her despite an agonising headache. Therefore, I introduced the notion of interdependence into her reality (Minuchin & Fishman, 1981), by stating:

> But it seems to me that out of the two of you, you are the one who needs to be with her [mother] more. [Later] Yes, it's striking me more now that it's more you who needs to be close to your mother than the other way round.

Suggesting a Ritual

At the end of the first interview, I wanted to gain further information about how the mother/daughter system worked. Therefore I suggested that Sarah carry out a ritual. She had told me that her mother 'almost monitored' her, telephoning her from Durban every few days. I suggested she should telephone her mother repeatedly the following week and make a nuisance of herself. She believed this would be very easy to do as her mother was looking after her children and would think Sarah was telephoning to enquire about them. I asked Sarah to complain of a headache each time she telephoned even if she did not have one at the time. I acknowledged the difficulty, if not impossibility, of the task considering her mother's reaction towards her headaches. I framed the ritual as an experiment which would provide further information irrespective of whether she carried it out. I added:

> And I think you should tell her you're doing everything she advises but that you're still getting

headaches.

I not only prescribed the symptom, but positively connoted the behaviour of Sarah and her mother. This was in line with that proposition that the "primary function of the positive connotation of all the observable behaviours of the group is that of permitting the therapist access to the systemic mode" (Boscolo et al., 1987, p.8). Thus, I suggested that it was important for Sarah's mother to be a good mother and that Sarah would be helping her in this role if she spoke about her symptoms because this would give her mother the opportunity to show her concern even if it meant admonishing her. Sarah responded to the directive as follows:

> It's almost scary to think of what the results will be. It's frightening to think of how she'll react. I'll try it but I don't think I'll be able to do it.

Confirming her Autonomy

The autonomy or identity which Sarah tried to conserve was an ambivalent one and her chronic headaches (and depression) could be seen as verbal and non-verbal expressions of conflicting discourses (Fourie, 1996b).

From the descriptions co-created in the interviews, it seemed that Sarah tried to conserve her autonomy as a woman constantly striving to do her best (Fourie, 1996b). She had been close to her mother as a child and a 'model' daughter. As an adult she was not only ambitious and preoccupied about getting things done well and on time, but she was also very concerned about other people's happiness and wellbeing. She was a considerate mother, partner, daughter and friend who was afraid of upsetting the people she cared for. She very much wanted to meet her own and everyone else's expectations but found the responsibilities and demands too much and frequently wanted to 'escape' from it all, leaving others to pick up the

pieces. This, then, was the other side of the ambivalence which Sarah also had to conserve. Thus, it seemed that no matter how 'perfect' Sarah tried to be, she always failed (Fourie, 1996b), disappointing herself or someone else in the process. Her mother accused her of not spending enough time with her children (and they tended to agree with their grandmother). Sarah felt guilty about this. She also felt guilty if she did not make time for her 'demanding' friend. Sarah believed her mother had higher expectations for her than for her 'mentally ill' sister who was somewhat of a disappointment. Ironically, although Sarah was the more successful daughter and the one her mother could turn to, it was Julia who received more support, sympathy, and attention from her mother.

Thus, Sarah seemed to be caught in a series of conflicting discourses or ambivalences. There was the ambivalence between being responsible and living up to expectations (i.e. trying to be 'perfect'), and not wanting responsibilities or expectations (i.e. failing). This ambivalence was also associated with the conflict between Sarah's need for closeness with Dave and her mother, and her need for distance and solitude. Sarah also seemed to be trapped in her mother's paradoxical message 'I will only love you if you are a 'perfect' (i.e. appreciative, successful, sacrificing, contented) daughter, but I will love you more if you fail (i.e. are sick, unhappy, unsuccessful).'

I attempted to ask questions and make interpretations that acknowledged both sides of Sarah's ambivalence, thereby confirming the complementary sides of her autonomy (Fourie, 1996b). I am not certain, however, whether this process was successful in perturbing her ambivalence or merely served to entrench her ambivalent ideas. Fourie (1996b, p.65) explains, for instance, that "both sides of the autonomy of the people involved should be continually confirmed, while the ambivalent ideas are simultaneously disconfirmed". In the second interview

for example, I said:

> You mentioned earlier that if the headache is bad enough then that's the only time you do relax ...

In highlighting the symptom in the above comment, I was possibly reinforcing the ambivalent ideas of which her headaches were an expression.

The following questions and comments were intended to confirm the responsible, obsessive, control side of the ambivalence:

> So nothing you do makes any difference. You never manage to not be in control. Who taught you that you're not allowed to sit and do nothing?

> So even if you have a balanced lifestyle, you would still have failed?

The following are some of the statements I made during the three interviews, aimed at confirming Sarah as a person in her own right and the 'non-perfect' side of her ambivalence:

> ... but you also need to be your own person. And everyone, including you, expects you to be some perfect person who is always there. What would happen if you could get there [i.e. a relaxed, more balanced lifestyle] without needing depression and headaches as a way out?

> So all this means is that you're never going to be able to control how she [mother] reacts. She'll find something to be disappointed in whether or not you have [inaudible]. But she'll always love you.

> Yes, because I think if you're dependent on someone

> then there's a price to pay. Look at the guilt you feel in relation to your mother and look at the obligation you feel in terms ...
>
> But you managed it [i.e. to say no to her mother's request] in Durban, didn't you?

Redefining the Meaning of her Headaches

Sarah sometimes felt that she wanted to 'escape' and her headaches and bouts of depression were a way of 'opting out' when she felt she was not coping with life. On enquiring into how being in the company of her sister and her mother impacted on her headaches, she replied that both she and her sister would get headaches. She had already described her mother as 'overprotective' and 'a pillar of strength' and had told me that she wanted less interference from her. With this information, therefore, I reframed her headaches as a way of rebelling against her mother. Later I simultaneously acknowledged the conflicting discourses in which she participated (i.e. closeness/distance or dependence/ independence; and good daughter/bad daughter) with the following interpersonal redefinition of meaning:

> ... headaches create conflict between you two [Sarah and her mother] and they are a way of rebelling ..., but then there's a loyalty issue in this because you go back [to her] and try to make up for it.

In the second interview, I again acknowledged the ambivalence, saying:

> The headaches are the only thing that helps you to find solitude and comfort for yourself. But ironically [they don't] because then your mother will get upset. You're also worried about leaving Dave alone if you have a headache, because he does

not like being alone.

I also commented on the function of the headaches at regulating interpersonal closeness in the couple and mother/daughter subsystems, and at the same time underlined the considerate/dependable (i.e. 'perfect') side of her autonomy with the remark:

> So the headache helps you to give him [Dave] to your mother sometimes.

Hypothetical and Future Questioning

After exploring the social context of Sarah's headaches in the first interview, I asked her what her future would look like if she stopped having headaches. She paused a while but did not answer the question and I did not press for one; in itself the question had introduced an idea about change and her response seemed to reflect what has been said of this category of questions, namely, that they have a powerful effect on non-verbal behaviours (Boscolo et al., 1987). Sarah also tended to circumvent other future/hypothetical questions, some examples of which are illustrated below:

> What will happen if you don't [continue to keep everyone happy]? [Then] What will be the consequences of [letting everyone down]?

> What will happen if you move down there [to Durban] and you consistently fail her [mother]?

> What would happen if you [Sarah and Dave] started sleeping closer together in the future? [This metaphorical question addressed the coalition between Dave and Sarah's mother].

The Conversations 'Removed My Glasses'

In the final interview I reviewed with Sarah what had happened in the previous three weeks when she had gone to Durban to fetch her children (they had spent the school holidays with their grandmother). As I had done with Ronel and John, I also asked Sarah to review our two conversations honestly in terms of what she had found useful/helpful as well as unhelpful. Sarah spoke at length and towards the end of the interview remarked that her throat felt sore and tense, as if she was about to cry, only she did not feel like crying. She explained that she was being very open with me and found the conversation quite difficult because it was putting her 'in touch' with her emotions. A summary of her story follows:

After Sarah and her friend Christine arrived in Durban, Sarah gave her mother money and asked her to buy groceries the next day. Her mother agreed until she overheard Sarah and Christine planning to help a psychologist friend score some psychometric tests the following day. Annoyed that Sarah had decided to spend the day working instead of relaxing, she returned the money to Sarah complaining that she did not have time to go shopping. Sarah said her mother knew she (Sarah) would count on her to take care of the children the next day while she worked, and thought her mother was deliberately trying to manipulate her. Determined to go ahead with her plans, however, Sarah telephoned her mother the next morning to ask if she would look after the children for a few hours. Sarah's mother reluctantly agreed but was still annoyed with Sarah and so Sarah decided there and then to leave her children with Julia for the day.

