AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS (IPA) INVESTIGATION OF POSITIVE PSYCHOLOGICAL CHANGE (PPC), INCLUDING POST TRAUMATIC GROWTH (PTG)

By

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ABSTRACT

Positive Psychological Change (PPC) following trauma is a developing field for which there is no standard terminology. The plethora of labels, of which Post Traumatic Growth (PTG) is probably the most common descriptor, arguably masks a significant gap in clinical and theoretical understanding of the phenomenon. One specific gap addressed by this study is PPC following psychological trauma stemming from a Road Traffic Accident (RTA) in which the person involved has subsequently received Eye Movement Desensitisation & Reprocessing (EMDR).

To investigate this gap in knowledge, an Interpretative Phenomenological Analysis (IPA) approach was used and twelve participants recruited via a snowball sampling method. The participants were then interviewed using a Semi-structured Interview Questionnaire (SSIQ) and the interviews were then transcribed for IPA analysis. Key themes that emerged included Navigational Struggle (NS) to describe Negative Psychological Change (NPC), and Network Growth (NG), to describe PPC. At any one post-RTA/EMDR point there was a preponderance of one over the other, however, NS and NG were inseparable and found to co-exist along an NS-NG continuum. In addition, Figurative Language Use (FLU) had a significant role in both NS and NG yet was independent of both and apparently driving change towards the development of NG. Whilst NS and NG were both post-trauma phenomena, FLU seemed to hallmark expansion of memory networks as part of a general maturation process post-RTA. Furthermore, there was evidence that participants were incorporating their traumatic experiences via FLU into the rebuilding of their assumptive worlds.

To account for these findings, an extension to Adaptive Information Processing (AIP) – the theory widely accepted to underpin EMDR - is proposed based upon a hypothesised Plasticity of Meaning (PoM), which is observable through FLU. PoM predicts which, why and how memory networks connect resulting in the adaptive processing predicted by AIP. The study's findings are re-examined in terms of consequential modifications to the clinical use of EMDR. Extensive suggestions for further research are provided.

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LIST OF ABBREVIATIONS

NB: The lack of a universally agreed language in this research field has given rise to a plethora of terminology describing slightly different facets of the same subjects (see Chapter Two for an explanation). So as to neither confuse terminology nor the reader, where abbreviations are used, each term listed below will appear in full for the first time in every new Chapter.

2TE	Secondary Traumatic Experiences (a final HC theme)
A	Aspirations (1st HC theme, later changed to ASP)
ACPO	Association of Chief Police Officers
AIP	Adaptive Information Processing
AoL	Appreciation of Life (a final HC theme)
APA	American Psychological Association
ASP	Personal Aspirations (2nd HC theme only)
ASP	Aspirations (a final HC theme)
AWP	Assumptive World pre-RTA (a final HC theme)
BCE	Before the Common Era (in relation to dates)
BLS	Bilteral Stimulation
BPS	British Psychological Society
CAPP	Centre for Applied Positive Psychology
CASP	Critical Appraisal Skills Programme
CBT	Cognitive Behaviour Therapy
CCTV	Closed Circuit Television
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CGRS	Commission for Global Road Safety
CGT	Chaos and Growth Theory
CiOQ	Change in Outlook Questionnaire
CONF	Battle for control over finances (1st HC theme, later amalgamated with CON)
CONH	Battle for control over own healthcare (1st HC theme, later amalgamated with CON)
CON	Struggle for control of readjustment (a final HC theme)
CONL	Battle for control of litigation (1st HC theme, later split between CON and 2TE)
COP	Struggle to cope with negative outcomes (a final HC theme)
CREST	Clinical Resource Efficiency Support Team
CS	Cognitive Synthesis
CSA	Childhood Sexual Abuse
DCT	Dual Change Theory
DFLU	Driving-related FLU (a final HC theme)
DoH	UK Department of Health
DPA	Data Protection Authority
DSH	Development/developing success heuristic (a final HC theme)
DSM	Diagnostic and Statistical Manual of Mental Disorders
DSM IV TR	Text Revised 4th edition of DSM
EABCT	European Association of Behavioural and Cognitive Therapies
EAL	Enhanced appreciation of life (2nd HC theme, later changed to AoL)
EFT	Emotional Freedom Therapy
EMD	Eye Movement Desensitisation
EMDR	Eye Movement Desensitisation & Reprocessing
ENBCC 650	English National Board Clinic Course number 650
EPD	Enhancement of personal development (a final HC theme)
EPE	Expression of positive emotions (up to 5th HC, changed in the final HC to GLT)
EPS	Enhanced personal strength and development (2nd HC theme, later changed to EPD)

EPT	Emotional Processing Theory
EQ	Desire to meet others on equal terms (1st HC theme, later split between several final HCs)
ESD	Enhancement of social development (up to 5th HC, changed in final HC to ESN)
ESN	Expansion of social network (a final HC theme)
F	Female
ff	and following
FLU	Figurative Language Use (a final super-ordinate theme)
FMH	Forward meaningful heuristic (1st HC theme, later split between HIN and FOR)
FOR	Foresighting (a final collated HC theme)
GLT	Gratitude for little things in life (a final HC theme)
GNP	Gross National Product – the total of all monies earned by a country in a given period
GSS	Gold Standard Scale
H	Hindsighting, making subsequent attributions (1st HC theme, later became HIN)
HAN	Hankering (variously worded versions throughout HCs, later condensed to the final version of HAN)
HC(s)	Hermeneutic Cycle(s) i.e. cycles of interpretation
HCP	Human Change Processes in psychotherapy (theory)
HD	Hemispheric Desynchronisation
HIN	Hindsighting (a final HC theme)
HRT	Hemispheric Re-synchronisation Theory
IES	Impact of Event Scale
IESR	Impact of Event Scale (revised)
INSERM	Institut National de la santé et de la recherche médicale (French National Institute of Health and Medical Research)
IPA	Interpretative Phenomenological Analysis
IPT	Information Processing Theory
IR	Independent Reviewer
iRAP	International Road Assessment Program
ISTSS	International Society for Traumatic Stress Studies
LCPG	Life Crises and Personal Growth (theory)
LoC	Locus of Control
LS	Legal system opinion, understanding & practice (1st HC theme, later incorporated into 2TE)
M	Male
MASS	Motor Accident Solicitors Society
MD	Mini-disc
MET	Figurative language use to explain experiences (up to 5th HC, split in the final HC to into DFLU and NDFLU)
MOT	Ministry of Transport (roadworthiness test)
MRI	Magnetic Resonance Imaging
MS	Multiple Sclerosis
MVA	Motor Vehicle Accident
NC	Negative Cognition
NDL	New directions in life (4th and 5th HC theme, later incorporated into DSH)
NDFLU	Not driving-related FLU (a final HC theme)
NEG	Negative outcomes (1st HC theme only)
NG	Network growth (a final super-ordinate theme)
NICE	National Institute for Health & Clinical Excellence
NLP	New life possibilities (an early version of NDL)
NPC	Negative psychological change(s)
NS	Navigational struggle (a final super-ordinate theme)
NS-NG	Navigational struggle - network growth (continuum)
NSH	Post amalgamation success heuristic (2nd HC theme, later incorporated into DSH)
OAS	Pre amalgamation spirituality (2nd HC theme, later became SRS)

OVP	Organismic Valuing Process
OOB	Out Of Body (experience)
OVT	Organismic Valuing Theory
OWN	Personal healthcare opinion/ Assumptive world pre RTA (various wording 1st to 5th HC theme, finally changed to AWP)
PAR	Paradoxical wisdom (5th HC theme and reworded in final HC to 'Paradox')
PAS	Post amalgamation spirituality (2nd HC theme, later changed to SRS)
PC	Positive Cognition
PEM	Positive expression of emotions (2nd HC theme, later incorporated into GLT)
PhD	Doctor of Philosophy
PoM	Plasticity of Meaning
PP	Psychosocial Perspectives (theory)
PPC	Positive psychological change(s)
PRETG	Pre RTA trauma growth (1st HC theme, reworded slightly in 2nd HC, later incorporated in AWP)
PTG	Post Traumatic Growth
PTG	Post Traumatic Growth (1st HC theme, reworded in 2nd HC and eventually incorporated into NG and other final themes)
PTGI	Post Traumatic Growth Inventory
PTSD	Post Traumatic Stress Disorder
QCT	Quantum Change Theory
R2O	Enhanced relating to others (2nd HC theme, later ESN)
RCT	Randomised Control Trial
RES	Immediate rescue behaviours (2nd HC theme only)
RGG	Resolution and growth in grief (theory)
RGSS	Revised Gold Standard Scale
RTA	Road Traffic Accident
RTC	Road Traffic Crash
RTT	Resilience and Thriving Theory
S	Spirituality (1st HC theme only, later part of SRS)
SAW	Struggle with assumptive world (a Final collated HC theme. Earlier versions included 'peri-struggle')
SBU	Swedish Council on Technology Assessment in Healthcare
SCT	Social-Cognitive Theory
SLE(s)	Significant Life Event(s)
SPD	Spiritual and philosophical development (a Final HC theme)
SRS	Spirituality to resolve struggle (a Final HC theme)
SSIQ	Semi-structured interview question(naire)
SUDs	Subjective Units of Distress (scale)
TCT	Transformational Coping Theory
tfCBT	Trauma-Focussed Cognitive Behaviour Therapy
TT	Transformation Theory
v	Version (as in SSIQ v.1)
VA/DoD	Veterans Health Administration, Department of Defense
VoC	Validity of Cognition (scale)
W	Learned wisdom (1st HC theme, later split into HIN, PAR and FOR)
WHO	World Health Organisation
WIS	Wisdom modified assumptive world (2nd HC theme onwards, later split into HIN, PAR and FOR)
WLC	Waiting List Control
WOM	Western orthodox medicine (1st HC theme only)

CHAPTER 1

INTRODUCTION

1.1 Introduction

The purpose of this chapter is to orientate the reader to the research and provide context to following Chapters.

The Chapter commences with a case vignette and then identifies the issues raised. To provide further context, the researcher's personal background is included. The Chapter concludes by outlining the basic parameters of the study

1.2 'Martin'

'Martin' (a pseudonym), a 38-year-old driving instructor had been involved in a Road Traffic Accident (RTA) in 1993 involving a 'rear-end crash', i.e. crash category five of the International Road Safety Program (iRAP – undated), whilst on a driving lesson with a learner driver. That was only the start of 'Martin's' problems because on being taken into hospital, seriously injured, and treated for multiple fractures, he developed an infection in his leg, and was prescribed medication to which he had a reaction. Then, after leaving hospital despite considerably improved physically, he went through several months of rehabilitation and numerous hospital outpatient appointments. 'Martin' had difficulty walking because of pain and could not physically return to work. With protracted time off, his business was disappearing with customers going elsewhere, and, with little income other than welfare benefits, he had turned to living off his savings. 'Martin' had initiated a medico-legal claim for compensation and had been hopeful that once settled his finances and thus his business could be placed on a sound footing. Although the physical injuries continued to improve, 'Martin' had developed psychological problems that were initially identified by his Orthopaedic Consultant.

Accordingly, 'Martin's' solicitor sent 'Martin' to see a Psychologist who diagnosed Post Traumatic Stress Disorder (PTSD) a psychological problem defined by the Diagnostic & Statistical Manual for Mental Disorders (DSM IV TR)(APA 2000), and recommended that 'Martin' should have a course of counselling. Yet more problems arose as tensions in 'Martin's' marriage, which had been deteriorating because of his continual irritability and the money worries, worsened considerably on the news that the defendant had refused to accept liability despite a Police enquiry charging the defendant with dangerous driving. 'Martin', on hearing the news, was furious at the injustice, but being furious merely made matters worse still. Eventually the defendant admitted liability and in due course 'Martin' received an interim payment, but the money soon disappeared in paying bills and reducing debt. Further surgery improved matters for him physically, but the counselling seemed to have no effect

whatsoever on the psychological problems. ‘Martin’s’ marriage broke up under the relentless strain.

Now, with no partner, only fair physical health, psychological problems, no work nor prospect of work, debts that were once again mounting and no end to the litigation in sight despite the court hearing, ‘Martin’ found himself alone and at ‘rock bottom’.

The author first met ‘Martin’ about three years after the RTA when a Consultant Psychiatrist referred him for Eye Movement Desensitisation & Reprocessing (EMDR), which, at the time, was considered to be an experimental form of treatment specifically for PTSD symptoms. Because of the relative scarcity of EMDR-trained clinicians in the UK in those days, ‘Martin’ had to make a 300-mile round rail trip for each appointment.

‘Martin’ came into the clinic with the aid of a walking stick. He was clearly troubled and proceeded to describe the failure of the two courses of counselling, saying that his memories of the RTA and its aftermath where as bad as ever and that he was growing weary of a daily struggle to survive. ‘Martin’s’ psychological status was confirmed by the administration of an Impact of Events Scale (IES - Horowitz et al 1979) psychometric measure. The psychological problems consisted of intrusive imagery of the various RTA-related events, distressing dreams and various avoidance behaviours.

‘Martin’ was soon to appreciate that EMDR was nothing like his previous courses of counselling and was very surprised when, after only a few sessions, what appeared to be unchanging memories of the RTA and its aftermath, started to radically improve. He became more confident as the psychological symptoms reduced further. ‘Martin’ seemed to change, quite rapidly, from someone who appeared to have been almost overwhelmed by his psychological symptoms to what he described as his “old self”. ‘Martin’ was to make a total of about eight similar journeys in the course of successful treatment and, with EMDR treatment concluded, the author discharged ‘Martin’ content in the knowledge that he reported no psychological symptoms of trauma and that this was supported by a readministration of the IES.

Three years later, the author was travelling on the train and by total coincidence ‘Martin’ was too. Conversation ensued, and what ‘Martin’ said was quite surprising:

> *“I know this is going to be hard for you to understand, but I’m so grateful it all happened. Of course I certainly wasn’t at the time, the whole experience was hell on wheels, but it’s true what they say that what doesn’t kill you makes you stronger. I’d have to say I’m living proof that although I literally lost everything and everyone, I’ve gained so much more.”*

‘Martin’ went on to explain the changes in his life in more detail. As he laughingly revealed the walking stick he still used and what ‘secondary’ uses it had, he described how his entire life had changed and that priorities were entirely different for him.

‘Martin’ had met someone who was now a close friend who had also been involved in a similar RTA. ‘Martin’ explained that he’d raised money for charity and joked that doing so was more compensation for what had happened than the compensation he’d received. The entire hour and a half of the journey was spent exchanging anecdotes and philosophising about life in general. ‘Martin’s’ parting comment was “some day I’ll write a book about it all”. The conversation had been invigorating. In the three years since his EMDR, ‘Martin’ had become a transformed person. He was optimistic, relaxed, cheerful, clearly happy with life, socially very busy and – almost charismatic.

1.3 Reflections on Martin's story

What is possible to glean from 'Martin's' story? Certainly his RTA and the series of events that occurred thereafter changed his life fundamentally. Initially there was the slow physical recovery, and there were numerous secondary traumas including developing PTSD. The counselling clearly had not reduced his symptoms, whilst the EMDR did so very rapidly. Other, physical, treatments in the aftermath of the RTA had helped, but had also caused more problems.

During the majority of this time 'Martin' was involved in a litigation process, which, like his physical, psychological and social progress, he was largely not in control of either. At some point, he had reached 'rock bottom', he found further struggling to survive difficult and it is easy to imagine that 'Martin' probably went through a phase of not seeing any end to his problems. The EMDR however changed this and matters seemed resolved – henceforth 'Martin' had been discharged.

It was from this point 'Martin's' progress became more vague. The coincidental meeting showed that he had been transformed in some way, but he hadn't merely picked up the threads of his original life, 'Martin' was doing different things he was meeting different people – *he* himself was different and, perhaps most intriguingly, he wasn't the 'Martin' that had been discharged.

'Martin's' story raised many questions. For instance:

- How did he get from the successful alleviation of negative symptoms to the story on the train journey?
- Why did he say it would be hard to understand?
- Why was it so absorbing to hear the story of a discharged patient?
- Was there something 'special' about Martin and/or his experiences?
- Why did he seem to be 'almost charismatic'?

These questions were not the only issues to be raised. For example, it was clear that 'Martin's' RTA was not simply an isolated traumatic

experience, but the triggering event to a sequence of interconnected traumas, much the same as an earthquake gives rise to aftershocks. There had been both physical and psychological ‘aftershocks’. ‘Martin’ had developed PTSD, as well as social problems stemming from involvement in litigation including losing his business and his marriage and even his friends apparently. In other words what started as an RTA produced a cascade of changes to his life. The conversation on the train showed the ‘cascade’ was quite capable of reversing direction.

Then there were the people that came into ‘Martin’s’ life subsequent to the RTA. They seemed united by their approach to his predicament, but not necessarily with the same agendas. For instance, the healthcare team at the hospital were united in reducing his suffering, despite which, their efforts resulted in further ‘aftershocks’. Another example was ‘Martins’ solicitor, who, whilst trying to obtain the best financial settlement for ‘Martin’, had to deal with the defendant and defendant’s insurer who had an entirely different agenda.

After ‘Martin’ had been discharged, it seemed from what little information there was that exactly the reverse was the case. In essence, more people in ‘Martin’s’ life yielded better and better outcomes. With the benefit of hindsight, and although this sounds very obvious, the author only saw a tiny portion of Martin’s life.

The professionals involved in ‘Martin’s’ life were all involved in the negative things in ‘Martin’s’ life – indeed everything was focussed on the negative. The healthcare staff at the hospital, out of necessity given ‘Martin’s’ predicament, focussed on negative symptoms. The aftercare, although focussing on the return to normal health was, in effect, focussing on the reduction of negative symptoms. The entire litigation focussed on the cost of the damage sustained. The author, as ‘Martin’s’ EMDR therapist was merely another professional following legal instructions to focus on reducing negative symptoms. Even the psychometric measures used to quantify ‘Martin’s’ status and monitor treatment progress were solely measures of negative change. More questions followed:

- Was this total focus on the negative, the explanation why ‘Martin’ predicted his story would be hard to understand?

- Had it merely been luck that ‘Martin’ had been so positive during the meeting on the train – or was he merely pleased to see his therapist again?
- What had happened?
- What had made the difference?

Later, on incidentally reviewing ‘Martin’s’ casenotes, the author recalled reading a paragraph detailing one EMDR treatment session in which Martin chose a Positive Cognition (PC – see Chapter Two explanations concerning EMDR and Appendix 2.11): “I survived” followed by: “Now: I will help others survive”. Because of our chance encounter three years later, the comment made sense. The author had *witnessed* the result of “I will help others survive”. In other words, ‘Martin’s’ EMDR therapist had not only been involved in Martin’s negative symptoms, but crucially also in his ‘positive change’, yet without being fully aware of it.

Furthermore, two periods of three years in ‘Martin’s’ life had completely changed the entire direction of his life. If, just prior to the RTA, someone had told ‘Martin’ what his life would have been like in three years and six years’ time, what would he have replied? In the future the first three years of ‘Martin’s’ life post-RTA would, quite literally, be well documented given the copious medical, legal and other records, but what about the second period of three years?

1.4 The author's historicity

In addition to the context provided by 'Martin's' story is the author's context. The importance of context to phenomenology – the study of phenomena – has been highlighted by Moran (2000), who, in citing Heidegger, provides a rationale for the use of contextual history in proposing:

> "…that phenomenology must be attentive to *historicity*, or the *facticity* of human living, to *temporality*, or the concrete living in time" (p.20 – original italics)

In essence then, phenomenology must include an awareness of context in time. However, context isn't merely a static entity for as Peshkin (1985) points out, personal biographies, and the research context, influences which subjective self will perceive the world at any given time (see also Grbich 1999). Presumably, this applies as much to researcher as to participant and has an effect upon, and even becomes an element within, the phenomenon itself. Hence the subject of subjectivity becomes a key component of the specific phenomenological entity being researched. With this in mind, the author's own 'historicity' is now briefly considered (in the first person):

Many factors over the years have played a part, perhaps key amongst them being that I had my formal education ended by serious illness. I can recall several times when obstacles to my progress in life seemed to be deliberately placed in my path, but despite everything, I was, in the Nietzschean sense, made stronger for it. For instance, having been taken into hospital and told that I had a life-long illness I was understandably depressed by the news for some time. However, events were to shape, not destroy, my life because this experience introduced me to hospitals in the career sense.

By training as a nurse I was to discover my vocation, but even then I wasn't aware of the direction I was taking. I moved into mental health nursing and then into psychotherapy eventually becoming a Cognitive Behavioural Psychotherapist. Over twenty years ago I became fascinated by psychological trauma, perhaps because it was the one area of mental

health that had a specific aetiology – something that I was used to from my general nursing. This time period coincided with the development of EMDR and I very quickly became aware of the hugely effective nature of this treatment modality. EMDR provided me with the opportunity to travel to Russia, Turkey and other parts of Europe and I gained a profound perspective on human suffering, but crucially also the tools to counteract it.

Time and opportunity once again were favourable to me. Forty years after abandoning my formal education I was able to return to it, which I did by completing a nursing degree with a quantitative evaluation of an EMDR treatment case series. The result was that I speculated at length about what successful psychological treatment actually consisted of. My dissertation came during the time that EMDR was regarded, worldwide, as not only an experimental treatment, but also with considerable suspicion, and even hostility, from some quarters (cf. Jensen 1994, Herbert et al 2000).

About four years prior to, and without the benefit of, 'Martin's' story, I was already questioning the accepted wisdom that successful treatment equated with, and was limited to, the reduction of negative symptoms. The experience of my conversation with 'Martin' effectively added impetus to a process of critical inquiry and intrigue, the context of which has been my interest in autobiographies in which someone has overcome adversity and their life has radically changed. A classic example of this is detailed by Viktor Frankl in his book *'Man's Search for Meaning'* (Frankl 1959/2004), which is subtitled 'The classic tribute to hope from the Holocaust'. Frankl's story encompasses his time in German Concentration camps, how he remained positive despite all the death and destruction around him and how he eventually put his experiences to profound use in the creation of 'logotherapy' from the Greek, 'Logos', λόγος, (i.e. word, reason, principle) and, 'Therapy', Θεραπεύω, meaning 'I heal'.

I readily accepted Frankl's basic assumptions, the 'will to meaning', (Ibid, pp.105-6):

- Life has meaning under all circumstances, even the most miserable ones.
- Our main motivation for living is our will to find meaning in life.
- We have freedom to find meaning in what we do, and what we experience, or at least in the stand we take when faced with a situation of unchangeable suffering.

Soon afterwards I heard about something called Post Traumatic Growth (PTG) (Tedeschi & Calhoun 1995), and later, positive psychology (e.g. Linley & Joseph 2004a, b), and the search for what Maslow, as long ago as 1954, had described as the individual's "full psychological height" (Maslow 1954 p.354). All of these were instantly recognisable to me within 'Martin's' story.

Once again time and opportunity were to play a part, as, following a meeting in 2004, I embarked on this study effectively to begin a wider search for the nature of change following trauma.

Meanwhile another factor that is specifically relevant to my historicity is my unwillingness to accept the 'meaning of life' according to my religious upbringing, one that widely espoused fundamentalist knowledge as 'The Truth', the result, has been a distancing from my social roots. Thankfully new roots can be grown and although life has at times been a lonely journey, ultimately it has been hugely rewarding thanks to my wife, son and daughter. The remainder, so to speak, is history…

1.5 Introduction to the study

This section follows Murray & Beglar's (2009 pp146-157) instructions for focussing the Introductory Chapter of a thesis to facilitate reading. This section is therefore intended to act as an aid to the reader and topics will be covered in greater depth in the Methodology Chapter.

1.5.1 An important caveat

However, before commencing this study, it is, as Tedeschi & Calhoun (2004a) have stressed:

> "…a misunderstanding to think that trauma is good – *we most certainly are not saying that.* What we are saying is that despite these distressing experiences, people often report positive transformation… (furthermore) posttraumatic growth is common but certainly not universal, and as clinicians, we should never have the expectation that every trauma survivor will experience growth or that it is a necessary outcome for full trauma recovery." (p.408 – original italics, contents of brackets added)

…to which the current author adds that nothing that follows in this thesis in any way detracts from, or belittles, the suffering – of any type – that undoubtedly occurred prior to any subsequent positive changes experienced. Nor is there any intention to belittle or negate the efforts of therapists in their universal struggle to alleviate human suffering. As to whether every trauma survivor will experience positive changes is something this study has addressed in detail.

1.5.2 Overview of the study

'Martin's' story has provided a contextual example to the following study. Table 1.1 highlights the 'knowledge gap' in his story, whilst the following sections provide an overview of the study that focuses on that knowledge gap.

The main story elements prior to discharge from EMDR:

- 'Martin's' RTA; psychological and other 'negative change' and secondary problems; the suffering he endured; EMDR treatment; his status at discharge

Story elements that constitute the 'knowledge gap':

- What happened to 'Martin' afterwards; what caused the 'positive change' that was discussed on the train; how he came to be so 'different'; what that 'differentness' consisted of

Table 1.1:
The knowledge gap highlighted by 'Martin's' story

1.5.3 Problem statement

As can be seen from Table 1.1, there were major changes in 'Martin's' life, subsequent to discharge from receiving EMDR, that have no obvious causative explanation. The problem therefore, at least in 'Martin's case, is a knowledge gap. The obvious question arises: How did 'Martin' make the transition from a discharged client, rid of his trauma symptoms, to someone who appeared to be a radically transformed person, or, more fundamentally, what is the nature of 'Positive Psychological Change' (PPC) – as opposed to 'Negative Psychological Change' (NPC) - in clients who have been involved in an RTA and subsequently undergone EMDR?

1.5.4 Purpose of study

The purpose of the study stems directly from the problem, namely to investigate this causative knowledge gap, and in so doing, contribute both to relevant theory underpinning EMDR and the practical application of EMDR.

1.5.5 Significance of study

The ultimate significance of this study is uncertain, but it would be reasonable to assume that the results could lead to a broader view of the

nature of ‘change’ stemming from both RTA trauma and subsequent interventions with EMDR.

1.5.6 The audience for the study

As can be seen from Table 1.2, it is anticipated that because of its significance the study will be of interest and benefit to EMDR researchers, trainers, facilitators, therapists and clinical supervisors. It is of course hoped that the ultimate benefactor will be the client.

Audience	Benefits of the study for that audience
EMDR researchers	A more comprehensive theory on which to base and create hypotheses as well as a greater range of clinical methods to test hypotheses on
EMDR trainers and facilitators	The benefit of using an extended theory to underpin an extended clinical repertoire
EMDR therapists and clinical supervisors	The acquisition of an extended repertoire of skills which are grounded in theory and positively relevant to the client
Clients	Interventions which are more than treatment for NPC, but which integrate with the optimisation on PPC

Table 1.2:
How various audiences may benefit from the study

1.5.7 Delimitations

(Murray & Beglar 2009, p.157) point out that “no study is designed to apply to all persons in all situations”. Hence the need to set limits to the study. The same authors point out that qualitative research may not be interested in generalisation anyway (Ibid). However, because this study relates to an entirely new research area i.e. the nature of PPC in relation

to EMDR following an RTA, it is necessary to urge caution in applying findings from this study to too wide a client group. With further research it may well be possible to generalise findings, but for now, important delimitations are shown in Table 1.3.

Able to generalise with caution	**Not able to generalise**
Adults of both sexes and probably from most Western cultural backgrounds involved in an RTA and who subsequently underwent EMDR	Children under 18 and the elderly involved in an RTA Adults who did not undergo EMDR Those from cultures radically different to the West
RTAs of any type in the UK and probably most other Western countries	Non-RTA trauma

Table 1.3:
Some of the important delimitations to this study

1.6 Summary

This Chapter has focused on ‘Martin’s’ story (see also Appendix 1.1), from which a research problem has been identified. An overview of the entire study followed.

Chapter Two reviews the main research areas and examines the relevant literature.

CHAPTER 2

OVERVIEW OF RESEARCH AREAS AND LITERATURE SEARCH

2.1 Introduction

This Chapter consists of:

Part I: An overview of the research areas covered by this study and

Part II: A literature search of the specific area being focussed on

The research areas are Positive Psychological Change (PPC), Road Traffic Accidents (RTAs) and Eye Movement Desensitisation & Reprocessing (EMDR). Further background material appears in Appendices 2.1 to 2.14. Chapter Two layout is shown in Table 2.1.

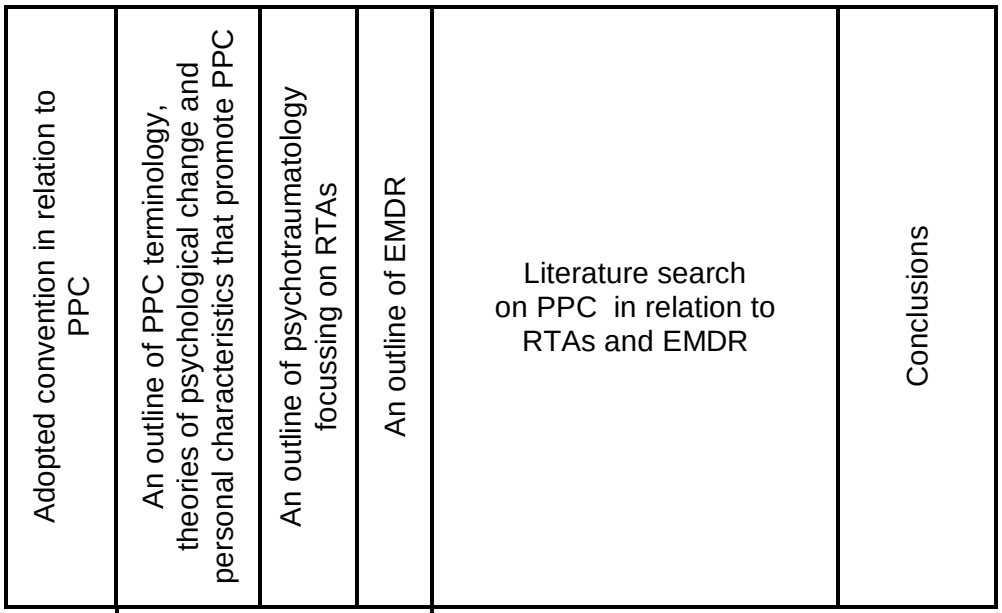

Table 2.1: Chapter Two: layout of content

The overview of the research areas facilitates a focus on the specific literature search required. The overall purposes of a literature search are shown in Table 2.2.

- To establish knowledge and a comprehensive understanding of prior, peer-reviewed, research regarding the current state of research in the chosen area
- To 'compare and contrast', and establish links between and within, the literature
- To locate the theoretical/conceptual frameworks that have enhanced or limited progress on this topic
- To provide an opportunity to discuss findings in the light of subsequent research that would not have been available to original researchers/authors
- To identify gaps in knowledge the researcher can fill with his/her own findings; and from all of these
- To draw implications that can be translated into research questions the research will explore
- To follow up on the research suggestions identified by authors

Table 2.2:
The purposes of a literature search
(adapted from Grbich 1999, and Silverman 2006)

In conducting a literature search, Silverman (2006) advises researchers to:

> "...focus only on those studies that are relevant for defining *your* research problem and... organize what you say in the form of an *argument* rather than a simple (and thus academically tedious) description of other studies" (p.341 – original italics, contents of brackets added).

Part I An overview of the research areas covered by this study

2.2 The adoption of a convention in relation to PPC

In this instance the first stage to adopting Silverman's argument is to provide a temporary definition of PPC. The following, albeit rather vague, 'working definition' is adopted. PPC is:

> "…something positively new that signifies a kind of surplus compared to precrisis level…" (Zöellner & Maercker 2006 p.334)

Before expanding on this however, it is important from the outset not to confuse the reader in an area that is far from consensually defined. The literature clearly shows there is no formal unifying definition of PPC to rely upon. (An in-depth analysis of the rights, wrongs and advisability of this are beyond the scope of this study although these points are considered briefly in Chapter Seven).

To prevent any confusion, a specific convention has been adopted in this thesis as follows:

- 'Negative psychological change' (NPC) and 'positive psychological change' (PPC) indicate, a preponderance of either negative or positive alterations to an individual's psychological life as compared with a pre-trauma level. This means that the use of the phrase PPC is *not the same as the reduction of NPC* or, as Baylis (2004) puts it: "the fragile absence of pathology" (p.216).

- The use of the acronym NPC is deliberately generic so as not to tie the research into any one diagnosis such as Post Traumatic Stress Disorder (PTSD). Likewise, the use of the acronym PPC is similarly deliberately generic so as not to tie the research into any one of the numerous terms in Table 2.3

- As regards the use of 'PPC', Zöellner & Maercker's (2006) definition has been temporarily adopted.

- Only following data analysis is ‘PPC’ dropped in favour of a more appropriate phenomenologically-grounded term.

- In cases where terms such as PTSD or Post Traumatic Growth (PTG) are used, the reader can be confident that what follows *specifically relates to that conceptualisation* of psychological change as intended and referenced by the papers’ various authors (see also Appendices 2.1 and 2.2 for supporting material).

2.3 Terminology status of PPC

Tedeschi & Calhoun (2004a) have identified fourteen terms for PPC utilised in the literature, whilst Linley and Joseph (2004a) cite their own term 'adversarial growth', and four other terms they did not reference and are therefore excluded from this review. All identified and referenced terms are shown in Table 2.3 (see also Appendix 2.1). Taken as a whole however, the overriding questions relating to these papers are: Why so many terms? Is there any significance that no term quoted in papers predates 1974? Are the terms for PPC interchangeable?

2.3.1 Why so many terms? Why does PPC terminology start in 1974?

The published order of the papers has already been established as representing key milestones in the understanding of PPC (Tedeschi & Calhoun 2004a). This 'lineage' certainly seems to explain some of the reasons for the plethora of terminology, but the need to *understand* PPC was addressed 20 years before the first paper cited in Table 2.3:

> "The science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height. It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, and that, the darker, meaner half." (Maslow 1954 p.354 e.g. as cited in Linley et al (2006, p.5)

The papers in Table 2.3 could be said to represent a relaxing of Maslow's self-imposed 'voluntary restriction'. The result seems to have been something of a taxonomic anarchy. This is in complete contrast to the orderly acceptance of NPC contained and minutely defined within publications such as the Diagnostic and Statistical Manual of Mental Disorders (DSM) (e.g. APA 1980, 2000).

Stren conversion	Finkel 1974, 1975
Drawing strength from adversity	McCrae 1984
Positive reinterpretation	Scheier, Weintraub & Carver 1986
Positive illusions	Taylor & Brown 1988
Psychological changes	Yalom & Lieberman 1991
Perceived benefits	Calhoun & Tedeschi 1991; McMillen, Zuravin & Rideout 1995
Construing benefits/ Perceiving control	Tennen et al 1992
Thriving	O'Leary & Ickovics 1995
Post Traumatic Growth (PTG)	Tedeschi & Calhoun 1995
Stress-related growth	Park, Cohen & Murch 1996
Transformational coping	Aldwin 1994; Pargament 1996
Discovery of meaning	Bower et al 1998
Flourishing	Ryff & Singer 1998a, b
Positive emotions	Folkman & Moskowitz 2000
Adversarial growth	Linley & Joseph 2004a

Table 2.3: Terminology cited in the literature to describe PPC (after Tedeschi & Calhoun 2004a, p.406 & Linley & Joseph 2004a, p.11)

Although well beyond the scope of this study, the story of attention to PPC has traceable roots back to Aristotelian philosophy (see Jørgensen & Nafstad, 2004, for an excellent overview). Interestingly the same authors also shed light on the "revitalization of Aristotelian philosophy" in recent years (Ibid. pp16-17), a theme expanded on in great depth by Le Fanu (1999) in his book '*The rise and fall of modern medicine*'. In essence, Le Fanu traces both definitive moments in medical progress and its downfall including, crucially, the Thalidomide disaster (Ibid pp.246-7) in the mid 1960's along with several other factors contributing to what Le Fanu terms "The end of the age of optimism" (Ibid pp239-72) - although it should perhaps be stressed that 'optimism' in this instance specifically refers to a medical context. A chronology of events, of which the above is but a very tiny component, now starts to emerge. It could be argued that as the dominance of medical advances on negative change (both physical and psychological types) has apparently diminished, then a change of perspective has taken place. That change seems to be Jørgensen & Nafstad's 'revitalization' of the inherent positives in humans i.e. Aristotelian philosophy, an approach that has not benefited from the Foucauldian principle of being the 'dominant regime of truth' in healthcare since the advent of positivism and the major advances in modern medicine commencing in the early years of the 19th century. Ivan Illich (1975/ 1995) espouses an alternative view arguing that medicine is an 'imperialist' entity, which has always been involved in a struggle to expand its territory. This anti-capitalist perspective gains credence when authors such as Linley, Joseph, Harrington, & Wood (2006) refer to the new field of Positive Psychology as "business as usual" psychology.

2.3.2 Are the terms for PPC interchangeable?

The simple answer is 'no'. For instance, 'stren conversion' is a curriculum-based 'import' from the observation that some people are able to convert traumatic experiences into something positive, whilst some PPC terms are defining positive coping strategies, others see PPC as a distortion or biasing of thinking, or refer only to PPC in specific circumstances e.g. following sexual traumata or are gender specific. Further terms are used apparently interchangeably, but actually refer to different entities. One term, 'stress related growth' doesn't require a

causative trauma, whilst other terms are based on existential explanations or emotional explanations of PPC, or purely cognitively based explanations. Yet another term stresses an interplay between psychological and 'immunological markers', whilst 'flourishing', although describing PPC, removes the whole concept from being categorised as a medical entity with the result of effectively reinstating the Maslowvian criticism already cited (see also Appendix 2.1). The conclusion could be drawn that much theorising has occurred and very little consensus reached. Calhoun & Tedeschi's, (1998) comment:

> "The more we know about posttraumatic growth, the more we know that we do not know very much." (p.215)

…although now 13 years old thus remains true. Furthermore, whatever the term or terms used to describe PPC, Linley & Joseph's (2004a) conclusion in the only meta analysis on the subject stresses:

> "…the findings do not necessarily correspond to any given individual's experience of adversarial growth" (p.19)

Whether this suggests that PPC is idiosyncratic, or whether it is so complex mere description is very difficult, is unclear.

2.4 Theories to account for psychological change after a traumatic event

The various theories to account for psychological change can be categorised under three headings (further details can be found in Appendix 2.2.):

- Theories accounting for NPC (shown in Table 2.4)
- Theories accounting for PPC (shown in Table 2.6)
- A theory accounting for both NPC and PPC

Emotional Processing Theory (EPT)
This theory is based on Rachman's (1980) theory in which emotional processing entails emotional reactions being absorbed so that re-exposure to the traumatic event no longer elicits a strong emotional reaction. Until this occurs a stress response occurs.

Information Processing Theory (IPT)
Horowitz's (1982; 1986) approach is based on client's schemas (i.e. mental models) of the world used to interpret events. Also includes the concept of the 'completion tendency' defined as a drive to make mental models consistent with new information. Traumatic material is inconsistent and gives rise to a stress reaction along the lines of Festinger's (1957) cognitive dissonance theory.