Sarah reported enthusiastically that leaving her children with her sister and going ahead with her plans despite what her mother thought, was a different way of behaving. She said:

I've never done it this way, really gone to someone

> else [for this favour]. So it was really out of the ordinary.

She said that previously the scenario would have been as follows: she and her mother would have argued until her mother reluctantly gave in. This would have created a tense atmosphere between them, making Sarah feel that she could not take advantage of the situation. Therefore, to avoid another 'lecture' from her mother about priorities, she would have only worked for a few hours instead of for the whole day.

Although there seems to have been a shift in Sarah's behaviour on this occasion, it seems that the fundamental pattern of interaction between Sarah and her mother remained the same. Nevertheless, Sarah reported that the 'solution' she found to her dilemma that day benefited everyone. Her children had a wonderful time with their aunt and she was pleased to do Sarah a favour; Sarah was able to work the whole day instead of cramming her tasks into a few hours; and her mother spent the day with a friend, much to Sarah's surprise because she did not know her mother had any friends. She said she had expected her mother to 'worry' about her or to feel guilty about leaving her 'in the lurch' that day, but that this did not appear to be the case. Sarah added:

> This [the shift in Sarah's behaviour] literally forced her [mother] into another situation. I think it's absolutely wonderful because instead of me having to feel guilty about my mom suffering all day, she actually found something else to do!

However, Sarah did not know until later that evening how her mother had spent her day. Thus, that afternoon she started feeling guilty about their disagreement and thought she should try to make amends. And so, after fetching her children from Julia's house, Sarah invited her mother to spend the night with her, which she did. Interestingly (and predictably), Sarah

stated that a severe headache started sometime during the day. Although she downplayed the intensity of the pain, it did nothing to assuage her mother's annoyance. She believed that the headache was brought on by her feelings of guilt which she claimed she would not have experienced had she known her mother would enjoy her day with a friend.

> It's all I can think of. If I think of the way I was feeling at the time ... I had to almost ... like ... make friends with her [mother]. Because that morning when I left to go to Julia's, I was cross with her. It was like ... I'll show you! I'm going to organise my kids my way! So it [the headache] was as if to say 'I still love you' kind of thing.

Sarah kept her mother company that evening but by the next day her headache was so painful that she went to a doctor for a prescription. Her mother stayed with her the whole day and, according to Sarah, 'dutifully lectured' her every now and again.

Interestingly, Sarah reported that the day before our final interview her mother telephoned her with the news that she had secured a lovely flat for herself and would, therefore, no longer have to live with Sarah's brother and his wife. Her mother was very excited about living independently again especially as her daughter-in-law irritated her. Sarah told me that she was very pleased for her mother.

Sarah also informed me that in recent weeks she had become more aware of when she felt tense. She said that this awareness had prompted her to try to 'cognitively train' herself to relax more. As a result, she was 'worrying' less about getting through all her work.

> I haven't been as worried lately. It's just like ... I do what I can now and if I can't do it, you

> know, why worry ... I'll tackle it when I can. I felt okay about it. I feel like it's not the end of the world.

She said that she had started noticing her achievements more and had learned that she did not have to be 'obsessive-compulsive' to do very well. Worrying less about her assignments had filled her with a sense of relief.

> What I've also been doing is looking at what I have done and seeing that it's good, so that I'm able to do it. So that builds up my self-esteem so that when I do something it doesn't take me so long. It's not so painful. [Later] And I get assigments back ... with A's and the one 95 percent, and I think, well ... you know, I'm on the right road. [Later] And I can do it because the assignment that I did for 95 percent, I typed onto the computer. I had no time to write it out and laboriously go through it like I normally do ... you know, that obsessive-compulsive thing - going and doing and correcting and ...

We co-constructed the view that in trying to be less perfect, Sarah could actually be more perfect. Moreover, she could be in control of how she decided to relax about her assignments.

She also reported that she had also succeeded in asserting herself to her 'demanding' friend, Caryn. Caryn had asked Sarah to look after her child during the school holidays. Sarah knew that Dave would not be happy with this arrangement, nor would her mother since she was taking care of Sarah's children. In addition, Sarah had planned to work during the school holidays and did not have the time to babysit. She was rather pleased with herself for finding the courage to explain this to her friend and seemed quite surprised that Caryn accepted it so well. Sarah commented:

> It's like I can actually go to a point where I say 'no, I can't, I can't do that.' It was like letting me off the hook because I didn't have to have a headache every day.

During the last interview, I noticed that Sarah's meanings about her headaches had changed. It appeared that she defined her headaches as less of a problem because her new constructions seemed to emphasise the benefits of recurrent headaches. She explained, for instance, that the migraine she experienced in Durban prevented her from going to dinner with friends, an arrangement she had felt ambivalent about, knowing that Dave and her mother probably would have disapproved. She added:

> And when I think of how I felt at that time, I didn't feel disappointed that I wasn't going out to dinner. I was pleased, I was happy. It [headache] helped me not meet up to everyone's expectations and demands. You know what I think makes them [headaches] so real is because ... the fact that they've been almost useful in some way has been on my mind for a while. Like, how can I have a headache? It's a real headache, and yet it's because I want myself to have a headache. And, um, just from talking today, I think that it's because if I don't have a real one [headache] I feel guilty about lying. So I mean, wouldn't it be easier if I just had to say 'I've got a headache?' [Later] And I found the same circumstances every now and again. I said once to ... [a friend], 'oh, I'd love to get a headache tonight.' This was about a week ago. 'I actually don't feel like talking to Dave tonight. I just feel like being by myself.'

In a nutshell, Sarah reported that she had found the interviews therapeutic. She said that what she had found most

useful was realising the function of her headaches. She added:

> When you first said to me 'I want to come and do ...,' I had no idea it was in this way and I actually ... to have thought of it ecosystemically, and knowing about ecosystems, I would have thought ... like, where from? I never realised they [headaches] were a symptom of the system and how I could function ... I never realised that.

Sarah believed that our conversations had helped her to behave differently towards her mother in Durban and that despite the migraine their argument seemed to trigger, she:

> ... got out of that day more than what I would have got - for myself - more than what I would have got if the kids had been with my mother. I was more relaxed ... it sounds totally ambiguous, but I would have worried more if my kids had been with my mother. With Julia I wasn't worried. They were there, she was not going to nag me or moan if I came home at three o'clock and not at twelve. What I did was good. It was really good.

She reported that while the interviews had been helpful, she had found the ritual I suggested 'a bit stressful.' She said she had really wanted to carry out the task, particularly as I had emphasised that she would be doing her mother a favour, but no matter how much she tried, she could not bring herself to do it.

Two months after the final interview I telephoned Sarah to clarify some biographical data. During the call she mentioned that she was 'looking at everything from a different frame.' She said she had decided she was going to do what she wanted irrespective of what her mother thought and described her new attitude as 'liberating.' She reported that she had

spoken to her mother about her forthcoming Master's degree selection interview (which she claimed she would not have done previously), and thought that her mother was a little more accepting of her. Sarah also stated that she felt less anxious about getting through her work and was experiencing fewer and less intense headaches. She reported that she had recently been diagnosed with Temporal Lobe Epilepsy but did not believe that it was the cause of her headaches. She said she had noticed a reduction in her headaches about two weeks before she started taking anti-epileptics and, therefore, did not attribute the improvement to a spin-off of the medication.

Perhaps it would be fitting to conclude this section with the metaphor that Sarah used to describe our first interview. She said:

> It was as if I had my glasses removed and I could see through everything.

Conclusion

The co-constructed ecology of ideas about Sarah's headaches can be summarised as follows:

Sarah started experiencing headaches sometime after her parents' divorce when she was about 15 years old. The condition worsened after she had children. She believed her headaches (migraines and tension-type headaches) were caused by hormones and stress which she described as her 'obsessiveness' about doing things properly and, thus, a need to be in control of events. Sarah also complained that she started experiencing bouts of depression about 10 years ago after she was prescribed a beta-blocker for her migraines. About three years ago, she started taking an antidepressant which helped to control her 'obsessiveness' and, for a while, her headaches. Although she continued to take an antidepressant, she reported that it no longer controlled her

headaches. On the whole, pain killers were also ineffective in alleviating her headaches, yet she continued to take them 'as a matter of routine' for the condition.