Social-Cognitive Theory (SCT)
Is associated with Janoff-Bulman (1989a, 1992) and focuses on cognitive schemas and thus complements information processing theory. Trauma has the effect of shattering a person's assumptions made about the world

Cognitive Synthesis (CS)
Creamer et al (1992) contend that following trauma that recovery is contingent upon a 'fear network' being activated. When this occurs 'network resolution processing' occurs, not dissimilar to the completion tendency of IPT

Psychosocial Perspectives (PP)
Joseph et al (1995; 1997) have extended the cognitive theories to the wider psychosocial perspective making it no longer a personal process of recovery, but a "complex interaction" of factors (Joseph & Linley 2005, p.266)

Adaptive Information Processing (AIP)
Shapiro (2001; see also Dworkin 2005 for a summary) is a specific information processing theory devised to explain the observations made in EMDR therapy. As its original name, 'accelerated information processing' (Shapiro 1995) suggests, this is broadly a speeded-up method of information processing facilitated by bilateral stimulation (BLS) (see also EMDR section of this Chapter).

Table 2.4: Theories accounting for NPC and it's reduction following a traumatic event (adapted from Joseph & Linley 2005, pp.264-6; Shapiro 2001, pp29-56 and Dworkin 2005, pp. 223-4)

The importance of AIP to this study is that it is the acknowledged theoretical framework to explain how EMDR works (e.g. Shapiro 2001). More recently, views on AIP have become dichotomous with, for instance, the practical 'two method approach' of case conceptualisation (de Jongh, ten Broeke, Meijer 2010), supportive of AIP, whilst the essentialness of AIP to EMDR has been questioned by Greenwald and defended by Shapiro in Greenwald & Shapiro (2010).

Whether or not AIP is supportive of EMDR is beyond the immediate scope of this study, suffice to say that AIP is by no means the only theory to account for observed changes as a result of this treatment (Ibid, p172). Shapiro (2001) has detailed nine other possible theoretical mechanisms of psychological change based upon the role of the orienting response, distraction, hypnosis, cellular and brain-level changes, dream sleep, the relaxation response, hemispheric synchronisation, cortical function and 'integrative effects'. Indeed, an entire edition of the *Journal of EMDR Practice and Research* (Volume 2:4 2008) was devoted to papers discussing 'Possible EMDR Mechanisms of Action'.

Table 2.5 utilises the very helpful summary of AIP already provided by Dworkin (2005), the bulk of which clearly relates to NPC and its reduction – hence AIP's inclusion under the NPC category theories in this Chapter.

NPC theories are important because they form the theoretical underpinning for interventions, which *reduce* NPC and it is this reduction of NPC that in turn underpins the effectiveness of treatment – namely evidence-based practice.

However, non of the NPC theories rule out PPC, for instance EPT describes a drive to reduce NPC rather than to generate PPC, but does suggest that if emotional processing is "promoted" past the point of all NPC being eradicated, then the individual could acquire an entirely new emotional outlook on life, which could therefore, presumably constitute PPC. Likewise Joseph & Linley (2005) have pointed out the similarity between EPT and IPT and thus the same conclusion could be drawn of IPT namely that PPC is possible. Similar conclusions can be drawn of the

1. Within each person is a physiological information processing system through which new experiences and information are normally processed to an adaptive state.

2. Information is stored in memory networks that contain related thoughts, images, emotions, and sensations.

3. Memory networks are organised around the earliest related event.

4. Traumatic experiences and persistent unmet interpersonal needs during crucial periods in development can produce blockages in the capacity of the adaptive information processing system to resolve distressing or traumatic events.

5. When information stored in memory networks related to a distressing or traumatic experience is not fully processed, it gives rise to dysfunctional reactions.

6. The result of adaptive processing is learning, relief of emotional distress, and the availability of adaptive responses and understanding.

7. Specific types of bilateral stimulation facilitate information processing. Based on observational and experimental data, Shapiro has referred to this stimulation as bilateral stimulation (1995) and dual attention stimulation (2001).

8. Alternating, left-right, bilateral eye movements, tones, and kinaesthetic stimulation, when combined with the other specific procedural steps used in EMDR, enhance information processing.

9. Specific, focussed strategies for sufficiently stimulating access to dysfunctionally stored information (and in some cases, adaptive information) generally need to be combined with bilateral stimulation in order to produce adaptive information processing.

10. EMDR procedures foster a state of balanced or dual attention between internally accessed information and external bilateral stimulation. In this state the client experiences simultaneously the distressing memory and the present context.

11. The combination of EMDR procedures and bilateral stimulation results in decreasing the vividness of disturbing memory images and related affect, facilitating access to more adaptive information and forging new associations within and between memory networks.

Table 2.5: Synopsis of AIP theory
(Dworkin 2005; see also Solomon & Shapiro 2008 and Shapiro 2001)

other theories (see also Appendix 2.2), whilst Dworkin (2005) points out:

> "An important contribution of this book is its emphasis on EMDR as a client-centred therapy that attends not only to symptom reduction, but also to personal growth". (p.x)

This suggests that the underpinning of EMDR, AIP theory, if more explicit about how PPC occurs, could ultimately be a unifying theory of psychological change' and Solomon & Shapiro (2008) point out that in AIP:

> "…processing is understood to involve the forging of new associations and connections enabling learning to take place with the (originally traumatic) memory then stored in a new adaptive form. (pp. 316-7 – see also Shapiro 2007. Contents of brackets added)

In comparison with the vast literature on NPC following traumatic events, there is far less published on PPC although this is changing rapidly (Linley & Joseph 2004a p7 on publication trends - see also Caplan 1964; Finkel 1974, 1975; Tedeschi & Calhoun 1995; Tedeschi, Park & Calhoun 1998; Frankl 1959/2004, 2000; Tedeschi & Calhoun 2004a, b; Linley & Joseph 2004b; Calhoun & Tedeschi 2006; McGrath 2006).

Theories accounting for PPC (see Table 2.6) were reviewed by O'Leary et al (1998) who contended:

> "…change is not only unavoidable, but may be essential for optimal adaptation, it is important for psychologists to understand the mechanisms of change" (Ibid, p.129 – contents of brackets added)

O'Leary et al divided theories into two categories according to intentionality of PPC. Overall, these theories do provide clues as to the nature of PPC (see also Appendix 2.2), including:

- Restructuring thoughts are either a precursor or component of PPC
- The therapeutic relationship is important, probably vital, in PPC. This would directly support Dworkin (2005) in relation to EMDR
- Traumatic experiences represent a 'chance to discover', which can be realised providing the individual concerned *chooses* to make PPC
- Most consistently indicated is the complexity of PPC

‘Intentional PPC’ category:

- Mahoney’s (1982) Human change processes in psychotherapy (HCP)
- Hager’s (1992) Chaos and growth theory (CGT)
- Nerkin’s (1993) Resolution and growth in grief (RGG)

‘Unintentional PPC’ category:

- Schaefer and Moos’ (1992) Life crises and personal growth (LCPG)
- Miller & C’deBaca’s (1994) Quantum change theory (QCT)
- Aldwin’s (1994) Transformational coping theory (TCT)
- O’Leary & Ickovics’ (1995) Resilience and thriving theory (RTT)
- Tedeschi & Calhoun’s (1995) Transformation theory (TT)

Table 2.6:
Theories accounting for PPC, after O’Leary et al (1998)

Of the PPC theories reviewed by O’Leary et al (1998), Tedeschi & Calhoun’s (1995) explanation of change underpins the most widely used term to describe PPC, namely Post Traumatic Growth (PTG) (Ibid p.406). These authors describe a ‘multi-systems’ cognitive theory of PPC:

> “We use an essentially cognitive framework to explain this experience because changes in belief systems seem to be so often reported by persons who describe growth, and beliefs appear to play a central role in relieving emotional distress and encouraging useful activity (Ibid, p.ix)

…a framework is clearly needed, unfortunately a *specific* framework for an already agreed complex entity is somewhat like trying to describe a large forest in terms of bark types – potentially the larger picture gets lost in detail. Nevertheless, Tedeschi & Calhoun have provided a useful impetus to research, because, just as with the formation of the standardised PTSD diagnosis, which has created a huge amount of

research activity so, it would seem, has the popularisation of PTG to encapsulate PPC after trauma – albeit at a much lower level (see also Appendix 2.1).

Payne et al (2007) point out that, other than Joseph & Linley's (2005) theory, there are no existing:

> "…attempts to *integrate* an understanding of posttraumatic stress with posttraumatic growth." (Payne, Joseph & Tudway 2007 – italics added)

…presumably, therefore, these authors might also see AIP as predominantly a mono-valent theory.

The only unifying theory of psychological change is Joseph & Linley's (2005) Organismic Valuing Theory (OVT) that underpins an Organismic Valuing Process (OVP). OVT is:

- Described by these authors as a *unifying* theory of 'change' that describes both NPC and PPC and consists of four 'principles' - see Table 2.7 (further information in Appendix 2.2), and
- Is based on the premise that humans are 'growth oriented', integrate their experiences meaningfully (i.e. the completion tendency) and know the best directions to make in life. Their social context either facilitates or impedes this. Those experiencing PPC are 'true to themselves' tend to accommodate traumatic information into a new meaning, which will have significance rather than comprehensibility. Enhanced personal wellbeing will result.

Theoretical principle 1: Completion tendency
Traumatic events shatter the assumptive world. When this occurs there is a need to integrate new trauma-related information. This is the completion tendency. New trauma-related information is stored in active memory awaiting processing. NPC occurs until a point is reached equivalent to ultimate despair or 'rock bottom' (Joseph & Linley 2005, p.272 use the word 'baseline')

Theoretical principle 2: Accommodation versus assimilation
At 'rock bottom' NPC is no longer present – the explanation being that either cognitive assimilation of the traumatic memory has occurred or a revision of existing schemas has been made to accommodate traumatic information. The natural tendency is to accommodate traumatic information. A supportive social environment will promote the OVP to accommodation and thus PPC. The reverse will produce assimilation, and PPC will not occur

Theoretical principle 3: Meaning as comprehensibility versus meaning as significance
From immediately after the traumatic event there is a retrospective search for meaning. Once comprehensibility is achieved the meaning may be assimilated or accommodated. If the OVP is "given voice" meaning will be treated as significance, lead to accommodation and to PPC. When accommodated negatively, the result will tend to hopelessness and helplessness.

Theoretical principle 4: Eudaimonic versus hedonic well-being
Positive accommodation will lead to enhanced personal wellbeing. It will not necessarily promote the subjective well-being characteristic of hedonic wellbeing. In essence, PPC may leave a person paradoxically sadder, yet wiser.

Table 2.7: An overview of OVT in relation to PPC subsequent to a traumatic experience
(condensed from Joseph & Linley 2005, pp.272-3)

2.5 Factors considered to promote and/or hinder PPC

Table 2.8 lists the factors considered to promote and/or hinder PPC .

- Traumatic event type
- Sociodemographic factors
- Personality factors
- Self-efficacy
- Hardiness and toughness
- Self-esteem
- Resilience
- Sense of coherence
- Coping
- Locus of control (LoC)
- Religion
- Emotions
- Blame and forgiveness
- Hope and optimism
- Attributional style
- Cognitive appraisal
- Wisdom and paradox
- Social comparison
- Supportive others
- Existential issues
- Flow

Table 2.8: A synopsis of factors considered to promote and/or hinder PPC (derived from various sources, particularly Linley & Joseph (2004b – see also Appendix 2.3)

The contents of Table 2.8 are neither exhaustive nor agreed by all authors. For instance, Linley & Joseph's (2004b) meta analysis of 39 studies on PPC, contained no agreement on what were the core ingredients of PPC:

> "…It is unlikely that (PPC) will be substantially explained by one or even several factors (Ibid, p.19 - contents of brackets added)

There is definite disagreement between authors concerning two factors:

- Traumatic Event type
- Sense of coherence

As regards the contribution of 'traumatic event type' to PPC (see also 'Cognitive Appraisal' in Appendix 2.3), Linley & Joseph (2004b, pp15-6), although acknowledging that clinical studies included in their meta analysis had concluded high threat and harm was indicative of greater levels of PPC, they nevertheless concluded *overall* that:

> "…there does not appear to be a consistently positive linear relation between degree of trauma and growth." (Ibid, p.15)

…and thus consider no relationship between the two. However 'no consistent relationship' doesn't necessarily mean 'no relationship at all'.

For instance, at a more theoretical level, both Fontana & Rosenheck (1998) and Schnurr et al (1993) have proposed a "curvilinear" relationship with traumatic event type, i.e. mid range trauma resulting in the most PPC and mild and severe trauma producing less PPC. It is not clear, however, what constitutes mild, mid and severe trauma. The obvious question in relation to the current study is which category does a Road Traffic Accident (RTA) fall into? Alternatively do 'typical RTAs lead to more PPC than either 'high threat and harm' RTAs or minor RTAs?

As regards 'sense of coherence', Antonovsky (1987) coined this term to explain why people respond well to stress. It was hypothesised to consist of three components: comprehensibility, manageability and meaningfulness and:

> "…to achieve a sense of coherence, there are four crucial spheres that must be seen as meaningful: inner feelings; interpersonal relationships; one's major activity; and existential issues such as death, failure, conflict, and isolation…" (p.53)

These categories are reminiscent of the factors in Tedeschi & Calhoun's (1996) Post Traumatic Growth Inventory (PTGI), and it is plausible that a 'sense of coherence' amounts to yet another term for PPC. However, Linley & Joseph (2004b) concluded in their meta analysis, *unequivocally*, that a sense of coherence was not associated with PPC although they did not explain their reasoning.

On a more conciliatory note, it has already been recognised that an:

> "…overlapping (group of) characteristics can promote a willingness to approach the process of overcoming and benefiting from crisis" (Tedeschi & Calhoun 1995, p.44 - contents of brackets added).

The question then arises: have all the overlapping characteristics been identified? It would seem not otherwise Linley & Joseph (2004b p.19) are unlikely to have urged researchers to identify new factors of PPC.

Furthermore, Linley & Joseph (Ibid) clearly consider factors that promote and/or hinder PPC as single discreet entities. Intuitively however, this may well not be the case. It is feasible, for instance, that 'sense of coherence' is a type of 'multiple factor' in PTG and even that Antonovsky recognised this. It might be that a future meta analysis needs to address the possibility of multiple, and even interacting, factors involved in PPC. Aldwin & Sutton (1998) point out there must be a huge range of factors influencing PPC to consider because:

> "…how is it that the same (traumatic experience) can have tremendously different effects in different individuals?" (Ibid p.43, contents of brackets added)

The obvious conclusion here is that some of the disagreement as to what promotes or hinders PPC may in fact stem from the relative lack of understanding of the *interactions* between not only the variously identified factors, but between the two component categories, i.e. 'traumatic event type' and the individual's differing (and interacting) characteristics. This conclusion does not appear to be addressed by the current literature.

As regards 'traumatic event type' it is also worth mentioning that Linley & Joseph's (2004b) meta analysis contained no RTA studies or for that matter any study involving subsequent use of EMDR, so it is not possible to establish how relevant any component study or even their entire meta analysis is to PPC occurring within the specific context of an RTA with or without EMDR treatment.

2.6 Psychotraumatology

There is a vast body of literature including at least 40,000 peer-reviewed papers on Post Traumatic Stress Disorder (PTSD) alone. Not surprising then that the:

> "…history of psychotraumatology spans a century and a half and is very extensive; any review must necessarily be highly selective." (Weisæth 2002 p.443; see also van der Kolk, Weisæth & van der Hart 1996)

However, for the purposes of this study, it is relatively easy to be highly selective because the literature described by Weisæth and others is almost entirely related to NPC following trauma (see Part II of this Chapter).

The modern study of psychotraumatology arguably stems from 1980* with the advent of the unifying diagnosis of PTSD, a diagnosis to provide a succinct description of symptoms (i.e. NPC experiences) following trauma, or more accurately, the experiences that by a month post trauma have not disappeared either naturally or with the aid of treatment/ therapy. The current version of PTSD is summarised in Table 2.9.

One important result of the advent of the PTSD diagnosis was the "major professional attention" (Blanchard & Hickling 1996, p.16) that the diagnosis stimulated. So whilst much is now known about the psychological after-effects of trauma, specifically the negative ones, almost all of it stems from the past thirty years.

*Appendix 2.4 contains a brief overview of the chronology of psychotraumatology pre-1980.

- Witnessed or was confronted with event(s) involving actual or threatened death or serious injury and a response at the time involving intense fear, helplessness or horror.

- Persistent re-experiencing of the event via one or more of the following:
    - Intrusive distressing recollections
    - Distressing dreams of the event
    - Flashbacks
    - Psychological arousal and/or physiological reactivity at exposure to cues that resemble an aspect of the traumatic event

- Persistent covert and/or overt avoidance or emotional 'numbing' (i.e. absence of usual emotions) in three or more prescribed ways

- Persistent symptoms of hyperarousal (i.e. extreme anxiety) in two or more prescribed ways

- Duration of symptoms of at least one month

- Significant impairment of important areas of functioning (e.g. unable to work, impairment to relationships, disruptions to social and leisure life etc.)

Table 2.9: A brief synopsis of the main diagnostic criteria for PTSD derived from DSM IV TR (APA 2000, p.467-8)

2.6.1 Road Traffic Accidents (RTAs):

One of the most common causes of NPC after a traumatic event stems from RTAs (Blanchard & Hickling 1996, see also de Jongh, Holmshaw, Carswell & van Wijk 2010)**, an event which, in the United Kingdom, is now officially termed a Road Traffic Crash (RTC) by the Association of Chief Police Officers (ACPO)(Charlton 2006).

If Fontana & Rosenheck's (1998) and Schnurr et al's (1993) proposal of a "curvilinear" relationship between PPC and traumatic event type is correct (see Section 2.5 of this Chapter), what could be predicted about PPC

**Appendices 2.5 to 2.7 provide a brief history of traffic incidents going back to 1720 and supporting material on the current extent of the RTA problem.

from involvement in an RTA? The obvious problem in answering that question, just like the combinations and interactions of possible factors promoting and/or hindering PPC, is that RTAs are not an homogenous cohort of traumatic event. For instance if classified under the International Road Assessment Program (iRAP) categories (see Chapter Three, Table 3.15) – then there may well be at least eight types of PPC response, without even starting to consider the multitude of personal factors promoting and/or hindering PPC. The resultant PPC, if it even exists post RTA, may have such a vast range as to indicate no relationship between RTAs and PPC at all – in effect the same conclusion as drawn by Linley & Joseph (2004b) that traumatic event type bears no relationship to eventual PPC.

It is perhaps surprising given the universal ubiquitousness of RTAs that far more (see Part II of this Chapter) hasn't been written on PPC and RTAs. It would be tempting to draw the conclusion that PPC post-RTA was either a very infrequent occurrence, or so common as not to warrant special attention, especially given the comparison to reports of PPC in a wide range of other traumatic events (see Table 2.10).

- Parents of children with paediatric leukaemia (Best et al 2001)
- Breast cancer (Cordova et al 2001)
- Bereaved as a child (Polatinsky & Esprey 2000)
- Accident/assault (Snape 1997)
- Medical illness (Maercker & Langner 2001)
- Parents of Down syndrome child (King et al 2000)
- Terrorist bombing (Pargament et al 1998)
- Spinal cord injury (McMillen & Cook 2003)
- Shipping disaster (Joseph, Williams & Yule 1993)
- Multiple sclerosis (Evers et al 2001)
- Rheumatoid arthritis (Tennen et al 1992)
- Arthritis/ chronic illness (Abraído-Lanza et al 1998)
- Heart attack (Affleck et al 1987)
- Bereavement (Davis et al 1998)
- Sexual assault/ rape (Frazier et al 2001)
- Tornado (McMillen et al 1997)
- Shooting (McMillen et al 1997)
- Plane crash (McMillen et al 1997)
- Childhood sexual abuse (McMillen et al 1995)
- Military combat (Schnurr et al 1993)
- Chemical dependency (McMillen et al 2001)
- Parents of murdered child (Parappully et al 2002)
- HIV infection and AIDS (Updegraff et al 2002)
- Mastectomy (Zenmore et al 1989)
- Bone marrow transplant (Curbow et al 1993)
- Incest (Draucker 1992)
- Infertility (Mendola et al 1990)

Table 2.10: Some of the traumatic events leading to PPC reported in the literature (adapted from: Linley & Joseph 2004a, 13-4 and Joseph & Linley 2005, pp263-4)

It is also surprising that more research on PPC and RTAs has not been carried out because, as Blanchard & Hickling (1996) have pointed out, there are unique factors about RTAs that make these unfortunate events particularly interesting from an NPC research perspective (Table 2.11).

- Because of the law in the UK, originally introduced in 1930, which requires every driver to be insured
- Unlike some major traumas, males and females are equally affected by RTAs
- Lingering physical injuries allow for potential study of interaction between physical injuries and NPC
- Norris (1992) has shown that PTSD generated in RTA victims is widespread allowing for comparison between PTSD generated by other traumatic events
- Tangible changes to life, including any realisation of PPC, as a result of compensation pay-outs

Table 2.11:
Factors that make PTSD, stemming from an RTA, unique
(adapted from Blanchard & Hickling 1996, p.10 the last item has been added by the author)

In summary, RTAs are extremely frequent, may well constitute the mid range trauma for the purposes of the 'curvilinear' PPC argument, and have several unique factors for research… yet as will be shown in Part II very little material exists in the literature and thus very little is known about PPC after RTAs.

2.6.2 RTAs: litigation and compensation

One of the unique points in Table 2.11 (see also Appendix 2.8) is the imperative to be insured. RTAs inevitably lead to damage (i.e. vehicle and person) and to insurance claims through the legal system. It is well known that 'due legal process' is traumatising in itself and Scott (2008) has provided a synopsis of the psychological problems that stem from the claim process and litigation, and thus effectively add to the overall NPC, in this instance, suffered by RTA victims:

> "…the protracted nature of the (legal) proceedings can take its toll emotionally and at a time when (the claimant is) ill equipped to cope with the added stress. Many litigants are haunted by fear of having to give evidence in court…" (Ibid, p.159 – content of brackets added)

Scott (Ibid, pp.158-64) also cites a host of other stressful legal situations, including:

- Attendance at court
- Level of disagreement between parties including between experts
- Fear of opening or replying to solicitor's letters
- Being challenged about pre-existing problems
- Disagreeing with expert's reports
- Accusations of malingering
- Delays of any sort
- Lack of others' admitting liability

…all of which may well occur in RTA claims. Scott makes no suggestion this is a complete list and makes no indication of any PPC attributable to the experience of civil claims following RTAs.

2.7 Evidence based psychological treatment for trauma

Pre-evidence based psychological treatments for NPC following trauma were often based on sheer guesswork (Weisæth 2002, see also Appendix 2.9). In recent years a more scientific process of decision-making is now established, stemming from Cochrane's (1972) *Effectiveness and Efficiency: Random Reflections on Health Services.* Cochrane proposed that because resources would always be limited, they should be used to provide equitably those forms of healthcare, which had been shown in research to be effective. Cochrane stressed the importance of using evidence from Randomised Control Trials (RCT's) which compare one research condition against another (e.g. EMDR versus 'waiting list control'), because these were likely to provide much more reliable information than other sources of evidence (Ibid). More recently, meta analyses (O'Rourke 2007), which combines numerous studies to look for statistically meaningful effects is considered the best evidence of all.

Cochrane's ideas have formed the basis for the National Institute for Health & Clinical Excellence (NICE), an organisation that is:

> "…an independent body responsible for providing national guidance on promoting good health and preventing and treating ill health". (NICE website: www.nice.org.uk).

UK clinicians treating psychological trauma are guided by NICE recommendations for the treatment of PTSD (NICE 2005), which recommends either Trauma-Focussed Cognitive Behaviour Terapy (tfCBT) or Eye Movement Desensitisation & Reprocessing (EMDR). This study focusses on the phenomenology (see Chapter Three) of PPC occuring post RTA and also post EMDR treatment.

Please note that *no inferrence is being made at any stage that EMDR is a causative factor in any PPC*, merely that PPC is being studied at a point in time which is post EMDR.

2.7.1 Eye Movement Desensitisation & Reprocessing (EMDR)

What is EMDR?

Eye Movement Desensitisation and Reprocessing (EMDR) is an eight-phase treatment whose theoretical base is information processing (i.e. how the brain 'deals with' information – Adaptive Information Processing, see Table 2.5). During EMDR the client brings to awareness past, present or future anticipated experiences, which are then followed by sets of bilateral stimulation - most usually side-to-side eye movements, but sometimes alternating auditory (sound) tones through a headphone or tactile (touch) sensations through a thumb and finger pad. Once the eye movements (or alternative) cease, the client is instructed to let material come to awareness without attempting to 'make anything' happen. This alternate attention to internal recollections and external stimulus is called 'dual attention'. This sequence of dual attention and personal association is repeated many times in the session.

What happens in therapy?

The first phase is a history taking session during which the therapist assesses the client's readiness for EMDR and develops a treatment plan. Client and therapist identify possible targets for EMDR processing. These include recent distressing events, current situations that elicit emotional disturbance, related historical incidents, and the development of specific skills and behaviours that will be needed by the client in future situations.

During the second phase of treatment, the therapist ensures that the client has adequate methods of handling emotional distress and good coping skills, and that the client is in a relatively stable state. If further stabilization is required, or if additional skills are needed, therapy focuses on providing these. The client is then able to use stress reducing techniques whenever necessary, during or between sessions. However, one goal is not to need these techniques once therapy is complete.

Phases three to six involve a target memory, which is identified and processed using EMDR procedures. These involve the client identifying the most vivid visual image related to the memory (if available), a

negative belief about self, related emotions and body sensations. The client also identifies a preferred positive belief. The validity of the positive belief is rated, as is the intensity of the negative emotions.

After this, the client is instructed to focus on the image, negative thought, and body sensations whilst simultaneously moving his/her eyes back and forth following the therapist's fingers (or a mechanical equivalent such as an EyeScan 2000) as they move across his/her field of vision for 20-30 seconds or more, depending upon the need of the client. The kind of dual attention and the length of each set are both customised to the need of the client. The client is instructed to just notice whatever happens. After this, the clinician instructs the client to let his/her mind go blank and to notice whatever thought, feeling, image, memory, or sensation comes to mind. Depending upon the client's report the clinician will facilitate the next focus of attention. In most cases a client-directed association process is encouraged. This is repeated numerous times throughout the session. If the client becomes distressed or has difficulty with the process, the therapist follows established procedures to help the client resume processing. When the client reports no distress related to the targeted memory, the clinician asks him/her to think of the preferred positive belief that was identified at the beginning of the session, or a better one if it has emerged, and to focus on the incident, while simultaneously engaging in the eye movements. After several sets, clients generally report increased confidence in this positive belief. The therapist checks with the client regarding body sensations. If there are negative sensations, these are processed as above. If there are positive sensations, they are further enhanced.

In phase seven, closure, the therapist asks the client to keep a note during the week to document any related material that may arise and reminds the client of the self-calming activities that were mastered in phase two.

The next session begins with phase eight, re-evaluation of the previous work, and of progress since the previous session. EMDR treatment ensures processing of all related historical events, current incidents that elicit distress, and future scenarios that will require different responses.

The overall goal is to produce the most comprehensive and profound treatment effects in the shortest period of time, while simultaneously maintaining a stable client within a balanced system.

After EMDR processing, clients generally report that the emotional distress related to the memory has been eliminated, or greatly decreased, and that they have gained important cognitive insights. Importantly, these emotional and cognitive changes usually result in spontaneous behavioural and personal change, which are further enhanced with standard EMDR procedures.

Further background material to EMDR, its treatment guidelines and the eight-phase basic protocol is shown in Appendices 2.10 and 2.11.

2.7.2 Evidence base of EMDR

In relation to this study, although EMDR's evidence base is extensive, it is focussed on either the supposed 'active ingredient' in EMDR, or EMDR's ability to reduce NPC. There are currently seven EMDR meta analyses (Table 2.12) and 31 completed and published and RCTs up until 2011 (Table 2.13).

Even those studies (e.g. Van der Kolk et al 2007) that refer to 'continuing to improve after completion of treatment' are in fact descriptions of continuing reduction in NPC. Given the focus of this study on PPC all RCTs, and by extension all meta analyses, are therefore discounted as not relevant to this study.

It is suggested that the reason for this 'NPC-only' research is because:

- NPC is the required focus for evidence-based interventions of all types. In the case of EMDR, research emphasis has been about establishing an evidence base and therefore PPC has been neglected, or
- PPC doesn't exist in relation to EMDR, or
- EMDR has yet to attract research into PPC

Part II of this Chapter examines the literature in more detail commencing with a search of RTAs and PPC and then establishing whether anything at all has been written about PPC in relation to EMDR.

- van Etten & Taylor 1998
- Davidson & Parker 2001
- Maxfield & Hyer 2002
- Bradley et al 2005
- Seidler & Wagner 2006
- Bisson et al 2007
- Rodenburg et al 2009

Table 2.12: Current meta analyses of EMDR studies

- Shapiro (1989)
- Vaughan, Armstrong, Gold, O'Connor, Jenneke & Tarrier (1994)
- Wilson, Becker & Tinker (1995)
- Sharpley, Montgomery & Scalzo (1996)
- Marcus, Marquis & Sakai (1997)
- Rothbaum (1997)
- Andrade, Kavanagh & Baddeley (1997)
- Carlson, Chemtob, Rusnak, Hedlund & Muraoka (1998)
- Scheck, Schaeffer, Gillette (1998)
- Edmond, Rubin & Wambach (1999)
- Kavanagh, Freese, Andrade & May (2001)
- Van den Hout, Muris, Salemink & Kindt (2001)
- Kuiken, Bears, Miall & Smith (2001-2002)
- Chemtob, Nakashima & Carlson (2002)
- Ironson, Freund, Strauss & Williams (2002)
- Lee, Gavriel, Drummond, Richards & Greenwald, R. (2002)
- Power, McGoldrick, Brown, Buchanan, Sharp, Swanson & Karatzias (2002)
- Soberman, Greenwald & Rule (2002)
- Barrowcliff, Gray, MacCulloch, Freeman & MacCulloch (2003)
- Christman, Garvey, Propper & Phaneuf (2003)
- Taylor (2003)
- Barrowcliff, Gray, Freeman & MacCulloch (2004)
- Edmond, Sloan & McCarty (2004)
- Jaberghaderi, Greenwald, Rubin, Dolatabadim & Zand (2004)
- Rothbaum, Astin, & Marsteller (2005)
- Van der Kolk, Spinazzola, Blaustein, Hopper, Hopper, Korn, & Simpson (2007)
- Högberg, G. **,** Pagani, M., Sundin, O., Soares, J., et al., (2007)
- Cvetek (2008)
- Wanders, Serra & de Jongh (2008)
- Kemp, Drummond & McDermott (2009)
- de Roos, Greenwald, den Hollander-Gijsman, Noorthoorn, van Buuren & de Jongh (2011)

Table 2.13: Current list of RCTs involving EMDR studies (see also Appendix 2.12)

Part II A literature search of the specific areas being focussed on

2.8 A literature search matrix on RTAs and PPC

A literature search matrix was created in which each of three terms for the traumatic event, namely Road Traffic Accident (RTA), Road Traffic Crash (RTC) and Motor Vehicle Accident (MVA) and their related acronyms, were combined with a total of twenty-eight terms indicating PPC (i.e. nineteen different terms, eight plurals and one American spelling) as shown in Table 2.3 and including the four unreferenced terms 'blessings', 'positive by-products', 'positive adjustment' and 'positive adaptations' cited but not referenced by Linley & Joseph 2004a). All these points constituted the inclusion criteria for the literature search. The result was a search matrix of 6 x 28 = 168 searches. A search then took place within the Health and Biomedical combined databases at the University of Birmingham, amongst the following databases:

- Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- Cochrane Library
- EMBASE: Excerpta Medica
- Intute: Health & Life Sciences
- Medline
- PsychINFO
- Web of Science

In addition, the online, Francine Shapiro EMDR Library hosted by Northern Kentucky University (http://emdr.nku.edu/) and listing over 6000 entries on EMDR covering the years since Shapiro's first publication on EMDR, (Shapiro 1989a) was also published, although only for the six terms relating to the traumatic event as the database doesn't permit combination searches, only single terms. The database was searched because *The Journal of EMDR Practice & Research* is not currently indexed, and was considered as being the most likely Journal to contain information not accessible via the Health and Biomedical combined databases.

Similarly, a search was made of the online peer-reviewed newsletter "*The EMDR Practitioner*" (www.emdr-practitioner.net) which although peer-reviewed is also not indexed. The raw results of the search matrix are shown in Appendix 2.13, the results summary is shown in Table 2.14.

Total number of records *identified* including duplications	44
Total number of records *retrieved* including duplications	38
Number of different papers	21
Papers deemed not relevant (see text below)	10
Relevant papers including duplications	11
Number of relevant different papers	6
Maercker et al (2006)	Paper 1
Zöellner et al (2008)	Paper 2
Salter & Stallard (2004)	Paper 3
Anonymous (2007)	Paper 4
Turner & Cox (2004)	Paper 5
Nishi, Matsuoka & Kim (2010)	Paper 6

Table 2.14: Summary results of the 168-item literature search matrix

Once identified by inclusion criteria, some papers were deemed not relevant (see Table 2.14). These papers (e.g. Pryzgoda 2005) included studies involving an RTA/RTC or MVA, but where numerous other traumatic events were included in the same study. The result of any critical review might have been to provide misleading information for this study. One exception to this was Turner & Cox (2004), which was included because all but one person included in the study had been involved in an MVA.

The two other reasons for deeming papers not to be relevant were:

- Where PPC appeared to be a purely incidental component of the study (e.g. Nijdam et al (2006) and
- A report on an unfinished study (Schnyder et al 2008)

However, since both of these examples involved EMDR they are briefly discussed in Section 2.9 of this Chapter.

Despite the elaborate search matrix all but one of the relevant papers was located under 'motor vehicle accident' or 'MVA' and combined with either of the two versions of 'PTG'.

2.8.1 A critical review of the identified papers

With the exceptions stated beneath, the final six papers were evaluated, using either Maxfield & Hyer's (2002) 'Revised Gold Standard Scale' (RGSS) criteria for quantitative research, or the Critical Appraisal Skills Programme (CASP) (Public Health Research Unit 2006) criteria for qualitative research. For details of the RGSS and CASP criteria see Appendix 2.14. (NB. None of the quantitative papers utilised EMDR, so the maximum RGSS score was, in effect, 9.0 given that one point is awarded for adherence to the EMDR protocol – reviewed papers' individual scores are discussed in their reviews using the scoring system as shown in Table 2.15).

Evaluative criteria (see text)	Score given for each criterion met	Score given for each criterion partly met	Score given for criterion not met or unknown	Maximum score possible
RGSS (quantitative studies)	1	0.5	0	10
CASP (qualitative studies)	1	0.5	0	10

Table 2.15: Evaluation criteria used and scoring system on the six papers identified by the search matrix

The six papers identified by the literature search are now reviewed.

Paper 1 – Maercker, Zöllner, Menning, Rabe & Karl (2006): Dresden PTSD treatment study: Randomized controlled trial of motor vehicle accident survivors. *BMC Psychiatry 6*: (06 Jul 2006)

Overview:

The purpose of this study was to compare Cognitive Behaviour Therapy (CBT) versus Waiting List Control (WLC) for PTSD/ subsyndromal PTSD. The study's purpose did not include a study of PPC or any of its derivatives.

The study consisted of n=22 subjects meeting PTSD criteria and n=20 subsyndromal PTSD subjects. All subjects were German native speakers.

The methodology was a standard RCT. The crossover of the two conditions took place at the post assessment CBT condition. Post treatment identification of Post Traumatic Growth (PTG) (see Paper Two for the specific type involved) took place and was measured at that point.

The results focussed on the chief dependant variable, the Clinician Administered PTSD scale (German version) an obviously NPC tool of measurement. The Post Traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun 1996) was used post treatment only and results were to be discussed in Paper Two (below).

Critique:

This paper is the first German, Randomised Control Trial (RCT). The paper was identified during the literature search by virtue of a manualised CBT treatment, which included "facilitating posttraumatic growth" (Ibid p.1). In practice this related to the fourth component of treatment in which:

> "…attention was paid to existential issues (including) if and how one could regard oneself as positively changed or personally grown by overcoming the traumatic experience and its aftermath." (p.3 – content of brackets added)

As an RCT this addresses Cochrane's (1972) emphasis on the importance of RCTs mentioned earlier. The RCT appears to have been well conducted, however…

There is no indication that presumed PTG was assessed either pre CBT or within the WLC conditions.

A treatment manual that *included* components of PTG doesn't mean that this was an explicit aim of the RCT, nor were there any inclusion or exclusion criteria for PTG.

There was no indication that treatment provided was adequate to meet the 'existential issues', nor was it clear whether there was any concurrent treatment.

There were a relatively large proportion of sub syndromal PTSD subjects (see comments on 'German thresholds' below).

Ignoring paper two below, PTG appears to have been an incidental issue in Paper One and not relevant to the main purpose of the RCT. However, Paper Two sheds more light on matters. One key point to consider is whether studying a German population would generate sufficiently generalisable results if the study were replicated amongst a British population (the intended participants of this study). Given that Maercker et al (2006) highlight "lower diagnostic thresholds in Germany" then perhaps not, although this does relate to NPC rather than PPC (or its derivatives) although it is appreciated that what applies to NPC may well not apply to PPC anyway.

Conclusions:

The paper was given an RGSS score of 6.5 out of 9.0, but is discounted as relevant to this study because:

- The incidental nature of PTG in the study and lack of pre treatment assessment
- The potential lack of generalisability to a British participant group

Paper 2 – Zöellner, Rabe, Karl & Maercker (2008):
Posttraumatic growth in accident survivors: openness and optimism as predictors of its constructive or illusory sides. *Journal of Clinical Psychology 64*(3): 245-63

Overview:
This paper is a 'spin-off' from Maercker et al (2006). The purpose of this study was to consider assessment of predictors of PTG, specifically its prediction by optimism and openness.

The study consisted of n=102 subjects from the same original cohort of 239 utilised for Paper One. All subjects were German native speakers.

The methodology focussed on multiple assessment of pre treatment characteristics (in the case of Paper One subjects appearing in Paper Two) and assessment only in those additional subjects that appear in Paper Two only. Reliable and valid adapted German measures were used to assess PTG.

The results showed no consistent relationship between PTG and PTSD. Cultural differences are highlighted (see relevance of this to recruiting below).

Critique:
The paper refers to PTG, but it is not the PTG originally coined as such and described by Tedeschi & Calhoun (1995). It is a 'version 2' PTG termed the 'Janus Face Model' of self-perceived PTG (Maercker & Zöllner2004; Zöllner & Maercker 2006). This makes cross comparison between the two types of PTG confusing.

Recruitment method may have played a significant part. Whilst explaining what was considered low PTG scores (as measured by the PTGI) the explanation given was there:

> "…might be cultural differences between US. Americans and Germans in their 'attitude to 'getting positives out of deteriorating events'. Self-reported growth may, in part, reflect adherence to a

> cultural script (Linley & Joseph 2004b)" (Zöellner, Rabe, Karl & Maercker 2008 – Paper Two. P.259)

…however recruitment was via "…self-referral via local media coverage and advertising" (Ibid p.248). Might then the lower than anticipated PTG be a cultural artefact, *not* of adherence to 'getting positives out', but of German reticence to do precisely that having responded to a media approach?