From the picture that emerged in the interviews, Sarah's headaches seemed to be a somatic metaphor for long-standing conflicts or ambivalences that existed in her interpersonal relationships. She seemed to have very ambivalent relationships with her mother and her sister which could be traced back to the time after her parents' divorce and may even have existed prior to this event. After the divorce, Sarah had felt jealous about her mother's concern for Julia and, thus, had resented having to help take care of her younger sister. Paradoxically, although it seemed that Sarah had wanted more attention from her mother, she also experienced her as over-protective and overbearing and had wanted more distance from her.

The following information further highlights the ambivalent nature of Sarah's relationship with her mother: Sarah believed she had been a 'model' child, while her sister had been a 'rebel' who had disappointed her mother in many ways. Although Sarah and her mother were close and the mother seemed to take Sarah into her confidence more, Sarah believed her mother was more tolerant, protective and sympathetic towards Julia. On the one hand, Sarah found it very difficult to 'think badly' of her mother and she felt indebted to her for all the sacrifices she had made for her children. On the other hand, Sarah seemed to resent her mother for appearing more sympathetic towards Julia's problems than towards hers, and for not understanding or supporting her need for academic achievement. Sarah believed her mother expected more from her than from Julia and, despite her attempts, she seemed to fail to live up to expectations. For instance, Sarah was never entirely satisfied with the work she produced and found it difficult to cope sometimes. Also, although she had done well academically and had established a secure relationship with a

man her mother liked very much, it seemed that her mother thought Sarah had her priorities all wrong (i.e. that she devoted too much time to her studies and not enough to her children). Her recurrent headaches and 'depressive episodes' were a constant source of irritation and frustration to her mother, and therefore another sign of Sarah's 'failure.'

Interestingly, Julia had been diagnosed with 'Bipolar Mood Disorder.' One could go as far as to say that the mood polarities characteristic of this 'disorder' (i.e. shifts between mania and depression) (American Psychiatric Association, 1994) were an isomorphic expression of the opposing discourses that existed in this family system.

The conflicting discourses that characterised Sarah's relationship with Julia are illustrated by the 'fact' that, firstly, Julia was proud of her elder sister, yet she simultaneously envied Sarah. Secondly, Sarah was close to Julia as long as there was distance between them; once in each other's company, however, Sarah found Julia somewhat irritating. Thirdly, in the company of their mother, Sarah and Julia would compete for her attention and conflicts would arise between the sisters. The ambivalent relationships between Sarah and Julia, and Sarah and her mother, were reciprocally and mutually maintained. Moreover, the mother's frequent comparisons of the sisters' respective circumstances seemed to perpetuate these ambivalences as well as the pattern of Sarah constantly striving (and failing) to live up to expectations, and vice versa. Thus, a complex recursive pattern of interaction had evolved between Sarah, Julia and their mother.

It appeared that one of the ways Sarah had tried to live up to her mother's expectations of her was to choose a much older man as her prospective spouse; a good man who would not only take care of her and her children, but someone who would care for her mother too. Nevertheless, her choice of marriage partner had seemingly introduced another set of ambivalences.

For example, who was Dave really engaged to - Sarah, her mother, or both? Although Sarah and Dave loved each other and had a good relationship, he was also very fond of her mother, and vice versa. In 'fact,' Dave and Sarah's mother seemed to have formed a coalition because he would secretly telephone her and 'snitch' on Sarah if she had a bad headache or felt depressed. Sarah was both pleased and a little uncomfortable with the closeness between Dave and her mother. Also, although Sarah seemed to have done 'right' by her mother in choosing Dave as a partner, it was not enough; Sarah also had to be grateful for everything Dave provided. Yet, from her comments, Sarah's mother did not seem to think that Sarah was grateful enough; another conflicting discourse.

It appeared that on one level, Sarah's relationship with Dave helped her to disengage from her mother, and from Dave to some extent when she needed time alone. For instance, sometimes when her mother came to Johannesburg, Sarah would leave Dave and her mother alone together so that she could be on her own. On another level, however, Sarah's relationship with Dave seemed to maintain the involvement of Sarah's mother in her life and recursively, Sarah's relationship with her mother could be viewed as maintaining Sarah's relationship with Dave. Thus, an interconnected network of interactions had stabilised.

From a second-order cybernetics perspective, Sarah's headaches were embedded in, and an expression of, a web of conflicting discourses in which she participated. From a first-order cybernetics approach, her headaches seemed to serve the function of regulating interpersonal closeness/distance. They enabled her to escape from relationships, demands and responsibilities and afforded her an opportunity to 'relax.' Paradoxically, the headaches were also functional in maintaining the involvement of Sarah's mother in her life and in preserving the close bond between Dave and her mother.

An interlinked network of evolving ideas was co-created and re-created by Sarah and myself into the above case description. However, this is only one of many stories that could have been told about Sarah and her relationships and, thus, it says as much about me as it does about her. It is also possible that had I interviewed Sarah with another member of her family, a different story would have unfolded. The patterns and themes that emerged from Sarah's scenario flowed out of the researcher's idiosyncratic way of drawing distinctions at a specific time in the research process. Another researcher undoubtedly would have identified different themes. A summary of the interconnected themes that emerged from the interviews follows:

- The theme of ambivalence.
- The theme of dependency (incorporating the theme of wanting freedom from demands and responsibilities).
- The theme of competitiveness.
- The theme of family loyalty.
- The theme of family protectiveness.
- The theme of striving to live up to expectations (and failing).
- The theme of being unable to relax.
- The theme of resentment.
- The theme of guilt.

In coupling structurally with Sarah, the conversational practices which I utilised to perturb her belief system, included the following:

- Offering alternative perspectives which included framing intrapsychic descriptions in interpersonal terms, reframing the meaning of certain concepts and behaviours, highlighting recursive complementarities, challenging fixed ideas and addressing the system's stability/change communications.

- Constructing a sense of mutuality or complementarity which involved expanding certain perspectives, introducing the notion of interdependence, and challenging the notion of hierarchy.
- Suggesting a ritual which involved prescribing the symptom and positively connoting certain behaviours.
- Confirming both sides of Sarah's ambivalent autonomy which included acknowledging both sides of her autonomy while attempting to disconfirm her ambivalent ideas.
- Redefining the meaning of her headaches away from an intrapsychic description towards a contextual one and simultaneously acknowledging conflicting discourses, as well as framing an involuntary behaviour as voluntary.
- Hypothetical and future questions which introduced an idea about change and alternative possibilities.

Following this was a discussion of (1) the shifts in behaviour or attributions of meaning which had taken place during the interviews as co-constructed by Sarah and myself in the final interview; (2) what had been helpful/unhelpful from Sarah's perspective.

- There had been a shift in Sarah's interaction with her mother. The solution Sarah had found to a particular dilemma had benefited all the parties involved.
- Sarah had become increasingly aware of when she felt tense and as a result was trying to train herself to relax more.
- She had adopted a more relaxed approach towards her studies and had realised that she could perform just as well by worrying less.

- She had started noticing her accomplishments more which had the effect of boosting her self-esteem and enabled her to work more effectively.
- She had asserted herself instead of remaining silent and complying with her friend's wishes.
- Her attributions of meaning about her headaches had shifted to incorporate more positive ideas and conceptions. Thus, the problem theme had been alleviated somewhat in language.
- Sarah had experienced the interviews as therapeutic and had found it useful to realise the function of her headaches.
- She believed the interviews had helped her to behave differently towards her mother.
- She experienced my suggested ritual as stressful.

Two months after the final interview, Sarah revealed that:

- Her perspective about her relationships had changed.
- She had developed a new attitude towards her relationship with her mother which was 'liberating.'
- She had started communicating with her mother more about her career goals.
- Her mother was a little more accepting of her.
- She was experiencing fewer headaches.

Concluding Remarks

This chapter furnished two case descriptions of chronic headache sufferers and illustrated how the researcher attempted to intervene into each of the headache contexts. The co-constructed shifts in attribution of meaning which evolved from the conversations were also elucidated.

Chapter 6 contains an overview of the research findings

including the themes which the researcher considered to be common to both of the case studies.