Paper Two authors showed that Tedeschi & Calhoun's (1996) Post Traumatic Growth Inventory (PTGI) used as the key PPC psychometric measure…

> "…was not a unitary construct (because) sub domains seemed to be differentially important depending on current PTSD severity whereas the overall PTG sum score was not different among the three PTSD severity groups (whilst) self-reported PTG was differentially predicted by the factors optimism and openness facets in high and low PTSD severity groups." (p.260 – contents of brackets added)

…the authors concluding there were significant differences in cognitive processes in self-perceived growth involving coping and outcome to coping. In addition they point to "difficulties with the construct of PTG" (Ibid). The placement of 'coping' in either 'negative change' and/or 'positive change' seems possible. This suggests a possible overlap between NPC and PPC has not been considered and/or there was an *a priori* assumption that NPC and PPC are wholly separate.

<u>Conclusions</u>:

The paper was given an RGSS score of 7.5 out of 9.0.

- The authors clearly demonstrate the complexity of PTG (concurring with e.g. Tedeschi & Calhoun 1995), and
- Appear to provide a valid explanation of predictors to PTG, although
- There remains a potential lack of generalisability to a British participant group and,
- There are potentially significant PTG conceptualisation issues
- There are potentially significant methodology flaws

Paper 3 - Salter & Stallard (2004):

Posttraumatic Growth in Child Survivors of a Road Traffic Accident.

Journal of Traumatic Stress 17(4): 335-40

Overview:

This paper is the first study of PTG in child survivors of RTAs. The purpose of this study was to confirm or otherwise the presence of three areas of PTG (as defined by Tedeschi et al 1998) in children and whether PTG occurs instead of, or alongside, PTSD (Ibid p.336).

The study of n=75 boys and n=83 girls with an average age of 15. All were involved in RTAs, two thirds in cars at the time of the RTA whilst the remainder were pedestrians or cyclists at the time.

The methodology consisted of a battery of questionnaires followed by a qualitative analysis of notes derived from subsequent interviews using a framework technique (Ritchie & Spencer 1994) for analysis. The whole study was subsequent to a primary study of treatment intervention.

The results obtained showed 42% demonstrated PTG particularly in changes to personal philosophy. Of that 42%, 37% were assessed as experiencing PTSD as well.

Critique:

One main problem is that although the authors of Paper Three obtained precise percentages for those who did or did not experience PTG (the Tedeschi original version of PTG that is), because there is no recognition of other versions of PPC, the paper's findings could be seen as misleading. It is already well established (e.g. Tedeschi 1998) that PPC is very complex so to provide percentages says more about the validity of PTG as a construct than what amount of PPC (i.e. of any derivative description) actually occurs.

Paper Three resulted from secondary analysis (similar therefore to Paper Two) of results designed to investigate treatment intervention effectiveness. It is not clear whether the qualitative data obtained precedes, or is subsequent to, the treatment intervention. This means that

the results obtained could have been due, at least in part, to the nature of that intervention – which is not stated anyway. Even if the qualitative interviews took place before the intervention, presumably expectations of treatment of a particular type would still have existed. Overall, attribution of results to the RTA experience must be misleading

Paper Three provides a rich source of phenomenological material, and does acknowledge the skewed participant distribution. It is also acknowledged that there is a predominance of responses from older children, which would lead to a bias emerging relating to development issues. However, again the results described do not highlight this and the result must be that the '42%' cannot be an homogenous group.

There does not appear to have been a flexibility of interview process to accommodate different ages of participants. Given that:

> "The focus of the interview questions was not concerned with posttraumatic growth… (but resulted from) participants volunteering further information on their experiences since the accident…" (Salter & Stallard p.339, contents of brackets added).

…will further bias findings because no measure was reported by the authors to accommodate those of lesser developmental ability to 'volunteer' further information.

Outcome comparisons are made with Tedeschi, Park, & Calhoun's (1998) observations about adults. Although this is acknowledged the comparison isn't explained.

Conclusions:

The paper was assessed using the CASP criteria (Appendix 2.14), and given a score of 6.5, which included the initial two points, and showed the paper addressed all the criteria although some better than others.

There was some identification of a component of PTG and for co-existence with PTSD, but significant methodological problems mean findings must be guarded.

Paper 4 - Anonymous (2007):

The Impact that changed my life.

Professional Psychology: Research and Practice 38(6): 561-70

Overview:

This paper is entirely different to the other identified papers amounting to a first-hand autobiographical case study. The purpose of the paper seems to be an expression of PPC in itself, but could also be a statement that the author insists the reported death stemming from the RTA was, somehow, not in vain and that, as per the repeated headings state, lessons have been learnt.

The methodology was a single case design with the added dimension of its autobiographical nature.

The results, if indeed that is the correct term, are probably the contents of the sections headed: 'Lessons Learned as a Psychotherapist'.

Critique:

I was acutely aware from reading this paper that the reader is somehow 'drawn into' the text almost as though the reader is part of the narrative, probably because Paper Four consists of a set of deeply personal and humbly revealing experiential reflections of being involved in a fatal RTA. There are eight sections entitled 'My Experience' each followed by a section entitled 'Lessons Learned as a Psychotherapist'. Although the author is anonymous, it is possible to deduce from the text (unless the author has deliberately masked the deductions) that the author is an American, female, existential psychotherapist of considerable experience who was in a car by herself at the time of the RTA. It can also be assumed the car was in a collision with a motorcyclist at an intersection. The paper is, in essence, an entire report of the lived experience of the survivor of the RTA and is rich with detail.

The author, in describing PPC uses PTG and 'adversarial growth' interchangeably (Ibid p.565) and then proceeds to identify changes in him/herself that relate to a range of PPC theories. Here lies something of a paradox: the author whilst recognising numerous already documented

PPC changes and also that a recognition of these has lead to enhanced interactions with clients (presumably increased empathy) doesn't appear to recognise that the enhancement may well be a further tier of PPC in itself. This comment is offered not as a criticism of the paper, but more by way of puzzlement. There may be an interplay between the ethics of writing the paper and the PPC itself. For instance, there is at least a superficial paradox between self-disclosure as an aid to enhancing clinical practice and yet writing a paper anonymously.

There are numerous examples of apparent 'intention behind the explanation'. For instance, the request for forgiveness in which the author reproduces an entire letter asking for forgiveness although clearly from the standpoint of a lack of criminal charges or even a "traffic citation" (Ibid p.561). Then there is moral guidance provided by a friend by email, that consisted of an almost continual stream of 'authoritative statements' (although not highlighted as such in the paper) that effectively helped the author "grapple with many existential issues" (Ibid p.562). These helpfully describe process issues but leave the question: are they genuinely altruistic or do they serve an unstated purpose?

The conclusions that both NPC and PPC as well as both types of change at the same time are profound; the depth of the wisdom acquired, yet its fragility at first; the multidimensional role of language in PPC (the author uses words such as 'impact' and 'litany' in more than one sense) are all highlighted well.

This is a single autobiographical case study although it may be biased by the therapeutic perspective of the author although of course an existentialist perspective is as valid a perspective on a phenomenon as any else. Paper Four may not even be representative of an existentialist perspective. Nevertheless it gives a 'dual-glimpse' of the lived experience of both RTA 'perpetrator' and 'therapist'.

Conclusions:

Perhaps most surprising of all is the lack of recognition that the paper *is in itself* an expression of PPC. Nevertheless, the paper does explicitly capture the 'excitement' of learning one of life's harshest lessons and is

the only paper that provides a potential explanation as to why ‘Martin’s’ story (Chapter One) included the phrase: “I’m so grateful it all happened…”

An attempt was made to give a CASP score to Paper Four, but the result was merely to show that CASP criteria would need to be interpreted quite flexibly to be meaningful. A high CASP score could be interpreted as having undervalued the paper.

Paper 5: Turner & Cox (2004):

Facilitating post Traumatic Growth. *Health and Quality of Life Outcomes.* The Internet: http: www.hqlo.com/content/2/1/34 Last accessed 3.11.10

Overview:

Paper Five, an Australian study, was included in this literature search because the majority, twelve of the thirteen, subjects were RTA survivors. The purpose of the study was to understand how to facilitate PPC.

The study consisted of n=13 subjects of whom 12 were post RTA. One participant was included that had fallen off a roof.

The methodology was a qualitative study of in-depth audio taped interviews.

The results obtained included the emergence of two themes deemed to indicate PTG.

Critique:

This paper is yet another example of how PTG is used as the *de facto* term to describe PPC. Indeed the themes emerging from the data suggest that a different term for PPC as revealed in the transcripts may have been more appropriate. Furthermore, the purpose of the study was to understand how to facilitate PPC. However, it is clear from the conclusions that the study was a pilot one and therefore a more appropriate aim might have been to understand how to research how to understand PTG facilitation.

The inclusion of a single non-RTA trauma victim is not explained. It may have been to add contrast to a qualitative study although this is conjecture. Even if the 'contrast' hypothesis is correct, why falling off a roof?

The procedure for conducting the methodology was described in some detail and was clearly of a hermeneutical phenomenology type. However, the exact model and any commentary that might be relevant are omitted.

Validation of emerging themes seems to have been restricted to:

> "…both researchers subsequently met to come to agreement on the core themes and sub-themes." (Ibid no page number)

…this doesn't seem to be an explanation of a validation process. This could have had a bearing on the conclusion that the narratives had revealed "…exciting new ideas…" (Ibid) as an 'agreement' when the researchers met might well have dwelt on the more exciting topics of conversation.

The discussion section doesn't really look critically at the research and research process, but is limited instead to further deductive reasoning and comparison between papers. There is also a 'blurring' of findings between the stated aim of the paper to understand facilitation of PTG and the phenomenological descriptions of PTG itself. The only conclusion that could bring the two together can be that understanding PTG helps facilitate PTG. If this is the case this isn't stated as such. For instance:

> "Most participants indicated that their involvement in a traumatic occurrence was a springboard for growth that enabled them to develop new perspectives on life and living."(Ibid, front page, unnumbered)

…doesn't actually say anything about facilitating PTG.

Conclusions:

Overall, Paper Five was rather scant in detail in places and somewhat disorganised. A CASP score of 6.5 was given, which reflected that although all criteria except the stated aim of the paper were met to some degree, whilst lack of clarity led to uncertainty.

Paper 6: Nishi, Matsuoka & Kim (2010):

Posttraumatic growth, posttraumatic stress disorder and resilience of motor vehicle accident survivors.
BioPsychSocial Medicine Volume 4(7), Jun 2010 The Internet:
http://www.bpsmedicine.com/content/4/1/7 last accessed 3.11.10

Overview:
The purpose of Paper Six, a Japanese study, was to explore a link between PTG and resilience and to explore other PTG components and PTSD.

The study consisted of n=118 Japanese native speaking subjects with very specific inclusion and exclusion criteria.

The methodology was a cross-sectional survey.

The results obtained broadly confirmed that PTG is an entity in its own right but overlaps with PTSD as well.

Critique:
Nishi et al detail 118 MVA survivors who were interviewed at 18 months post MVA. The PTGI (Tedeschi & Calhoun 1996) was used and suggested that PTG was present in 'coping effort' associated with distress as well as outcome of coping success.

Some PTG items were correlated positively against 'sense of coherence' whilst other PTG items were correlated positively with PTSD symptoms. However having used the PTGI as one of two key psychometric measures, one of the cited criticisms of the findings is that PTGI does not measure pre to post-trauma change (Frazier et al 2009), which seems to invalidate, or at least certainly question, Nishi et al's findings. A two-tailed psychometric measure i.e. one that measures both NPC and PPC and could have been used pre to post trauma such as the Changes in Outlook Questionnaire (Joseph Williams & Yule 1993), might have been more appropriate.

Furthermore, the other measure used was the Sense of Coherence Scale (Antonovsky 1993). However, Linley & Joseph (2004b) have argued that Sense of Coherence is not associated with PPC. A score of 7.0 out of a total of 9.0 RGSS score was allocated to this paper.

Conclusions:
Broadly speaking this is a well designed study with several strong points including attention to detail, possibly excessively so as the requirement to live or work 40 kilometres away from the research centre isn't explained.

A convincing link is made between resilience and PTG and of overlap between PTG and PTSD although just how generalisable this to a British population is questionable.

2.9 Is there any peer-reviewed literature at all on EMDR and PPC?

The purpose of this section is to revisit all peer-reviewed material on EMDR to establish whether anything at all has been written on EMDR and PPC. The search matrix discussed in Section 2.8 was again utilised for the various terms comprising PPC, but this time combined only with EMDR. The same databases were also searched, as were the two journals that are not indexed – all with the same search strategy.

No RCTs on EMDR and PPC (see also Appendix 2.12) were identified, although (Schnyder et al 2008 – see below) has reported on an incomplete RCT. Indeed no papers at all were retrieved, although one paper in the *Journal of EMDR Practice & Research* referred to using EMDR as a method of "building resilience" in children, (Zaghrout-Hadali et al 2008), resilience being a recognised factor in PPC (Nishi et al 2010). Zaghrout-Hadali et al (2008), is a small (n=7) case series in which treatment using EMDR took place over four sessions with all subjects in a single group. The paper is retrospectively descriptive. Findings are not viewed critically but two observations are made:

- Despite a second trauma, treatment gains (i.e. reduction of NPC) were retained
- Findings are consistent with Adaptive Information Processing (AIP) theory – the theory widely accepted as underpinning EMDR

…the argument being that because a relapse didn't occur following the second trauma then EMDR must have built resilience.

Overall, Zaghrout-Hadali et al (2008) is a very small scale qualitative review with measures and cause and effect are not proven. Also given that treatment was provided by the authors and with no record of independent rating, it would be difficult to conclude anything other than on the measures used, EMDR was effective at reducing NPC – effectively duplicating the evidence base albeit in a special population.

With the possible sole exception of Zaghrout-Hadali et al (2008), and given the extent of the search strategy, it is clear that there is currently a large gap in the EMDR literature.

In a further attempt to identify EMDR and PPC material, the described matrix strategy was utilised on the online Francine Shapiro EMDR Library found at: http://emdr.nku.edu/ and currently consisting of over 6000 peer-reviewed entries. Because this is an EMDR database it was *only* necessary to search for the matrix terms making up PPC (i.e. without adding EMDR as a search item). Two papers were identified:

- Nijdam et al (2006), a poster presentation, and related conference presentation and
- (Schnyder et al 2008), both relate to the same ongoing study - an RCT not previously listed, which provided results from a comparison between EMDR and Brief Eclectic Psychotherapy with outcomes measurements including the Post Traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun 1996).

Unfortunately the full papers could not be obtained for this review, but it is understood the results of the study showed:

> "…significant increase in posttraumatic growth and a significant decrease in PTSD symptomatology for both treatment conditions" (Schnyder et al 2008)

…so this study suggests that it is not only EMDR that can result in PPC although this cannot be considered from a critical stance.

Two further items of literature are also worth mentioning:

- Foster & Lendl (1996; 2007) have written about EMDR and 'peak performance' i.e. encouraging the best performance possible in an executive coaching situation, which whilst not included in PPC terminology could be seen to overlap with it.
- McKelvey (2009), describes the "Dynamic duo of EMDR and Positive Psychology" (Ibid. p.243) and advocates the use of the 'signature strengths test' (Ibid p.242-3) to identify personal attributes that can form the foundation to PPC and various clinical

‘applications’ accordingly. There is no study involved and there is a dubious assumption made that because EMDR has an evidence base and Positive Psychology has likewise then, albeit unstated by McKelvey, EMDR *and* Positive Psychology must therefore have a database. This conclusion is clearly not correct given the search strategies detailed above.

2.10 Literature search conclusions

It is clear that the literature on PPC and RTA is scant and for those who additionally underwent EMDR, it is non-existent. At face value therefore the best the literature can state is that PPC after EMDR is an unknown quantity.

On one hand, the literature suggests 'mid range' traumas *may* be important precursors to PPC. This is the 'curvilinear' hypothesis. The alternative view is that the type of trauma makes no difference. The only PPC meta analysis indicates it is individual characteristics and the struggle after the trauma that is important in generating PPC. However, if the 'curvilinear' argument is correct, and RTAs can be considered a mid range trauma, then the paucity of material is puzzling particularly given the reasons why RTA trauma should interest researchers.

It would be reasonable to suggest that based on the literature, many factors contribute to or impede PPC, factors which are highly complex, continually changing, idiosyncratic, and interactive within and between themselves.

The literature does seem to confirm the complexity of PPC and its partial overlap with NPC but whether this also applies post EMDR is currently unknown. The literature has shed some light on the process involved in PPC with several of the specific issues featuring in 'Martin's' story in Chapter One such as his belief in himself, coping, probably forgiveness, and certainly wisdom, which seemed to be part of a PPC outcome. So AIP theory seems to have correctly predicted 'learning' and 'understanding'. However, the literature also demonstrates lack of agreement on how PPC should be quantitatively measured.

Some PPC theories suggest an order of events lead to PPC, but again too much knowledge was missing to be certain. Theories did consistently predict NPC after the trauma and therefore potentially before PPC, which seems commonsense anyway.

Part of the problem with 'Martin's story may have been that EMDR, although extremely effective in relation to the reduction of NPC, has, become embroiled in the same psychological perspective that Maslow identified, namely it has focussed predominantly on "the darker meaner half" of human suffering (Maslow 1954). Perhaps the knowledge gap was not surprising at all, but merely an artefact of a 'lop-sided' view of psychological health. However, knowing that a knowledge gap exists is a long way from filling it. The key problem remains that there is no published material that comprehensively accounts for PPC following EMDR. Because of this, there is no guidance for the EMDR trainer or therapist, or for that matter, the client, as to how PPC manifests itself or, for that matters is, or can be, promoted by the therapist.

It would be erroneous to draw the conclusion, purely on the basis of a lack of research evidence, that EMDR is solely a therapy for addressing NPC. Indeed, the inclusion of a standard phase in the basic protocol with the explicit intent of installing a Positive Cognition (PC) suggests that EMDR's focus is on both NPC and PPC. However, installing a PC is one thing, establishing what the effect of the PC having been installed is quite another matter.

It is clear that the main thrust of EMDR literature has been to emphasise its effects at reducing NPC, hence the adoption of EMDR as an effective treatment (see also the earlier discussion on evidence based practice). The conclusion must be that 'Martins' story in Chapter One is not a statistical anomaly rather PPC after EMDR is merely not reflected *pro rata* in the literature.

Arguably nowhere is this more apparent than in Joseph & Linley's (2006) seminal book *'Positive Therapy'* a book intended to identify therapies that produce, or are directly aimed at generating PPC. EMDR is notable by its absence. The same authors argue that a PPC therapy is characterised by its:

> "…defining feature… that the therapist holds with the idea that the client is their own best expert and possesses within them an innate developmental tendency toward growth and fulfilment. As such, this means in practice that the therapist

> should always be following the client's agenda, and seeking to promote their actualising tendency, rather than considering themselves as the 'expert' on the client, and thereby imposing their 'expertise' on the client." (Ibid, p.87)

The 'actualising tendency' was defined by Maslow (1954) as the potential to reach the full psychological height of capabilities and a positive therapy is a client-centred therapy.

According to Joseph & Linley (2006), therapies that meet these defintions include Zen Buddhism, which Brazier (1995) argues is actually a form of positive therapy (i.e. not purely a religion). Joseph & Linley (2006) point out that Carl Rogers's (1957; 1959) 'person-centred approach' embraces their definition and, although widely known as a therapy, is only superficially understood. Existential psychotherapy (Bretheron & Ørner 2004) is also a PPC therapy – and also hints at a phenomenological methodology for its study. Other listings are: Transactional analysis (Stewart 1989); Motivational interviewing (Rollnick & Miller 1995); Solution-focussed therapy (O'Connell 2005); Positive psychotherapy (an approach based on Seligman's 2003, theory of authentic happiness); Well-being therapy (Ryff & Singer 1996) and Mindfulness-based cognitive therapy (Kabat-Zinn 1990).

So does this mean EMDR does not meet Joseph & Linley's definition? A closer look at the definition suggests that it is not the therapy that defines whether the therapy is positive or not, but the therapist's approach and attitude, because:

> "…it is not what the therapist *does* that determines whether a therapy is a good candidate as a positive therapy. Rather it is what the therapist *thinks* that is important (p.79 – original itallics).

So the answer is that EMDR could be a positive therapy, or not, depending on the way the therapist thinks. Judging by its current evidence base EMDR isn't *perceived* as a PPC therapy at present. It is worth noting however, Shapiro (2007a) reminds readers that:

> "EMDR is a client-centred psychotherapy… (and) addreses the experiences that contribute to clinical conditions and those

> needed to bring the client to a robust state of psychological health." (p.68 – content of brackets added)

…but is 'a robust state of psychological health' understood? Arguably therapists, see 'robustness' as a function of resisting NPC e.g. Zaghrout-Hadali et al (2008) reviewed earlier. However, a change of thinking is apparent in Mark Dworkin's book: *EMDR and the relational imperative* (Dworkin 2005), the foreword, by Francine Shapiro, stating:

> "An important contribution of this book is its emphasis on EMDR as a client-centred therapy that attends not only to symptom reduction but also to personal growth". (p..x)

…but where is the research that backs this contention up?

Ultimately then, EMDR is already defined as a PPC therapy – it just needs its therapists to have the right approach and attitude, and the publication of PPC research and, perhaps, an entry in the next edition of *'Positive Therapy'*. In the meanwhile, Linley & Joseph (2004b) conclude the only PPC meta analysis by urging researchers to identify new factors of PPC, to generate comprehensive theoretical models of PPC, and most importantly to investigate clinical applications of PPC research (p.19).

This then is the focus for the intended study in this thesis, which commences with Flick's (2006) emphasis on "it is absolutely essential to formulate a clear research question" (p.111). In this instance there are three such questions:

- What is the lived experience of PPC following an RTA?
- What theoretical explanation might there be for PPC subsequent to an RTA?
- What implications are there for EMDR clinical practice of knowing what the lived experience of PPC is, subsequent to an RTA?

The next Chapter concentrates on *how* the answers are to be obtained.
Please note: the questions this study aims to answer do not seek to establish any causative link between EMDR and PCC. Instead the aim is to understand the phenomenology of PPC subsequent to an RTA and treatment with EMDR.

CHAPTER 3

METHODOLOGY

3.1 Introduction

Methodology – the study of method – is far more than merely a list of the methods used in a given piece of research. It includes the rationale and philosophical assumptions that underpin the study as well as its practical application to that research, in effect the 'who, what, when, where and how' of the study undertaken (Murray & Beglar 2009).

This Chapter is divided into four sections:

Part I: The basics of methodology commencing with identifying an appropriate research design

Part II: The philosophical underpinning of the study

Part III: How the research design was implemented in practice

Part IV: The participants

Part I Effective research design

3.2. Introduction: Obtaining knowledge

Having identified the research questions, the next stage is to address how they should be answered.

The Chinese proverb: “Do not remove a fly from your friend’s forehead with a hatchet.” (Anonymous, quoted in Rees 2001), illustrates the need to choose the right *method* for the research *intention*. In the proverb, the intention is to remove the fly, in the research it is to ask the question: What is the ‘truth’ of the matter? The assumption is that by answering the research questions then truth is accessed. It follows therefore that the methodology to be used stems from how best to answer the research questions, or, what is, as Grbich (1999, p17) asks: “the best tool for the job”?

The method of searching for truth is currently viewed as a dichotomy (Ibid, p.13) – a quantitative method, which stresses objectivity - and a qualitative method, which stresses subjectivity. The following sections of this Chapter will highlight the importance of taking a subjective, and hence qualitative approach in this study despite the ‘dominant regime of truth’ (Foucault 1972; 1980), of looking for truth in objective research. The reasons for the dominance of objectivity are beyond the scope of this study, suffice to say that Denzin & Lincoln (2002a) contend that in relation to a poststructuralist, postmodernist understanding:

> “...there are no objective observations, only observations socially situated… between observer and the observed…individuals are seldom able to give full explanations… all they can offer are accounts, or stories, about what they did and why…” (ibid, p.19)

This stance therefore adopts the position that objectivity is, in effect, an illusion i.e. there is no ultimate truth ‘out there’. Grbich (1999) points out subjectivity has:

> “…been in and out of favour, according to the dominant research design of any given era… (Ibid, p.67)

…and that all research parameters:

> "…are highly contentious and have aroused heated debate over the past 400 years." (Ibid, p.79)

There are other suggested perspectives, e.g. joining objectivity and subjectivity together to form a "transactive account" (Eisner 1991, p.52), and "emotional intersubjectivity" (Denzin 1984, p.138). In subjectivity, contends van Manen (1990),:

> "…one needs to be as perceptive, insightful, and discerning as one can be in order to show or disclose the (phenomenon) in its full richness and in its greatest depth. Subjectivity means that we are *strong* in our orientation to the object of study *in a unique and personal way.*" (Ibid, p.20 - original italics)

...thus indicating the personal resources and effort needed, and that subjectivity is inherently a double process of social interpretation – by researcher and participant – in essence, a joint construction of reality, effectively a description of social constructionism.

Defining qualitative research, however, is more difficult:

> "The open-ended nature of the qualitative research project leads to a perpetual resistance against attempts to impose a single, umbrella-like paradigm over the entire project." (Denzin & Lincoln 2002b, p xv)

The same authors view qualitative research as an interconnected process with three key activities: ontology, epistemology and methodology, (Denzin & Lincoln 2002a), behind which:

> "stands the personal biography of the researcher… who speaks from a perspective." (Ibid, p.18)

The researcher, with this personal biography identified (see Chapter One), utilises research strategies as a form of enquiry. This "bundle of skills, assumptions, and practices" (Ibid, p22), moves the research from perspective to data generation. The next stage, which is "endlessly creative and interpretative" (Ibid, p.23) is the interpretation of data, which ultimately results in "…the public text that comes to the reader." (Ibid.)

So, in qualitative research, the researcher is part of the research process itself, and the methodology necessarily requires a detailed examination of how *that* particular research was conducted by *that* particular researcher.

A convenient method of integrating proposed research with this 'personal perspective', has been proposed by Mason (2002), consisting of five questions (see Table 3.1), which constitute "effective research design" (Ibid, p.13).

1. What is the social reality of the phenomena to be investigated? (i.e. the ontology)
2. What might represent knowledge or evidence of the social reality to be investigated? (i.e. the epistemology)
3. What broad area of research is the research concerned with?
4. What is the intellectual puzzle and the specific questions to be explored?
5. What, and for whom, is the purpose of the research?

Table 3.1:
Mason's five questions to generate an effective research design (adapted from Mason 2002, pp.13-8)

Mason's first two questions are directed at the researcher, because:

> "usually a research topic will express something of the researcher's ontological or epistemological position" (Ibid, p.17).

The following sections address each of Mason's five questions.

3.3 Effective research design: Mason's five questions

3.3.1 The ontological position

'Ontology', derived from the Greek: *όν,* genitive *όντος:* of 'being', and *λογία*: 'science, study, theory'; is the philosophy of being, existence or reality in general (OED 2001, p.996).

Mason's (Ibid) first question asks the researcher what they:

> "...see as the very nature and essence of things in the social world" (p.14).

In 'Martin's' case, the author saw the 'very nature and essence' of Positive Psychological Change (PPC) as embedded in 'Martin's' story. Furthermore, this ontology existed in a social, cultural and time context (see Table 3.2), and consisted of information indicating a specific type of psychological change that was not congruent with the author's notion of 'normal' change given his role as a therapist in the 1990's, his training and his instructions to conduct 'Martin's' treatment. Put simply, the 'embedded something' was indicative of contextually incongruent change – and the reason why the research topic expresses something of the author, because as Festinger's (1957) theory of cognitive dissonance predicts, efforts will be made to reduce dissonance or, in this case reduce the contextually incongruent change.

- The social reality of PPC exists in traumatised people who have a specific story, which expresses a specific type of change
- Relevant stories need interpreting to extract the social reality of PPC
- The overall ontology exists within a social, cultural and time framework

Table 3.2:
The general ontological characteristics of the proposed study (adapted from Mason 2002, p.14-6)

3.3.2 The epistemological position

'Epistemology' derived from the Greek: *ἐπιστήμη*, 'knowledge, science', and *λογία*: 'science, study, theory'; is the philosophy of knowledge (OED 2001, p.480), in essence: 'how and why' do we know what we know? In this instance, superficially, the answer is by comparison with the author's prior knowledge of 'Martin' and with other clients.

Audi (2003, pp 190-1) has shown that judgement (i.e. knowing) can also be based on epistemic chains of reasoning in which knowledge is based on guesswork, or, by extension on biased thinking, inaccurate assumptions or factually incorrect information. In 'Martin's' case, the author 'believed' the story told. Why?

The answer was no reason was apparent not to believe 'Martin'. For instance, 'Martin's' non-verbal communication was congruent with the verbal content of the story and the story seemed to be an accurate and convincing reflection of facts. This raises several questions e.g.:

- How accurate was the author' recall of 'Martin's' story?
- How biased was the listening – and the subsequent reporting?
- How much could be accurately heard given the background noise of an express train?
- How precisely was the story judged?

For obvious reasons the story was not recorded nor was it appropriate to do so thus in-depth analysis of the points above is not possible. However, the story was judged against the author's prior knowledge of 'Martin' with the expectation of congruency. The fact that the story was convincing and believed yet incongruent with expectations, again highlights why the research topic expresses something of the author.

The author's epistemological position has developed over many years and is discussed in detail in Appendix 3.1, but can be categorised as a "synthetic or magpie approach" (Sim & van Loom 2004). This approach 'borrows' elements of many other epistemological approaches blending

them into an idiosyncratic method of 'knowing' – in the author's case, one that has changed over the years influenced by a myriad of factors.

3.3.3 The broad area for study

Mason's (2002) third question, proposes the broad area should be an extension of the researcher's ontological and epistemological position. This is indeed the case in this study (see also Appendix 3.1).

3.3.4 The intellectual puzzle

Mason's (Ibid) fourth question stresses the importance of the intellectual puzzle in formulating the specific research questions.

The literature search revealed the intellectual puzzle to be a mixed Developmental and Mechanical one (see also Blaikie 2000). To answer these puzzles, it is necessary to answer the specific questions in Table 3.3.

The Developmental Puzzle:

- What is the lived experience of Road Traffic accident (RTA) victims who have subsequently been through a course of Eye Movement Desensitisation & Reprocessing (EMDR) in which PPC has been 'identified'?
- How does this experience develop, and
- How do victims make sense of these experiences?

The Mechanical Puzzle:

- Utilising the lived experience of PPC subsequent to an RTA and EMDR, can a theory of PPC be created that can be used specifically to inform EMDR practice, and
- What might be the resultant implications for EMDR practice?

Table 3.3: Questions arising from the Intellectual Puzzle (adapted from Mason 2002, p.17-21)

Two points arise:

- 'Development Puzzle' answers will be descriptive in nature. These descriptions are required to answer 'Mechanical puzzle' questions.

- The 'Mechanical Puzzle rests on the assumption that it is beneficial to promote PPC. In this study, it will be taken as an *a priori* position that it is. Whether it is, or not, is beyond the scope of this study, but will be discussed briefly in Chapter Seven.

3.3.5 What (and for whom) is the purpose of the study?

Mason's (2002) final question stresses the importance of considering 'purpose' and not assuming that the standard academic answers – e.g. the search for knowledge for knowledge's sake - are necessarily those that apply. This study is primarily intended to investigate a 'knowledge gap', and in so doing, contribute both to relevant theory underpinning EMDR and the practical application of EMDR. The research is definitely *not* intended to promote either of the following:

- That in any way, the terrible tragedies continually experienced as a result of psychological trauma are in some way legitimately reduced or negated *to any degree whatsoever*, because, correctly or otherwise, the potential exists to 'offset' those experiences with PPC (cf. the comment on public perception potential in 'Sampling and recruitment' in this Chapter).

- The 'medicalisation' of new knowledge obtained via this research. There is no intention of extending the remit of the healthcare professions, or replacing any term representing PPC either with a 'diagnosis', or by aiding the 'taking over' of responsibility for PPC by healthcare professionals.

3.4 The wider implications of this study

The author is aware the 'statement of purposes', in the previous section, does not cover all eventualities and that study findings have the potential for a range of implications other than those directly related to answering research questions. For instance where findings support or refute 'currently accepted truth', or, in Foucauldian terms: a 'regime of truth' (Foucault 1994 see also Illich 1975/1995).

Maslow's (1954) contention that psychology is too biased toward the negative:

> "The science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height. It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, and that, the darker, meaner half." (Maslow 1954 p.354 e.g. as cited in Linley et al (2006, p.5)

…highlights the current dominant regime of truth concerning health, which Maslow contends is squarely rooted in the study of NPC, and its reduction. The current regime of truth appears to have resulted in a '*Tyranny of Health'* (Fitzpatrick 2001) with Le Fanu (1999) pointing to an 'abuse' of medical optimism. Broadly therefore, the wider implications of findings of this research could be seen to affect the regime of truth, by:

- Appearing to 'prop-up' the status quo because the *unintended* points have been promoted above any findings that contradict the current regime of truth
- Running counter to the status quo because findings are seen to support Maslow's (1954) contention of the 'lop-sided' view of mental health, and thus add weight to Sinaikin's (2004) highly critical commentary on the Diagnostic and Statistical Manual of Mental Disorders (DSM) (e.g. APA 2000) with its "self-certainty of the DSM model" (Sinaikin 2004, p.207), i.e. slavish adherence to the official diagnostic categories of DSM, which judges the effectiveness of attempts to relieve suffering on the basis of an

almost total subservience to quantitative research to relieve suffering

- Generating an acknowledgement that far from having a thorough understanding of psychological topics including trauma, there is in fact:
    - A huge knowledge gap leading to
    - A huge practice gap (as identified by Linley & Joseph 2004a, pp.6-8), and requiring
    - An enlightened view of evidence-based practice based upon a 'total beneficial outcome' consisting of both a reduction of NPC *and* an optimisation of PPC, in this case, facilitated by EMDR

Overall, however, the author stresses the *implications* rather than *conclusions* as a highly specific study based on a small sample, which cannot lead directly to generalisable conclusions.

3.5 Summary

In Part I, the author has used Mason's (2002) questions to develop an effective research design:

- The ontological position points to the need to know about a particular phenomenon and its social reality embedded within a particular type of story
- The epistemological position points to a an idiosyncratic evidence base located within a 'synthetic or magpie' approach to knowing
- The broad area of the study is commensurate with both the ontological and epistemological positions
- The intellectual puzzle points to the need to acquire new knowledge rather than test hypotheses
- The purposes of the study point to its boundary areas and some implications that are uncertain

In essence, there is a need for qualitative research based upon studying the social reality (i.e. phenomenology) of PPC via accessing stories of change of a particular type so as to answer three research questions.

With this in mind, the author turns to the philosophy underpinning Phenomenology.

Part II Philosophy

3.6 Introduction

Part II details the philosophical underpinning to the study, and critically reviews:

- Phenomenology
- Hermeneutic phenomenology
- Interpretative Phenomenological Analysis (IPA)

The reasons for choosing IPA are also discussed.

3.7 Phenomenology

'Phenomenology' is derived from the Greek: *phainómenon*: "that which appears", and *λογία*: 'science, study, theory'. In other words, phenomenology is the study of an observable event, a research approach that concentrates on the study of consciousness and the objects of direct experience (OED, 2001 p.1071).

Studying a phenomenon - in this case one temporarily called PPC – suggests, by definition, phenomenology. Moran (2000) states that:

> "Phenomenology is best understood as a radical, anti-traditional style of philosophising, which emphasises the attempt to get to the truth of matters, to describe *phenomena*, in the broadest sense as whatever appears in the manner in which it appears, that is as it manifests itself to consciousness, to the experiencer" (Ibid, p.4 – original italics)

…in other words, a 'modern day' method of achieving knowledge that parallels the pre-positivist method of establishing knowledge that broadly existed from the days of Aristotle up until The Enlightenment.

Where research centres on the person doing the experiencing, then the nature of the observing is *direct experience*, effectively a definition of the phenomenon's lived experience or "first-person experience" (Ibid, p.15).

> "Phenomenological inquiry is not unlike an artistic endeavour, a creative attempt to somehow capture a certain phenomenon of life in a linguistic description that is both holistic and analytical, evocative and precise, unique and universal, powerful and sensitive."(van Manen 1990 p.39)

Understanding the meaning of the lived experience requires no 'outside' interference that may distort the quality of that meaning through the imposition of externality (i.e. as in a quantitative and thus external framework for research). Even a qualitative methodology can, however, distort the lived experience if the researcher's biases make for selective reading, selective promotion of content, or selective understanding.

However, by a process of bracketing biases (see Appendix 3.3), verification and dissemination via peer review, it is hoped that a qualitative approach can reveal the phenomenon in its purest 'lived form'. To describe this bracketing of biases, Husserl used the word epoché, a word originally used by the Sceptic philosophers and meaning 'cessation' (Moran 2000, p.148) or 'abstention'. According to Husserl, we are to 'bracket' or cease from positing the existence of the natural world around us. That is, we put out of action the general thesis of the everyday 'natural' standpoint, our background presupposition that there exists a world independent of our experience. We will then be in a position to describe 'pure' consciousness, abstracting from its embeddedness in the world of nature. By carrying this out we abandon the 'natural' attitude, which takes the world for granted and come to adopt instead the phenomenological, or what is called the "transcendental", attitude (Ibid).

3.7.1 A brief history of phenomenology

Although a review of the historical roots of the phenomenology *movement*, usually commences with Edmund Husserl – the 'Father of Phenomenology' – the term, 'phenomenology' dates from the mid 18th century, employed by the likes of Lambert, Herder, Kant, Fichte and Hegel (Moran 2000, p.6, quoting from the entry: *'Phänomenologie'* in Ritter (1974).

Lambert used the term to mean 'Science of Appearance', and Kant, inspired by Lambert, used 'phenomenology' on several occasions, writing 'Critique of Pure Reason' (Kant, 1781/2003), and also devoting an entire section to phenomenology in his 'Metaphysical Foundations of Natural Science' (Kant, 1786/2004).

Hegel in turn, criticised Kantian philosophy for merely being "a phenomenology of mind" (Wallace & Miller, 1971), whilst Fichte also used the term in *'Wissenschaftslehre'* to relate to the manner of deriving the world of appearance from consciousness (Moran 2000, p.7). Hegel's 'Phenomenology of Spirit' (Hegel 1807/1977), however, was overtaken by the more positivistic mood of the early 19th century. The subsequent emergence of neo-Kantism in the mid 19th century:

> "…sought to protect philosophy against the encroachment of the positive sciences" (Moran 2000, p.255)

…but was merely a false dawn as "the collapse of Germany after WW1 was mirrored in the collapse of Neo-Kantism" (Ibid, p.256), whilst Heidegger commented that Husserl had fallen "into the clutches of neo-Kantism between 1900 and 1910" (Heidegger 1929/1962, p.171-2). It was during the first years of the 20th century, now as a philosophical movement, that phenomenology emerged through Edmund Husserl, although he attributed his inspiration, not to Lambert or Kant, but principally to Bretano, Mach and Stumpf (Moran 2000, p.8 and p.106), although Bretano had first used the term 'phenomenology' in 1889 and Mach in 1894 - well over 100 years after Lambert.