CHAPTER 6

RESEARCH FINDINGS: AN OVERVIEW

Introduction

In this chapter the researcher constructs a story about how each participant's headache condition co-evolved with her own unique context. The themes identified as common to both of the participant scenarios are then examined. This is followed by a discussion of the 'outcome' of the research interviews in terms of the shifts in attribution of meaning or behaviour that occurred, as co-constructed by the researcher and participants.

From Perturbation to Enduring Pattern

In Chapter 3 it was argued that a symptom initially occurs as a random, destabilising fluctuation which only becomes structurally coupled with its context as it recurs (Bloch, 1987). In the process of structural coupling, a consensual domain or linguistically co-created reality develops about the problem (Anderson & Goolishian, 1987). In essence, headaches co-evolve with their context to develop an ongoing self-regulating symptomatic pattern (Bloch, 1987).

Viewed from this co-evolutionary perspective, Ronel's headaches started out as a random phenomenon coinciding with an infection in her heart. During a three month absence from school, however, her illness and life ecology co-evolved whereby aspects of the condition (i.e. the headaches) became chronic even after the original context and illness no longer existed (Sluzki, 1981). The headaches became a viable problem in their own right as a result of the mutually co-ordinated linguistic behaviour of the participants involved in Ronel's illness (i.e. family members, friends and doctors) (Anderson & Goolishian, 1987; Griffith et al., 1990). This behaviour formed the context of her illness. As Ronel's headaches initially accompanied a 'real' medical condition, the consensual

domain or shared beliefs about the problem would have mutually qualified the headaches as involuntary behaviour and probably as deserving attention and concern. At this point it is perhaps worth mentioning that no behaviour can be viewed as inherently involuntary except perhaps reflexes and similar basic biological activities (Bassett, 1992).

Somewhere along the way, the idea that Ronel was a tall, big-breasted and unconfident adolescent also became mutually qualified by the behaviour of individuals who interacted with her, including her peers. Thus, Ronel's recurrent headaches could also be viewed as having established a mutual fit with this aspect of her context in the sense that they became an expression of her ambivalence at having to attend school but not wanting to. It was noted, for instance, that her peers had teased her and that she had been unable to share her vulnerability with anyone. As Griffith and Griffith (1992, p.49) state: "sometimes there can be overt political and cultural prohibitions against speaking about certain dilemmas, leaving only the language of the body for expressing sorrow".

The fit between Ronel's headaches and ways of thinking of the couple system is interesting because as an adolescent Ronel felt alone and vulnerable and as an adult she sometimes felt misunderstood by her husband; yet here was a symptom that evoked sympathy, support and understanding from John even though he did not suffer from headaches.

In Sarah's case, the headaches were a random, destabilising event which occurred after another "critical moment of instability" (Onnis, 1993, p.142), namely, her parents' divorce, and which worsened during the developmental stage of motherhood. Again, the consensual domain established by those who interacted about the problem (i.e. her family) would have probably mutually qualified Sarah's headaches as involuntary and possibly as a sign of failure. Interestingly, Sarah reported that her mother would react angrily towards her

headaches which seems to imply that she believed Sarah should be in control of the problem and, thus, she (alone) possibly qualified Sarah's headaches as voluntary behaviour. As the context of her condition, the consensual domain or story that developed sustained and perpetuated Sarah's headache symptoms, and vice versa. The idea that Sarah was a 'model' child would also have formed part of the family's consensual domain. Indeed, this opinion was mutually qualified by the behaviour of Sarah's mother who relied on Sarah to take care of her younger sister after school. Sarah was 15 years old and resented having to do this. She was also jealous that her mother seemed overly concerned about Julia. But how could she express these feelings when doing so would have been mutually qualified as an act of rebellion and thus incompatible with the dominant 'model child' story? She could not. Her autonomy as the 'model' child had to be conserved. It is not difficult, therefore, to understand how Sarah's headaches and her context established a mutual fit over time; the language of the body was the only medium through which Sarah could communicate her family relationship dilemmas. Thus, Sarah's recurrent headaches became an expression of her ambivalence at doing what was expected from her versus doing what she wanted to do, that is, her 'good' daughter/'bad' daughter ambivalence. The headaches were also an expression of her ambivalence around simultaneously wanting attention and distance from her mother. In this regard, the fit between the ways of thinking of Sarah and her family system, notably her mother, is interesting particularly as it differs from Ronel's context: Sarah's headaches evoked irritation and exasperation in her mother who, at the same time, would assist around the home if she was present when Sarah had a headache. This conflicting discourse seems to mirror Sarah's ambivalence - as expressed by the symptom - of simultaneously wanting attention and distance from her mother.

Emerging Themes

Control

Ronel's description of herself as someone who tended to see the 'bad side of things' was mutually qualified by her family. Her 'negativity' appeared to centre around worrying about - and thus, wanting to control - events over which she could have little, if any, control. For instance, she felt that she had no control over health matters, the political situation, and changes at the university. Being organised and efficient, conforming to conventional standards of correctness, and anticipating what could go wrong, were all ways in which she tried to control what happened and therefore make the unpredictable more predictable. Interestingly, she allowed John to make most of the decisions. Yet she did not perceive herself to be the one who was setting the rules for the relationship since she wished he was more sensitive to her preferences, and often disagreed with his decisions but would not say so.

The theme of control differed somewhat in Sarah's case. Sarah attributed her headaches to her need to be in control of events. She equated this need with her desire to accomplish many things. As an achiever who set high standards for herself, she needed to feel in control of what she set out to do. Yet, although she was constantly striving and somewhat 'obsessive' about getting things done properly, she felt that she fell short of her own expectations. Thus, despite her efforts she generally did not feel in control. She experienced her life as hectic and overwhelming sometimes and she often felt like escaping.

Competence

A consensual domain existed that Ronel had always had poor self-esteem. She had, however, learned to portray an image of

self-confidence. She had worked for one employer for almost 25 years and was conscientious about her work. As a result, she felt frustrated and angry that changes at the university hampered her efficiency, and therefore impacted on her sense of competency. Displaying competence in her job was possibly all the more important to Ronel since she had sacrificed a teaching career for marriage, a decision she regretted. Being efficient and organised could therefore be seen as an attempt to boost her self-esteem. Nevertheless, she was self-critical and seemed to doubt her competence. For instance, she believed she had been too strict with her children and too naive to understand the responsibilities of motherhood. On the other hand, she believed that behaving in the conventionally correct way had set a good example for her daughter who displayed good taste.

Sarah needed to keep busy; procrastinating made her feel tense and anxious. She became self-critical if she did not do her work properly and was 'driven' to achieve her goal of becoming an educational psychologist. Despite Sarah's academic achievements, however, she often doubted her ability to cope with life, in contrast to Ronel who thought that she coped quite well. Sarah had contemplated suicide many times and did not view herself as effective in dealing with problems, preferring other people to solve them. When her nursery school collapsed, for instance, Sarah had relied on her mother to sort out the problems. In addition, her mother seemed more concerned about Sarah's 'inadequacies' as a mother than her competencies as a part-time student.

The above alludes to a discourse of powerlessness which conflicted with the themes of control and competence in the participant narratives.

Powerlessness

Both Ronel and Sarah felt powerless in overcoming their

intractable headache conditions. Ronel had relied extensively on medical professionals to find a solution to the problem, crediting them with knowledge and expertise which she felt she lacked. However, she had lost confidence in their abilities. A consensual domain had formed that Ronel had basically resigned herself to living with the problem and seemed to consult doctors more out of habit than belief in finding a cure. She also felt powerless to change anything at work. A sense of powerlessness and a pattern of avoiding conflict reciprocally maintained one another. Ronel felt relatively powerless to influence anyone and so, rather than oppose others, she tended to go along with them. Her behaviour was mutually qualified by the behaviour of her family with the result that Ronel often felt powerless to make herself 'heard' at home. Interestingly, while there was a consensus that Ronel's son took after her, her daughter was defined as an independent person who had a 'strong personality' like her husband. Accordingly, her daughter and husband were perceived to be relatively more 'influential.'

Sarah took medication 'as a matter of routine' when she had a headache, although it was usually ineffective in removing the pain. Moreover, she often felt powerless to cope with demands and pressures in her life and had resorted to anti-depressants and sometimes anxiolytics to help her cope. She believed her depressive spells had a biological etiology and were therefore beyond her control. Her family context had co-evolved a consensual domain that kept Sarah's mother in a very central position in her daughters' lives. Sarah described her mother as 'a pillar of strength' and as 'very powerful' in her life; indeed, so powerful that she had 'destroyed' some of Sarah's relationships, had handled Sarah's business problems, and apparently also managed Sarah's household when she was around. Attributions such as these rendered Sarah relatively powerless in relation to her mother.