The publication of Husserl's second book of *'Logical Investigations'* (Husserl, 1901/1970) – dedicated to Stumpf – explicitly stated, "phenomenology is descriptive psychology" (Moran 2000, p.106; Husserl 1901/1970, p.262). Other than descriptive, Husserl's view was that phenomenology presupposed nothing and provided intuitive evidence through reflection (Moran 2000, p.106-7 & 110-21). Above all, *'Logical Investigations'* is notable for the attack on the absorbing of empirical logic into psychology – or psychologism.

There are considered to be four, overlapping, branches of phenomenology:

The' first branch': *Realist* phenomenology, emphasies the search for the true 'essences' of human actions, motives and self (Embree 1997).

The second branch, *Constitutive* phenomenology, extended the range of phenomenology to the philosophy of the natural sciences through Husserl's *'Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie I'*, in 1913. (Husserl 1913/1998). It focuses on reflections on phenomenological method, particularly the method of transcendental phenomenological epoché to remove biases (Ibid – see also Appendix 3.3).

Next came *Existential* phenomenology, concerned with action, conflict, desire, finitude, oppression, death, politics, ethnicity, gender and old age. It is often traced back to Martin Heidegger's *'Sein und Zeit'* ('Being and Time' - Heidegger 1927/2008 - see Ingwood 2000 for a commentary), which was an analysis of human beings as a means to a fundamental ontology that went beyond the regional ontologies described by Husserl (Ibid.)

The fourth branch: *Hermeneutic* Phenomenology also flows directly from Heidegger's *'Sein und Zeit'*, but is most closely associated with Hans-Georg Gadamer's '*Wahrheit und Methode'* (Truth and Method) (Gadamer 1975b). Gadamer's aim was to uncover the nature of human understanding and interpretation, arguably very important to the specific research undertaken in this thesis. Ortiz-Osés, a student of Gadamer, is known for his symbolic hermeneutics – particularly through '*The Sense of the World*' (Ortiz-Osés 2008).

Embree (1977), predicts a fifth branch, *Planetary* phenomenology, suggesting issues such as ecology, gender, ethnicity, religion, continuing concerns with aesthetics, ethics, philosophy of the human and natural kinds of science, politics, and particularly communications via the Internet. This last item could be described as the phenomenology of 'acquisition of global knowledge through cyberspace'.

3.7.2 Some criticisms of phenomenology

The history of phenomenology might suggest an orderly development and refining of the same phenomenological concepts, however, that is misleading because although agreement in some areas can be identified, development has largely occurred via a wide range of *disagreement* in the form of critiques. Indeed, Moran's (2000) book *Introduction to Phenomenology* spends the bulk of the text examining the criticisms and counter-criticisms of phenomenology:

> "…It is this very diversity and conflict among the practitioners of phenomenology that leads one from an interest in the general considerations of phenomenology to the study of the

> thought of the individual phenomenologists themselves." (Ibid, p.22)

Moran (Ibid, pp.20-1) succinctly points to two broad critique categories:

- An *internal* critique of phenomenology, by phenomenologists - broadly leading to the chronology outlined in the previous section of this Chapter

- An *external* critique of phenomenology from those outside of phenomenology altogether.

Some of the key criticisms from either side are:

> "…phenomenology has often been portrayed by its critics as an appeal to a long-refuted form of introspection, or to mystical, irrational intuition, or as promoting an unregulated rhapsodising on the nature of lived experience, or as seeking to repudiate science and the scientific view of the world, and so on." (Ibid, p.14)

Other criticisms of phenomenology relate to the practicalities of the suspension of all empirical and metaphysical presuppositions through the process of bracketing, i.e. the phenomenological epoché, and Heidegger particularly, criticises this as effectively being impossible (see Cerbone 2008, pp.28-9). Meanwhile, Grbich (1999) points to the problems of:

> "…access to concealed meanings (and) the tendency for phenomenology to produce only superficial narratives of social phenomena." (p.170)

…and finally is the criticism of the use of the word 'phenomenology' itself:

> "…the problem of clarifying accurately the nature of phenomenology has been exacerbated by the application of the term to any vaguely descriptive kind of philosophising, or even to justify proceeding on the basis of hunches and wild surmise." (Mason 2002, p.14)

…in other words what was seen as method of supporting science in a radically alternative and non-empirical way has become difficult to define *precisely because* of its use in a radically alternative and non-empirical

way. Furthermore, as was indicated by Embree (1997) in the previous section, we have not reached the end of the process of ‘defining’ anyway. Arguably then, all criticisms can presumably be seen as shaping the every nature of phenomenology itself.

3.8 Hermeneutic phenomenology

> Hermeneutics is the art of avoiding misunderstanding
> Friedrich Schleiermacher (1768-1834)

Hermeneutics, derived from the Greek: *hermeneuō,* meaning 'translate' or 'interpret' (OED, 2001 p.665). The word, used by Aristotle in *'De Interpretatione'*, is etymologically related to the Greek god Hermes, the messenger of the Gods, and may also be a corrupted version of the ancient Hebrew for Mount Sinai where Moses interpreted the 'haEmes' (English phonetics), literally 'the Truth' of the Jewish law (see Ramm 1999).

Hermeneutic phenomenology is thus the phenomenology of interpretation and, is associated with Heidegger, but primarily with Gadamer. Other key authors include Paul Ricœur, Max van Manen, and Andres Ortiz-Osés.

Heideggerian phenomenology has a basis in the nature of human existence, which he terms Da-sein. This is not easy to translate into English, and the 'Stambaugh translation' (Cerbone 2008):

> "…inserts a hyphen between the two component terms '*da*' meaning 'here' or 'there' and '*sein*' meaning 'being'" (p.4)

…so as to make a distinction between Heidegger's use of the word *Dasein* and the standard German word (Ibid). Thus, Da-sein, is a being who has an understanding of being (Ibid, p.5) – it therefore overlaps with a human-*being* (Collins & Selina (1998, p.51). That "understanding" comes from *interpretation of being* hence hermeneutism is the study of understanding (Ibid, p.57).

Gadamer's *Truth and Method* elaborated 'philosophical hermeneutics', which Heidegger had started but had not completed (Gadamer 1975b). He argued, (against Schleiermacher and Dilthey), that people have a 'historically-effected consciousness' (*wirkungsgeschichtliches Bewußtsein*) (Ibid) and that they are embedded in a history and a culture (their contexts) that shaped their consciousness (Honderich 2005, p.327). Honderich cites the interpretations of Plato as being 'read' differently

down the ages as an example. As regards the 'medium' involved in hermeneutics, Gadamer argued (like Schleiermacher) that nothing exists except through language (Gadamer 1975b, pp383-484). Gadamer also saw conversation as crucial to understanding and that reader and articulator required a 'fusion of horizons' (Ibid, p.390).

Subsequently Ortiz-Osés has applied the principles of Jungian-based symbolism to hermeneutics. He has proposed that a symbolic understanding of the world, is that *meaning* (i.e. derived from words) is the symbolic healing of the real injury (Ortiz-Osés 1976).

3.8.1 The hermeneutic cycle (HC)

A central component of hermeneutics is the *method* of understanding a text, and thereby interpreting its meaning. This was seen by Heidegger as a circular process in which to understand a phenomenon's being (ontology) requires the very mode of being, yet to be defined, to have already been defined (Blattner 2006, p.22). At face value this looks like an impasse, but it merely indicates that to understand the whole of the phenomenon then reference must be made to the parts *and vice versa*. Furthermore, the interpretation obtained can only be valid in its cultural and historical context as per Gadamer's principle.

Gadamer, in developing Heidegger's concept of the HC, argued that understanding was *linguistically* mediated through conversations with others (Gadamer 1975b, pp383-484). This reality-exploration then resulted in a new understanding of the phenomenon thus creating a circular process of interpretation. Gadamer viewed this as an iterative process developed by means of exploring the detail of the *existence* of the phenomenon (Gadamer 1975a; b):

> "…like conversation, interpretation is a circle closed by the dialectic of question and answer." (Gadamer 1975b, p.391)

3.8.2 Some criticisms of hermeneutic phenomenology

As with other forms of phenomenology, hermeneutic phenomenology also has its critics. Indeed, Heidegger's criticisms of Heidegger are found in his later writings in which:

> "…he abandonded many of his earlier views especially on the centrality of Da-sien…" (Honderich (2005, p.375)

Rudulph Bultmann (1884-1976) was a protestant biblical hermeneut probably best known for his 'form criticism' method of biblical deconstruction. Bultmann criticised Heidegger's phenomenology, according to Chryssides (1985, p.28) in several ways, principally Bultmann doubted it was believable that a person could achieve his being in the world ('Da-sein' in Heidegger's terminology), merely by an act of reflection or for that matter be told about the 'nature' of man in order to realise it (Bultmann 1984).

Gadamer also criticised Heidegger, although apparently not openly and not till later in life. Gadamer's main criticism was Heidegger's concept of intersubjectivity (see Coltman 1998) and whether or not it was truly possible to arrive a position in which multiple subjectivities actually resulted in objectivity.

Perhaps the main critic of hermeneutic phenomenology, and Gadamer in particular, is Jürgen Habermas who has highlighted the conservatism of hermeneutics as it stands. He has argued that the focus on tradition appears to minimise and undermine possible social criticism, whilst he also criticised Marxism for missing the critical dimension. Habermas' alternative concept of 'lifeworld' (Finlayson 2005) incorporates interaction and communication, as well as labour and production. Habermas views hermeneutics as a single dimension of critical social theory.

3.9 Interpretative Phenomenological Analysis (IPA)

Smith (1996) introduced a new qualitative methodology, IPA, belonging to the hermeneutic school of phenomenology as a method of attempting to resolve the, then, current debate between the social cognition and discourse analysis paradigms:

> "It may prove useful to look at an interpretative phenomenological approach as being able to mediate between the opposed positions of social cognition and discourse analysis." (p.264)

Social cognition focused on a radical move away from an observable externality to a focus on inner mental states. It retained, however, the quantitative paradigm associated with observability by applying the same 'objectivity' to the inner world:

> "…it assumed that the data collected, numerical or verbal, reflects either directly or indirectly the cognitive activity of the participants" (Ibid, p.262).

Social cognition, which is based on the premise that verbal reports indicate underlying cognitions, received a "radical and explicit attack" (Ibid), from 'Discourse Analysis' (Potter & Wetherill 1987). These authors insisted that what people say is contingent on context (see also Smith 1996). The two approaches were therefore criticisms of each other. IPA was, in effect, a compromise with roots in phenomenology, with its Husserlian philosophy (Smith & Osborn 2003), and symbolic interactionism (Smith 1996; Brocki & Weardon 2006) with its roots in Dewey's philosophical rejection of the positivist paradigm in the USA in the 1930's.

Symbolic interactionism considered meanings allocated to events by individuals were of paramount importance and that these meanings were only accessible through interpretation and that meanings also involve social interactions (Smith 1996). IPA by virtue of this interpretative cornerstone is strongly linked to the hermeneutic tradition (Palmer 1969; Brocki & Weardon 2006). IPA has been described as:

> "…a distinctive approach to conducting qualitative research in psychology offering a theoretical foundation and a detailed procedural guide. As such, it has been utilised in a burgeoning number of published studies (Chapman & Smith, 2002)." (Brocki & Weardon 2006. p.87-8)

From the outset, IPA was considered:

> "…intellectually connected to hermeneutics and the theories of interpretation… and combines an empathic hermeneutics with a questioning hermeneutics." (Smith & Osborn 2003, p.51)

One fundamental assumption in IPA is that humans self-reflect (Smith Flowers & Osborn 1997; Chapman & Smith, 2002). The intention of IPA is to explore this self-reflection and form an understanding of the individual's understanding. This is achieved by investigating an individual's experience, understanding, perceptions and idiosyncratic views (Reid, Flowers, & Larkin, 2005). By virtue of focusing on an 'understanding processes' it is a social cognition paradigm, but IPA is also phenomenological because it doesn't seek an objective understanding of 'reality out there' but of a subjective understanding (Flowers, Hart, & Marriott, 1999), as well as recognising the dynamic nature, i.e. constantly evolving nature, of research (Smith, 1996).

IPA is a complex interactive process because accessing a participant's world of understanding is made more difficult by virtue of the researcher's own understandings and biases (Smith, Jarman, & Osborn, 1999; Smith 1996), whilst at the same time it is acknowledged that the individual participant's *abilities* (Brocki & Weaden 2006, p.97 term this "eloquence") to express their thoughts and experiences affect interpretations (Baillie et al 2000) on top of which are the researcher's analytic and reflective abilities.

Whilst IPA is complex, it is also idiographic, i.e. concentrating on the individual participant. There is also a clear focus on participants' meaning-making. A straightforward way of conceptualising IPA is shown in Figure 3.1:

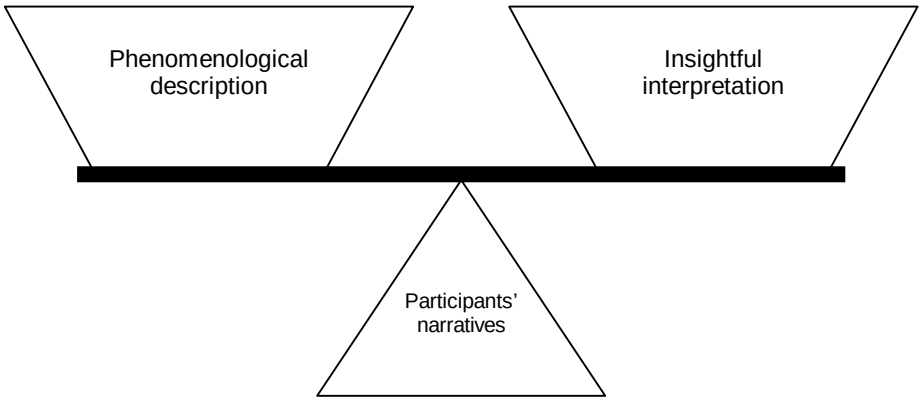

Figure 3.1: A diagrammatic representation of IPA as a 'balance' of participants' narratives between describing a phenomenon and insightfully interpreting the phenomenon

3.9.1 Some criticisms of IPA

Willig (2009, pp66-8) has identified five 'limitations' of IPA:

- Talking about an experience may not be describing the experience,
- Availability of language for a participant means language precedes an experience and thus shapes the experience itself
- IPA may result in excluding participants who do not have appropriate language skills and thus incorrectly point to their experiences being dismissed
- An exclusive focus on appearances, without causal context – not seen as pat of IPA – "limits out understanding of phenomena" (Ibid, p.68)
- IPA is concerned with "cognition" (Ibid, Smith 1996) and Willig argues this implies a Cartesian world view (Willig 2009. p.68), which is actually incompatible with "some aspects of phenomenological thought" (Ibid)

…presumably meaning that any form of language based investigation – not just IPA – implies the same 'limitations'.

3.9.2 Why and how IPA was chosen for this study

Having decided that qualitative research was required, the next stage was to consider which qualitative research paradigm would best assist in answering the research questions. Originally consideration was given to both grounded theory and discourse analysis. However, grounded theory was ruled out almost immediately because both versions of the paradigm (the Glaserian and Straussian) were seen as involving "obvious and subtle positivistic premises" (Charmaz 2000, p.510). Discourse analysis *was* considered because of its link with Michel Foucault, his book *The Archaelogy of Knowledge* (Foucault 1972), and the author's epistemology discussed earlier. However, it was decided that it was not possible to be certain – or wise to pre-judge – that PPC was solely an artefact of speech. Another reason for being cautious was that the author was dissatisfied by Tedeschi & Calhoun's Transformation Theory (TT) theoretical model of explaining Post Traumatic Growth (PTG) and therefore intended to investigate just how 'cognitive' PPC really was. This final point suggested a more flexible approach to interpretation was required than seemed possible with discourse analysis.

Ultimately it wasn't theoretical considerations that resulted in using IPA, but an entirely different reason.

A fortuitous meeting with another researcher, (Hefferon 2007) who was currently using IPA herself, underlined how flexible the approach was for a complex area of study. Smith & Osborn (2003) describe IPA as:

> "…especially useful when one is concerned with complexity, process or novelty." (Ibid, p.53)

The current study can be argued to include all three of these criteria and consequently IPA was chosen.

In outlining the practical application of IPA, Smith & Osborn (2003) describe it as:

> "…a two stage interpretation process… a double hermeneutic… which combines an empathic hermeneutics

> with a questioning hermeneutics (and is) thus consistent with its (IPA's) phenomenological origins" (p.51 – contents of brackets added).

Brocki & Weardon (2006) describe the aim of IPA:

> "…is to explore in detail the processes through which participants make sense of their experiences, by looking at the respondent's account of the processes they have been through…" (Ibid, p.88)

IPA was chosen, therefore, because it was fundamentally a *framework* i.e. it imposed nothing else on the data analysis process, and thus addressed the concern identified. It was also selected for its methodological strengths summarised in (Table 3.4).

- Not considered 'mysterious'
- Is highly accessible
- Explanations use easily comprehendible language with straightforward guidelines
- Is flexible and inductive lending itself well to the types of research questions in this study
- Allows for different levels of interpretation
- Doesn't require a theoretical pretext
- Is compatible with existing theoretical frameworks

Table 3.4: Strengths of IPA,
adapted from Brocki & Wearden (2006, pp.100-1)

3.9.3 IPA: once chosen, the case against computer software

As regards the data analysis process, St. John & Johnson (2000/2004) have recommended:

> "The intelligence and integrity that a researcher brings to the research process must also be brought to the choice and use of tools and analytical processes. Researchers should be as

> critical of the methodological approaches to using qualitative data analysis software as they are about the fit between research question, methods, and research design" (Ibid, p.393).

As a direct result of this, the author chose to manually analyse the data thus not requiring computer software at all. The rationale for doing this was that by using computer software, there was an implicit introduction of other people i.e. computer software programmers, into the research process. Arguably, computer software, no matter how proficient it is at processing data, gives the appearance of interference in the phenomenological process, which is then no longer solely between the researcher and the participant.

It would seem that for the sake of speed and convenience, the research process is asked to consider the introduction of intermediary and unknown parameters, with the additional feature of a symbolic spectre of quantitative research with its external objectivity. So the search was thus on to find a data analysis method with as little outside interference to the research process as possible – hence manual analysis.

3.10 Summary

Part II has examined the philosophical underpinning of the study commencing with phenomenology and focussing down on IPA. Part III details the practical application of IPA in this study.

Part III Methodology in action

3.11 Introduction

Part III, concentrates on the practical application of the Methodology, which was guided both by the principles underpinning IPA as discussed by Smith (1996) and critically reviewed across fifty-two IPA studies by Brocki & Wearden (2006).

3.12 Preliminaries

3.12.1 Funding research

Arguably the first component of the practical application of the Methodology was the organisation of the appropriate funding. Funding research is often an undervalued process and yet it provides a guide to "realistic project planning" (Flick (2006, p.139). See Appendix 3.2 for a summary of this study's funding.

3.12.2 The phenomenological epoché in this instance

Given the nature of the qualitative study, the second component was the phenomenological epoché stemming from Husserl's later thoughts on phenomenology (Cerbone 2008, p.18) and re-emerging in Gadamer's *Truth and Method* although this time with recognition that even 'bracketing' such biases would not be sufficient to get to the 'untainted essence' of the phenomenon involved:

> "There is undoubtedly no understanding that is free of all prejudices, however much the will of our knowledge must be directed toward escaping their thrall." (Gadamer 1975b, p.484)

…that does not mean that a phenomenological epoché is of no consequence. It does at least 'flag up' the prejudices that exist (see Appendix 3.3). Furthermore, it could be argued that just because a topic is bracketed, it doesn't mean that it is somehow 'banned' from appearing in the final list of themes.

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3.13 Qualitative interviewing

Mason (2002) acknowledges that interviewing is one of the commonest strategies associated with qualitative research and considers there is no such thing as an *unstructured* interview:

> "…this (is) a misnomer because no research interview can be completely lacking in some form of structure" (Ibid, p.62).

The general characteristics of *semi*-structured interviewing are shown in Table 3.5.

- An interactional exchange of dialogue
- Informality or 'conversations with a purpose' (Burgess 1984)
- Thematically centred biographical or narrative approach
- Pre-supposes knowledge is situated and contextual

Table 3.5:
The general characteristics of qualitative interviewing
(adapted from Mason 2002, p.62)

Mason points to various additional questions that need to be addressed in relation to qualitative interviewing: specifically *why* is qualitative interviewing indicated? Mason contends (Ibid, p.64) that the answer needs to include whether the phenomenon being studied is contextual and/or idiographic. It is precisely because the phenomenon, PPC, *is* contextual *and* idiographic that interviewing is indicated.

The following sections detail the development of the questions to be asked at the planned interviews.

3.13.1 Development of the semi-structured interview questions (SSIQs)

On the assumption that 'positive change' may occur at *any point pos*t-RTA, the author decided from the outset the final version of the SSIQs required as 'wide a phenomenological net' as possible to 'capture' PPC. Merely asking about PPC would make the fundamental assumption that *only* those questions could access the essence of the phenomena. Because of another assumption i.e. that Negative Psychological Change (NPC) *might* provide clues about PPC it was deemed necessary to ask about NPC as well. These arguments could have extended a*d infinitum*, so to place boundaries on the 'phenomenological net' it was decided that some questions relating to pre-RTA would also be appropriate and some on the future. It was considered that beyond this, either or both of time resources and feasibility would be strained.

Questions needed to be respectful and sensitive of personal experiences as well as sufficiently probing to provide every opportunity for all aspects of the phenomenon to be 'revealed' yet flexible enough to allow facilitation of expression in as many circumstances as possible. They also needed to be neither upsetting nor irritating and to be as open-ended as possible. This was not at all easy, and Chapter Eight includes reflections on the eventual effectiveness of the final version of SSIQs.

The whole process of developing the SSIQs took a year to complete and involved six versions. The method by which the versions developed, what and who were involved is detailed in Appendix 3.4. The questions, and particularly the wording, were affected by various issues, not just the assumptions stated above, but the various terminology involved, as well as being contextually 'shaped' by the author's own progression through the research process.

With the various stages completed, the sixth version of SSIQs went forward firstly to ethical submission, and once that was granted to the qualitative interviewing stage.

3.13.2 The pilot interview

As can be seen in the development of the SSIQs (Appendix 3.4), the questions were piloted early in their development.

Quite fortuitously a close neighbour of the author, who had been involved in an RTA some years earlier, offered to trial the interview. The neighbour had not had EMDR for his experience but, although retired for some years, his background was in mental health nursing – the same as the author.

The following points were learnt from the pilot study (see Appendix 3.4 SSIQ version 1 (v.1):

- A voice-activated portable tape recorder was used. It was not really possible given the involvement in the interview, for the author to monitor proceedings. This automated method of recording resulted in unexpected problems, as the recorder tuned itself into the sound of the central heating system - not the interviewee's voice.

- The questions did seem awkward, but that had been anticipated anyway. However, the sequential nature of the questions did facilitate recall of events and this was duly noted as being helpful.

To solve the voice-activated tape recording problem, a Sony MZ-RH910 minidisc recorder with an omni-direction 'button' microphone was purchased. Each minidisc had 10.25 hours recording capacity so there would be no question of interviews being disrupted by replacing with a new disc etc. In addition the recorder had inbuilt methods of monitoring recordings.

So as not to be distracted by technology in the interview itself, a combined 'technology crib' and 'procedure' sheet for the interview itself was created (see Appendix 3.5). The sheet was then laminated for ease of use.

Unfortunately, and unbeknown to the author at the time, there was a design flaw in the recorder in that it was possible to record an interview

and yet corrupt the entire recording accidentally. The recording still existed but could not be accessed. There was no inbuilt protection mechanism and enquiries at a later date revealed there was no software in existence to retrieve the recorded material. To get round this problem the author reverted to a cassette recorder (non voice-activated type) for the final five interviews. As regards the recorded-yet-inaccessible interviews – the author destroyed the minidiscs involved immediately.

The original plan was to repeat the pilot interview after the final version of questions had been developed. However, what was to start as a pilot interview of the final, version of the SSIQs (SSIQ v.6), turned out to be so interesting, and successful that it was decided that the interview should become the first interview of the main study.

3.13.3 The final version (v.6) of the SSIQs

Flick (2006) contends that research questions:

> "…are like a door to the research field under study… essential criteria for evaluating research questions include their soundness and clarity, but also whether they can be answered in the framework of given and limited resources…" (Ibid, p.111)

The same principal was applied to the SSIQs, namely questions:

- Were considered sound (interpreted as relevant and ethical), as well as clear and precise, yet open
- Were considered flexible enough to allow for further probing as appropriate
- Could be answered in the time available, with the recording equipment available and were not too taxing on the participants' concentration, or their time
- Largely adopted a "How" or "What" format, particularly suited to IPA (see Smith & Osborn 2003)

The final version of the SSIQs (v.6 see also Appendix 3.4) is shown in Table 3.6. These were the questions used in all interviews.

1. What do you understand by the phrase 'traumatic experience'?
2. Before your RTA, what were your views of drivers and driving?
3. To be certain that I understand your RTA, and what happened afterwards, please tell me your experiences in detail.
4. Please describe your experiences of the legal proceedings that followed your RTA.
5. In what ways were you affected by the RTA and what followed it?
6. What, if any, setbacks did you have and how did you cope?
7. What influenced how you coped with things?
8. Were there any specific things that were important for you?
9. Considering the whole experience since the RTA, were there any things that happened that you would describe as positive?
10. If yes, in your opinion, what made them/it positive?
11. How would you describe your experience of all treatment you have received since the RTA?
12. What changes in your life, or your attitudes to life, have you experienced since you received treatment?
13. What are your views of drivers and driving nowadays?
14. What, if any, advice would you have for others concerning how to cope after an RTA?
15. How do you consider your future?

Table 3.6: SSIQs v.6 as used throughout the research interviews

3.14 Ethical approval

(See also Appendices 3.6-3.9) Ethical theory is commonly viewed as underpinned by the principle of 'least harm' derived from Bentham's (1748-1832), and Mills' (1806-1873), utilitarian principle of greatest happiness and least pain. (See also Weil 2009 who provides a modern-day equivalent of the 'most good least harm' principle).

In all circumstances, investigators must consider the ethical implications and psychological consequences for the participants in their research. The essential principle is that the investigation should be considered from the standpoint of all participants; foreseeable threats to their psychological well-being, health, values or dignity should be eliminated. Investigators should recognise that, in our multi-cultural and multi-ethnic society and where investigations involve individuals of different ages, gender and social background, the investigators may not have sufficient knowledge of the implications of any investigation for the participants. It should be borne in mind that the best judge of whether an investigation will cause offence may be members of the population from which the participants in the research are to be drawn.

Table 3.7: The general ethical principles of the British Psychological Society's (BPS) *'Ethical Principles for Conducting Research with Human Participants'* (Revised Principles) (BPS 2010)

All participants were respected equally and were treated similarly. There was no discrimination on the basis of:

- Education
- Intellectual attainment
- Physical and mental ability,
- Race ethnicity and cultural background
- Religion and religious beliefs
- Political beliefs
- Age
- Gender
- Sexual orientation

As regards achieving this homogeneity, care was taken to:

- Treat participants equally in terms of provision of study information
- Not omit any information, whether or not information was initially considered unimportant in a given instance
- Not to use misleading words or phrases
- Ascertain that explanations were understood
- Explaining the concept of 'contribution to knowledge'

As per the ethical submission, the ethical standards that governed the entire research and the researcher were the British Psychological Society's *'Ethical Principles for Conducting Research with Human Participants'* (Revised Principles) (BPS, 2010), the main areas of which include:

- Obtaining consent
- Deception
- Debriefing
- Withdrawal from the investigation
- Confidentiality
- Participant protection
- Giving advice

Diener & Crandall (1978) have identified four main areas into which ethical issues tend to recur in different ways (see also Bryman 2004):

- Harm to participants
- Informed consent
- Invasion of privacy
- Deception

By comparison, Christians (2000, p.138-40) details "an overlapping emphasis on four ethical areas", namely:

- Informed consent

- Deception
- Privacy and confidentiality
- Accuracy

It is not obvious where Christians fits 'harm to participants' into Diener & Crandall's categories. However, it seems that Fontana & Frey (2000, p.662) provide that answer, as well as underscoring the 'harm' category, by highlighting the various ethical debates and tensions surrounding the whole field of ethics in research. Tensions indicate differing opinions and it helps to be mindful that ethics is not merely a case of following laid-down, set rules – it is about being continually mindful of ongoing issues that may have ethical dimensions, or as Janesick (2000, p.385) puts it: "ethical issues as they present themselves" …for instance, the unexpected potential ethical issue concerning confidentiality that arose in relation to the design fault on the minidisc recorder (mentioned earlier).

3.14.1 Informed consent and interview

Christians (2000, p.139) provides a rationale for obtaining informed consent, based upon 'The Articles of the Nuremberg Tribunal' and the 'Declaration of Helsinki' and although he points out the self-evident nature of the need for consent, Christians highlights disputes concerning its "meaningful application" such as those of Punch (1994). There are also many issues to consider when trying to establish just how informed is informed, such as disclosure, comprehension, what constitutes 'sufficient' information for a participant to make a decision on consent, voluntariness and even the consent form itself.

The consent form used (Appendix 3.7) contained the following points that required confirming with a signature:

- I have read and understood the study information sheet.

- I have had time to consider participation and the opportunity to ask any questions about the study, and these have all been answered to my satisfaction.

- I understand that I am under no obligation to take part in this study.

- I agree to take part in this study as it is outlined in the information sheet, but I understand that I can withdraw from the interview at any time without any consequences.

- I understand that my data will be stored securely and treated confidentially and I will not be identified in any reports, which will only describe grouped data across all participants.

- I understand that all data that identifies me personally will be destroyed at the end of the study, including the recording of the interview unless I have requested that this is returned to me.

- Please provide your email address or postal address, if you would like to receive a full report on this study when it is completed - in addition to a debriefing sheet that you will receive immediately after the interview.

The author signed the consent form before the form was sent out so as to show that the author intended to be bound by the statements above. Once the participant added their signature matters proceeded to arrangements for the interview.

Once the interview was completed a debriefing sheet was provided (see Appendix 3.8) at which point discussion was encouraged to further the process of debriefing, encourage the participant to ask questions, provide answers and, where necessary, expand upon material in the debriefing sheet.

3.14.2 Confidentiality

As an ethical issue, confidentiality comes under potential for 'harm to participants' – one of the four main categories of ethical consideration identified by Diener & Crandall (1978). Bryman (2004, p.510), details the researcher's responsibilities in this area and the consequences of not

adhering to responsibilities are illustrated by the case of Vidich & Bensman (1968).

The following points were relevant to confidentiality in this study:

Transcription of interviews:

The author transcribed all interviews and was the only person who had access to the minidiscs and cassettes involved.

Confidentialising interviews:

As a preamble to data analysis, confidentialising commenced at stage two of the transcription phase of each interview with a table compiled of names, identifying comments, locations, names of companies and shops etc., and, given the potential for newsworthiness of traumatic events, potential identifying information that might have been previously disseminated through, for instance, the media. The resultant table of required confidentialisations was necessarily located in the stage one transcript although applied to the stage two transcription onwards (see the section on the transcription process for further details).

For ease of cross-checking, all pseudonyms used within a given interview, began with the same initial letter (e.g. all pseudonyms in interview one, 'Alison's' interview, began with the letter 'A', and so on). At all times, interview materials were treated, with respect, as 'sensitive material'.

Knowledge dissemination:

No references were subsequently made to original (non-confidentialised) versions of anything subsequently confidentialised. As part of the ethical consent for research, the author assumed sole responsibility for making verbatim quotes anonymous. When submitted for publication or presentation all forms of identification were removed – even if there was the slightest doubt about deductively identifying a participant. No confidential material of any sort was included in presentations and there was therefore no risk of transfer of confidential information to intermediary host computers at conferences or risks involved in potential loss of computer 'memory sticks' etc.

Caveat:

Research participants, because of the nature of sampling (see section on sampling and recruitment), were very unlikely to come into contact with each other – partly because the snowballing effect was via the therapists, not the participants. It was assumed that if participants did concur, then confidentiality was effectively waived by the participants themselves and certainly without the author's knowledge.

Therapists were however, a different matter. They were cautioned not to discuss individual cases with other therapists. Obviously those therapists would be covered by their own codes of conduct relating to confidentiality. However, to promote this, the author used well-known public figures as examples of the types of PPC that might occur. It was appreciated that using well-known people as examples may not have been an ideal method of 'seeding' a snowballing process, but it was adjudged (along with this caution) to be a good method of modelling confidentiality to the therapists involved.

Confidential data storage:

All relevant regulations were adhered to throughout (see Appendices 3.10 and 3.11).

3.15 Inclusion, exclusion and boundary issues

Exclusion criteria and the primacy of 'contribution' to research

Because the research was effectively a cross-sectional study i.e. taking place at a specific and single location in time, definitions of that time were important. However, the priority was not to inadvertently miss PPC by too rigidly applying exclusion criteria as the following may illustrate.

For the purposes of this research, EMDR was a necessary requirement for inclusion in the study, but 'treatment' and thus 'post treatment' were not limited to EMDR. Other treatments of any type, physical or psychological, orthodox or complementary did not constitute a reason for exclusion, because in some cases, ongoing treatment might ultimately have proved to be life-long and thus, if death is discounted, no 'post treatment' point would be feasible.

Furthermore, 'treatment', and by extension 'healthcare', has the potential for not being a clearly defined entity anyway, because 'informal' healthcare such as ongoing social support from friends and relatives may be an important factor in PPC. It would therefore reduce the richness of data collected if informal healthcare was ignored. It was decided therefore that if a post-EMDR participant showed interest to take part in the research, then irrespective of 'treatment/healthcare', their contribution to the eventual understanding of PPC took precedence.

Issues relating to 'litigation' and 'post litigation'

Unlike the criterion for 'treatment', those for 'litigation' were somewhat clearer. In the UK it is a legal requirement to be insured as a driver, although not as a passenger. Even if an individual driver is not insured, a government agency, will deal with litigation, and also an RTA must be reported to the Police thus triggering the litigation/investigation process. Litigation, then, forms a universal post-RTA process for all victims of UK RTAs, assuming they survive to experience it.

'Post litigation' also means the receipt of compensation and thus an 'enabling means' in terms of possible PPC to come. Thus the original intention was that 'post litigation' would be an inclusion criterion, and thus

a further definition of the cross-sectional point of research. However this created major problems (see the section on sampling and recruitment), and the criterion was dropped from the study. Nevertheless, the potential for a study of a second cross-sectional study at a later date exists (see Chapter Eight).

3.16 Sampling and recruitment

Mason (2002) states that:

> "…conventions on sampling in qualitative research are less clear-cut or well established than for statistical sampling and quantitative research… it is not even possible to devise "a common set of principles" (Ibid, p.144).

Qualitative researchers usually employ non-probability sampling (Grbich 1999), which is not intended to be statistically representative but rather information-rich (Ibid). Table 3.8 lists some of the more than 15 different strategies of non-probability sampling identified by Patton (1990).

- Extreme sampling (outstanding examples of a given phenomenon)
- Homogenous sampling (particular subgroups)
- Critical case sampling (provision of most information on a topic)
- Opportunistic sampling (takes advantage of situations that arise during the research process)
- Maximum variation/ heterogeneous/ quota or stratified sampling (best representation of definable aspects of the research questions – after Trost 1986)
- Snowball sampling (sampling as a result of word of mouth and networks)
- Convenience sampling (sampling as quickly as possible due to external constraints – e.g. cost, time etc.)
- Theoretical sampling (a grounded theory method of sampling for concepts or particular data situations)

Table 3.8: Some of the examples of non-probability sampling described by Patton (1990)

Grbich (1999, p.70) commented that Patton's list "…includes almost any reasonable approach that can be justified". The following is the justification for the sampling in this study:

The first attempt at recruiting participants was via the apparent convenience of an opportunity to recruit through a private company handling bulk EMDR clinical cases. The insurers funding the treatments wanted one thing only of the therapists involved: a speedy reduction and resolution of NPC. Nevertheless, as part of the process of establishing

the feasibility of this recruitment route, the company handling the bulk EMDR cases insisted on contacting the insurers paying for treatment. Although initially favourable, the insurers eventually declined to sanction recruitment of participants, whose treatment they were paying for. They provided the following explanation:

- That there was a potential for claims to be reopened that had been closed.

- That there existed a *"public perception potential"* that the insurance company might be seen to be either *"condoning"* being traumatised and/or implying that psychological trauma *"may be a good thing"*.

The original intention of the research was to recruit adults involved in RTAs who had undergone a course of EMDR and had experienced something more than merely a reduction in NPC. However, such a seemingly straightforward intention effectively required access to what turned out to be an invisible cohort. In essence, reduction of NPC was seen as the 'entirety of positiveness' and there was a mismatch between the insurer's view of positiveness and that of the study requirements. The original plans for recruitment via a convenience method of sampling were thus abandoned.

The second attempt to access participants stemmed from consideration given to two alternative methods of recruiting, namely:

- Advertising in the press for clients and
- Recruitment via the treating EMDR therapist

It was recognised that both possibilities had potential advantages and disadvantages (see Table 3.9). Thus, by weighing up the advantages and disadvantages, recruitment via the treating therapist clearly appeared to show the greater potential for identifying participants that could subsequently be recruited to the research. It was decided that this route would be explored and in addition, to gain a reasonably certainty of the

consistent use of EMDR, only Accredited EMDR therapists would be approached.

This choice of action didn't, of course, deal with the invisible nature of the cohort described above. Indeed, a further problem then arose. Recruiting via the treating EMDR therapist rested on the fundamental assumption that the therapists involved had a view of positiveness that matched the intention of the study. Unfortunately, this did not occur consistently (see Chapter Eight for resulting limitations), but ultimately provided interesting results, (see Chapter Five).

In essence, the insurers "public perception potential" was matched by a "therapist perception" that reduction of NPC was the only goal of treatment. With hindsight, this was probably logical because given that the commercial demand (i.e. the insurers) was focussed on the 'negative only' view, it made sense that the commercial supply chain (i.e. the therapists) viewed things similarly.

	Advantages	Disadvantages
Recruitment via the press	• Potential for tapping directly into PPC as experienced by the RTA participant	• Likely to be very expensive • Might not capture EMDR clients • May capture clients with certain personality characteristics e.g. extroversion thus biasing overall cohort of participants • Could generate a vast amount of erroneous referrals and thus paperwork • Would need participant not only to have been involved in an RTA and EMDR but have had contact with the publication as well • Possibility that participant may perceive some sort of benefit from being involved in the research • No intermediary to recruitment. Self-selection had potential for the perception of coercion to join research.
Recruitment via the treating EMDR therapist	• Likely to be inexpensive method of recruitment • Would definitely capture EMDR clients • Less likely to result in a biased group of participants due to personality types • EMDR therapist likely to act as an 'informed gateway filter' thus resulting in less erroneous recruitment and less paperwork. • EMDR therapist might be able to pick up 'borderline' PPC • Accredited therapists could be assumed to have provided EMDR with a higher degree of fidelity thus potentially facilitating comparison across participants • Potential for tapping into the therapeutic alliance that had been created and thus participants may effectively identify themselves to the therapist • The EMDR therapist would act as an intermediary to recruitment for the purposes of meeting ethical approval.	• Only gives potential participant a secondary gateway role in selection • Possibility that both EMDR therapist and participant may perceive some sort of benefit from being involved in the research • Relies on therapists' memory and may not attract participants who had had EMDR some time previously thus resulting in a cross sectional sample soon after completion of treatment

Table 3.9:
Perceived advantages and disadvantages of recruiting via two potential sources

Grbich (1999) advises that “often the only way to locate an otherwise invisible group” (p. 70) is to use snowball sampling. This form of qualitative sampling was originally derived from a mathematical method of purposive quantitative sampling (Goodman 1961), in which each individual subject in a population chosen for research would identify another subject. Modern usage of snowball sampling in qualitative research is seen as a more random process of participant recruitment by word of mouth. In this study, recruitment was via the qualitative version of snowball sampling as follows:

Although EMDR therapists were provided with an information sheet, with one exception, EMDR therapists initially appeared unable or undecided whom to approach as potential participants. Therapists reported that their role was perceived and understood to be to reduce NPC, surely, they reasoned, success at doing this was a ‘positive change’ for their client? Consideration of this position revealed that EMDR therapists were by-and-large:

- Focussed on the reduction of NPC to the exclusion of any other outcomes

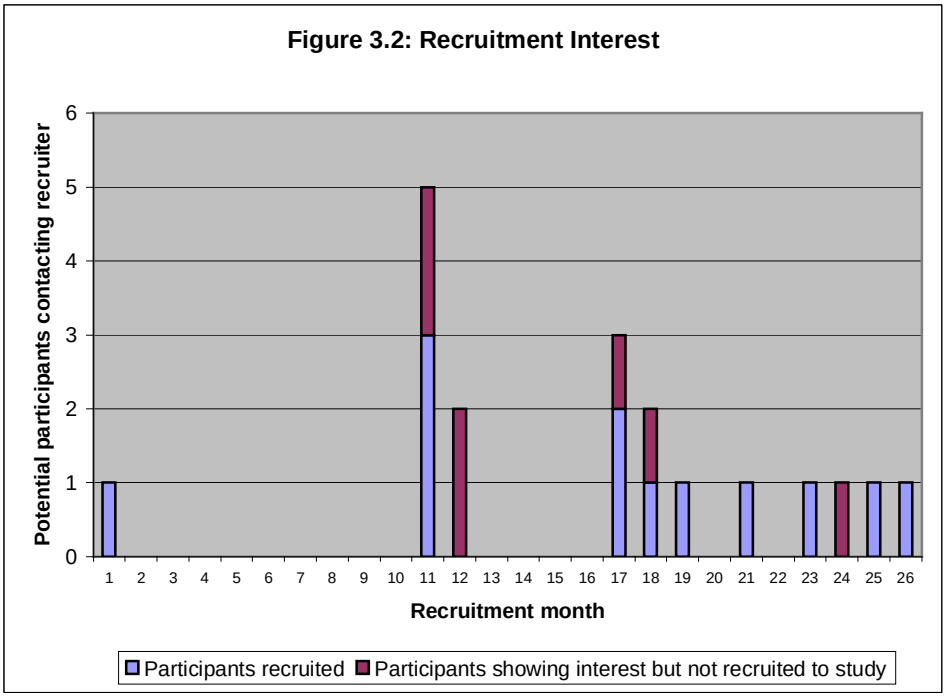
- Because EMDR had been recommended due to the National Institute for Health and Clinical Excellence (NICE 2005) report on Post Traumatic Stress Disorder (PTSD), therapists were focussed on confirming evidence-based practice recommendations, which were, *de facto*, solely the reduction of NPC, and

- It didn’t seem to occur to therapists that clients may continue to develop in some other way, either during EMDR treatment or after discharge. (As Chapter One shows the author had this view in ‘pre-Martin’ days).

Almost immediately however, the sole therapist who had had a different perspective on PPC contacted the first potential participant, who was later interviewed. However, this proved to be something of a ‘false dawn’. For several months there were no participants registering interest (see Figure 3.2). During this period, routine contacts made with EMDR therapists, not

intentionally concerning the research, resulted in questions raised by the therapists largely concerning detail about the study information sheet (see Appendix 3.6).

Figure 3.2: Recruitment Interest



Therapists appeared not to appreciate that reduction of NPC was not the same as:

> "…something positively new that signifies a kind of surplus compared to precrisis level" (Zöellner & Maercker 2006, p.334)

…the rather vague 'working' definition given to PTG and, by extension, in this study, PPC. It seemed, however, that the statement in Table 3.10, constituting the first paragraph of the research information sheet, had served the purpose of encouraging therapists to reflect on their own understanding of PPC and consequently asking the therapist questions about the wider issues of treatment outcomes generally.

Why am I being invited to take part in this study?

So that the researcher can establish whether adult road traffic accident victims experience positive change following their recovery. If you have been involved in an accident any time after the age of 18 and completed both treatment and litigation and have English as your first language, then your views are of interest. The researcher would be grateful if you read the information below before you decide whether you want to take part or not.

Table 3.10: The invitation paragraph from the information sheet

Explanations were provided by the author as to what 'something positively new/ positive change' might consist of in practice. Care was exercised not to 'prime' the therapist with specific examples, in case that got back to the client who might later repeat the examples. Instead explanations given to EMDR therapists were generic and related to well-known public figures such as Simon Weston, Terry Waite, Christopher Reeve (Superman) and Jane Tomlinson.

During discussions with therapists, it also transpired that completion of litigation was hugely problematic. It became evident that because of the sheer length of the legal processes involved in claiming compensation, therapists tended to lose contact with clients well before litigation was completed. This was effectively excluding interested participants on that criterion alone. It was decided, therefore, to drop the criterion requiring the completion of litigation in order to stand the best chance of capturing those potential participants that had reported PPC after trauma.

Dropping the requirement for completion of litigation was conveyed to the EMDR therapists that had been contacted previously. Soon after this point (recruitment months eleven and twelve, Figure 3.2), a total of seven clients registered their interest to become participants. Unfortunately three had received EMDR for childhood sexual abuse (CSA), possibly suggesting that therapists were now aware of PPC in several of their clients, not just RTA victims. The CSA clients could not, however, be included in the research because none of them had been involved in an RTA – a necessary requirement for inclusion in the study. Of the other

four, all provided consent and were duly interviewed. However, one participant was unable to answer several of the SSIQs so the interview was aborted. The remaining three participants provided consent and were subsequently interviewed.

By the fourteenth month of recruitment, still only four participants had been recruited. Then followed two presentations by the researcher, one at the 2007 EMDR UK & Ireland Conference in Glasgow and almost immediately afterwards at the Founding Conference of the Centre for Applied Positive Psychology (CAPP) at the University of Warwick based on the four interviews that had been transcribed at that point. It was perhaps noteworthy that the author was the only member of CAPP at that point who practised EMDR himself. A possible explanation being precisely what had been identified earlier, namely that at the time, 2007, EMDR therapists in the UK were focussed solely on the 'negative only' view of healthcare.

Particularly as a result of the EMDR UK & Ireland Conference in Glasgow, interest grew. At one stage the author was inundated with emails from EMDR therapists asking about the research. No expressions of interest resulted immediately, but eventually, starting in the seventeenth month of recruitment, a total of eleven further expressions of interest were received, which realised eight further participants providing consent and subsequently being interviewed.

Having reached twelve interviewed participants as per McLean et al's (2010, p.288) advice: "stop data collection when saturation has been reached", meaning stop when no new themes are emerging - although recognising saturation is more problematic (see Appendix 3.12). Eventually, after twenty-six months the time available had expired, at which point three further expressions of interest had been received, but all needed to be declined. Declining suitable clients due to expiry of available time is worth mentioning as a possible ethical issue that does not appear to have been included in prior considerations. In this instance the author contacted those involved, and thanking them for their interest, explained that there was a time limit on the recruitment phase of the study

and this had now expired, but if they wished to make contact at a later date then published study results could be made available to them.

Sampling and recruitment summary

The convenience sampling strategy failed before it got started. Subsequent problem solving resulted in a snowball strategy that initially ran into the same problems as the convenience sampling strategy. Eventually by a combination of education, dissemination and dropping one criterion that was unworkable, sufficient participants were recruited.

With hindsight, a concerted educational drive prior to recruitment could well have saved considerable time. The wisdom stemming from the hindsight was that just because the researcher is immersed in his subject doesn't mean that everyone else knows what is being sought. If it had not been for the author's close links with many senior EMDR therapists, recruitment may have taken far longer.

3.17 The peri-interview process

Study information/invitation sheets (Appendix 3.6) were distributed to EMDR Europe Accredited EMDR therapists in the UK, who gave these sheets to their clients who had completed a course of EMDR for an RTA and who had either reported PPC, or where the therapist had become aware of PPC in the client.

On obtaining an expression of interest from a client, the relevant EMDR therapist asked the client for verbal consent to contact the author. At that stage – prior to the prospective client providing their written informed consent to join the research – no information supporting whether or not PPC existed in a given client was passed between therapist and author other than name and contact number, and in some cases, the most convenient time for the author to contact the individual concerned.

On contacting the prospective participant, and after introductions and an assurance of confidentiality, the researcher checked that the prospective participant had received and read the study information sheet. This led naturally onto answering any questions that the prospective participant had. There were some obvious questions raised – usually about timing of the interview, venue and arrangements. All participants were given the choice of interview venue and time. Some preferred face-to-face interviews others, notably those with significant commitments particularly those having returned to work, chose a telephone interview. Surprisingly – for the researcher at least initially – most clients stated they were grateful for the chance to tell their story and/or hoped that in some way their contribution would help others especially those who would have EMDR. It was also noted that some prospective participants easily appreciated a difference between reduction in NPC and PPC - in direct contrast to both the insurers and therapists.

Finally, with all questions answered, prospective participants all agreed to take part in the research. No one declined and most recruitees were very enthusiastic participants.

Arrangements were then sent to forward a consent form (Appendix 3.7) already signed by the researcher – to show the recruitee that the terms of the consent applied as much to the researcher as to the recruitee.

On receipt of the signed consent form, contact was again made by telephone to make final arrangements to hold the interview. These arrangements were duly adhered to and for researcher and participant safety contact was made with a significant other prior to and following each interview.

On conclusion of the interview, each participant was provided with a debriefing sheet (Appendix 3.8). Further contact with the participant was generally limited to email contact for the validation process at the end of the second transcription.

3.18 Improving rigour, validation and credibility

3.18.1 Introduction

Table 3.11 lists Yardley's (2000) characteristics of good qualitative research.

Sensitivity to content

- Research should include contextual theory and understandings from previous researchers
- Awareness of relevant literature
- Awareness of socio-cultural setting
- Respect for participants' perspectives
- Ethical issues

Commitment and Rigour

- In-depth engagement with the topic being researched
- Methodological skills
- Thorough data collection
- Depth/breadth of analysis

Transparency and Coherence

- Clarity and power of argument
- Transparent methods of data presentation
- Fit between theory and method
- Reflexivity

Impact and Importance

- Enrichment of understanding
- Socio-cultural, (and in relation to PPC, clinical) relevance

Table 3.11: Characteristics of good qualitative research (adapted from Yardley 2000, p219)

Other definitions are offered by Grbich (1999) who defines 'rigour' as the researcher's attempt to use as tight a research design as possible (Ibid, p.61) and validity as attempts to accurately represent the topic being studied (Ibid, p.59). The Critical Appraisal Skills Programme (CASP) in relation to credibility asks "are the findings well presented and meaningful?" (see Appendix 2.14). In addition to an audit trail (see all relevant Appendices), Figure 3.3 provides an overview of the stages covered to increase rigour, validation and credibility.

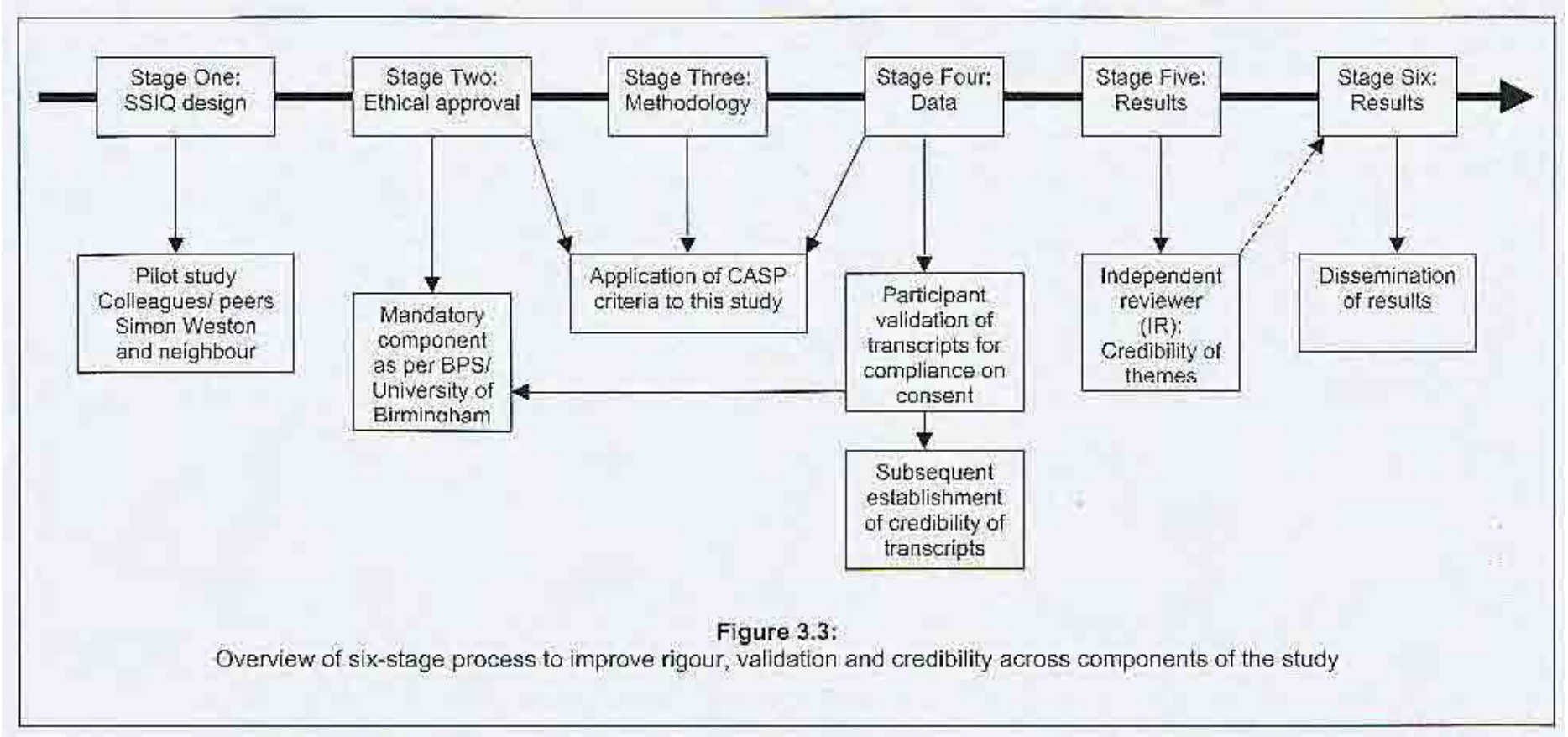


Figure 3.3:
Overview of six-stage process to improve rigour, validation and credibility across components of the study

3.18.2 Stage One: SSIQ design

This Chapter described six SSIQ stages of development involving a range of colleagues as well as Simon Weston and a neighbour in the development of a schedule of questions most likely to access the lived experience of PPC.

3.18.3 Stage Two: Ethical approval

Ethical approval was of course mandatory, but can also be seen as a component in rigour e.g. because of the need to establish confidentiality

3.18.4 Stage Three: Methodology

In an effort to gauge methodological rigour, the CASP criteria, used previously in the evaluation of qualitative studies, and Yardley's (2000) criteria were utilised throughout the application of this study as a 'template' to improve rigour.

3.18.5 Stage Four: Data

This stage involved addressing Yardley's (2000, p.219) "sensitivity to content" and "commitment and rigour" principles of data collection. This involved returning scripts to participants to establish compliance with:

- Informed consent and
- Confidentiality.

How this was achieved is described in detail in Chapter Four.

3.18.6 Stage Five: Results

An independent reviewer (IR) was selected who:

- Had previously worked to PhD level in research on RTA victims
- Was an EMDR therapist, and
- Was familiar with IPA

The intention was to establish that themes chosen for text extracts were credible. Chapter Four details how this was done and the outcome.

3.18.7 Stage Six: Dissemination of results

This is covered in Appendix 3.13.

Part IV The participants

3.19 Introduction

Part IV provides contextual information about the participants and their Road Traffic Accidents (RTAs).

Each participant has been provided with a pseudonym to protect confidentiality. Brief information about the individual participant then follows. Further contextual information is provided in Tables 3.12 to 3.14

In addition, each participant's RTA has been designated an International Road Assessment Program (iRAP) category (see Table 3.15). Each participant had completed a course of Eye Movement Desensitisation & Reprocessing (EMDR).

3.20 The participants

'Alison'

The interviewee was a female ex-driving instructor aged 45. In 2001, Alison was involved in a rear-end shunt causing her vehicle to collide with the vehicle in front. She reported having predicted the RTA six weeks before it had happened. 'Alison' sustained both physical and psychological injuries and was to have seventy sessions of counselling followed by a brief course of EMDR. Following the EMDR she had become aware that 'therapy' was actually occurring prior to, and following, counselling given the sixteen mile round trip to see the counsellor. On completion of the entire aftermath from the RTA, which included severe financial hardship and prolonged litigation, she commenced trading by starting a peripatetic therapy business to help rehabilitate RTA victims back to driving. 'Alison's' first customers were the insurers she had claimed compensation from. She is nowadays widely respected in rehabilitation. The interview took place in April 2006.

'Christine'

The interviewee was a female ex-academic aged 55 who, in October 2000, was involved in a high-impact RTA whilst her car was stationary in a lay-by. Notable for leaving academia prior to the RTA to pursue her interests in alternative healthcare, following her RTA 'Christine' underwent numerous courses of natural therapies rejecting all medication for pain. She also underwent a course of EMDR three years prior to the interview.

'Christine' is chronically troubled by headaches and can no longer run her own business, but believes the RTA was a gift for her personally, because of the wisdom it imparted and the opportunity to work on her own spirituality. At the time of the interview, 'Christine' was extremely keen to return to teaching – to the point of it being a mission in life to fulfil, but she was adamant that it would have to be solely on the basis of experiential rather than her old, formal didactic and evidence-based format. 'Christine' is also notable for the reduction of her intelligence on the basis of her head injury – reportedly down to 125 from 160. The interview took place in February 2007.

‘David’

The interviewee was a male plasterer aged 42. ‘David’ experienced a series of major traumas commencing with childhood asthma, an incident involving exposure to paint fumes in 1982, an RTA at a junction in 1983, an assault at work in 1994 and a subsequent road rage assault/RTA in 2005. He also described an out of body experience and what appears to be a ‘vision’ following the 1994 assault. David received a course of EMDR following the 2005 road rage/RTA incident and an earlier course of EMDR nine years prior to the interview for the 1994 assault and first RTA.

He is notable for his scathing anti-counselling beliefs, yet also the development of a parallel interest in healthcare, stemming from the first course of EMDR, which was to lead ultimately to training to be an EMDR clinician – one of nine such healthcare courses he successfully completed. At the time of the interview he had aspirations of becoming a full-time clinician. The interview, which took place in March 2007, appeared to spur him into action to carry through this objective.

‘Fiona’

The interviewee was a female teacher aged 24. ‘Fiona’ was a passenger in a front-roll off-road RTA in June 2005 on the first anniversary of passing her driving test. She blamed herself initially for not being more assertive, following her own ‘gut’ feeling to not travel on a journey where the driver was subsequently shown to have been driving whilst under the influence of drugs. ‘Fiona’s’ sister was by far the most injured person of the five passengers in the car, having sat in the middle of the back seat. ‘Fiona’, sat on the near side, and initially blamed herself for not sitting in her sister’s position herself and thus preventing her sister’s injuries. Subsequently, ‘Fiona’ was able to see PPC in her sister, but had greater difficulty seeing it in herself *until after* the course of EMDR. ‘Fiona’ saw the whole family as gaining from the adversity of one. The interview took place in March 2007.

‘Isabelle’

The interviewee was a female office worker aged 48. Two years prior to the RTA, ‘Isabelle’ was driving a car, which was struck a glancing blow by a refuse lorry. The litigation, still ongoing at the time of the interview,

involved a series of denials, which were compounded by the police not logging the accident. The comments that the 'third party' were 'prolonging the agony' with its effective denial of closure for the interviewee made for ongoing NPC.

Nevertheless, 'Isabelle' acknowledged the RTA could have been far worse and that she appreciates the little things in life, and life itself, more nowadays. 'Isabelle' was adamant that the priority at present however, was attaining 'closure' *before* further PPC could occur. The interview took place in August 2007.

'John'

The interviewee was a self-employed male aged 40. At the time of the RTA 'John' was a motorcyclist. The RTA involved his motorcycle colliding with a van that made an unexpected sharp right turn across a dual carriageway to access a 'U' turn exit. 'John' drove straight into the side of the van, the impact causing him to lose consciousness. He felt that the EMDR treatment helped him cope with the aftermath, but what 'positives' there were, were really a negation of the negatives and in any case they wouldn't have been 'required' if the accident didn't happen.

Nevertheless, SSIQs not only demonstrated PPC, but revealed positive business changes that only occurred because of the RTA. The interview took place in August 2007.

'Mike'

The interviewee was a male police officer aged 38. 'Mike' was involved in a head-on RTA in 2001 whilst at work – travelling as a passenger – on the way to attending an emergency call. Although he identified 'knowing more about himself' and passing his Inspector's exams first time in the aftermath of the RTA, he "absolutely" did not see these as PPC because he was not in control of either the RTA or the subsequent readjustment process, both of which seriously jeopardised his career. The interview took place in December 2007, a year after the legal settlement.

This interview illustrates a flaw in the methodology relating to recruiting interviewees, yet 'Mike' provided a very helpful contrast with those who

developed PPC. The EMDR therapist who provided ‘Mike’ with a research information sheet apparently did so because of hearing that ‘Mike’ had successfully taken his employers to Court and had attributed this to PPC. The actual position, as the interview shows, was far more complex, yet, despite everything it was still possible to identify PPC from the transcript.

‘Nicola’

The interviewee was a female school canteen worker aged 44. ‘Nicola’ was riding a bicycle when she received a glancing blow from a lorry whilst she had been almost stationary at traffic lights. She received cuts and bruises but no serious physical injuries. Nicola had been on the way to the hospital anyway, but had ended up in a different department as a result of the RTA.

Nicola described PPC as *both* the reduction in negative symptoms and being a better and more confident cyclist as a result of the RTA and the EMDR treatment. The interview took place in October 2007.

‘Olga’

The interviewee was a female, now redundant nurse, aged 53. ‘Olga’ had been involved in a head-on collision on a flyover fifteen months prior to the interview. She described very clear ‘musts’ and ‘must nots’ in relation to driving and the problems that not being able to drive had caused including the eventual loss of her job.

Nevertheless, ‘Olga’ described how others had reacted to her predicament and how *others* acquired PPC, second-hand, as a result of helping a traumatised person cope and that this had positively changed the way she now saw events herself. Litigation was ongoing and frustrating for Olga at the time of the interview, which took place in November 2007.

‘Pat’

The interviewee was a female ex-corporate trainer, aged 33. ‘Pat’, whilst driving, was involved in an RTA in which a drunk driver hit her car in a glancing head-on collision. ‘Pat’ was pregnant at the time and travelling with all the other members of her family: her husband and daughter. Initial concerns centred on the foetus and preoccupied ‘Pat’ with the

possible damage that had occurred. She felt relief rather than happiness when the baby, her second daughter, was born perfectly healthy.

PPC for Pat included being aware of the priorities in life, and awareness of the preciousness of family. Hand-in-hand with this was a paradox in that 'Pat' labelled herself as less selfish yet more selfish about the family. Pat described the family as being 'in the right place at the right time' and in addition her husband, also involved in the crash, is reported as describing the RTA as a 'miracle for change' suggesting that a second person in the same RTA had experienced PPC. The interview took place in January 2008.

'Robert'

The interviewee was a male salesperson aged 35. 'Robert's' stationary car was rear-end shunted for a distance of forty feet into, and partly under, the vehicle in front, by a heavily laden heavy goods vehicle. He was the only casualty in the RTA and stated he was more traumatised by the experience in hospital than by the RTA itself both experiences being treated with EMDR. Having shown interest to be interviewed, 'Robert' was difficult to contact and fully two months elapsed between signing consent and even being able to arrange an interview. This turned out to be directly related to 'Robert's' post-RTA post-EMDR career and specifically leisure successes, which has meant that 'Robert' is likely to qualify for the Olympics. The interview took place in May 2008.

'Tim'

The interviewee was a redundant construction worker aged 53. At the time of the RTA, 'Tim' was driving home from work and a large van cut across in front of his brand new car. The initial visit to hospital did not reveal any broken bones, however, later treatment for his neck resulted in diagnoses ranging from cancer and multiple sclerosis to diabetes, as well as a broken sternum and fractured ribs. Tim had received EMDR from a therapist he had seen for successful treatment for an entirely different problem twenty years previously. In this instance, EMDR was one of a range of useful interventions that took place post-RTA.

Tim characterised success in life as his job, which he lost, but two years after his RTA he found PPC he hadn't expected manifesting itself as a 'sense of belonging' in unpaid employment and even the experience of travelling to the research interview on his own he considered to be PPC. The interview took place in April 2008.

Participant	Age and Gender	Work status	Details of RTA	iRAP crash category (see Table 3.15)	Experience of PTSD/ NPC	EMDR: Time after RTA and Number of sessions	Experience of PPC that led participant to being included in study	Treatment Received other than EMDR
'Alison'	45 F	Ex driving instructor. Changed career to private clinical practice after EMDR	Driver of car in rear-end shunt causing her vehicle to collide with the vehicle in front	5	Stressed isolation, financial hardship and "the terrible effects of the legal process"	Commenced EMDR 26 months after RTA Standard treatment protocol 4 sessions	Had trained to become a health care professional subsequent to EMDR. Had been singularly impressed with her EMDR therapist	Night sedation. Was on antidepressants overlapping with 70 sessions of counselling prior to EMDR
'Christine'	55 F	Ex-academic. Left academia prior to the RTA to pursue her interests in alternative healthcare	Driver of car sustaining a high impact rear end shunt whilst vehicle stationary in lay-by	5	Concentrated on intrusive imagery, pain, hypersensitivity to noise, reduction in social contact	Commenced EMDR 39 months after RTA Standard treatment + pain protocol 12 sessions	Had explained in very detailed terms how her view of life and caring others was much deeper emotionally	Numerous courses of natural therapies rejecting all orthodox medication for pain. No other psychological therapies other than EMDR
'David'	42 M	Plasterer. Has completed 9 short healthcare courses since first course of EMDR	Victim of a road rage RTA see text relating to other traumas	2	Described, intrusive symptoms, avoidance behaviours, hyperarousal and "paranoia"	Commenced EMDR 6 months after RTA Standard treatment protocol 9 sessions	Had reported to therapist a longstanding wish to change his career totally as a result of EMDR	Only received EMDR. Also had a course of EMDR 9 years beforehand for an earlier RTA
'Fiona'	24 F	Teacher	Rear passenger in a front-roll off-road RTA	6	Mainly stressed depression, disturbed sleep and avoidance	Commenced EMDR 18 months after RTA Standard treatment protocol 8 sessions	Had reported to the therapist much closer family ties despite long standing animosity with her sister	Only received EMDR

Table 3.12: Summary of participants' details (A-F)

Participant	Age and Gender	Work status	Details of RTA	iRAP crash category (see Table 3.15)	Experience of PTSD/ NPC	EMDR: Time after RTA and Number of sessions	Experience of PPC that led participant to being included in study	Treatment Received other than EMDR
'Isabelle'	48 F	Office worker	Isabelle's car struck a glancing blow by a refuse lorry	4	Described mainly problems with avoidance and "some bad memories"	Commenced EMDR 21 months after RTA Standard treatment protocol 10 sessions	Had reported to therapist that she believed she "now had a mission in life to achieve"	Prescribed antidepressants and night sedation. Both had stopped prior to EMDR
'John'	40 M	Self employed jeweller	John's motorcycle collided with a van that made an unexpected sharp right turn across a dual carriageway to access a 'U' turn exit	7	Had chronic sleep problems due to pain at night, intrusive imagery, nightmares and hypervigilance	Commenced EMDR 15 months after RTA Standard treatment protocol 10 sessions	Had told therapist how much he now appreciated life and that "this only came out fully after the EMDR"	Refused antidepressants and painkillers. Only received EMDR
'Mick'	38 M	Police officer	Passenger in police car attending emergency call. Head on crash	1	Mainly Irritability, but also avoidance, and disruption to his social network	Commenced EMDR 24 months after RTA Standard treatment protocol 13 sessions	Complete reduction in negative symptoms interpreted as PPC by therapist	Only received EMDR
'Nicola'	44 F	Canteen worker	Riding a bicycle when she received a glancing blow by a lorry whilst almost stationary at traffic lights	7	Intrusive imagery, avoidance, emotional numbing	Commenced EMDR 13 months after RTA Standard treatment protocol 9 sessions	Had reported to therapist that hope and life being a challenge "were unexpected outcomes" of EMDR	No medication. Had mixed trauma-focussed CBT and EMDR intervention

Table 3.13: Summary of participants' details (I-N)

Participant	Age and Gender	Work status	Details of RTA	iRAP crash category (see Table 3.15)	Experience of PTSD/ NPC	EMDR: Time after RTA and Number of sessions	Experience of PPC that led participant to being included in study	Treatment Received other than EMDR
'Olga'	53 F	Redundant nurse	In a head-on collision on a flyover	1	Depressed, avoidance. Redundancy "blamed" for making NPC "worse"	Commenced EMDR 22 months after RTA Standard treatment protocol 11 sessions	Reported as developing PTG in Olga's friends as a result of Olga's rehabilitation after the RTA	Had had CBT "which had failed" Received EMDR as a "second option"
'Pat'	33 F	Housewife	Driver of car containing whole family plus pat was pregnant. Drunk driver hit her car in a glancing head-on collision	1	Mainly described problems with emotionality, particularly anxiety, and avoidance	Commenced EMDR 10 months after RTA Standard treatment protocol 12 sessions	Sense of much deeper social, maternal and family commitments	Only received EMDR
'Robert'	35 M	Salesperson	Robert's stationary car was rear-end shunted for a distance of 40 feet into, and partly under, the vehicle in front, by a heavily laden heavy goods vehicle	5	Intrusive imagery, driving Avoidance, lack of tolerance of frustration	Commenced EMDR 19 months after RTA Standard treatment protocol 5 sessions	Developed archery hobby	Only received EMDR
'Tim'	53 M	Unemployed	Large van cut across in front of Tim's new car	2	Mainly reported sleep disturbance, but was also travel phobic	Commenced EMDR 31 months after RTA Standard treatment protocol 7 sessions	Described being much wiser Commenced voluntary work Both were regarded as 'surprise' developments	Night sedation up to a year prior to EMDR Had mixed trauma-focussed CBT and EMDR intervention

Table 3.14: Summary of participants' details (O-T)

iRAP crash category	Participants
1: Head-on crashes	Mike, Olga and Pat
2: Intersection crashes	David and Tim
3: Lane change crashes	-
4: Manoeuvring crashes	Isabelle
5: Rear-end crashes	Alison, Christine and Robert
6: Run-off road crashes	Fiona
7: Vehicle-cyclist crashes	John and Nicola
8: Vehicle-pedestrian crashes	-

Table 3.15: Participants' RTAs according to iRAP crash category (see also Appendix 3.14)

The following Chapter details the data analysis.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

This Chapter extends the Methodology described in the previous Chapter by detailing the method of data analysis utilised.

The transcription process, seen as the first stage of Interpretative Phenomenological Analysis (IPA), is described in detail and this is followed by each of five Hermeneutic Cycles (HCs). The Chapter, concludes with stages five and six of the validation process (see also Chapter Three).

All transcript names are pseudonyms.

4.2 The transcription process

Transcription was conducted entirely by the researcher in four stages:

- First transcription - the 'everything audible' version
- Second transcription – the 'pre-validation, cleaned and confidentialised' version
- Third transcription – the 'validated' version
- Fourth transcription – IPA format

The HC's commenced from the fourth transcription (see Chapter Five).

4.2.1 First transcription

The recording of the interview was firstly transcribed on the basis of 'everything audible' meaning that in addition to the basic conversation:

- Stuttering
- Interjections
- Part words
- Repetitions and
- Backgrounds noises and events

…were all transcribed. This meant that future transcriptions stemmed from the maximum possible transcribed content. No audible material was overlooked. However, punctuation was kept to an absolute minimum so as not to inadvertently alter meanings as a result of the transcription process itself. Instead of punctuation, a system of identifying pauses in the conversation of different lengths was used to reflect the natural way in which the conversation flowed. This convention is shown in Table 4.1.

As regards other punctuation, commas were never used, but question marks were used when it was clear that a question was being asked. Emphasised words were underlined. If a portion of interview was inaudible then: '[inaudible]' was used and not a question mark.

'…' (3 dots) are used to indicate a short pause
'[pause]' is used to indicate a definite break
'[long break]' is used to indicate a prolonged break

Table 4.1: The convention employed to indicate conversational 'flow' in the 1st transcription of interviews

Some of the interview content included identification of potential, and actual, newsworthy events – and not just names of people etc. – it was important to identify any aspect of the interview that needed confidentialising. All participants' first interview transcriptions required confidentialising to some extent. Relevant text was identified and listed in a table, together with a second column of 'alternative names' and notes as to why confidentialising in that specific instance was indicated (see also item three below under '2nd transcription').

The resultant table listed names and details of inter-relationships including:

- Police officers
- Paramedics
- Witnesses
- Therapists
- Companies and organisations
- Hospitals as well as individual staff and wards
- Airports and details of security procedures
- Insurers,
- Geographical locations
- Identifiable descriptions and landmarks
- Distances between places (named or not)
- Road names
- Detailed descriptions of specific events particularly likely to have attracted media interest.

Once identified, every item was confidentialised.

4.2.2 Second transcription

Once the first transcription was completed, a second 'cleaned and confidentialised' transcription was made in which:

1. Stuttering, interjections, 'part words', repetitions and backgrounds noises were removed. Indication of emphasised words that had been underlined in the first transcript was retained. One or two very obvious examples of 'part words' had the remainder of the word added in brackets. Finally where abbreviations had been used, for the second transcript the full words represented by the acronym were added.

2. The absolute minimum punctuation was carefully inserted so that the transcription read as a narrative. However, the author was mindful of the potential for punctuation to subtly alter intended meanings. Commas were never used.

3. Confidentialisation then occurred. A specific convention was adopted for each transcript in which names of significant others occurred: each participant was listed as interviewee 1, 2, 3 etc. each numbered participant was then given a pseudonym commencing with that letter of the alphabet. For example: the pseudonym for interviewee 1 was Alison. Thereafter wherever a name then appeared in the same transcript and it was deemed important to retain a name, then all those pseudonyms also began with the same letter. Thus pseudonyms appearing in Alison's transcript included Angela, Dr. Arnold, Andrew and AB&C solicitors. This convention was adopted to assist in distinguishing text portions at a later date partly because it soon became apparent that there would be a huge number of confidentialised names appearing in narratives meaning there was likely to be a duplication of names between interview transcripts that could confuse matters unnecessarily. In other words this convention was a 'protective ring-fencing' device to aid data analysis in addition to systematising confidentialisation.

Although the second transcription was ‘cleaned’, no attempt was made to correct grammatical errors, primarily because the transcript was intended to accurately represent the spoken word, not merely a ‘correct’ and ‘easy-to-read’ version of the spoken word.

On completion, the second transcript, as per Grbich (1999, p.100), was sent to the interviewee for validation (see Stage Five: Validation of ‘sensitivity to content’, section 4.9 this Chapter).

4.2.3 Third transcription

Once confirmation of the validation was received, a third transcription was made, the text of which was unaltered from the second transcript except where the interviewee had requested alterations – usually very minor ones. For example the word “engine” had been misheard in one transcription and typed as “injury”, or where further information was offered. Added information fell into the category of ‘additional explanation’ or ‘clarification’ rather than entirely new material. The completed third transcription then went forward for data analysis.

4.2.4 Fourth transcription

The layout of the validated text was altered to meet IPA requirements (see Appendix 4.1).

The following sections detail the various HCs that then followed.

4.3 The First Hermeneutic Cycle (HC)

4.3.1 The 'IPA-ready' transcript page

Interpretative Phenomenological Analysis (IPA) is inherently a dynamic process (Smith 1996), and, although the principles set down by Smith (Ibid) and Smith & Osborn (2003), have been closely followed throughout, the result of the practical application of those principles has been an idiosyncratic data analysis.

An audit trail of how the dynamic processes evolved commences with a sample 'IPA-ready' page (Appendix 4.1) from 'Christine's' interview transcript. It was representative of the vast majority of pages and illustrates all the processes involved in the development of the data analysis.

The page follows a typical IPA format:

- The first hermeneutic or interpretative act, refers to the contents of the left-hand column or 'left-hermeneutic'
- The second hermeneutic, refers to the contents of the right-hand column or 'right-hermeneutic'
- Transcript lines are numbered and double-spaced
- The HC refers to complete cycles of interpretation of the entire transcript belonging to an individual participant. HCs are referred to by 'cycle numbers', e.g. the Second HC means the second time the entire transcript went through the IPA process

4.3.2 The left-hermeneutic

> We are now ready to confront the raw data of our research.
> Giorgi & Giorgi (2003)

At face value, Giorgi & Giorgi's statement seems innocuous. However, the use of the word 'confront' could imply that the data analyst is about to enter a battleground. If so, it could suggest a pre-existing definite view of what is about to be analysed and is thus a useful reminder about the

subjects that were bracketed. Therefore, the author firstly re-read the phenomenological epoché (Appendix 3.3).

The author then read and reread the example of IPA provided by Smith & Osborn (2003) particularly pages 64-79 covering data analysis. Smith & Osborn (Ibid) state: "there are no rules about what is commented upon" (p.67).

The next stage was to read and re-read the narrative to obtain a feel for the overall nature of the transcript. Re-reading sections also helped clarify the narrative at various points and helped with 'engaging' the text almost as though the opportunity had arisen to redo the interview, but with the additional facility of being able to stop at any stage and see what thoughts or lines of reasoning emerged. What started as words and the odd question put in the left-hand column became a 'torrent' of reflective philosophising. In fact, the more that approach was followed, the greater the volume of material generated and the easier, and deeper, it became.