Failure

A related theme was the theme of failure. Because Ronel was a committed person, she believed she had failed by not finishing her teachers' training course after leaving school. Her sense of failure at not completing what she had started prevented her from ever improving her qualifications. It seemed that the attribution of failure was part of a consensual domain since Ronel claimed that her mother had been disappointed that she had discontinued her course and her daughter used to view Ronel as 'just a housewife.' Ronel did not realise that her 'decision' not to study further was part of another implicit domain of consensus or contract between herself and John which designated her career as secondary to both her husband's career and to her role as wife and mother.

The theme of failure was different in Sarah's story. Sarah seemed to be constantly striving. For instance, she was ambitious and always liked to do her very best in her studies. She wanted to meet her own and everyone else's expectations and needs but often found the demands too much and wanted to escape. Therefore, Sarah's 'best' never appeared to be good enough and she failed to live up to expectations; her work fell short of perfection and her mother believed she concentrated too much on her studies to the detriment of her children's upbringing - an opinion Sarah's children apparently shared. Moreover, Sarah's relationship with her first husband had been a disappointment to her mother. She also continually 'failed' her mother by experiencing headaches and depression.

Avoiding Conflicts and Issues

Ronel believed that her tendency to 'bottle up' negative feelings was one of the causes of her headaches. It seemed that her view of herself as a 'caring' and 'loving' person excluded confrontation from her behavioural repertoire. Furthermore, her difficulty in asserting herself and expressing

'negative feelings' was consistent with the consensus that she lacked self-esteem and always behaved appropriately. Because she disliked conflict, feared criticism, and believed that asserting herself would not make a constructive difference, Ronel preferred to go along with people rather than oppose them. However, avoiding conflicts and issues often left her feeling tense and frustrated and reciprocally perpetuated the pattern of avoidance in that she would then withdraw from the situation to prevent a potential argument. Her headaches were an expression of the conflict she experienced around not wanting to defer to others but also not wanting to assert herself lest this created an argument or issue. The theme of avoidance was also evident at the level of the couple system since Ronel believed that John did not open up enough to her and it appeared that the couple had not established a clear rule for dealing with conflict.

In Sarah's case, a consensual domain had developed that unlike her 'strong' mother, Sarah did not confront obstacles directly and needed to escape when she was not coping with life pressures and responsibilities. Sarah's difficulty in asserting herself, if doing so meant upsetting people or refusing their requests, was consistent with her definition of herself as a 'good mother figure' but incompatible with her view of herself as a 'forthright' person. Her headaches were an expression of these conflicting perspectives and a means of dealing with the inconsistency. For instance, she would tell her friend when she had a headache so as to avoid meeting the friend's needs as well as potential conflict with the friend. Therefore Sarah's headaches helped her to be 'forthright' without her having to take the responsibility for, and face the consequences of, her behaviour. This is because her symptom was mutually qualified as involuntary and therefore beyond her control. By contrast, Sarah generally tried to avoid telling her mother when she had a headache because it was a source of conflict between her and her mother.

Loyalty and Protectiveness

Ronel's sense of loyalty was underscored by the fact that she had worked for one employer for almost 25 years and had been married for 35 years. However, she was relieved to be retiring since she had become disenchanted with the university and no longer felt loyal to it. She was, however, still loyal to her marriage which she described as good. She believed her marriage had lasted because of 'love, perseverance, and commitment,' attributes which highlighted the value she placed on loyalty. Ronel's sense of loyalty was synonymous with dependability. Her 'dependability' was characterised by a tendency to put other people's needs before her own. This behaviour was qualified, and therefore maintained, by a consensual domain that had evolved in terms of which Ronel was perceived as accommodating towards others. In this regard her behaviour was consistent with traditional discourses about the role of women. Hence, Ronel had been caught in a conflict between loyalty to her ambition and loyalty to her partner's wishes. Ultimately, loyalty to John and the idea of marriage and family had won but she had regretted sacrificing her career. She would also oblige her daughter's requests, sometimes against the wishes of John, which again introduced a conflict between loyalties. If John was at home, Ronel would feel obliged to be there with him; if he made a decision she generally went along with it because to do otherwise would be an act of disloyalty and might upset him or create conflict which she wanted to avoid. In general, Ronel's loyalties seemed to be divided between loyalty to her own wishes and needs, and loyalty towards others, including the dominant cultural discourses.

The theme of loyalty and protectiveness differed somewhat in the case of Sarah. In her story, the theme was evident not only at the individual level (Sarah), but also at the level of the family-of-origin, and was therefore a shared premise (Boscolo et al., 1987). For instance, Sarah's mother had re-

fused marriage proposals to devote herself entirely to her three children after her divorce. So loyal was her mother to the idea of family that her life continued to revolve around her adult children and grandchildren to the extent that she had relocated to Durban to help protect her youngest daughter from losing her child. She had also protected Sarah from having to deal with her business crisis alone by sorting out the problems herself. It seemed that a consensual domain existed that family members should protect one another as far as possible from experiencing any problems or unhappiness. However, the emphasis on loyalty and protectiveness put the family members in a difficult position whereby loyalty towards one member was often in conflict with another member. Hence, Dave's secret telephone calls to Sarah's mother when Sarah was ill or unhappy represented loyalty to her mother and disloyalty to his fiancee. Also, Sarah's mother confided more in Sarah (loyalty) but was more sympathetic and attentive towards Julia (loyal and protective towards Julia, unprotective towards Sarah).

For her part, Sarah's continual efforts to meet her own and other people's expectations and needs also frequently resulted in a conflict between loyalties. For instance, she sometimes wanted to spend time alone but because Dave liked her to keep him company, Sarah would defer to his need. Also, she was studying to pursue her career goal but this seemed to clash with expectations that she should devote more time to her children. In her mother's (and children's) opinion, therefore, Sarah was not loyal enough to the idea of family. On the other hand, Sarah's choice of future spouse could be viewed as one way in which she met her mother's expectations and, thus, signified an act of loyalty. Her mother was pleased that Sarah had Dave to take care of her because this enabled her to devote more attention to Julia; again the theme of loyalty and protectiveness. Moreover, Sarah had refused to discuss her mother in therapy because doing so would have been an act of disloyalty that would have 'dethroned' her mother. Sarah found it difficult to 'think badly' of her mother and felt indebted

to her for all the sacrifices she had made for her children but paradoxically, she complained about her mother in the interviews. This again illustrates the conflicting discourses around the theme of loyalty/protectiveness.

Resentment and Guilt

Ronel cared what people thought of her and feared criticism. Putting other people's needs before her own was a means of trying to secure their approval and avoid conflict. Consistent with the consensus that Ronel always behaved appropriately and was a 'caring' and loyal person, Ronel would feel guilty about matters such as arriving somewhere late and inconveniencing or not meeting another person's needs. However, she often resented putting other people first and wished that her husband, for instance, would be considerate of her preferences. But voicing her resentment would be incompatible with appropriate conduct and she also lacked the self-confidence to assert herself. This frustrated her. Therefore, the conflict of feeling guilty if she did not defer to others and resentful and frustrated if she did, put Ronel in a no-win situation.

Sarah was trapped in similar conflicting discourses around the theme of resentment and guilt. Like Ronel, Sarah felt guilty if she did not oblige her friends and family because refusing other people was incompatible with her definition of herself as a 'good mother figure' who cared about others. She felt guilty if she 'used' her headache as a means of avoiding demands and shirking her responsibilities, and if she argued with her mother or upset her by being unwell or unhappy. Sarah also felt guilty when her mother compared her favourable circumstances to Julia's life situation, and when she pointed out Sarah's faults as a mother.

At the same time, however, Sarah felt somewhat resentful towards her mother for appearing more sympathetic towards

Julia's problems than towards her, especially as Julia had disappointed her mother in many ways. Sarah resented her mother for her angry reactions towards her headaches, for not understanding or supporting her need for academic achievement, and for frequently instructing her to be grateful to Dave.

Co-Evolution of New Perspectives

It was argued elsewhere (see Chapter 3) that the reality of a problem which is created in social discourse limits further perception of life events that could lead to different ideas and problem-solving behaviours (Griffith et al., 1990). However, when new linguistic constructions are made, shifts in attribution of meaning emerge which pave the way for new action possibilities and dissolution of the problem (Griffith et al., 1990).