On reflection, the progression from 'vaguely immersed' in the narrative to 'detailed interrogation' of the narrative in detail was a function of confidence more than anything. On later returning to Smith & Osborn (2003) it became obvious how their suggestions on the contents of the left-hermeneutic were to be practically arrived at – see Table 4.2.

The left-hermeneutic is achieved by:

- Summarising
- Paraphrasing
- Associations that come to mind
- Connections that come to mind
- Preliminary interpretations
- Commenting on the use of language
- Sense of the participants themselves
- Similarities and differences between and within transcripts
- Echoes, amplifications and contradictions
- *Assumptions and 'agendas' within the transcripts*

Table 4.2: Analysing the transcript: the left hermeneutic (adapted from Smith & Osborn 2003, p.67 – the last point has been added by the current author)

4.3.3 The right-hermeneutic

Smith & Osborn's (2003) guidelines for the right-hermeneutic are listed in Table 4.3.

Finding 'concise phrases' was much harder than anticipated. There appeared to be a 'tipping point' at which too small a 'concise phrase' made allocation to a theme too difficult whilst too detailed a 'concise phrase' meant that it was replicating the left-hermeneutic rather than summarising it.

The right-hermeneutic is achieved by:

- Concise phrases which aim to capture the essential quality of the left-hand hermeneutic
- Phrases=slightly higher level of abstraction
- Might use psychological terminology
- Phrases that allow theoretical connections but are firmly grounded in the spoken words of the transcript

Table 4.3: Analysing the transcript: the right hermeneutic (adapted from Smith & Osborn 2003, p.68)

It was decided that the best strategy was to include more than one right-hermeneutic if the left-hermeneutic being analysed:

- Was not a 'unitary' theme, i.e. it didn't fit a single theme, or
- Was 'amorphous', i.e. there wasn't a clear focus within the left-hermeneutic, or
- It was 'bi-dimensional', i.e. there was more than one dimension to the left-hermeneutic such as a literal and figurative sense being expressed simultaneously

Another factor during the right-hermeneutic stage, and directly related to 'conciseness' was the need to introduce neologisms. Examples included the Western Orthodox Medicine and 'Legal Iatrogenesis'.

Once the First HC was completed for Christine's interview, then the remaining eleven transcripts were treated in the same manner (see the horizontal path in Figure 4.1).

By this stage it was obvious that despite detailed bracketing, the author was 'seeing' the text in ways that were 'familiar' and 'comfortable'. He remained aware of the topics bracketed throughout the entire data analysis, but was eventually to reconcile himself that to 'see' a narrative in a different way meant not being true to one's own interpretations – even if that meant bias. It was hoped that the various validation stages would help redress the balance.

4.3.4 The 'horizontal' path through the IPA process itself

In the study itself, each HC took place in the order:

'Christine', 'Alison', 'David', 'Fiona', 'Isabelle', 'John', 'Mike', 'Nicola', 'Olga', 'Pat', 'Robert' and 'Tim' – this was referred to as the 'horizontal path'.

This was not quite the same order as the interviews were conducted. The first two are reversed. This was because at the time of 'Alison's' interview, IPA had not been definitely selected. Selection of IPA occurred just after 'Christine's' interview and since this interview was still fresh in the author's mind it was selected as the first transcript to undergo IPA, followed by 'Alison' and then the others in order of interviewing. Ideally, IPA should have been confirmed before any interviews took place.

The Second HC again commenced with Christine's interview, but by the Third HC, it was deemed that some of the shorter transcripts had been 'exhausted' for the purposes of data analysis. Most transcripts reached exhaustion on completion of the Fourth HC. Eventually only 'Christine's'

transcript reached the Fifth HC, after which all transcripts were deemed exhausted.

4.3.5 The 'vertical path' taken to describe the IPA process in this Chapter

For economy of space, to avoid repetition, and to provide the reader with a clear understanding of the development of the IPA process used, the following sections describe a 'vertical path' through a sample page taken from 'Christine's' narrative in order to illustrate the key changes throughout the whole process of data analysis.

Figure 4.1 shows the horizontal path that the IPA data analysis took in the study itself, whilst the dotted arrow indicates the 'vertical path' taken to describe the development of the IPA process in the following sections of this Chapter and in Appendices 4.1 to 4.15.

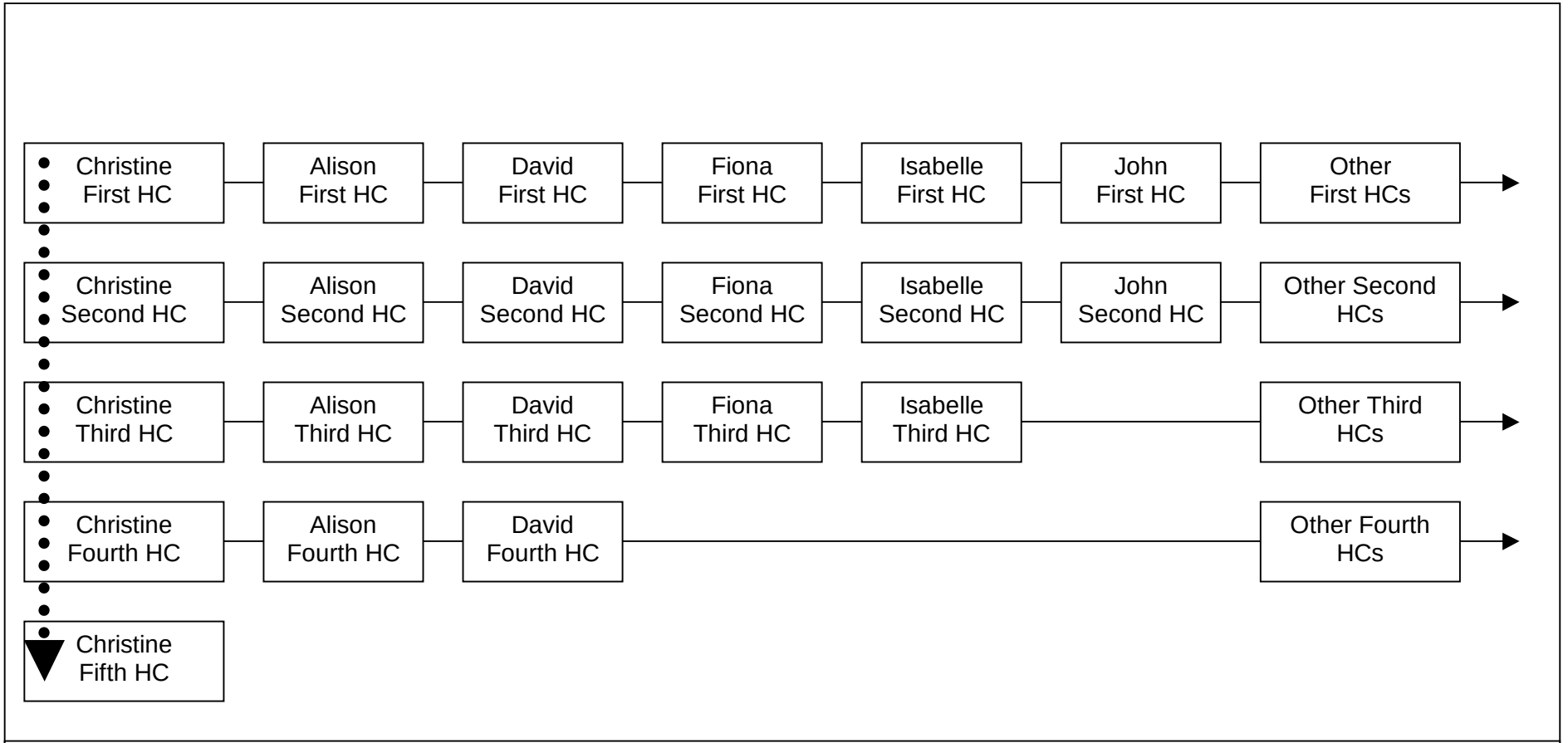


Figure 4.1: Interview order v. Description within Chapter Four (see also Appendices 4.1-4.15)
Horizontal arrows = direction in which data analysis actually took place; Dotted arrow = direction of description in Chapter Four

4.3.6 An overview of the first complete hermeneutic cycle (HC)

Having established a consistent approach to left and right-hermeneutics, the next stage was, as recommended by Smith & Osborn (2003, p.68), to firstly conduct IPA on a single interview in its entirety. Because, at the time, Christine's transcript was the most recent, a decision was made that her transcript would probably highlight most issues during the most dynamic, i.e. early, IPA development process. This done, the same process was repeated for other participants' narratives.

The First, complete, HC started with the iterative process of reading and re-reading of each transcript to become immersed in the interview transcript. That was followed by some initial reflections entered in the left-hermeneutic column (e.g. Appendix 4.2). Comments tended to occur in question format as well as reiterations of the transcript and simple notes. Where a portion of transcript appeared verbatim in the left column a single quotation mark was used. This helped to preserve the text used within the left-hermeneutic rather than have it altered by subsequent modifications.

The first problem encountered was: to which portion of text did the left hermeneutic belong? Appendix 4.3 shows how bold brackets were used to 'contain' portions of text being referred to in the left-hermeneutic. These were not fixed points and in other instances brackets instigated, were moved, amalgamated and so forth with subsequent revisions. Care was exercised at all times not to affect the re-reading or integrity of the text.

Appendix 4.4 shows the addition of the right-hermeneutic entries that summarised the contents of the left-hermeneutic. The results could be described as 'proto-themes', because the right-column contents are summaries - not themes in their own right.

The next stage was to categorise each right-hermeneutic in thematic form by allocating each 'proto-theme' a suffix as shown in brackets in Appendix 4.5. Suffixes were derived from summarising all seemingly related right-

hermeneutics throughout the entire transcript. The list of suffixes derived in this manner now became themes. The themes were directly grounded in the transcript. Between, and within, the various HCs new themes arose or disappeared whilst others were amalgamated, wording of themes changed and/or changed where a collection of 'proto-themes' was better described by a different, or two or more themes. At this stage, wording of themes was somewhat clumsy. The final list of themes at the end of the First HC is shown in Appendix 4.6.

The list of themes was first placed in 'sequential' order relating to the transcript (Appendix 4.7), and then, to facilitate between-transcript comparisons, 'clustered' according to theme, which, in Appendix 4.8, shows page one of the theme – 'struggle for control over own health' (CONH) from 'Christine's' transcript. Both versions of the list of themes were given line numbers for ease of retrieval from the transcript at a later date. For instance, Appendix 4.8 contains:

- CONH **- DRAWS OWN HEALTH CONCLUSIONS -** 3:104

The figure '3' identified that it was 'Christine's' interview, and '104' the line number – thus the example is a reference to the CONH appearing on the sample page: at line 104.

At this stage, there was no attempt to put themes into any form of order other than the order being dictated merely by the first occasion a given theme arose in 'Christine's' right-hermeneutic. Also, in Appendix 4.5, Positive Psychological Change (PPC) – the temporary generic label chosen for the phenomenon – does not appear at all. At this stage, its equivalent appears in the themes as Post Traumatic Growth (PTG). This is because the confusion over terminology had not, *at that stage*, been entirely resolved, by the use of a generic label. Instead the label 'PTG' had merely been 'imported' into the data analysis for convenience.

One further point: Appendix 4.6 illustrates the complete list of themes at the completion of the First HC of '*Christine's'* transcript. All other interview transcripts had their slightly different versions.

4.4 The Second HC

The Second HC commenced with further re-reading of both complete narratives and portions of text, so there were 'sub-cycles' in addition.

Appendix 4.9 shows the sample page, and Appendix 4.10 the status of the themes, at the completion of the Second HC.

The text and the First HC left-hermeneutic were more closely examined and questions in the left column now proliferate with suggested answers in the form of philosophising. The effect is to make the left-hermeneutic quite dense and almost like a 'cross-examination'. In some instances (not occurring on the sample page), so much material has been generated that sections of transcript were separated by blank numbered lines merely to accommodate the volume of the left-hermeneutic.

The right-hermeneutic has also altered. In the example shown (Appendix 4.9), some 'proto-themes' have been amalgamated whilst other are more numerous. Also figurative language in the transcript has been underlined and italicised and the relevant reference within the right-hermeneutic has been treated similarly. This was done as a way of identifying a 'three dimensional' hermeneutic element of the transcript in which material was being discussed literally at one level and figuratively at another as well as being hermeneutically treated in both literal and figurative ways.

Non-italicised, underlined text retained its original indication of emphasis of the spoken word. Also one or two items of explanation are inserted into the transcript text itself e.g. '(over road rage incident)' on line 104 so as to make explicit the assumption made in relation to the subject being discussed by the participant in that relevant portion of text.

Appendix 4.10 the result of the Second HC, shows several differences to its predecessor Appendix 4.6. This time there are a few less themes in total as the net result of expansion and amalgamation of themes. Also the themes have now been grouped at two levels. 'Post Traumatic Growth' is divided into seven sub themes, it was noticed that there were distinct

similarities as well as differences to Tedeschi & Calhoun's (1996) factor analysis of their Post Traumatic Growth Inventory (PTGI).

At a super-ordinate level three groups of themes were starting to emerge. The third category seemed to be a re-amalgamating of the first two themes. Because the format for 'sequential' and 'clustered' lists for all HCs followed the same format as Appendices 4.7 and 4.8 for the First HC, they are not shown for subsequent HCs.

As already pointed out, the Second HC raised the issue of figurative language use. At this stage, however, it was not deemed to be a separate theme but more of a 'linguistic event'. Consequently, the author dismissed this as a theme at this stage, only for it to re-emerge at a later stage.

4.5 The Third and Fourth HCs

Appendix 4.11 shows the sample page at the completion of the Third HC. This time only minor changes have occurred in the left and right-hermeneutics. In the sample page a new right-hermeneutic has appeared indicating a recreation of the assumptive world – a 'proto-theme' that turned out to be very important (see 'Figurative Language Use' in Chapter Five).

Other differences again relate to layout: opening bold brackets are now placed at the *start* of a line and horizontal lines are drawn so that it is clear which left and right hermeneutics belong to which part of the text. Again these are not fixed 'meaning blocks' and, in some instances, these 'hermeneutic extracts' have moved from their original positions within the transcript text.

The left-hermeneutic also starts with a line number e.g. in Appendix 4.11, 103ff and 109ff are shown (ff=and following). This was done so as to facilitate easy cross referral to hermeneutics at another point in the same transcript and between transcripts. The addition of these 'cross referrals' was generally conducted on the Third HC and then added to those interviews deemed 'exhausted' at the Second HC, whilst in 'Christine's' transcript 'cross referral' references were still being modified into the Fourth HC. This was another example of 'sub cycles'.

The sample page analysis changed very little between the Third and Fourth HCs although analysis of other transcripts changed considerably more – in effect bringing other transcripts 'up to Christine's' standard'. Because of the changes in other transcripts, the overall list of themes did change at the end of the Fourth HC (see Appendix 4.12)

Appendix 4.12 shows the theme 'OWN' (Personal Healthcare Opinion) was now removed from the main themes because it was decided the commencing point of the questions didn't really allow sufficient access to this theme given that material was generally gleaned from the 'warm up' questions rather than the detailed answers. However, as a compromise, 'OWN' was reinstated as a 'preliminary' component of the super-ordinate

theme ‘STRUGGLE’. Thus there was a methodological issue highlighted during the data analysis, namely at what point do questions and their responses allow access to a given phenomenon?

The other major change was that, like the mirroring of ‘cross referral’ of transcript content and interpretations, the super-ordinate themes start to change to reflect the phenomena described in the themes themselves more consistently across interviews.

By the completion of this ‘cross referral’ method of comparing and contrasting across transcripts, the author drew the conclusion that the SSIQs had only ‘steered’ the conversation in a given direction, because often an answer would be provided that really addressed an earlier or, quite commonly, a question yet to be asked. The author concludes this observation meant that the SSIQs ‘did their job’ and overall interfered very little with the forthcoming narrative from the participant – precisely as intended.

The end of the Fourth HC list of themes (Appendix 4.12) was also important for the following reasons:

- The super-ordinate theme ‘PTG’ had become ‘POSITIVE CHANGE’, principally because two things had occurred because themes making up the super-ordinate theme ‘PTG’ were now:
    - Recognisably more complex than the defining statistical factors of PTG, as per the PTGI (Tedeschi & Calhoun 1996), and therefore the author reasoned, the super-ordinate theme could no longer be termed ‘PTG’
    - More complex than those making up the defined characteristics of any of the other terms collectively referred to as PPC (see Chapter Two), with the possible exception of Organismic Valuing Theory (OVT).

- The themes ‘WISDOM’ and ‘HINDSIGHTING’ were *excluded* from ‘POSITIVE CHANGE’, as the author reasoned that they were not tangible signs of PPC whereas the others were. This was, in

hindsight, inappropriate, but ultimately served as a 'halfway-house' to an improved conclusions at the end of the final HC.

- The theme 'GROWTH ASPIRATIONS' was included in 'POSITIVE CHANGE'. The reason for this was that aspirations were arguably only aspirations *at the cross-sectional point of the interview*, and that PPC that had not yet happened did not mean it wasn't PPC, merely that it was possible to identify a methodological 'artefact' in the themes.

4.6 The Fifth HC

Appendix 4.14 shows the result of the Fifth HC which only involved 'Christine's' transcript. By this stage modifications were minor.

The only major changes were:

- The reintroduction of OWN back into STRUGGLE as there was no evidence the struggle existed only after the RTA, and

- The division of metaphors into two categories, indicated as: 'DFLU' and 'NDFLU', in which 'DFLU' relates to the use of figurative language relating in some way to 'driving' and 'NDFLU' being similarly unrelated (see Appendix 4.13 for examples). Once this was done with 'Christine's' transcript, all the transcripts were similarly treated. In effect this meant that the use of figurative language that had been identified back at the Second HC and been seen as merely a 'linguistic event' was now promoted to a theme in its own right.

4.7 Comparing themes across participants

As mentioned earlier, 'cross referral' of *individual observations* had been occurring throughout the HCs. However, once the data analysis process was completed for individual participants' transcripts, the next stage was to compare themes across all twelve participants.

Smith & Osborn (2003), have provided a succinct method of comparison, which was adopted in this study. Smith & Osborn describe using the superordinate list of themes from one participant's transcript "to inform the analysis of other transcripts" (Ibid, p.74). In this study, two transcripts, 'Alison's' and 'Christine's' served that function. The method adopted in this study involved a cross-referencing system linking 'sub themes' from *within a component theme* for the comparison (see Table 4.4 below for an example).

'STRUGGLE to COPE with NEGATIVE CHANGE'
- Unable to remember coping at first
- Following coping instructions
- Coping with long-term physical injuries (as well as pre-existing health issues), using short-term coping
- Failing at 'normality' coping
- Reaching 'rock bottom' (zero coping): suicidal ideation, and no motivation
- Coping 'driven' by changing beliefs
- Coping at basic tasks: finances, housework and other existential matters
- Changes to 'old' coping

Table 4.4: A framework for comparison across other transcripts: Example of sub-themes within the component theme 'STRUGGLE to COPE with NEGATIVE CHANGE' from 'Alison's transcript

Themes, which had had variable abbreviations from the First HC onwards, were now given standard abbreviations to facilitate cross-referencing. It was assumed the more entries under a specific theme, the more important the theme unless it was contradicted by text content; likewise, the less examples under a given theme the less important, unless text content showed otherwise.

It wasn't always possible to use 'Alison's' or 'Christine's' transcript as a framework for other participants. In the case of the theme 'ASSUMPTIVE WORLD pre-RTA', also discussed in Chapter Five, there was a wide variety of explanations and no less than five of the twelve participants needed quoting to capture an overall sense of the theme.

4.8 The final 'collation' HC

Comparison across participants' interviews resulted in further modifications to the themes (see Appendix 4.14 and 4.15). The modifications effectively amounted to a further HC of collating, but the only one *across interviews* only.

The final changes in themes were:

- The super-ordinate theme 'STRUGGLE' appeared best summed up as 'NAVIGATIONAL STRUGGLE' (NS) because a consistent theme across all interviews was that the *struggle* was something that had to be 'steered, or *navigated* through'. NS also acknowledged the role of figurative language - see below).

- 'OWN' was changed to Assumptive World pre-RTA (AWP), as a better fitting term.

- 'PERI-RTA STRUGGLE WITH ASSUMPTIVE WORLD' was simplified to 'STRUGGLE WITH ASSUMPTIVE WORLD' as *peri-* RTA was deemed unnecessary because it described *when* that particular struggle took place rather than *what* was happening.

- 'STRUGGLE TO COPE WITH NEGATIVE OUTCOMES' became 'STRUGGLE TO COPE WITH NEGATIVE CHANGES' because the negative changes were not outcomes as such, only at the point being described. Also the word 'change' was consistently qualified by the word 'negative' or 'positive'.

- 'LEARNING' and 'POSITIVE CHANGE' were amalgamated into 'NETWORK GROWTH' (NG) - so called because it appeared that PPC was hallmarked firstly by change in *meaning*, which amounted to a form of *wisdom* rather than purely *learning*. NG was then divided into 'INVISIBLE' and 'VISIBLE' components. In other words the two original super-ordinate themes (learning and

positive change) were required to describe NG and, in effect, NG was more than merely PTG.

- ‘PARADOXICAL WISDOM’ became ‘PARADOX’ and was positioned between the other two forms of wisdom because ‘HINDSIGHTING’ generally appeared first in texts and ‘FORESIGHTING’ last.

- ‘PROSPECTIVE WISDOM’ was renamed ‘FORESIGHTING’ so as to better match ‘HINDSIGHTING which describes roughly the same theme but with the reverse direction. ‘FORESIGHTING’ was reversed in order with ‘PARADOX’ because ‘FORSIGHTING’ was considered to be the final and probably ongoing form of wisdom, which resulted from ‘PARADOX’.

- ‘DEVELOPMENT OF SUCCESS HEURISTIC’ was put at the top of the subgroup list of ‘VISIBLE’ NETWORK GROWTH, because overall it would appear this component emerged first, once NG became ‘VISIBLE’.

- ‘ENHANCEMENT OF SOCIAL DEVELOPMENT’ becomes ‘EXPANSION OF SOCIAL NETWORK’, partly because this was the most obvious aspect of social development, but also because NG and social network expansion mirrored NS and social network reduction. The parallel between NG (network *growth*) social network *expansion* was noted.

- ‘EXPRESSION OF POSITIVE EMOTIONS’ becomes ‘GRATITUDE FOR LITTLE THINGS IN LIFE’ because by far the bulk of positive emotions across participants’ transcripts were gratitude or could be linked directly with gratitude and related to little things in life rather than of life itself, the latter describing APPRECIATION OF LIFE.

- ‘GROWTH ASPIRATIONS’ was simplified to ‘ASPIRATIONS’ and because they were ‘tangibly invisible’ in the cross sectional nature

of the methodology ‘ASPIRATIONS’ were placed in the invisible component of NG.

- NG themes related to ‘development’ or ‘expansion’ were grouped together and those related to ‘life’ were grouped together

- It became obvious that ‘MET’, originally used to describe metaphor was an inappropriate abbreviation as ‘FIGURATIVE LANGUAGE USE’ (FLU) covered dozens of different figures of speech. The word ‘USE’ in FLU was particularly important here in that it was meant to embody Wittgenstein’s aphorism “meaning is just use” (Wittgenstein 1953/2001; Honderich 2005).

- Also FLU was widespread across both negative and positive change phases and across all transcripts and was therefore given a super-ordinate theme of its own. It would have been misleading to place it between NS and NG, and it was incorrect to place it within NS or NG alone – although very tempting to place with NG (see Table 5.5). In the end it was promoted to super-ordinate theme status.

- Two component themes of FLU: ‘RTA-RELATED’ and ‘NON RTA-RELATED’ were identified.

- Finally, all abbreviations for themes were dropped, as they were no longer needed for cross-referencing.

Having completed the data analysis, the next stage was to validate the results.

Once validation stage six, i.e. ‘credibility of themes’ had taken place, the final list of themes went forward to the Results and Discussion Chapter (Chapter Five).

4.9 Rigour, validation and credibility

Chapter Three provided an overview of five stages of rigour, validation and credibility. This Chapter involved two of those stages as follows…

4.9.1 Stage Four: Validation of 'sensitivity to content'

As per Yardley's (2000, p.219) "sensitivity to content" and "commitment and rigour" principles of data collection, the author devised and adopted a scrutiny process as follows:

The second transcript was forwarded to the participant with a short note of explanation requesting that the participant read the script, identify any inaccuracies and add further comments if they deemed it appropriate. The reason seeking validation was chosen was because a post-modern approach to understanding 'lived experience' results in the researcher being decentred, whilst the text, the research participants and the reader are centred (Grbich 1999, p.51). Indeed, Grbich underlines this 'decentring/centring' theme in considering participant control, when she advocates prompt transcription of interviews a copy of which should be returned to the participant "…followed up by phonecall or a second face-to-face interview" (Ibid. p.100). Thus the participant is involved in validation not just providing data. In addition transcripts were returned to participants:

To comprehensively demonstrate compliance with consent:
…by showing that every effort had been made to confidentialise the transcript where appropriate, but also to provide an opportunity to make further confidentialising changes if the participant considered it was warranted – thus the author did not rely on personal assumptions concerning confidentiality. All participants confirmed that transcripts had been confidentialised to their satisfaction.

Authenticate the respective narrative account:
This stage was initially discussed during the post-interview debrief (see also Appendix 3.7), to explain the opportunity to expand, develop, clarify, explain, or correct any aspect of the transcription. In practice only a

couple of participants added material – none of this was new material. All confirmed the transcriptions as accurate reflections of the interview. One participant commented on the disjointed nature of the transcript, but appreciated that this was reflection of day-to-day conversation.

To check acronyms had been correctly identified:
This was more of an anticipated rather than real problem.

4.9.2 Stage Five: 'Credibility of themes'

Subjective interpretations are part of qualitative analysis so it is inevitable that questions of credibility will arise primarily because there are, perhaps, an infinite number of possible interpretations of the data. In an attempt to enhance credibility the author chose the following strategy:

- An independent researcher (IR) was identified and approached who:
  - Had conducted research into PPC and
  - Had also utilised an IPA methodology in the process of that research
  - Was an experienced Eye Movement Desensitisation & Reprocessing (EMDR) therapist
    - The IR was then sent a selection of anonymous quotations taken randomly from the final collated list of themes (excluding FLU, which were clear cut examples anyway), and which included random text segments of all themes
- The IR was then asked to assess the text segments and comment on the chosen theme.

The result was that the validation resulted in a few comments, general agreement across well over 50% of text segments/themes, some suggestions, but no recommended changes in themes, or major rewording of themes (see Appendix 4.16).

4.10 Summary

This Chapter has provided a detailed description of the data analysis process adopted in this research, which was broadly an idiosyncratic version of IPA and data analysis validation.

CHAPTER 5

RESULTS AND DISCUSSION

5.1 Introduction

This Chapter considers the answer to the first research question:

- What is the lived experience of Positive Psychological Change (PPC) following a Road Traffic Accident (RTA)?

…commencing with a review of the results from the final 'collated' themes from the Data Analysis Chapter. There then follows a detailed explanation of the results, with each theme illustrated by numerous examples grounded in extracts from the twelve interviews:

Part I: Results overview

Part II: The super-ordinate theme: NAVIGATIONAL STRUGGLE (NS)

Part III: The super-ordinate theme: NETWORK GROWTH (NG)

Part IV: The super-ordinate theme: FIGURATIVE LANGUAGE USE (FLU)

Part V: Results summary

Where themes are referred to by name, they appear in the text in capital letters for example: NAVIGATIONAL STRUGGLE or an equivalent abbreviation e.g. NS. This convention has been adopted because naming themes in lower case letters embedded in the text could result in confusion for the reader. Also as can be seen from the summary at the end of the Chapter, in order to fully address the first research question, it was necessary to identify the nature of change of both polarities.

- Because the results obtained were extensive, this Chapter is split into five Parts of which Parts II to IV detail the results stemming from the super-ordinate themes. In setting the Chapter out this way, it is not intended to convey that the results split neatly into three areas – the divisions are solely for the convenience of the reader.
- 'RTA' is retained in this study as it seems the vernacular acronym 'RTA', is still widespread in the UK and it was noted that all participants in this study used it. For this reason 'RTA' has been retained as 'phenomenologically representative' rather than 'officially accurate'.

Part I Results overview

5.2 Introduction

"When we understand a text,
what is meaningful in it captivates us
just as the beautiful captivates us"
(Gadamer 1975b, p.484)

Table 5.1 provides an at-a-glance overview of the study findings. The themes are listed in their final version of wording, together with their order and comparison across all twelve interviews.

The horizontal rows in Table 5.1 provide the number of instances a given theme occurred across all transcripts. For example the theme SECONDARY TRAUMATIC EXPERIENCES & IATROGENESIS (2TE) can be seen to be the most frequent within the super-ordinate theme NAVIGATIONAL STRUGGLE (NS). In NETWORK GROWTH (NG), the most frequent theme is FORESIGHTING (FOR) in the INVISIBLE category, whilst the VISIBLE category, themes are roughly equally divided across the range with ENHANCEMENT of PERSONAL DEVELOMENT (EPD) slightly more frequent than other themes.

The vertical columns in Table 5.1 provide the number of instances that a given theme was identified for each individual participant. Please note columns are not directly comparable. For instance, the vertical column for 'Christine's' interview appears to suggest she experienced roughly six times as much change overall than 'Isabelle'. Whether this is so, or not, *cannot* be deduced from Table 5.1 simply because of the widely differing lengths of the transcripts. In fact the column totals quite closely match the comparative lengths of the transcripts.

With well over 1500 instances of themes, Table 5.1 and Table 5.2 (which provides a two-dimensional hierarchy of themes), provide only a superficial summary of the themes.

Ultimately the format chosen in this Chapter was a compromise between providing the reader with a manageable overall conceptualisation of the

results versus a comprehensive presentation of findings that neither gave too much fine detail which would result in obscuring the overall picture, nor one that gave the wrong impression by over-simplifying findings which would result in the appearance of a false homogeneity between participants. This complex position is very similar to the long-running taxonomic 'balancing act' familiar to e.g. botanists (Backeberg 1976, p.9).

Before examining each theme in detail, it is appropriate to comment on one of the participants: 'Mike'. As Chapter Three shows, 'Mike's' PPC was originally assumed to exist although this conclusion was arrived at through misinterpretation of the inclusion criteria. This is covered in more detail in the study limitations in Chapter Eight. However, rather than abandon 'Mike's' interview, with it's subsequent transcript and data analysis, because 'Mike' met the inclusion criteria *as worded* even though the wording proved to have been inadvertently ambiguous, transcription and ultimately inclusion in results occurred. 'Mike's' case is interesting because not only does his transcript provide an excellent contrast, but on close examination under Interpretative Phenomenological Analysis (IPA), PPC was in fact demonstrated.

Finally, ASSUMPTIVE WORLD pre-RTA, which up to this point was represented by the initials OWN has been changed to AWP purely for ease of reading.

	'Alison'	'Christine'	'David'	'Fiona'	'Isabelle'	'John'	'Mike'	'Nicola'	'Olga'	'Pat'	'Robert'	'Tim'	Instances of theme occurence
NAVIGATIONAL STRUGGLE (NS)													
ASSUMPTIVE WORLD pre-RTA (AWP)	3	4	1	2	2	2	1	2	0	1	1	1	20
STRUGGLE with ASSUMPTIVE WORLD (SAW)	11	5	12	14	5	3	4	6	4	18	6	7	95
SPIRITUALITY to RESOLVE STRUGGLE (SRS)	9	10	2	0	2	0	3	1	0	3	0	5	35
HANKERING (HAN)	4	12	4	2	4	3	8	0	0	3	1	8	49
SECONDARY TRAUMATIC EXPERIENCES and IATROGENEGISIS (2TE)	10	15	16	19	5	6	6	5	9	15	4	19	129
STRUGGLE to COPE with NEGATIVE CHANGES (COP)	9	24	11	5	3	5	5	7	9	8	4	9	99
STRUGGLE for CONTROL of READJUSTMENT (CON)	18	20	7	7	2	4	11	6	5	10	2	6	98
NETWORK GROWTH (NG)													
INVISIBLE NG													
HINDSIGHTING (HIN)	35	31	14	13	3	8	6	9	6	15	11	16	167
PARADOX (PAR)	7	6	2	2	4	3	0	0	2	3	1	3	33
FORESIGHTING (FOR)	26	59	21	23	12	8	8	6	11	13	5	23	215
VISIBLE NG													
DEVELOPMENT of SUCCESS HEURISTIC (DSH)	12	12	5	3	0	2	2	0	1	3	3	7	50
EXPANSION of SOCIAL NETWORK (ESN)	6	6	3	9	0	0	0	2	1	2	13	2	44
ENHANCEMENT of PERSONAL DEVELOPMENT (EPD)	5	20	6	4	1	3	0	2	4	5	4	5	59
SPIRITUAL & PHILOSOPHICAL DEVELOPMENT (SPD)	4	22	0	4	0	0	0	2	0	5	1	9	47
APPRECIATION of LIFE (AoL)	3	3	2	2	3	4	0	3	8	4	5	5	42
GRATITUDE for LITTLE THINGS in LIFE (GLT)	12	9	0	3	3	0	1	6	2	3	4	6	49
INVISIBLE NG													
ASPIRATIONS (ASP)	1	12	3	2	2	1	1	1	2	2	3	5	35
FIGURATIVE LANGUAGE USE (FLU)													
Driving-related (DFLU)	20	23	3	8	0	1	5	3	5	5	3	11	89
Non Driving-related (NDFLU)	51	80	24	17	9	17	19	5	5	11	12	9	257

Table 5.1: The three super-ordinate themes with their category and component themes across all participants. (Figures are the number of instances a given theme occurred in a given transcript)

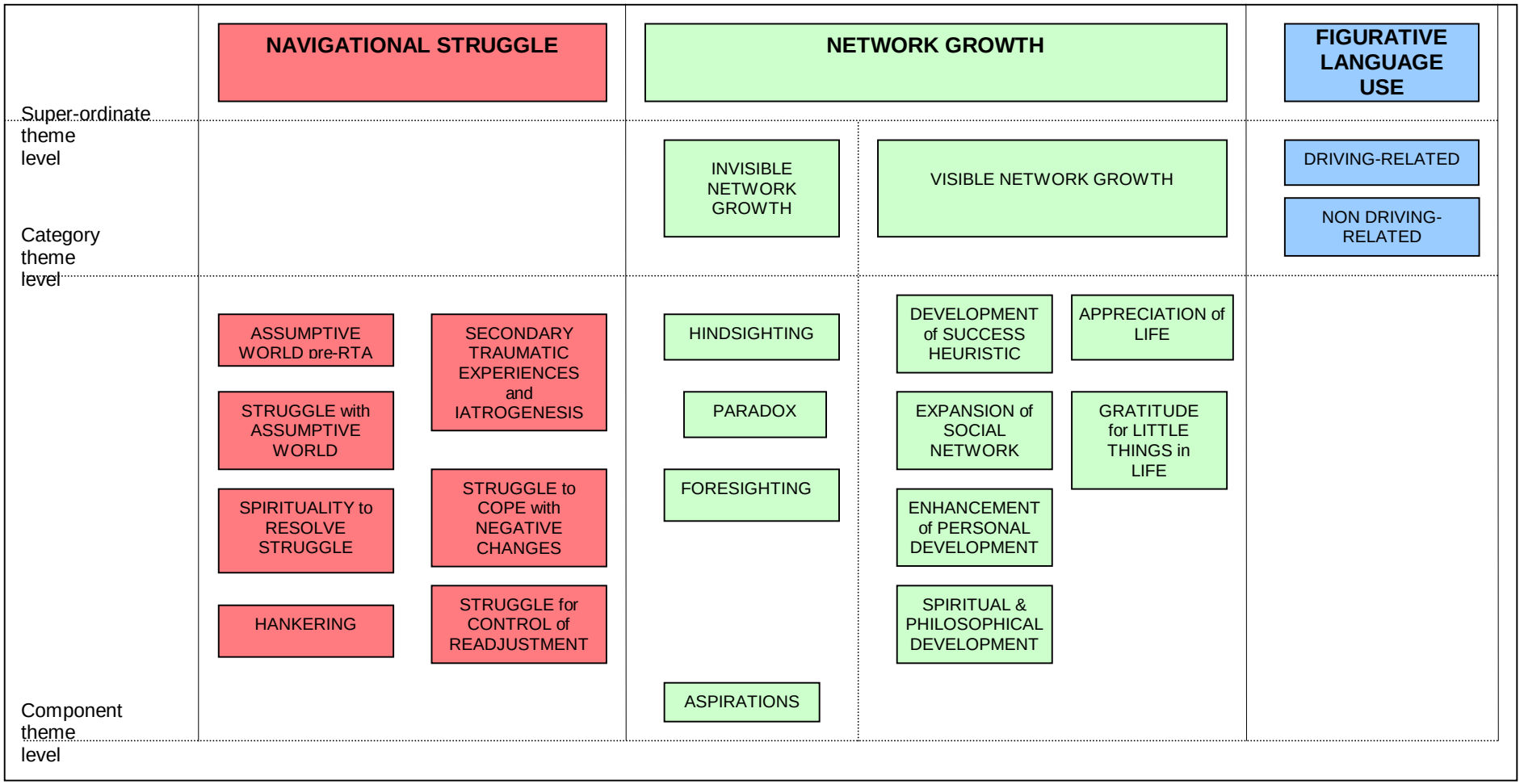


Table 5.2: Categorisation of themes from Table 5.1 showing their broad relationship to each other vertically. Horizontal comparison represents the 'splitting apart' of the super-ordinate themes into 'levels' purely for convenience

5.3 Outline of the themes

5.3.1 Super-ordinate themes

In Table 5.2, the first theme level consisted of the three super-ordinate themes:

- NS was largely, but not entirely, synonymous with Negative Psychological Change (NPC) i.e. psychological symptoms, losses, further traumatic events and so forth. NS also includes ways of reducing NPC such as coping and control

- NG was largely, but not entirely, synonymous with PPC i.e. an apparent opposite of NPC. It included elements that could be described as 'over-and-above pre-NPC status'

- FLU was deemed to have a unique contextual function within both of the other super-ordinate themes yet was neither NS, nor directly, NG

NS and NG provided a rough order of events as described by participants, i.e. negative change preceded positive change, but on closer examination, component themes of NG occurred within NS and vice versa. The third super-ordinate theme, FLU, was different as it occurred irrespective of the polarity of change and considerably more frequently on some occasions than others.

Figure 5.1 provides a simplified overview of the results in diagrammatic form. The white bar represents the participant's life pre-RTA. For the sake of simplicity it is shown horizontally, but could easily be at any angle.

The sudden change to red indicates the RTA and the subsequent red semicircle indicates NS. The change from red to green purely represents a point at which there is no predominance of NS or NG, but from that point onwards the green semicircle represents a predominance of NG. Eventually the white bar continues past the point marked by the RTA in a

different direction to the original white bar – in Figure 5.1 arbitrarily shown upwards. The subsequent direction is not particularly relevant other than it being different to a mere continuation of the original white bar.

FLU is ubiquitous – as illustrated by its presence in the answers to every Semi-structured interview question (SSIQ) (see also Figure 5.2 Section 5.7.3 of this Chapter), a theoretical explanation for this being provided in Chapter Six.