In this study, the reciprocal mutual influence between the researcher's belief system and the participants' ecologies of ideas co-evolved during the conversations to create a shift in the participants' attributions of meaning. By exploring the interpersonal contexts of the participants' headache conditions from an ecosystemic rather than a Newtonian cause-effect perspective, the researcher was able to introduce 'differences that made a difference' into existing belief systems. Although various 'conversational practices' were used in the process of structurally coupling with the participants in an effort to perturb their meaning systems, it should be emphasised that a shift in the participants' meanings and behaviours cannot be ascribed to any single idea or collective of interpretations provided by the researcher. The researcher simply attempted to introduce alternative ideas that fitted the particular individual's unique manner of constructing reality (Anderson & Goolishian, 1987). Her role was that of a perturbator who merely provided a conversational context for the possible evolution of perspectives; the participants' idiosyncratic 'structures' determined how they each coupled with the resear-

cher's 'structure' and whether there was a shift in their meaning systems (Anderson et al., 1986; Becvar & Becvar, 1996; Fourie, 1996b). An attempt to determine exactly which comments and ideas fitted each participant's frame of reference and which did not, would be a difficult and - in the author's opinion - reductionistic pursuit, and is, moreover, beyond the scope of this dissertation. Suffice it to say that the researcher attempted to expand the participants' realities by introducing double descriptions through questions and comments which were aimed at (1) confirming the individuals whilst simultaneously disconfirming the problem narrative (Fourie, 1996b), and (2) adding complexity to their belief systems. Ultimately, the mutual exchange of perspectives between researcher and interviewees facilitated a shift in the participants' meaning systems.

In the case of both Ronel and Sarah, there was an evolution away from the headache problem theme and some resolution of the conflicting discourses in which they each participated. Ronel started paying less attention to her headaches and they became milder during the study. Sarah's attributions of meaning about her headaches shifted to incorporate more positive ideas and conceptions. Two months after the interviews, Sarah reported experiencing fewer headaches. She attributed this improvement to the 'awareness' she had gained in the interviews of her family patterns.

In addition, Ronel's narrative about herself as someone who lacked self-esteem and had to defer to others evolved towards a more empowered narrative which enabled her to become a little more assertive and less concerned about other people's opinions of her. A new consensual domain evolved which mutually qualified Ronel's behaviour as more relaxed and self-assured and John's behaviour as more considerate. The couple also shared the opinion that they had gained a better understanding of one another and had realised the importance of clear and direct communication.

Sarah also developed a new, more empowered and positive narrative about herself. Like Ronel, Sarah perceived herself as more relaxed and more assertive. She adopted a different attitude towards her studies and towards her relationships which she found 'liberating.' She noticed her accomplishments more which enabled her to work more effectively. She was less concerned about her mother's opinions of her and had started to communicate with her mother more about her goals. In turn, she believed her mother was more accepting of her.

Conclusion

The themes that the researcher identified as common to the two case studies were all interlinked, that is, they were connected by a pattern of conflicting discourses in which the respective participants took part. However, the themes not only illustrated the similarities but also the subtle differences in the participants' ecologies of ideas. This is because each story was located in a particular context and was therefore unique. Each participant's circumstances were different, for instance. Ronel was married, had adult children and was in the process of retiring, while Sarah was divorced, living with her fiance and children, and working towards a new career. Also, some interpersonal relationships were emphasised and others excluded. This was not done by design, but evolved according to the conversational flow in each case. In the case of Ronel, the researcher interviewed the couple and thus, Ronel's story focused on the symptom in the context of her marriage. In the case of Sarah, the conversations drifted towards her relationship with her mother and therefore the emphasis was on the symptom in the context of that relationship.

The outcome of the interviews which was discussed in terms of the co-evolved change in meanings has therapeutic implications which will be discussed in the concluding chapter.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this concluding chapter, the present study will be evaluated in terms of its strengths and limitations. The implications of an ecosystemic psychotherapeutic approach for the treatment of chronic headache as well as recommendations for future research will be proposed.

General Discussion of the Study

The research aim was twofold: (1) in seeking a more holistic understanding of the headache sufferer's experience, to furnish a descriptive account of the recursive connections between recurrent headache pain and the individual sufferer's social context; (2) through conversation, to perturb the participants' ecologies of ideas in a direction away from the central pain metaphor. It is believed that both these tasks were adequately executed and achieved.

The literature reviewed in Chapter 2 indicated that traditional biomedical and psychosocial conceptualisations of chronic headache are limiting in as much as they reflect the Cartesian dichotomy between mind and body which has severely restricted the emergence of a comprehensive understanding of the condition (Capra, 1983). This, in turn, has reduced treatment options. By shifting from an emphasis on intrapsychic factors and an explanatory, quantitative methodology towards a focus on social context and meaning, using a descriptive, qualitative design, this study attempted to address these shortcomings.

In adhering to Maturana's (1975) concept of structural coupling and a constructivist stance, the researcher described the problem-determined systems from within the systems, not as if from the outside. Thus, no Cartesian claims to objectivity

were made. Furthermore, no single perspective was viewed as the perspective; multiple ideas and distinctions evolved throughout the process to co-create a reality that made sense to, and thus fitted with, the idiosyncratic system at hand (Anderson & Goolishian, 1988). Consistent with constructivist epistemology, therefore, this study did not dogmatically claim to have found the truth about chronic headache sufferers. Rather, truth was defined as heuristic (Auerswald, 1987). The numerous studies and theories discussed in the literature review provide additional perspectives on headache pain, and this study simply adds to the existing body of knowledge about the condition, though from a different perspective.

A rich account of two chronic headache sufferers' experiences and relationships gave readers a glimpse of two unique life ecologies. Themes were identified and the common themes that emerged from the stories of both respondents were delineated. The themes were connected by a pattern of conflicting discourses in which the respective respondents participated. It seemed that the participants' headache symptoms can be viewed as somatic expressions of these conflicting discourses or ambivalences. The interconnected themes common to both participants (Ronel and Sarah) included:

Control: Ronel wanted to control events over which she could have little, if any, control. She worried about, and felt she had no control over, health issues, the political situation and changes at her place of work. She tried to feel more in control of events by planning ahead and being efficient, by anticipating what could go wrong and by conforming to conventional standards of correctness. Sarah needed to feel in control of what she set out to do. She set high standards for herself in her studies and was preoccupied about doing things properly. Like Ronel, however, Sarah did not feel in control of events despite her efforts.

Competence: Ronel was conscientious about, and competent

in her work. Being competent could be viewed as an attempt to increase her self-esteem and to feel in control of situations. Like Ronel, Sarah was conscientious, and competent in her studies. She was an academic achiever who tried to do her best in everything she did. However, both Ronel and Sarah were self-critical and seemed to doubt their competence in some areas. Also, Sarah often doubted her ability to cope with life, in contrast to Ronel who believed she coped quite well.

Powerlessness: Both Ronel and Sarah felt powerless in alleviating their chronic headache symptoms. They both consulted physicians regularly for their headaches and took medication even though it was generally ineffective. Ronel also felt powerless to change unpleasant circumstances and perceived her husband and her daughter to be relatively more influential. She tended to comply with people whom she perceived to be stronger and more powerful than herself. Sarah often felt powerless to cope with demands and pressures in her life and resorted to prescription medication to help her cope. Like Ronel, she tended to attribute greater strength to other people. In relation to her mother, in particular, Sarah felt relatively powerless.

Failure: Ronel's sense of failure at not completing her teachers' training course prevented her from ever improving her qualifications. This attribution of failure had been mutually qualified by Ronel's daughter and her mother. Despite striving to do her best, Sarah often failed to live up to her own and everyone else's expectations. Her work fell short of perfection and she seemed to fail her mother and her children by not devoting enough time to her children. She also continually failed her mother by experiencing headaches and depression.

Avoiding Conflicts and Issues: Ronel put other people's needs before her own, and because she was afraid of upsetting people lest she attract criticism and conflict, she tended to

be inassertive and to bottle up her emotions. However, withdrawing from a situation to avoid a potential argument often increased her feelings of frustration and powerlessness. Like Ronel, Sarah also found it difficult to assert herself if doing so meant upsetting people or not meeting their needs. Sarah also did not confront obstacles directly and needed to escape when she was unable to cope with pressures and demands.