In practice, the overall results were far more complicated than are shown in Figure 5.1, and there was an intriguing similarity of the overall nature of change post-RTA as described by participants and the Taijitu symbol associated with Taoist philosophy. It is therefore worth briefly outlining what Taoist philosophy is.

Taoism is an Eastern philosophy and has had a major effect on Chinese culture and civilisation for well over two thousand years (Oldstone-Moore 2005). Taoism's primary text is the Tao Te Ching (see also Appendix 5.1) written by Lao Tzu dating from around 600BCE. Tao means 'the way' or 'path' and the philosophy highlights the interconnectedness of everything. Interestingly Taoism teaches that:

> "…human conventions which privilege human concerns and divide the world into opposites, such as good and bad (and thus positive change and negative change), are not to be trusted…" (Ibid, p.261 – contents of brackets added)

…directly suggesting that the division between NS and NG is artificial. In Taoism the differentiation would be between yin and yang, entities which cannot be understood without each other, like day and night, good and bad and, by extension, NS and NG. The symbol in which black merges into white and in which a black dot appears in the white area and vice versa means that, by extension NS and NG appear within each other. (In Figure 5.1 the Taijitu symbol has been flipped over vertically from its usual presentation in order to facilitate easier comparison with the top image).

A wider treatise on the connection between results obtained and Taoism is beyond the scope of this study, although a Taoist framework will be referred to periodically particularly in discussing the implications of the findings for clinical practice – see Chapter Seven (see also Honderich 2005, p.908 for a broader overview of Taoism).

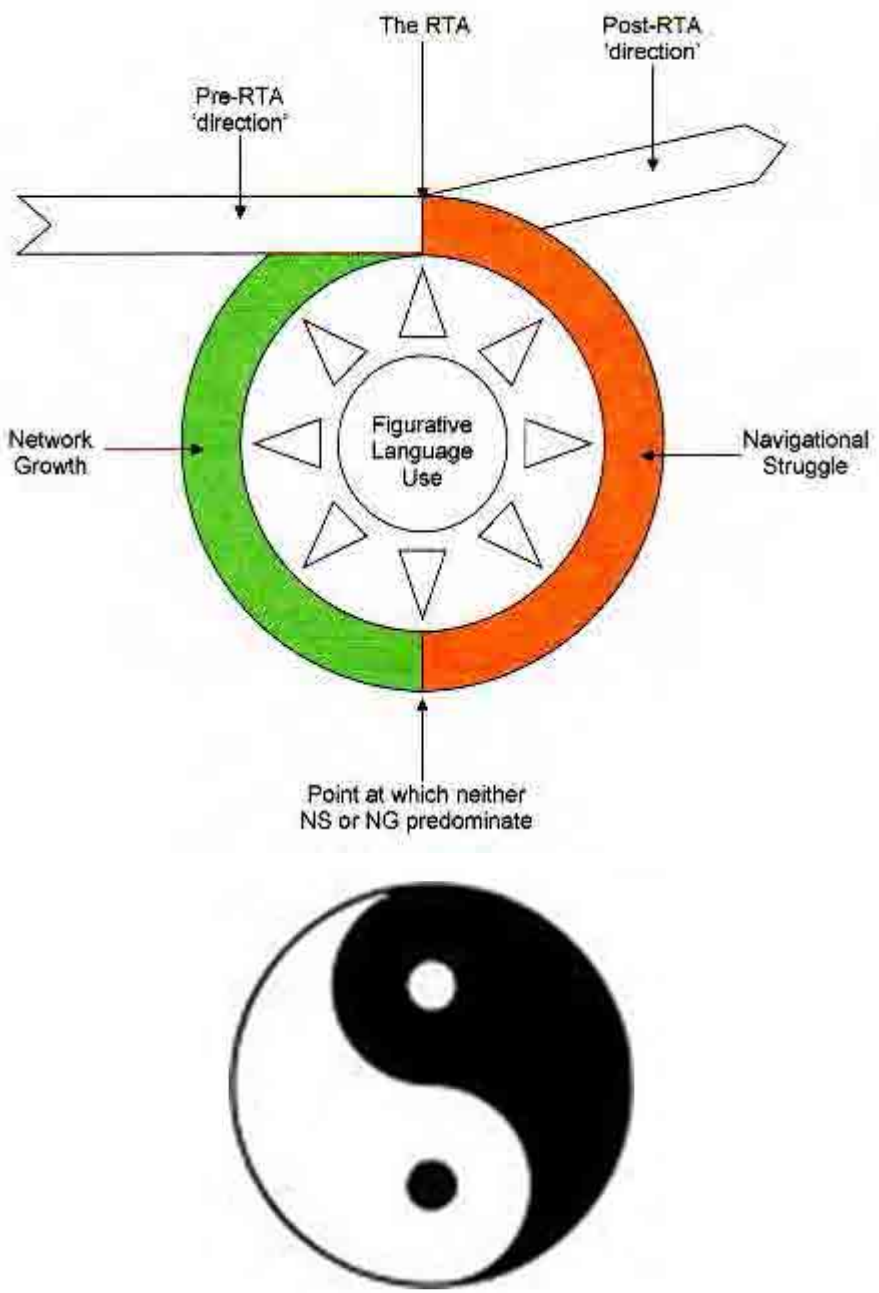


Figure 5.1:
A simplified representation of the overall findings of the study (top) and a comparison with the Taijitu symbol of Taoism

5.3.2 Category themes

The next theme level in Table 5.2 consisted of the 'category themes'. These were the major divisions of a given super-ordinate theme.

NS was not divided into category themes but NG was divided into two category themes:

- INVISIBLE and
- VISIBLE

…depending on whether NG contained an apparently tangible manifestation (visible) or not (invisible).

In the case of the super-ordinate theme, FLU, there were two category themes:

- DRIVING-RELATED (DFLU)
- NON-DRIVING RELATED (NDFLU)

A large sample of FLU was identified and placed in one of the two category themes depending on the words used in the FLU (see Table 5.3).

	FLU
Driving-related	Uses RTA or 'driving language' in a figurative manner
	E.g. I was a wreck
Non-driving related	Uses a non-driving term in a figurative manner
	E.g. She was absolutely brilliant

Table 5.3: Distinction between the two category themes of FLU

5.3.3 Component themes

The final theme level in Table 5.2 consisted of the components of the super-ordinate themes. This level of themes provided detail to both the category and super-ordinate theme levels.

NS consisted of seven component themes whilst NG consisted of ten component themes. FLU was not analysed in more detail than the two category themes.

5.4 Introduction to Parts II to IV

Parts II – IV of this Chapter provide a detailed examination of the themes at all three levels (cf. Table 5.2). Frequent reference is made throughout to participants' transcripts to justify, highlight, explain and illustrate the groundedness of the results. Comparisons are made between the results and the literature reviewed in Chapter Two which in the case of FLU is somewhat extended because figurative language was not originally covered in the Literature Search.

All text extracts that follow are from the final Hermeneutic Cycle (HC) of each transcript. The only differences being that a few words have been added in round brackets, i.e. (), to make a given extract more readable and a few words in square brackets [] to inform the reader of a contextual point. Underlining indicates original emphases made by the participant. Where appropriate, punctuation has been carefully added and all pauses unless crucial to the understanding of the extract have been removed.

The reader's attention is drawn to the fact that although themes are listed sequentially, this was not necessarily representative of their appearance in the participants' narratives. Themes frequently appeared in other places and a different order in the transcripts (see particularly FLU in Tables 5.1 and 5.2). FLU was placed after NS and NG for two reasons:

- In due course, whilst discussing FLU, reference will be made to the other two super-ordinate themes, thus requiring the reader to have prior knowledge of those themes.
- FLU did not specifically belong to either NS or NG. Indeed its ubiquitousness is shown by the fact that instances of FLU occurred before the RTA itself and within both other super-ordinate themes.

Just as participants used figurative language to explain concepts, so do Parts II – IV particularly to explain processes between themes e.g. the use of driving in unfamiliar territory to explain NS and the use of a plant metaphor to describe invisible and visible 'growth' in NG. In other words an attempt has been made to describe findings at both a literal and

figurative level. The result has been hopefully to maximise subjectivity so as to more fully describe the findings made.

Finally, the use of the word ‘figurative’ is intentional and means all or any forms of figurative language not merely metaphors. A categorisation of the various FLU components into the hundreds of different figures of speech is beyond the scope of this study and would certainly only serve to obscure the already extensive findings.

Part II The super-ordinate theme: NAVIGATIONAL STRUGGLE (NS)

5.5 NAVIGATIONAL STRUGGLE

The words 'navigational' and 'struggle' were chosen because, psychological change after the RTA, which was almost entirely negative (the literal dimension), was hallmarked by two figurative dimensions:

- A struggle, which had to be…
- Navigated through

The literal dimension of NS, was described by seven component themes:

- ASSUMPTIVE WORLD pre-RTA
- STRUGGLE with ASSUMPTIVE WORLD
- SPIRITUALITY to RESOLVE STRUGGLE
- HANKERING
- SECONDARY TRAUMATIC EXPERIENCES and IATROGENESIS
- STRUGGLE to COPE with NEGATIVE CHANGES
- STRUGGLE for CONTROL of READJUSTMENT

The figurative dimension of NS is explained in the following sections and is grounded throughout in driving (the activity central to the traumatic experience – the RTA), whilst 'navigating' suggests 'finding one's way' with a rough idea of direction and a finishing point. Similarly 'struggling' conveys a sense of ''wrestling with the steering' and thus trying to gain and regain control.

5.5.1 ASSUMPTIVE WORLD pre RTA (AWP)

AWP represented the figuratively familiar territory of the journey through life before NS occurred, which by definition was post-RTA.

There were six types of participants' responses within AWP of which the most common were of the type:

1. *'I had always thought… and that turned out to be the case'*:

> "**Before the accident I was always extremely cautious of other drivers, pre-empting their moves, or trying to. Being a motorcyclist it's just something I'd always done… trying to second-guess what someone was trying to do. I think very much the same as pre the accident. I still pre-empt drivers if I'm driving - and I do a lot of motorway driving. I (have) always got one eye on the road, and one eye on the car in front of me, because I just don't trust other drivers. I didn't trust them before and I still don't trust them now and the accident only proved to me that you can just never tell what somebody's going to do, so I'm still very, very, cautious when I'm driving.**" ('John': lines:25-28, 473-479)

This type of response was clearly neither reminiscent of the shattered assumptions predicted as being required by Tedeschi & Calhoun (1995) to be a necessary requirement of PTG, nor of the accommodation of new information required by Joseph & Linley (2005) in Organismic Valuing Theory (OVT) leading to adversarial growth. One explanation for the *'I had always thought… and that turned out to be the case*' response, was that participants didn't wish to be shown to have been wrong pre-RTA. There were, however, other responses in this study that did match Tedeschi & Calhoun (1995) and Joseph & Linley (2005) ranging from:

2. *'I've had my eyes opened'* type:

> "**I used to like driving, I mean I still do, but not as much as I used to because there's too much traffic on the roads now, and you have your own views about others drivers… Well it's opened my eyes since the road traffic accident. Before it never used to bother me I just used to get in the car and get on with it**." ('Tim': lines 20-27)

…to the more subtle admission of:

3. *'I now realise I had too narrow a view of trauma pre-RTA'*:

> "**I always associated (trauma) with more of a military term rather than anything else. I mean obviously anybody who,**

particularly at the moment with everything going on - Gulf War syndrome and things like that - it all relates back to post traumatic (stress disorder), so I always associated it with a conflict where you see things that realistically you didn't want to see, and <u>that</u> would have a knock-on effect. I didn't really appreciate the fact that you may in your day-to-day working life [Robert was a travelling salesperson] have an instance which then left you with a traumatic state…" ('Robert': lines 8-16)

4. *'I had no particular view one way or the other'*:

"**I don't suppose I held any specifically strong views one way or another. I thought there were a lot of people out there on the roads that actually shouldn't be on the roads because they didn't consider other people in their behaviour. I actually thought slow drivers were as dangerous as fast drivers, but apart from that it wasn't something I held strong opinions on.**" ('Christine': lines 14-18)

…and a variation of this, the:

5. *'I had no particular view one way or the other, but here is a suggestion that should improve matters'*:

"**I don't know how to sound unbiased here because up until the date of my accident I (had) been a driving instructor for some 14 years - so not a very good (opinion of drivers) on the whole. I mean it's like everything else, you get a few good ones [drivers] that abide by the rules, but the majority of people once they get their driving licence, although they they're qualified, they're not experienced, and I think their driving should be improved. I think there should be retesting or something like that… so no, not impressed with other drivers before the accident.**" ('Alison': lines 23-31)

Finally, 'Mike' who ultimately demonstrated the least amount of PPC, appeared to report a different AWP to other participants, which could be summarised as the:

6. *'Entirely rational and balanced, but critical' view'*:

"**Driving was an activity I enjoyed. Driving is, I suppose, a <u>necessity</u> and there's various spectrums between driving <u>as</u> a necessity for business for commuting for practical**

> **everyday life to taking the car out on a Sunday morning for a little (run) just for the sake of it. I remember when I was young and the joy to doing that, to driving cars more seriously, more <u>professionally</u> I guess, or motor sport or club activities, that kind of thing, driving in general was something I enjoyed. I think I recognised there was a spectrum of abilities from people with different <u>attitudes</u> towards driving. Some people saw it as a <u>chore</u> as a necessity. Other people enjoyed it, other people have an over inflated belief in their abilities**" ('Mike': lines 18-32)

…although this could have been more related to 'Mike's' role as a police officer rather than his view being fundamentally different to other participants.

5.5.2 STRUGGLE with ASSUMPTIVE WORLD (SAW)

SAW described the participant figuratively 'losing sight of familiar territory' and commencing a 'rough ride across unfamiliar territory'. All participants demonstrated this theme particularly in response to SSIQs describing the RTA itself. There was, perhaps predictably, a general consensus amongst participants relating to SAW as compared to AWP. Predictable because up to the RTA, people came from different backgrounds, so arguably their AWP were likely to be different, shaped by numerous and different prior events in their lives pre-RTA. The RTA brought them all together with the same type of experience, and thus participants' SAW reflected this convergence, the following being a typical example:

> "**I questioned my own mortality I couldn't, I just couldn't believe that I'd actually survived that accident...**" ('Alison': lines 237-238)

…this despite the obvious logic that in order to question one's own mortality one must have survived.

SAW was hallmarked by trying to make sense of what had happened, or, in OVT terms, struggling to assimilate the RTA experience into the existing assumptive world. Most notably the SAW was consistently described in both literal and figurative dimensions that frequently overlapped with each other. There was a very real sense of struggle, which included every method the individual participant could muster to

explain the unexplainable. The 'convergence' was explained in both literal and figurative dimensions. For instance, in the literal dimension there was a *'reporting the facts'*, type of response from 'Olga':

> "**I approached the flyover and a car came (and) accelerated. There were two cars coming towards me on the other side of the flyover. The <u>second</u> car, and I <u>just</u> remember this colour green shot out from behind, came directly into my car on the flyover so I'd nowhere to go and I couldn't do anything… I was stunned I think**" ('Olga': lines 55-59 & 64)

…and, the figurative version, as in Christine's *'attempt to convey the experience'* type of response, such as her simile on cognitive problems post-RTA:

> "**The dyslexia and head problems persisted and if anything got worse. The more I tried using me head the worse it got. I found I couldn't do left brain stuff (if) anything it was like having a traffic jam in me head if you've got three lines of traffic. I got a traffic jam in two of those lanes but <u>providing</u> I took <u>everything</u> very slowly then information could get through. If I tried shoving information in it was like having a car accident and my head just built up, a traffic jam built up, in me head and words wouldn't come, thoughts wouldn't come, and then I would have to back off it, shut it down for a long time…**" ('Christine': lines 107-114)

Christine clearly used a figurative driving scenario to describe the literal results of her driving scenario. This is discussed in more detail in the section on FLU and also Chapter Seven.

5.5.3 SPIRITUALITY to RESOLVE STRUGGLE (SRS)

SRS represented the stage at which, the participants were unable to resolve the struggle with their existing assumptive world. Figuratively this theme represented 'progress through unfamiliar territory' relying on a belief in a 'higher driver doing the navigating'. It was, in effect, a sacrificing of control for the sake of meaning.

Participants' failure to resolve the struggle led to higher order (i.e. religious or other-worldly) explanations of facts in two-thirds of

participants. However, it was rarely directly stated that, for instance, 'God' had been involved, although the RTA was described on a few occasions as being a "**Godsend**" ('Christine': line 233), which implied God was involved, even though the word was probably not consciously used that way. One explanation might be that the word 'Godsend' represented a cultural artefact of participants stemming from a once-religious, but now secular, society. Arguably participants from within a religious culture, especially a theocracy, might have expressed their SRS in a more overtly religious manner.

An example of the figurative nature of SRS expressed in this study, occurred in 'Mike's' transcript in which he saw himself almost in '*fighting a crusade'* mode, to understand and be understood:

> "**It was a fight. I was in a big fight to some degree I can explain it, but I was in a big… not even a fight… a war**" ('Mike': lines 250-251)

'Mike' was, however, an exception as most participants were able to, at least, point to a spiritual leader:

> "**I think I just remember saying well God's going to have to take me now because there's nothing I could do**" ('Isabelle': lines 55-56)

'Isabelle's' abrogation of responsibility is arguably a form of resolving a struggle because if there is no struggle there is no need for resolution.

'Tim' saw his spiritual leader as his EMDR therapist, even if the reason for this stemmed from well before the days of EMDR itself. Note for instance the use of the word 'faith' in the following:

> "**I had a lot of faith in him (the EMDR therapist) you see because of what he did (for me) twenty years prior (to the RTA)**" ('Tim': lines 450-451)

…almost said as though Tim's EMDR therapist's second involvement in Tim's healthcare was a sort of second coming.

‘Alison’ and ‘Nicola’ had guardian angels to help with their struggle with their assumptive worlds. Indeed ‘Alison’ had a ‘battalion’ of them in the form of passing an Army convoy just prior to the RTA. Soldiers came to the rescue much like the biblical Good Samaritans.

In ‘Nicola’s’ case her guardian angels were literally following her at the time of the RTA:

> “**My piece of luck was that directly behind me were three police trainee motorcyclists. They stopped, pulled my bike onto the road and found me my glasses**” (‘Nicola’: lines 52-54)

‘Christine’, on the other hand, attributed higher order help as stemming from an internal causation:

> “**I’ve always had a very strong spiritual sense. I hated religion, well not hated religion, but religion was just a waste of time to me. I knew there was something I just couldn’t put my finger on and I’d started on what people would call my spiritual path. I was doing meditation techniques and practising and I was working on healing my inner self and getting rid of you know anger pains fears of this lifetime and past lifetimes, but obviously with all the things I was doing there was very little time for me to work on myself and do that and there was a big part of me really wanted me to do it and I think this was just a way for it to come about... Had I actually caused the accident? I could have said that you know… I’d’ve brought it upon myself, I mean, and it was more easy to see that it was brought upon myself…**” (‘Christine’: 1070-1080)

…whilst also including an external causation in referring to a Godsend:

> “**Just prior to the RTA I also ran (a) clinic four days a week… my speciality was dealing with the underlying emotional causes of ill health and trauma… (which) in its funny little way was a Godsend.**” (‘Christine’: lines 229-233)

‘David’s’ perspective on higher order explanations, were literally derived from the ceiling:

> “**I remember sort of leaving my body, in a physical kind of drifty sense and there was a bright yellowy orange light**

> **and it felt very warm and free and actually I could <u>see</u> or at least I <u>imagined</u> I could see it. I don't know whether I could, it's still a bit sort of sketchy but I could see meself on a trolley having a heart massage and the trolley was nearly vertical(ly below) and all I could remember was words. I don't know where they were coming from, but there were some words saying it wasn't my time and I had to go back.**" ('David': lines 88-95)

…a case of an out-of-body-struggle? Another perspective on the assumptive world was:

> "**I had some strange, strange <u>pleasant</u> dreams. I remember having a pleasant dream... and it was on a cruise ship and there were three mackerels singing to me and that was the best night's sleep I'd ever had in years...**" ('David': lines 559-561)

…apparently this dream took place the night after an EMDR session and provided 'David' with a what could have been described as a 'miraculous' resolution to his struggle with his assumptive world.

5.5.4 HANKERING (HAN)

HAN represented the struggle to *maintain* the participants' assumptive worlds i.e. a return to the AWP rather than risking a new assumptive world. Figuratively HAN might represent the participant as 'the driver who wishes he'd never started this journey, and recognises his/her familiar territory has disappeared over the horizon'. As such, all examples of HAN entailed some form of loss and regret for the loss. Some participants voiced this in a straightforward *'regret'* fashion:

> "**There was a <u>great chunk</u> of my life lost to being ill, and you know that makes me feel sad in a way**" ('David': lines 348-349)

…whilst most participants focussed on a particular *type* of loss – the loss of their 'success heuristic' i.e. something adopted by the individual that signifies their worth as a person. A typical example was from 'Christine's' transcript – note the use of 'reading and writing… was my life' in the following:

> "**I've read in the past I gave up reading [sighs]… three (or) maybe four years ago now (about two years post-RTA) and I've probably read three books since then… and as I say I used to love reading, and writing and stuff was my life it gave me self worth which was very, very, dangerous because when it went, when the ability to do it all went, I lost my self worth totally. It's affected my life.**" ('Christine': lines 442-447)

…notice the loss of 'Christine's' self worth 'totally' (emphasised). No wonder then that, in the following, she was angry at first, but HAN ultimately resulted in the realisation of a choice, and then paradoxically, excitement:

> "**My choice would have been to be resentful to hold onto the anger and I wouldn't say I didn't feel anger because I stuffing well did I was real pissed off about it. I had a choice of holding onto that anger, but I chose not to. I chose to deal with the anger, which is just an emotion and to release it. I chose how I look at it all and to me, I'm looking at what is positive out of it and you know? It's excitement now I've got almost like a clean palette.**"… ('Christine': lines 834-835, 841- 844)

…possibly suggesting a move of from one success heuristic (a literature lover) to another (an artistic outlook on life). Ultimately 'Christine' was able to say:

> "**He (the driver who caused the RTA) was actually an instrument in giving me a gift rather than something that's destroyed me life**" ('Christine': lines 1050-1051)

These three extracts have a close parallel in the Biblical passage (see also Appendix 2.3):

> "…we also rejoice in our sufferings, because we know that suffering produces perseverance, perseverance, character; and character, hope. And hope does not disappoint us…" (Romans 5v3-5, NIV)

The key similarity between 'Christine's' extracts and the quotation from Romans is that there was a chain of reasoning from negative to positive. Also once the anger was, to use Christine's word, 'released', the use of figurative language changes from the 'driving-related' description of earlier cognitive difficulties ('Christine': lines 107-114 – cited under SAW,

to non-driving related ones such as a clean palette, instrument and gift. The comparison between this and 'Mike', who also lost his success heuristic, which was his career, was quite distinct:

> "**My career was pretty much destroyed or certainly significantly hampered. I was on the road to being fast tracked for promotion, then I had two years of being in effect… doing nothing, doing extremely menial jobs or being on sick leave. My relationships are affected both with everybody that's close to me purely because I was having very bad headaches. I was getting depressed. I was in a lot of pain I couldn't do the things I wanted to be doing, my hobbies were things I used to be doing like running and horse riding I couldn't do any more and the fact that I still felt that people slightly disbelieved the level of injury because you couldn't see it. If I had my leg chopped off then it would be quite easy to see that I had my leg chopped off you can't see a head injury nor can you see whiplash, so it took a lot of time for different people that I'm close to, to come (to) an understanding of what happened to me. I felt very disillusioned about my employer so it had a significant impact.**" ('Mike': lines 187-197)

Notice that firstly there is no chain of reasoning from negative to positive – it remains negative throughout, and secondly the figurative language remains driving-based with 'Mike' 'on the road to being fast tracked' and his career 'stalling', both of which describe the same success heuristic.

Indeed the outcome of HAN in 'Mike's' case was deeply entrenched resentment – even after successful EMDR:

> "**I've been in (a) very testing set of circumstances, and you know people do voluntarily put themselves in testing circumstances and climb mountains, run marathons to see how they will respond to them. So I've learnt something about myself in trying to deal with everything's that's going on. The difference between myself and people who run, climb mountains, and run marathons is they do it voluntarily and I've chosen not to do this and I've had to go through it. I'd rather learn about myself (from a) position of my choosing.**" ('Mike': lines 296-302)

Was this apparently 'stuck' response the reason why, at the time of the interview, 'Mike' recorded the least amount of PPC? What might this say

about the EMDR he received? What about the role of figurative language in these situations?

In relation to the success heuristic, other questions arise, what is the significance of loss of a personal success heuristic i.e. how much of the original individual has gone forever? Is HAN a sort of gateway to NG? Or perhaps HAN is the equivalent of the Greek River Styx (from: Στύξ meaning "hate" and "detestation") that needed to be crossed to get from the living to the Underworld. It might represent the risk of letting go of the old assumptive world. Also, if HAN is an obstacle, which is navigated past as this study suggests, does the length of time spent in HAN affect the ultimate nature of NG for the individual?

5.5.5 SECONDARY TRAUMATIC EXPERIENCES and IATROGENESIS (2TE)

2TE was the most frequently occurring component theme of NS. It was also inherently a double theme with examples of secondary traumas being both unavoidable and avoidable.

2TE was represented in the figurative 'driving' analogy by the encountering of all manner of difficulties such as mechanical failures, breakages and unexpectedly adverse conditions – none of which would have occurred had the 'driver' not chosen to take the 'unfamiliar journey' (the RTA). Some secondary 'problems' could have been predicted other were unavoidable.

Unavoidable 2TE broadly fell in to four categories with secondary traumas:

1. Within the immediate aftermath of the collision for instance:

> **"There was a petrol leakage, but it was like a fountain coming out of his car going onto my engine, so (someone from) the Army said you know we've got to get you out of here because your car could catch fire…**" ('Alison': lines 73-76)

2. A struggle to comprehend (SAW) such as:

> "**The Police came at the door and she [the driver's Mother] never even told them I was there. When they walked in and they asked who I was, I said oh I am Fiona Smith. (They) said we've been looking for you, do you know your sister's seriously injured? I explained to them what had happened and when they said that, she [the driver's Mother] pretended she knew nothing about it and said oh were you in the accident as well Fiona? Never mind the fact that I was soaking wet covered in mud and was you in shock... it's unbelievable really.**" ('Fiona': lines 111-117)

3. Physical injuries, particularly pain as a result of the RTA:

> "**I woke up in agony I mean me neck had <u>completely</u> locked up. I couldn't move it and there was like this pain. I've never known a pain like it in the middle of me chest, and I didn't know really what it was. Anyway we phoned the hospital…**" ('Tim': lines 105-108)

… a variation being a combination of physical problems, some contextual, some from the RTA and others occurring later:

> "**I was due to have a hysterectomy 'cos I got endometriosis and what happened in the accident was that I got a ruptured cruciate ligament in my right leg right knee and. They wouldn't operate because they said I wasn't psychologically well enough to have the operation and then in June 2001 my right knee gave way and I collapsed and broke four metatarsals in my right foot so I ended up in plaster… it just seemed like there was one disaster after another.**" ('Alison': lines 213-218)

4. The reaction of close others on becoming aware of the RTA:

> "**My wife came into the ambulance screaming 'cos she saw the state of the car.**" ('Tim': lines 88-89)

The unavoidable secondary traumas were neither the main traumas participants encountered *after* the RTA, *nor were they the most traumatic*. The most traumatic secondary traumas were the avoidable ones and hence the use of iatrogenesis in the wording of the theme.

'Iatrogenesis' was coined by Ivan Illich (1975/1995), to indicate avoidable secondary traumas. The term was referred to in the Literature Search Chapter, but only in relation to the epistemological position adopted in this study, rather than part of the literature search relating to NPC or PPC. It is therefore worth explaining the concept before discussing this facet of 2TE further.

Iatrogenesis was derived from the Greek *iatro* meaning physician, and *gennan* to produce:

> "…an expanding proportion of the new burden of disease…is itself the result of medical intervention in favour of people who are or might become sick. It is doctor-made, or *iatrogenic*." (Ibid, p.14 – original italics)

Illich intended iatrogenesis to be a generic word and defined the specific type of iatrogenesis using three adjectives to distinguish how the medical profession generated this 'new burden':

- Clinical iatrogenesis in which the doctor or, by extension any member of the healthcare system, was the cause of avoidable problems (Ibid),

- Social iatrogenesis in which, through medicine, the participants' social sphere is negatively affected. (Ibid, p.40), and

- Cultural iatrogenesis in which: "…the medical enterprise saps the will of people to suffer their reality" (Ibid p.127).

In other words the various ways in which medicine - although Illich's reasoning could easily apply to any member of orthodox healthcare - cause avoidable secondary traumas. Numerous examples are cited in this study throughout the twelve participants' experiences post-RTA. The following, representative of all interviews, is the catalogue of iatrogenesis detailed in 'Christine's' transcript:

> "**Orthodox treatment was <u>totally</u> inadequate the doctors took no notice of me telling them that I'd become dyslexic**

> **even though I'd been back to them within two or three days of the accident and they tell you to report any changes subsequent to a head injury. It took them months and months and months before I got (treatment)...**" ('Christine': lines 129-132)

> "**I suggested to them that I went to Clearhead Association…for help they told me not to bother they said that it wasn't for the likes of me… it was only people with <u>serious</u> head injuries which in hindsight was one of the most crippling things they ever did or one of the most damaging things they ever did**" ('Christine': lines 139-142)

> "**I'm very, very, sensitive to vibration which was one of the reasons for having to sell the last house and move here because I could feel the trains, the jarring of the trains, nobody else could in the house, but I was really consciously aware of it. If I go to the dentist it makes the headaches untenable for weeks well months actually and if they drill the vibration in the head continues. (The doctors sent me for an) MRI scan which was about a couple of years ago now - I vibrated in my head for two months afterwards.**" ('Christine': lines 207-214)

…even then, 'Christine' was luckier than some participants because of her pre-existing knowledge (she had previously trained to be a complementary therapist):

> "**I knew what long term drug treatment did to people - there was no way I was going down that path**" ('Christine': lines 603-604)

It seems that lack of knowledge was a 'prescription' for falling prey to clinical iatrogenesis, as this extract from 'Alison's' transcript illustrates:

> "**I was put on this antidepressant in 2000 and three years (later), my doctor in her wisdom, decided to take me off the antidepressants I were on and put me on another lot of antidepressants and Oh God that was just horrible. I couldn't sleep I mean my sleeping pattern was dreadful anyway after the accident with nightmares, flashbacks and that sort of thing, but she changed these antidepressants and Oh God it was awful and they gave me the most chronic diarrhoea and I lost twelve pounds in a week and I would quite happily of stayed in bed and just probably died.**" ('Alison': lines 366-374)

On top of this, communication or rather lack of it, figured heavily in clinical iatrogenesis:

> "**I had fourteen sessions down at the local hospital on physio with my neck and my higher back and then they started treating me. They put me in a class of six or seven (and) they started treating me for lower back pain for some reason and I went with it for three or four sessions and I said: look this is doing me no (good) it seems to make me worse. I told me GP and he said well they've got you down for low back pain. He said there's nothing wrong with your low back I said I know that, I've told 'em, and obviously something got mixed up along the line.**" ('Tim': lines 568-574)

…along with the psychological effects of 'erroneous diagnosing':

> **"My GP thought with it not getting any better he'd put me down for (an) MRI scan. I waited for quite awhile for that and I had to go to a hospital twenty miles away for one. (I got) a letter off my GP two or three weeks later that he wanted to see me (saying) they thought that they saw a sign of cancer in my neck. I though oh my God. I thought the whole world was going to cave in there when he said that. What he said was what they need(ed) to have another showing of it, inject <u>dye</u> into it, just to confirm it. It was an ill-defined lesion I think the word was. I've got to be honest for six weeks after that I was a wreck waiting to go in for this other MRI scan which I got at the local hospital actually and it was another six weeks after that till I got the results. Anyway they'd ruled it out, but they said it is possible it could be the start of MS. I thought by God you know, well that doesn't sound as bad as the other one, so I had to go back to hospital twenty miles away again to see a consultant who does MS. I went to see him, he did all his tests on me (and) said you haven't got MS… God, (this was) horrendous, the worst time of my life, this whole episode has been from 2004 up (until recently)… I would <u>not</u> wish this on nobody. People shouldn't have to go through this. I wouldn't treat a dog like it, it's God's honest truth**" ('Tim': lines 604-625)

…these secondary traumas appeared to underline the use of an earlier theme: SRS although less obviously so than previously. This time 'God' was used to *appeal to* (i.e. without specific guidance resulting). Typical examples included:

> "**Oh God that was just horrible.**" ('Alison': line 368) and "**Oh God it was awful**" (lines 370-371)

…and by 'Tim' four times whilst explaining his erroneous diagnosing:

> "**I though oh my God.**" ('Tim': lines 608-609), "**I thought by God you know…**" (lines 615-616), "**God, (this was) horrendous, the worst time of my life…**" (line 621) and **it's God's honest truth**" (line 625)

…the third of these quotes from 'Tim' suggesting, by extension, that his experience of iatrogenesis was actually *worse* than the experience of his RTA – so perhaps describing avoidable subsequent traumata as secondary was, on occasions, a misnomer. It also puts the commonly heard phrase "a simple trauma like an RTA" into context.

Despite all of this, the various Illichian forms of iatrogenesis were not the most frequent, debilitating or prolonged avoidable secondary traumas experienced by participants. It was necessary to coin a fourth term to encapsulate the sheer range, complexity and damage sustained as a result of '*legal* iatrogenesis'. This time it wasn't the medical profession that caused avoidable problems it was the legal profession and the legal system. Isabelle described how:

> "**The last word of the policeman was 'it will be a straightforward case'. It's proven to be anything <u>but</u>.**" ('Isabelle': lines 101-102)

…which hugely understated participants' experiences of the legal process post-RTA, bearing in mind the legal requirement to be insured as a driver in the UK.

Scott (2008, pp 158-64) was cited in the literature search as identifying eight areas in which legal proceedings were likely to add to the traumatic experiences of RTAs. In this study, at least a dozen areas of legal iatrogenesis were cited throughout transcripts in this study, with all participants complaining of at least one version of the following:

1 Insensitivity and rudeness amongst legal representatives, for example:

> "**I remember ringing this solicitor up and I had some questions for him and when I finally got through I said I'm Alison Jones, he knew about it and (said): What can I do**

for you? I said I've got some questions to ask you so he said [spoken forcibly:] right. I can't remember the questions now, but I sort of said well what if the so-and-so (and) he'd answer and say, [spoken forcibly:] next and this went on I had about six questions and I would ask (and) he would answer and say next. I came off the phone and I was totally disgusted with that considering that he was being paid £550 an hour he'd talked to me like that." ('Alison': 134-141)

2. Incompetency:

"I**f I was to answer (the question about legal experiences after the RTA) it would be very rude and unprincipled. The solicitors that I had originally were overpaid, totally incompetent and I'll use the word *arseholes* they were (and) there's no other word to describe them they didn't care… They sent stuff to the wrong address they didn't follow up, specialists… I didn't get to see the specialists that I should see… I went to two other solicitors for advice I was told that I had a case for malpractice or negligence whatever the term is, but they advised me not to pursue it because the case was so near Court. When they sent the Court things in, I never saw what they submitted despite asking for it. They cocked-up appointments with specialists I never got to see specialists until it was real late down the line people that I should have two years previously at least I didn't get to see for ages and bearing in mind my headaches (were) worse they were making a very bad situation even worse, they put in some claims twice, they'd added stuff up wrong (and) they'd missed stuff out**" ('Christine': lines288-291 & 308-314)

3 Non attendances at Court by defendants showing callous indifference for the legal process and thus also the claimant (i.e. participant):

"**I had to go to court four times. The accident happened in April 2001 and the first court case I believe was in May 2002 and he [the defendant who caused the RTA] kept not appearing with all these excuses and on the third occasion they were all different Courts. On the third time the magistrate said to me he apologised for the no show. He said we've only just found out about it and he said to the clerk of the Court. I'd like you to set another day and then he looked at me and he said I really do apologise about this Ms. Jones. He said I can assure you that on the next hearing if he isn't here we will hear the case in his absence… so the clerk of the Court came back with something in three months time and he [the magistrate] said no, that's not good enough, it's got to be earlier than that so I think the next case came (at) the end of June. (At**

the next hearing) he [the defendant] wasn't in court again (so) a warrant was issued for his arrest." ('Alison': 149-165)

4 Giving evidence and, for the first time, hearing about one's own previously anticipated death without any prior preparation:

"**I had to give evidence, which was horrible. I remember I was just shaking from head to toe I found it really distressing and also I heard a couple of things in the hearing that I hadn't realised (that) the Policeman thought when he walked over to my car. He said he was expecting to see a fatality. (Apparently) the thing that comes down at the back [tailboard-lift] is sort of that thick [demonstrates] and it's made of some sort of heavy metal I can't remember whether he said steel. Its solid and he said the impact was so hard that it actually released this thing that came down and he said once that's released it would normally just come straight down. Well if it had have done, it would have come straight through the windscreen but it actually stopped halfway and he said he'd never seen anything like that before.**" ('Alison': 170-180)

5 Trauma of hearing a defendant's appeal when clearly guilty:

"…**frustrating and time consuming really, because it's <u>not just</u> a road traffic accident. You couldn't write a book about it, you'd think that you were making it up. He [the defendant] pleaded not guilty every time. Eventually he pleaded guilty and all this time it was frustrating for my sister [the most injured victim of the RTA], because she knew what he'd done and apparently they all do it just to see how far they can take it or they <u>will</u> get into more trouble**" ('Fiona': lines 192-199)

6 Ludicrous excuses given in Court by defendants:

"…**so then I went <u>back</u> to court and his appeal was that he was on the motorway driving at seventy miles an hour and as he went round the <u>bend</u> [participant laughed] in the motorway that was it: all the traffic had stopped and of course the magistrate just chucked that out and said [participant spoke in 'official' voice:] Mr. Smith I have been driving all over Great Britain for most of my life and I have yet to come across a motorway that has a bend on it you can't see through so he said your appeal is denied.**" ('Alison': 185-191)

7 Financial hardship due to legal delays and/or Government decisions related to litigation:

"**I asked for my first solicitor to be changed because we were six months down the line (and) I still hadn't been paid for the car and I'd had to replace the car. They got me, in the first three and a bit years a £1000 interim payment, so I was expected to live off a £1000 in (that time)**" ('Christine': lines 300-303)

"**The Government said I could manage on £75 a week plus housing benefit. Well you know tell me what person can run a household on £75 pounds a week. That's heating bills (and everything)… I just got into terrible debt to survive.**" ('Alison': 208-212)

8 The results of lack of communication and simple errors:

"**I have very little knowledge, virtually nil knowledge, of what happened legally to the driver of the van. I was not kept informed at any stage of what was going on in terms of any prosecutions. I had to chase, and I mean chase the police to try and get <u>any</u> information out of them <u>at</u> all. (A) couple of months after I had a letter [through the solicitor] saying that the guy who had been driving the van (had been) prosecuted driving without due care and attention.**" ('John': lines 80-89)

"**My sister travelled down in her wheelchair as well, when we got there it turns out that the Police <u>hadn't</u> arranged for the document to be sent down there [to the Court], so that was a wasted trip.**" ('Fiona': lines 201-203)

9 Learning first about the outcome to their case in a newspaper rather than from the participant's own lawyer:

"**The policeman, awhile afterwards (said) I don't know if you read this… They have the Court roundup and it was <u>in</u> there and he [the policeman] said he didn't even <u>know</u> it (the Court case had) been and gone 'cos they didn't get a call up.**" ('Pat': lines 237-240)

10 Biased media reporting of a legal case showing the person responsible for the RTA was the real victim (rather than the participant):

"**I remember reading a horrible report, because it just made it out he [the drunk driver] was the victim of it all. It reported what he said in Court was he was depressed because it was the sixth anniversary of his wife's death which, I understand, but what tipped him over the edge was the death of his dog [said incredulously:] and I don't know if I'm… cold-hearted or what, but the death of a dog, even if it's your only companion, which it wasn't because he had daughters and so on, isn't enough justification in my book to go out and get so drunk (as) to wipe out potentially two families.**" ('Pat': lines 241-249)

11 Punishment not fitting the crime:

"**He got a three year ban and a few thousand pound fine, which is quite a lot, but to me it should have been more, and the police officer thought it would've been a lot more because he was three and half times over the limit, so it wasn't just a couple of extra drinks.**" ('Pat': lines 255-259)

12 Being disbelieved combined with a perceived lack of justice:

"I**t was absolute(ly) in no way compensation for what's happened so I still feel reasonably as if justice has not necessarily been served even though they admitted liability. There was such a horrendous rearguard action in the last six months to try and discredit me (and) to try and minimise my damages that it left a very poor impression upon me.**" ('Mike': lines 160-165)

Scarcely any surprise then, that a combination of Illichian forms of iatrogenesis and legal iatrogenesis, were described "**…as traumatic as the RTA in many respects**" ('Mike': line 139), echoing 'Tim's comment cited earlier.