Loyalty and Protectiveness: Ronel's sense of loyalty was characterised by a tendency to oblige other people. However, sometimes meeting one person's needs conflicted with her own or someone else's wishes. Thus, she often experienced a conflict between loyalties. In Sarah's family-of-origin a consensual domain seemed to exist that family members should try to protect one another from experiencing any problems. As a result, Sarah, like Ronel, strived to meet other people's expectations and needs. However, she often experienced conflict between loyalty towards others and loyalty to her own wishes and needs.

Resentment and Guilt: Ronel often resented putting other people first and wished her husband would consider her wishes more. However, she also lacked the self-confidence to assert herself and would feel guilty if she did not defer to others. Thus, she was often caught in a conflict between feeling resentful and frustrated if she deferred to others, and guilty if she did not. Like Ronel, Sarah also felt guilty if she did not oblige significant others, or if she upset someone. Moreover, on the one hand, Sarah felt indebted to her mother for all the sacrifices she had made for the family, while on the other hand, she seemed to resent her mother for not understanding or supporting her enough.

Interestingly, the participant narratives encapsulated in the aforementioned themes are coherent with Rueveni's (1992) discussions with headache sufferers which generated themes of lack of self-confidence, inassertiveness, depression and mari-

tal and family conflicts.

In addition, the main conversational practices employed by the researcher in an effort to intervene into the participants' ecologies of ideas, were elucidated. These 'techniques' evolved out of the conversational flow and were, in some cases, idiosyncratic to the situation at hand. They included the following:

Self-disclosure, which was used as a means of connecting with Ronel and of establishing an ethic of participation.

Acknowledging Ronel's regrets and feelings and **affirming** her strengths and successes as a means of expanding her narrative about herself.

Challenging fixed ideas which included exposing dominant discourses and offering alternative ways of viewing. For instance, questions were asked and interpretations offered which perturbed the consensual domain that Ronel always had to behave in a conventionally correct way and put others first. In Sarah's case, a different perspective was introduced to perturb her belief that being dependent meant freedom from responsibilities. Also, her involuntary (symptomatic) behaviour was framed as voluntary. This was coherent not only with the system's stability/change communications but also with Sarah's need to be in control.

Confirming both sides of an ambivalent autonomy which included exposing conflicting discourses and attempts to disconfirm the participants' ambivalent ideas. In Ronel's case, for instance, various questions and interpretations confirmed the loyal, dependent side of her autonomy as well as her independent, dominant side. In Sarah's case, both sides of her ambivalent autonomy (i.e. as a woman who constantly strived to do her best and yet always failed) were acknowledged.

Reframing which included providing different perspectives that fitted with Ronel's 'structure.' For example, in confirming the 'sacrificer' side of Ronel's ambivalent autonomy, her behaviour was reframed as being indicative of a strong personality. And, in perturbing her belief that her husband did not understand her viewpoint, a different perspective was offered that fitted with her ideas of herself as a 'giver.' In Sarah's case, her decision to be financially dependent was reframed as showing independence.

Redefining the meaning of the headaches away from an intrapsychic explanation towards a contextual one, and simultaneously acknowledging conflicting discourses.

Constructing a sense of mutuality which included decentralising certain perspectives that located enduring traits within Ronel and her husband, and expanding other perspectives to allow new narratives of self and others to emerge. Similarly, reciprocity was introduced into Sarah's experience of reality and her intrapsychic descriptions were framed in interpersonal terms.

Suggesting a ritual to Sarah which involved prescribing the headache symptom and, at the same time, positively connoting certain behaviours.

Future and hypothetical questioning which gave Ronel and Sarah a glimpse of their own potential to shape the future of their choice and cut into the rules that determined what was permitted in the system.

The study found that in both the participant scenarios there was an evolution away from the headache illness theme and some resolution of the conflicting discourses in which they each partook. In addition, alternative consensual domains evolved and new, more empowered and positive narratives of self were co-created in both cases. The co-constructed shifts in

meaning and behaviour which evolved are coherent with the primary goal of medical family therapy which, according to McDaniel, Hepworth and Doherty (1993, p.28) "is to increase the patient's and the family's sense of agency". These shifts also reflect Anderson and Goolishian's (1988) contention that the aim of therapy is not to find solutions but rather to dis-solve the problem through the evolution of new meaning and understanding.

Strengths of the Study

Capra (1983) states that to understand and to deal effectively with pain, it must be viewed in its wider social context. He further calls for a shift in focus from quantity towards quality, arguing that "the art of healing cannot be quantified" (p.141).

This study was founded on an holistic and unifying ecosystemic epistemology. As such, it adopted a "radically different way of thinking" (Auerswald, 1987, p.325) from the conventional narrow and reductionistic conceptual frameworks underpinning most of the contemporary psychological research into headaches. Therefore, one of the strengths of this study was that it took context into account, including the headache sufferer's attributions, expectations, belief systems, life circumstances and relationships. Had a quantitative approach been employed, idiosyncratic attributions of meaning would either have been lost, or would have assumed statistical importance and the findings would have differed considerably from those of the present study; not necessarily more 'true' or 'false,' but different. In the author's opinion, though, the researcher, respondents and readers also would have been deprived of an opportunity to make sense "of a total circumstance" (Fourie, 1996a, p.19).

In contrast to traditional conceptualisations of the problem as a semi-concrete entity (Fourie, 1996a) located with-

in the sufferer, an alternative way of viewing headaches was provided. By viewing headaches as a socially co-constructed linguistic reality, and thus as existing in communication networks, this study transcended the mind-body dichotomy and facilitated the co-creation of different realities and the emergence of alternative action possibilities. Western adherence to the mind-body dichotomy, on the other hand, has not only resulted in a poor understanding of the problem, but polarised professionals and thwarted their collaboration, as well as increased the cost and utilisation of fragmented medical services. Moreover Cartesian dualism's cause-effect, symptom-focused approaches confirm the illness theme and therefore frequently escalate the symptoms (Capra, 1983; Engel, 1992; McDaniel et al., 1995).

Another advantage of this research is that because it was informed by a constructivist, as opposed to a realist, epistemology, it approximated the clinical situation more, and thus may even provide clinicians with usable material (Fourie, 1996a).

Trustworthiness of the findings - rather than traditional validity and reliability - was achieved in this study. The researcher disclosed her orientation, was open to the contextual factors that shaped the inquiry, and interacted with the participants until redundancies emerged in the information (Lincoln & Guba, 1985). She formed respectful and trusting relationships with the participants and conducted informal member checks, that is, she tested her interpretations with the participants (Lincoln & Guba, 1985). Member checks were carried out continuously as meanings were co-created through dialogue which enabled the participants to challenge any misunderstandings immediately (Reason & Rowan, 1981). The researcher engaged in self-reflexive dialogue with the material which enhanced her understanding of the data. Peer debriefing was used to explore aspects of the study (Lincoln & Guba, 1985) which helped to enhance the researcher's 'peripheral vision'

and thus establish credibility. In presenting the case studies extracts from the interviews were included to substantiate the researcher's reconstructions and to help readers to make sense of the subject.

Shortcomings of the Study

One of the limitations of this study is the application of its stated epistemology. Because observer-dependent descriptions are coherent with a constructivist, ecosystemic epistemology, the researcher could have improved the quality of the report and further enhanced its trustworthiness by making the project's observer-dependent nature more explicit (Evans, 1992). For instance, the researcher could have reported her method of organising and categorising the data to enable readers to come to their own conclusions, as well as their own decisions concerning the legitimacy of the study. Also, the researcher's descriptions represented a reconstruction of the participants' constructions, and reducing the data diluted the richness of the stories. Although including transcripts of the interviews would have increased reader access, this was considered impractical. These are, however, available on request. Moreover, pertinent extracts from the interviews were provided.

Because this study emphasised personal and unique social and contextual factors - including the researcher's idio-syncratic way of punctuating events - and used a descriptive, qualitative method, the findings cannot be 'proved' or verified by future replication. A traditional, quantitative orientation would view this as a serious limitation in terms of reliability. However, replicability is based upon a realist epistemology (Fourie, 1996a; Lincoln & Guba, 1985). From a constructivist perspective, research results are co-constructed in social discourse and, therefore, do not reflect an absolute reality, but rather one reality among many possible realities. Thus, an ecosystemic perspective does not aim to 'prove' any-

thing but to make sense of the entire inquiry. Consequently, the lack of possible replicability is not regarded as a limitation from this perspective.

One of the limitations of qualitative research is that the human mind tends to select data that fit with working hypotheses and initial impressions (Moon et al., 1990). The implication of this is that the themes and meanings elucidated by the researcher are not the only distinctions that could have been made. Hence, the meanings that readers attribute to the case studies may well differ from the researcher's meanings.

This study could also be criticised for not diagnosing and classifying the participants' headache conditions using the International Headache Society (IHS) system. To have done so, however, would have been coherent with a reified and reductionistic biomedical conceptualisation and, hence, a realist epistemology. What was important in terms of this study's constructivist stance, were the participants' idiosyncratic definitions and descriptions of their headaches.

Another limitation is that member checks were not conducted formally (Lincoln & Guba, 1985). This means that the participants were not provided with the research report for comment. The researcher decided against this believing that outcomes are negotiated continuously as the participants make inferences from what the researcher asks and the themes and leads she follows during the investigation (Lincoln & Guba, 1985). The researcher believed therefore that informal member checks in a study of this limited scope were adequate for establishing the study's credibility.

Implications for Treatment

McDaniel et al. (1993) argue that since all human problems are biopsychosocial in nature, the mind-body dichotomy is completely incompatible with the needs of people affected by

chronic illnesses. As Seaburn (in McDaniel et al., 1993, p.27) states: "physical conditions become metaphors for other things happening in people's lives".

One of the important consequences of adopting an ecosystemic approach to the study, diagnosis and treatment of chronic somatic disorders is that the complicated issue of whether the cause of a particular problem is physical, psychological, or a combination of both, is essentially irrelevant (Bassett, 1992; McDaniel et al., 1995). As a unifying and holistic conceptual framework, the ecosystemic approach does not separate the emotional and physical domains. Neither is it an 'entity-based' approach focusing on an illness condition deemed to reside within a person. The therapist who operates from a second-order cybernetics perspective works with the problem-determined system's ecology of ideas, facilitating a context in which a new ecology of ideas that fits the client's circumstances, is co-created in conversation (Griffith et al., 1990). As this study has shown, the new co-constructed reality may either result in a lessening of the pain symptoms or foster better functioning and adaptation to the condition, improve the sufferer's interpersonal relationships, and generally enhance his or her quality of life (McDaniel et al., 1995). Since an ecosystemic-oriented therapist does not focus on the reductionistic removal of the symptom imposing a solution in a direct, linear manner, as is done from a medical or intrapsychic perspective (Fourie, 1996b), the risk of perpetuating or exacerbating the client's headaches is minimised. One other implication of working from an ecosystemic epistemology is that in transcending the traditional Western mind-body dualism, this perspective holds the promise for a sorely needed rapprochement between the medical and therapeutic fraternities.

The ecosystemic approach is not another treatment modality but rather an alternative way of thinking about problems (Auerswald, 1987). Therefore, the 'techniques' or 'conversa-

tional practices' that were used to intervene into the participants' headache contexts, were illustrated to give readers better access to the research process and the researcher's frame of reference, and not to advocate a specific way of working with chronic headache sufferers. Thus, various other techniques from different schools of therapy could have been used to introduce new attributions and ideas. Furthermore, every ecology of ideas is unique and includes the therapist's idiosyncratic perceptions, impressions and attributions towards the situation at hand. Therefore, as Fourie (1996a, p.15) points out "it is unrealistic to expect a particular type of perturbation to have similar and therefore replicable effects in such widely divergent ecologies of ideas".

Nevertheless, based on her limited experience with headache sufferers in this study, the researcher wishes to make a few general therapeutic recommendations. Firstly, it is important that therapists learn the client's language. This means eliciting a description of his/her symptoms as well as a detailed story about the illness in terms of when it began, perceived causes and possible solutions, the reactions of different family members to the problem, coping behaviours, the situations in which the problem is worse or better etcetera. The therapist may be the first person who has ever listened to a detailed account of the patient's illness story, and in itself, this may prove to be therapeutic. Ronel, for instance, told the researcher that she found it useful to hear herself speak about her headaches and other matters which she usually did not think about. In the author's opinion, therefore, the patient's illness story needs to be taken seriously and explored thoroughly before other contextual issues are addressed. At the same time, however, it is important eventually to move beyond the illness story towards an exploration of interpersonal dynamics to avoid possible entrapment in seeking a treatment solution. This would be likely not only to maintain the centrality of the problem theme

but also to produce a sense of stuckness, frustration or anxiety in the therapist. One way of avoiding such a trap could be to "listen to symptoms for any symbolism or metaphor of emotional pain particularly meaningful to the patient and family" (McDaniel et al., 1995). In this study, the author also found it helpful to remind herself that the research/therapy process simply involved two (or more) people exploring the ecology of a problem through a conversation (Anderson & Goolishian, 1988). The second-order cybernetics concept of conservation of autonomy was also useful in reminding the author that all systems conserve their autonomy and symptomatic behaviour is one way in which they may do this (Fourie, 1996b). This enabled the researcher to adopt a respectful (as opposed to a blaming) stance towards the participants and to confirm them. It also helped her to avoid the trap of finding a reductionist solution to the participants' problems and encouraged her instead to focus on the co-creation of new, more positive realities.

Recommendations for Future Research

The literature on headache is replete with studies adhering to a realist epistemology in which contextual factors and researcher values are largely excluded so that the 'truth' about the phenomenon may be 'discovered.' If contextual elements are studied, it is generally done so from a realist stance. Ironically, despite an impressive accumulation of theory and research, headache pain continues to puzzle researchers and health care providers alike. Therefore, it is suggested that further research be carried out on headaches and other pain disorders from an ecosystemic/constructivist perspective in which contextual factors are included. This would facilitate the development of a more holistic and comprehensive understanding of somatic conditions, and close the gap between the number of studies based on a realist versus a constructivist methodology. It is envisaged that shifting the research focus towards an ecosystemic (constructivist)

epistemology would have several positive ramifications. Firstly, it would provide clinicians with valuable material pertinent to their work in this area. Secondly, it would contribute towards society gaining a different understanding of the relationship between mind and body. At present society widely adheres to the belief that a physical symptom is primarily organic while an emotional problem is primarily psychological (Capra, 1983; McDaniel et al., 1995). The notion that no division exists between mind and body is presently only considered reservedly by Western society (McDaniel et al., 1995). Thirdly, in promoting the view that pain syndromes are a metaphor for a whole network of complex interactions in which the person is embedded, the high demand for expensive medical procedures which generally produce short-term relief at best, would probably be reduced. In turn, headache and other chronic pain sufferers would possibly be more willing to accept a mental health referral for their problem.

Research that investigates the recursive patterns of interaction between chronic headache sufferers and their physicians could also be conducted in future. It is suggested that qualitative research that investigates the attributions of meaning of both the treating physician and the headache sufferer (and his/her family) might facilitate the evolution of new consensual domains based on greater mutual understanding and collaboration. As Capra (1983) points out, doctors focus on treating diseases instead of the patient as a whole person and, yet, the patient-physician relationship is "an important part, perhaps the most important part, of every therapy" (p.141).

Conclusion

"To adopt a holistic and ecological concept of health in theory and in practice, will require not only a radical conceptual shift in medical science but also a major public re-education" (Capra, 1983, p.165). By furnishing a descriptive

account of the contexts of two chronic headache sufferers, this study has provided valuable information that will hopefully make a small contribution towards the conceptual shift and public re-education which Capra (1983) calls for.

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APPENDIX A

Letter of Consent

Dear

Your co-operation in my Master's research project is greatly appreciated. I am interested in finding out what effect your recurrent headaches have on your day-to-day functioning and that of your family and other people with whom you come into regular contact. I would also like to find out how you view the origin of your headaches, how you cope with them, and your ideas about a possible solution to the problem.

Your participation in my research simply involves regular hour-long interviews with me (about once a week or once every alternate week) in the forthcoming weeks. It is hoped that our conversations will be mutually beneficial and rewarding in shedding new light on the problem of recurrent headaches.

Please note that:

1. You are under no financial commitment or obligation.
2. All information will be treated with strict confidence. Your name will not be used for any purpose whatsoever nor will it be communicated to any person not directly involved in the study.
3. You are free to withdraw from the study at any time, although please remember that your participation will not only contribute to the body of knowledge on chronic headache but may also help other headache sufferers.
4. I cannot guarantee that you will derive any benefits (in terms of headache relief or otherwise) from participating in this project.

Thank you again for agreeing to participate.

NAME:_____ DATE:_____

ADDRESS:_____

SIGNATURE:_____