5.5.6 STRUGGLE to COPE with NEGATIVE CHANGES (COP)

Figuratively, COP was *dealing* with 'mechanical failures, breakages and adverse conditions whilst still involved in navigational struggle along the way'. As result, there was a predictably close connection in participants' transcripts between COP and 2TE.

There were also the first signs of a 'bottoming out' of NPC. 'Alison's' narrative is a representative example, which in her case took the form sequentially:

1. Unable to remember coping at first
2. Following coping instructions
3. Coping with long-term physical injuries (as well as pre-existing health issues), using short-term coping
4. Failing at normality coping
5. Reaching rock bottom: suicidal ideation, and no motivation
6. Coping driven by changing beliefs
7. 're-coping' with basic tasks: finances, housework and other existential matters
8. Awareness of need for help to change coping

The following represent each of these components:

Unable to remember coping at first:

> "**I remember [the Army rescuer] said 'Is anything broken'? I said 'I don't think so', but I'd got really bad pain in my leg neck shoulder and chest. I don't remember getting out of the car or them getting me out of the car. I don't really remember what happened until I was sitting in the passenger seat of the truck in front. I don't know how I got up there and then the police, ambulance, fire turned up. We'd actually been stop(ped) because there'd been an accident further up. While I was sat in the cab I remember hearing another bang and another accident happened some few hundred yards back and then the policeman got into the cab of the lorry and asked if I had my seat belt on I said yes. I don't remember much of what he said either.**" ('Alison': lines 77-87)

Following coping instructions:

> "**Then the paramedic got in and said 'Do you want me to take you to hospital?' Well I said 'Surely that's your decision not mine', but apparently some sort of litigation they have to ask you and I suppose because I was just so numb and shocked I just .said 'No.' The policeman then came up and asked me to get out of the lorry and I remember looking down thinking wow that looks a long**

> **way down and (I) asked him if he could help me out, which he did.**" ('Alison': lines 88-93)

Coping with long-term physical injuries (as well as pre-existing health issues), using short-term coping:

> "**I was due to have a hysterectomy 'cos I got endometriosis and what happened in the accident was that I got a ruptured cruciate ligament in my right knee and they wouldn't operate because they said I wasn't psychologically well enough to have the operation and then in June 2001 my right knee gave way and I collapsed and broke four metatarsals in my right foot so I ended up in plaster. It just seemed like there was one disaster after another, (so) I had to use my savings to live on and when they ran out then used credit cards so I got into quite a lot of debt.**" ('Alison': lines 213-220)

…although a more common short-term coping was expressed by 'David':

> "**I think one of them [coping strategies] was by actually drinking. It's probably not what you would call <u>coping</u>, but it was a short term fix I suppose.**" ('David': lines 303-304)

Failing at 'normality' coping:

> "**I'd developed this really bad fear of driving and being a passenger in the car. In fact you know it turned into a phobia. I was almost neurotic in the car I was driving everybody up the wall, because being a driver instructor, people automatically get a bit nervous when they sit next to me [laughs] they think I'm watching everything so... [spoken in an animated voice:] 'Mind that car.' [Return to normal voice:] I was actually driving there was the imaginary brake... I'd be gripping hold of the door... oh it was just horrible, horrible and then I get angry with myself.**" ('Alison': lines 269-276)

Reaching 'rock bottom': suicidal ideation, and no motivation:

> "**I wouldn't go out anywhere I just had no self esteem. I became very depressed, extremely tearful, I even thought about suicide on several occasions - <u>not</u> immediately after, but within the following two years of the accident. Everything was an effort I had no motivation whatsoever.**" ('Alison': lines 265-269)

…did lack of motivation prevented the suicide? If suicide represented the ultimate escape from NPC, was lack of motivation paradoxically an early sign of PPC? If so, there is arguably a parallel with the Taoist concept of *wu-wei* or non-action, described as:

> "…a concept that involves not pushing against what is – the undesirable action is that which would attempt to work against or across the natural (Tao) of things." (Nancarrow 2009, p.27).

What does this mean? If 'inactivity' to the extent of relinquishing control is required for Tao (which can be seen here as synonymous with NS *and* NG) to occur naturally, then an active 'struggling' strategy like NS will prevent NG from occurring. If *wu-wei* is the magical 'non-ingredient' that causes this transition, then an active strategy especially one as dramatic as attempting suicide would run counter to *wu-wei* and thus counter to Tao (and NG). Put simply: death guarantees prevention of NG.

Returning to COP strategies:

Coping driven by changing beliefs:

> "**I would say to myself, right tomorrow I should or I <u>ought</u> to go out in the car so there was lots of shoulds and oughts and no wants and needs so I'd build myself up and say right tomorrow I'm going to go round the block… and of course during the evening that would make me feel better. Get up the next day and I'd be in tears because I just couldn't face it.**" ('Alison': lines 290-293 & 298-299)

'Re-coping' with basic tasks: finances, housework and other existential matters:

> "**My career was finished because I could no longer face taking learner drivers out. I couldn't even face driving let alone teaching. I couldn't cope with housework because the injuries that I got, but I did actually force myself to do it because I mean no house is 100% clean, but I can't be dealing with filth. I couldn't go shopping I just felt that the accident had destroyed my life. I was constantly thinking Oh my God what can I do? I didn't have a car because obviously there was hardly any car left… I did get the insurance money for that, but with my fear of driving and the bills I had to pay my bills... so a lot a lot of setbacks.**" ('Alison': lines 422-430)

Awareness of need for help to change coping:

> "**I realise that before the accident I really didn't have a lot of boundaries and I was always the first one to help people out... but I would never ask for help myself (but) I got to the stage where I had to <u>ask</u> for help**" ('Alison': lines 433-435)

…this final coping strategy shows a description, common to many participants, of a transition from *old* coping to *new* coping and even a blurring of the polarity of change in which NPC needs PPC to explain itself, for instance, this final component of COP uses an NG component theme, Hindsighting (HIN), for explanation.

COP was idiosyncratic amongst participants, but whilst 'Alison's COP is described here, most participants followed a similar sequence although few were as revealing as to discuss their suicidal ideation, except 'Christine' who succinctly summed up the situation at 'rock bottom' and what followed:

> "…**it's actually stopped me from committing suicide and helped me to get back on a different path, (a) different keel.**" ('Christine': lines 275-276)

…in which 'different keel' is, perhaps, the rock bottom of a ship.

One participant who did not mention, even indirectly, reaching rock bottom, never mind suicide was 'Mike'. The impression (see also SRS) was that he was still elsewhere fighting an earlier 'crusade':

> "**It was a fight. I was in a big fight to some degree I can explain it, but I was in a big… not even a fight… a war**" ('Mike': lines 250-251)

5.5.7 STRUGGLE for CONTROL of READJUSTMENT (CON)

This final component theme of NS represented the strongest attempt yet at the participant figuratively 'wrestling for control of the navigational

steering'. There is a clear link between this theme and the previous two: COP and 2TE, with 'Alison's' and 'Christine's' narratives being most representative. Six types of CON were described:

1 Struggle for control over access to treatment, in this instance relating to the 'gatekeepers' of Western Orthodox Medicine (WOM). Here 'Christine' takes control by resorting to medicine which didn't require a gatekeeper:

> "**…the orthodox treatment was totally inadequate. The doctors took no notice. They tell you to report any changes subsequent to a head injury it took them months and months and months before I got (treatment)… I thought at first I was having hot flushes because the accident precipitated the menopause. (I) treated myself homeopathically, but realised they were panic attacks rather than flushes because before I had a hot flush I had this overwhelming feeling of not being able to cope must get out. I couldn't deal with something and it was always associated with stress**" ('Christine': lines 129-32, 101-6)

…a variation of this being where 'Christine' demonstrated her control over treatment by rejecting WOM as ineffective, or downright dangerous:

> "**I had some acupuncture for pain. I took no drugs throughout this. The (WOM) doctors offered me painkillers. I refused because I'm very sensitive to drugs so I've never done painkillers I haven't done antidepressants I refused antidepressants. In fact I haven't even taken an Aspirin this is I've treated all the pain and all the problems through natural therapies.**" ('Christine': lines 166-171)

2 Struggle for control of litigation:

> "**I opted to find my own solicitor - a lady called Aimee Brown… (of) AB & C Solicitors and I actually found her on the Net and she called me the following day. She was on the phone to me about an hour and a half. I hadn't even said that I would take her on as my solicitor and she was so helpful. I said what about this solicitor connected with the insurance company? She said don't worry I can take care of all that… she was absolutely brilliant.**" ('Alison': lines 142-7)

3 Struggle for control of finances:

> "**They (solicitors) cocked up appointments with specialists. I never got to see specialists until it was <u>real</u> late down the line, people that I should have seen two years previously <u>at least</u>.**" ('Christine': lines 339-348)

…or where limited personal finances caused not only secondary traumas, but severely limited access to treatment:

> "**I just got into terrible debt to survive. At the time of the accident I was due to have a hysterectomy 'cos I got endometriosis and what happened in the accident was that I got a ruptured cruciate ligament in my right leg right knee and they wouldn't operate because they said I wasn't psychologically well enough. (Soon afterwards) my right knee gave way and I'd collapsed down and broke four metatarsals in my right foot so I ended up in plaster then it just seemed like there was one disaster after another. I had to use my savings to live on and when they ran out then (I) used credit cards so I got into quite a lot of debt…**" ('Alison': lines 212-20)

…in other words, what money 'Alison' had, had to go towards living rather than paying for healthcare.

4 Struggle for control over the participant's success heuristic. As before, 'success heuristic' is defined as a rule of thumb by which the participants gauged their own success. Alison demonstrated on several occasions that her success heuristic was her commonsense opinion:

> "**The psychiatrist I went to I thought I was on candid camera. This was at Harley Street and she was just neurotic. I mean she knew I'd got a ruptured cruciate ligament and said to me: [spoken in an officious voice:] Well why aren't you working? You can get work behind a bar. [spoken in a normal voice:] and I said but I've got a ruptured cruciate ligament [spoken in an officious voice:] ah! [spoken in a normal voice:] and you know I found I wasn't impressed with that.**" ('Alison': lines 728-34)

Mike's' success heuristic was his career:

"**I had to fight very hard to get to re-establish myself in some sort of meaningful role and in the <u>early</u> days all sorts of knock backs by very obstructive senior managers who didn't… who felt basically I was certainly swinging the lead despite all the doctors' reports. That I wasn't actually injured or the injury wasn't having as much as an effect I suggested it was.**" ('Mike': lines 224-8)

5 Struggle for control of other issues, particularly one's own emotions directed towards others:

"**I don't really know what came over me because… all of a sudden I had this overwhelming feeling of anger and that's not me at all. I remember walking towards him and I had my fist clenched and I was actually going to hit him [the driver that caused the RTA]. Andrew the policeman… lovely chap grabbed hold of my wrist. He said Alison don't do it its not worth it he could see what I was going to do**" ('Alison': lines 95-99)

6. 'Pat', who had been pregnant at the time of the RTA, voiced another struggle for control. She expressed understandable concerns over lack of control of the welfare of her unborn child to the extent that she questioned her sanity. The result was a very complex and 'hi-tech' CON:

"**I remember the <u>very very</u> dark days. We live very remotely and we didn't tend to get people passing <u>by</u> as such and I ended up getting paranoid, absolutely paranoid, about people breaking into the house. It just <u>sounds insane</u> how I was, but we have like CCTV monitors and I watched Penny [the baby born after the RTA] when she was asleep and we hadn't had them [the cameras] long. I ended up going out with Paul one day and getting an extra <u>couple</u> of cameras and instead of putting them in the bedroom that to watch Penny when she was asleep or if she was playing or something, I had them all round the house. I had them <u>outside</u> the house and I spent my time in the kitchen watching CCTV in case someone came and then I started locking myself in the house, locking <u>all</u> the windows. It was just madness, just madness, and I remember there was one day in particular, I was in our bedroom getting things ready and putting laundry away. Penny was asleep and I brought the camera monitor in with me and I looked and there was <u>somebody</u> leaning over Penny's cot taking her out and I remember my legs buckling trying to run and it ended up being my Mother-in-law, but I never heard her come into the house…**" ('Pat': lines 331-47)

5.5.8 NS: Conclusions

The component themes of NS didn't constitute the entirety of NPC – they merely approximated to it. There was, furthermore, no such absolute entity called 'rock bottom' – a hypothetical point at which one could struggle no further and/or at which 'negative change' was totally exhausted. Only four of the seven component themes occurred in every participant's narrative suggesting the diversity of NS and its idiosyncrasy, despite the 'convergence' discussed in SAW immediately after the RTA.

As regards the NS component themes:

- AWP varied widely, with only some participants expressing views commensurate with theoretical precursors to alternative names for PPC such as PTG or adversarial growth. Eleven participants reported this theme.
- All participants reported SAW in which there were frequent interconnections between both literal and figurative explanations of what had happened.
- SRS was very varied and showed divergence and seemed to occur after failure to resolve the struggle during the SAW, broadly in line with Tedeschi & Calhoun (1995). SRS seemed to be culturally bound and in this study manifesting itself in more ways than just appealing to God including, interestingly, reference to the EMDR therapist. Eight of the twelve participants reported this theme.
- HAN appeared to be a pivotal component theme of NS: successfully negotiate it and PPC seemed possible. Figuratively stall at this stage and PPC may be minimal (as in 'Mike's' case), or potentially worse, NPC may continue to persist until such times as HAN was relinquished. The distinction is possibly one between forgiveness and no forgiveness, or between resentment and no resentment. Certainly from an Adaptive Information Processing (AIP) theory perspective, the continuing existence of negative emotion, past the point of its usefulness suggests the retaining of

dysfunctional memories and thus incomplete EMDR treatment. Ten of the participants reported this theme.

- 2TE, because of the ongoing, cumulative nature and their frequency, it was sometimes difficult to separate out unavoidable secondary traumas from avoidable iatrogenesis. The burden of additional trauma was clearly huge, ranging from single events that were frustrating, to ones perceived as being worse than the RTA itself to which, to quote 'Tim', 'you wouldn't treat a dog'. All participants reported this theme, which was also the most commonly occurring component of NS.
- COP was also reported by all participants and was driven by the consequences of the RTA itself as well as the changing circumstances resulting from 2TE. COP revealed the start of the process of *transition* from NPC to PPC.
- Also reported by all participants was CON, which was the final component theme of NS and could be summarised as various examples described by the participant to gain power of their circumstances as though this power struggle was the final symbolic stage in NS.

Having considered NS, Part III focuses on the results and discussion in relation to PPC and the various component themes of NG.

Part III The super-ordinate theme: NETWORK GROWTH (NG)

5.6 NETWORK GROWTH

NG described predominantly PPC change amongst the participants and commenced after HAN no longer occurred and became slowly more predominant from CON onwards. However, as will be argued in Chapter Seven, it is theoretically feasible that NG started to occur in the earliest days of NS.

The word 'network' in NG was also used to show that PPC was fundamentally similar to the memory networks of AIP theory. The word 'growth' is not meant in the same way as is used in Post Traumatic Growth (PTG), rather it signifies growth in the sense of expansion or extension at three levels:

- Invisible
- Visible

These are discussed in this Chapter because they were derived from the findings directly. The third level:

- Memory network

…is discussed in Chapter Six because it was theoretically induced from the findings.

As has been described previously, AIP posits there is a physiological information processing system that processes new experiences and information through to an adaptive state with information stored in memory networks organised around the earliest related event (e.g. Dworkin 2005, p.223). The result of an adaptive state being reached is defined as:

> "…learning, relief of emotional distress, and the availability of adaptive responses and understanding." (Ibid, item six in Dworkin's list)

At face value, learning and understanding appear to relate to NG, whilst relief of emotional distress, and the availability of adaptive responses are

more reminiscent of a reduction in NPC, although this conclusion does rest on what exactly 'adaptive' means.

Nevertheless, from this point onwards, existing AIP theory effectively describes what happens when information processing is prevented from being processing through to this adaptive state. In other words, to understand the result of an adaptive state we must start – using Dworkin's item six - from learning and understanding. This is where NG appears to commence.

As will be shown, participants described a two-stage process of NG, which commenced with various forms of wisdom. This 'invisible' category was so called because it had no tangible observability i.e. no obvious manifestation other than through words.

The second category was visible and manifested itself in varying degrees of tangibility ranging from: marginally tangible DEVELOPMENT OF SUCCESS HEURISTIC (DSH), to the obviously tangible component themes. This was followed (although not necessarily sequentially), to the as-yet-to-be tangible i.e. return to the invisible ASPIRATIONS (ASPs), which were only not tangible because of methodological restrictions (i.e. the cross-sectional nature of the research design).

Figuratively, NG can be explained by the analogy of a seed that germinates and, for a time, remains invisible underground until the new seedling breaks the surface. It then becomes visible and there is a tangible outcome:

> "**(The EMDR Therapist) planted the seed. She said I obviously don't know you inside out, but you know you come across (as a) very sort of patient and calm person… what about helping other people that have been through a trauma, an RTA trauma? And that's all she said. So I founded the business 2½ years ago nearly and I've had a 100% success rate.**" ('Alison': lines 492/3; 520/6 & 550/1)

To follow the progress of this 'seed' from its 'germination' onwards is to describe the component themes of NG.

5.6.1 HINDSIGHTING (HIN)

HIN was defined as the process and result of acquiring insight into past events. The transcripts show that HIN was a clearly retrospective event:

> "**The traumatic bit? I didn't really expect it to be as bad as what I thought the word trauma meant…**" ('Tim': lines 8/9)

HIN was the first component of invisible NG to occur and, extending the 'plant' analogy, HIN was akin to the PPC 'seed germinating'.

Although phrases like 'looking back' and with 'hindsight' clearly indicated HIN, there were at least six types to HIN:

1. Straightforward re-evaluation of earlier thoughts:

> "**I seemed to remember thinking (travelling) with Adele that she was purposely driving badly to cause another accident, and looking back she wasn't, but at that time I was really convinced.** ('Alison': lines 402-4)

2. The *'nevertheless things improved'* type:

> "**What I should have done in hindsight was just write two things down you can cope with, but you know I'd write about ten things down then look at it the next day and think I can't be bloody bothered with that, but yea things started to pick up.**" ('Alison': lines 442-5)

3. Actions at the time were due to mental aberration:

> "**I remember once I thought some animals actually… well it was birds flying off the road… getting run over, I was hysterical afterwards. I… I would <u>not</u> stop crying. It was really upsetting… I don't think I've ever been like that in my life… it seems a bit <u>daft</u> now.**" ('Fiona': lines 235-8)

…however, even mental aberration could be confirmed as positive experience:

> "**It wasn't really until I went to (the EMDR therapist that) I felt a lot better than I did abo(ut) this time last year. Going to**

> **see Felicity really helped. She was very patient as well. I think as well it also helped telling her about what had happened and everything and going through it all, and it helps really, because she was like… 'that's awful' and because you think to yourself am I just imagining it? When someone <u>confirms</u> what you already think. I think that's quite helpful as well isn't it? Because it's a bit mad really…**" ('Fiona': lines 458-65)

…so madness in this circumstance could be circumvented if someone in authority 'sanctioned' it.

4. HIN also resulted in personal shame and other negative emotions:

> "**I think they were very patient to be honest because I was quite irritable. I had no patience whatsoever, if someone had cut my Dad up or anything on the road then I would start a screaming and shouting match with them and I think back now (and) I feel quite ashamed really… [sighs] totally out of character really.**" ('Fiona': lines 346-9)

5. The reverse was also expressed, namely that HIN could result in positive change:

> "**(As for) the mental side of thing I was seeing a local nurse that was coming to my GP's practice and she was helping me get back into the car really... I think she called it gradual exposure you know just taking it step by step… taking things gradually... which <u>helped</u>.**" ('Fiona': lines 454-7)

6. Finally, there was denial of NG during HIN, because it was argued that NG was only present because of NS:

> "**I'm trying to sort of think of the positive side of it but my mind's continually flipping back and thinking, but if the accident hadn't happened you know I wouldn't be having to go through those things to make them positive. That('s) the way my mind's working on it. I find it very difficult to say well you know there's sort of positive things come out of the whole experience because the positive things that have happened… have only happened <u>because</u> of the accident**." ('John': lines 285-91)

…a position also adamantly held by 'Mike':

> "**I wouldn't say a positive they're a <u>side</u> issue, they're a side <u>benefit</u>, I don't like using the word benefit. They're a by-product, a by-product of the accident whereas if I went out and <u>chose</u> to go and do something or if I just went and <u>chose</u> to pursue my career as I wanted to do and test myself doing that through that career then they <u>would</u> be positive because the difference is about control and who's determining these events.**" ('Mike': lines 314-20)

5.6.2 PARADOX (PAR)

Using the plant analogy again, PAR was akin to the seed sending *down* a root when ultimately the germinated seed will be heading in the opposite direction.

There were consistently less examples of PAR as compared to both HIN and FOR (see Table 5.1).

PAR was defined as contradictory wisdom with instances consisting of two, or more, elements in opposition to each other. It appeared to be the least visible of the invisible category and was not even voiced *directly* by participants. Its presence was only established by its implied existence.

At least ten paradoxes were identified:

1. Paradox of loss: *'Out of huge loss has come huge gain'*:

> "**…it's a gift beyond words a gift beyond words so yes there's been loads of good come out of the accident. There's two sides to everything it could've been seen as a tremendous loss, a financial physical emotional loss, because in material terms I did. I lost everything but I can choose how I look at something I can choose my response to something.**" ('Christine': lines 807-8; 818-21)

Although this paradox commonly occurred amongst participants' transcripts, Christine's' example above was unusual because the huge gain of the 'gift beyond words' was reported *before* the 'tremendous loss'. Furthermore, there is also the start of a reconciling of the paradox in that Christine was able to 'choose my response'.

2. Paradox of the whereabouts of treatment: *'Out-of-session treatment <u>was</u> the treatment'*:

> "**I think I had something like <u>seventy</u> sessions (of counselling). I went every week for almost a few years and I was going because of this fear of driving… so she would help me with it and <u>it didn't help one bit</u> with my driving and of course you know it was it was a good sort of 25 minute (to) half an hour sometimes drive because you know you've got two speeds in London that's slow and stop and normally a nine mile trip would take 10-15 minutes if you had clear roads so by the time I got to my counsellor I was so stressed from being a passenger…**" ('Alison': lines 318-27)

…hence repeated exposure to travel before and after sessions of counselling, which did not address the trauma yet was to indirectly result in NG:

> "**The idea came together that I thought about myself having to travel to my counsellor [laughs] and being in a right state when I got there and the state I was in when I got home so I thought well you know if I study and pass my exams and become a counsellor (and) travel to their homes because then they haven't got the stress of having to travel to their coun(sellor). So I founded the business 2½ years ago nearly and I've had a 100% success rate.**" ('Alison': lines 545-51)

…so after seventy sessions of counselling 'Alison' underwent a course of EMDR after which the result was another intriguing paradox:

3. Paradox of unfocussed treatment: *'Awareness of unfocussed treatment that resulted in focussed NG'*

In other words, if it hadn't been for the seventy sessions of 'wasted' treatment (i.e. from the perspective of treating 'Alison's' travel phobia), would she have ever considered her future career – with or without the subsequent EMDR? The answer seems to be that the current treatment guidelines for Post Traumatic Stress Disorder (PTSD), (NICE 2005), are not necessarily likely to be applicable to promoting NG. This is perhaps a commonsense conclusion because evidence-based practice focuses solely on NPC.

Other identified PAR were:

4. Paradox of control: *'Relinquishing control to gain control'*:

> "**I can't remember she [Alison's friend Adele] was away. I remember being in the flat on my own when I got this really bad diarrhoea and so although I was drinking water I wasn't eating 'cos whatever I ate just went straight through me. I remember she [Adele] came back on the Friday and saw me in bed and just (said) Oh my God and called my doctors and got an emergency appointment. Adele said to me I think I ought to come in with you and I just said oh-yea-yea I mean I couldn't give a monkey's who was in there and when I went in I was just talking a load of gobbledygook… I couldn't quite get my head wrapped around this one and then I remember Adele taking over and the doctor was absolutely appalled that the other doctor had taken me off what she said should have happened you should have been slowly taken off the antidepressant you was on and then slowly introduced.**" ('Alison: lines 377-84 & 391-5)

5. Paradox of authoritative advice: *'Simple and painless is complex and hurtful'*:

> "**The last word of the policeman was 'it will be a straightforward case'… It's proven to be anything <u>but</u>.**" ('Isabelle': lines 101-2)

6. Paradox of empathy: *'Losing affect control means gaining control of experience'*:

> "**Because there's <u>nobody</u> like somebody who's been through it because you understand where they are coming from and the floods of tears and the <u>temper</u> tantrums and things. That's <u>something</u> I've learnt to do is throw a temper tantrum hmm… that was <u>amazing</u> the first time I throw that's something else [laughs].**" ('Christine': lines 1179-82)

7. Paradox of existence: *'The death of old me allows the birth of new me'*:

> "**My head was also my self worth my intellectual abilities were my self worth it was also my whisky bottle if things were difficult I <u>worked</u> and I used my head. My head was everything and to lose my ability to use my head was in**

effect the death of me… It's these treatments, these emotional management techniques, and the visualisation, it's the kind of work that I do that has <u>enabled</u> me to start building a whole new life that's brought me in so actually I'm enjoying life and accepting who I am… <u>as</u> I am." ('Christine': lines 396-9 & 1018-20)

8. Paradox of outcome: *'Good always comes of bad'*:

"**I've moved on I mean you got this old cliché every cloud's got a silver lining and I'm the type of person that when anything... inverted commas… <u>bad</u> happens, if you look for it there's always something good that comes out of it.**" ('Alison': lines 882-5)

9. Paradox of right and wrong: *'Two wrongs can make two rights'*:

"He [my husband] said we were in the wrong place at the <u>wrong</u> time. I think maybe we <u>were</u> at the <u>right</u> place <u>at</u> the <u>right</u> time" ('Pat': lines 688-90)

10. Paradox of time: *'More time available means less time'*:

"**It was important to me that I got up and not at lunchtime you know. I got up early morning. When I say early morning I'm normally up about seven, (but) it would be nine o'clock… half past, but I made sure I made breakfast. I made sure I got dressed, even though I could spend an hour doing nothing and I don't know where the time went and I found I'd lost all sense of time. It really was quite strange. I'd think it would be 11 o'clock in the morning and it would be half past 2 and I don't know where it went.**" ('Olga': lines 236-46)

The centrality of paradox in this study is once again reminiscent of Taoist beliefs on the subject. The *Tao Te Ching* (Dale 2005), the main Taoist text, devotes many of its eighty-one verses to the central importance of paradox (see Appendix 5.1). In essence, the implication is that 'deep truth' i.e. wisdom, is contained within paradox.

5.6.3 FORESIGHTING (FOR)

FOR was the final part of a 'wisdomising' process broadly of the form:

- Evaluation of my own predicament (HIN) followed by,

- Extraction of essence of learning stemming from the predicament (which quite often was PAR) followed by,
- Expression of authoritative advice (FOR)

The following illustrates the HIN to FOR transition:

> "**I think that was it. It was abnormal for me and it was abnormal for everybody else it's happened to, but it is normal for the circumstance, but I don't know if that's the advice or not, but I think it is (to) tell someone about it.**" ('Pat': lines 798-801)

…the HIN component is the realisation of the universality of abnormality in the situation, the PAR component is again the most invisible amounting to it being normal to be abnormal. The FOR component being the advice to tell someone about the wisdom accrued.

Translating this progression to the plant analogy, 'the shoot is heading upwards towards the soil surface' (FOR), but it is always preceded by the 'seed germinating' (HIN) and 'the root heading in the opposite direction' (PAR).

As regards solely FOR, the following examples illustrate authoritative advice, or adaptive role modelling. Because each example relates to successful coping, collectively FOR amounts to an 'advisory manual' on how to cope - in this case after an RTA. Furthermore this collated advice is provided by 'NG veterans' so is more than just how to cope with NPC:

On managing covert symptoms:

> "**I've found not only from my own experience, but from clients as well (that) because it's so distressing to think about and you don't want to put yourself through that you kind of shove it to the back of your mind, you bury it… and I know now that by doing that you can't come to any closure with it… A lot of my clients do that and you know I get them to recall (memories) to then work on to closure.**" ('Alison: lines 704-9)

On managing emotions:

> "**People need to be taught they have choice. I've met people that have had car accidents and ten years down the line they're still screwed you know mentally, emotionally, screwed by them, because they've still got the resentment, they've still got the anger, nobody's ever taught them… you are angry you are resentful, you are frightened, and those emotions need to be dealt with and people need to learn how to deal with the emotions so that they can deal with the practicalit(ies) in a different way.**" ('Christine': lines 1162-8)

On seeking treatment:

> "**I would advise somebody (who) has already been to see a counsellor (for) CBT travelling to the counsellor's home for example and that isn't really working for them, I have advised and I would advise EMDR. My advice to them would be to have EMDR**" ('Alison: lines 832 & 845-7)

On a specific (not entirely evidence-based) treatment regime:

> "**I would go without second thought go down the path I did I would find myself a good osteopath and a good Bowen therapist for the physical damage I would take homeopathic remedies in order to speed up the healing to bring the bruising out the shock out of the system on a more biological level. Then I would use EMDR I would use the EFT because I've used a lot of that I would use the emotional handling techniques, which I used.**" ('Christine': lines 1120-5)

On evidence-based guidelines on counselling and trauma:

> "**Confide in a close friend or someone that might understand. First of all go and see your GP (and) ask them to see a trauma specialist and not a counsellor I would definitely not advise seeing a counsellor I don't know what they are like nowadays whether they refer you straight onto the trauma specialist, but counselling to me is not the way forward and unless it's changed somewhat over the last few years probably never will be. I think it's extremely superficial and basically I would I would say in my opinion a lot of them are just scab pickers and they keep the wound fresh for what reason I don't know and I know people who've been verging on all strange things happened to them in their lives... been to see a counsellor... they've talked to them for weeks and months and they've just got bored with talking to them or they don't want to go back now this is the feedback that counsellors don't hear… they believe their own press.**" ('David': lines 664-76)

On endorsement for evidence-based treatment for trauma:

> "**I would definitely recommend EMDR treatment that I received… definitely. It definitely improved how I was feeling before I can't really recommend it enough really. Just talking to someone I think helps maybe with someone who's not family, not friends who you know... just get them to understand really what's happened.** ('Fiona': lines 617-22)

On the experience of suffering and not to expect others to have any understanding of that experience:

> "**I was always seen as a very strong person. I had people say to me 'well all you have to do is just get in a car there's nothing to it'. They're not feeling my pain, they're not seeing through my eyes, they're not the ones having the sleepless nights you know. There's a lot of people that knew me just couldn't understand why I wouldn't drive they had no concept of what I was going through.**" ('Isabelle': lines 407-12)

On being proactive:

> "**My advice to anybody would be to not sit back and wait for the phone to ring. You've got to pick the phone up and you've got to dial… you've got to phone people (and) you've got to push (th)em.**" ('John': lines 496-9)

On an RTA as an instigator of career change:

> "…**if the accident hadn't have happened I wouldn't be doing what I'm doing now which I absolutely love and how many people out there if you ask a hundred people do they actually enjoy and love doing their work [laughs] I shouldn't think the percentage would be very high because working is to a lot of people a necessity isn't it? You know obviously I'm doing it for a living.**" ('Alison: lines 894-8)

On significance of personal help and guidance:

> "**You can have all the sympathy in the world, but no empathy and no real understanding of the difficulty of not being able to work out how your own oven works and how to set your central healing clock and things like this. It's amazing what you lose the ability to do and to have**

> **somebody at the end of a phone that can help you or support you or give you guidance on where to go because through an RTA you need specialist solicitors because there's an intellectual aspect of an accident whether you like it or not and somebody holding your hand to take you through it takes a lot of pressure off that's what I would do if you had a head injury if you've got a physical injury I think it's slightly different.**" ('Christine': lines 1110-9)

…although 'Christine' may actually have meant 'heating' in her phrase central healing clock – or perhaps it was a deliberately crafted use of FLU?

On letting people help, the basic practicalities of helping oneself and appreciating the basics of life:

> "**I think the thing you've got to do if nothing else is let people help you. I think that was the hardest thing I found is that I wanted to try and do it myself, but I wasn't capable of whatever it was, be it paperwork or phone calls. I had to use other people initially, to write things down, write everything down, keep notes of everything because that's the hardest thing of all you know. It's been invaluable to me to have notes. I used to write everything in a book, and put them with the different files that I had going for various things, because you can't remember from day-to-day what you do, initially. Try not to achieve everything instantly, because it doesn't work like that. It takes a long time in some cases to be able to do normal things like writing, reading… I couldn't read for months. I've read a book recently, which to me was phenomenal because I hadn't done that for such a long time. Yea… I'm alive. I'm well. I'm fit. It didn't kill me, it didn't kill anyone thank heavens. I think that it's a case of you're then glad of what you do have in life, and the things you always take for granted such as your friends and family and the fact that you know you're able to manage, and you're able to cope and you have a good life… are very positive.**" ('Olga': lines 498-527)

Whatever form FOR took, it was sincerely meant. There was, however, one exception - when coping was not successful. Then emotionally laden advice became more akin to sarcasm:

> "**There's something flippant about not being in the police force whilst you're having your accident**" ('Mike': lines 413-4)

5.6.4 DEVELOPMENT of SUCCESS HEURISTIC (DSH)

To return to the plant metaphor, if the end of FOR is akin to the plant's shoot breaking the surface, then the first component of visible NG, DSH, is akin to the seedling above ground.

In this study, DSH appeared to stem from the result of FOR, into a direction in life that the participant considered would be personally successful, rewarding and in which they could measure their success. Several participants opted for DSH in healthcare, which could be interpreted as an extension of the lay-therapy mentioned above:

> "**The idea came together… if I study and pass my exams and become a counsellor (and) travel to their homes because then they haven't got the stress of having to travel to their coun(sellor)...**" ('Alison': lines 545, 547-49)

…note the 'idea came together' suggestive of memory networks connecting (see also Chapter Seven). This change of career direction required radical change given 'Alison's' occupation as a driving instructor, but perhaps not as much as 'David's' from plasterer to healthcare:

> "**I mean most people I suppose are geared towards growth and enlightenment. [Interviewer:] You showed me nine framed certificates including various NLP, hypnotherapy courses, and also your Level 1 EMDR training certificate from 2005… ['David':] (They) came about as a direct result of the EMDR treatment about nine years ago and I've figured out that I didn't actually know people that well or recognise the signs of people's physiology so I thought I'd embark on a course of discovery if you like. I'd like to practice EMDR with people I'd like to treat. At the moment I'm still in my old trade as a plasterer and I'm quite good at that still, but I do realise that I can't sort of stay in that position so I'm a little bit sort of... on the crossroads at the moment.**" ('David': lines 403-4, 409-21 and 696-9)

'Christine' was rather different, because she had already left academia prior to the RTA. The experience seemed to convince her that she had made the right choice of success heuristic:

> "**I can stand up to people now in the nicest possible way because I can love and respect myself in a totally different**

> **way. My <u>self</u> worth was in academic achievement in being able to provide in being able to achieve. I don't want to provide anymore. I don't want to achieve any more actually, just <u>enjoying</u> what <u>is</u> and <u>being</u> that's my goal.**" ('Christine': lines 761-7)

…whilst 'Robert' remained at the same paid occupation. Crucially however, his part time hobby became significantly more important to him:

> "**My archery has gone from being a sport of enjoyment to a sport of competitiveness far more to the point of winning gold medals.**" ('Robert': lines 298-300)

For 'Robert', it seemed as though the RTA acted as a no-change condition for one aspect of his life and a catalyst of change in another. It may be this selectivity is part of an ongoing change process anyway and this is encapsulated by the word 'development' in four of the seven component themes of visible NG.

In a broader sense, these examples point to any healthcare professional asking themselves how they come to be doing their occupation – or wider still - why does anyone chose the career they end up doing?

It would seem there is a very approximate equivalent of DSH to Tedeschi & Calhoun's (1996) Post Traumatic Growth Inventory (PTGI) subscale 'new possibilities in life'. However, the results from this study would appear to point towards something resembling Maslow's (1943) Self Actualisation Tendency in which there is a tendency for an individual to strive for a state of realising one's true potential. As a result there is a link between DSH and ASP, which is discussed in due course.

5.6.5 EXPANSION of SOCIAL NETWORK (ESN)

ESN was identified within nine of the twelve participants' narratives and was evident in Martin's story in Chapter One in which PPC/ NG was associated with growing social networks, as opposed to the contraction of social networks and potential isolation in NS. There is also a parallel with the growing memory networks proposed in FOR.

The effect of ESN was summed up:

> "**I'm more understanding of other people now… I've got more empathy and understanding with people.**" ('Alison': lines 758-60)

…an understanding which inevitably led to provision of advice to those who were in the same predicament:

> "**I found that people… did the same as I did and go into complete overload so I tend to give them the advice on the experiences that I have had.**" ('Alison': lines 868-70)

Assuming FOR when expressed generates ESN then it is likely that ESN will act as a reinforcer to future FOR and thus further ESN results. This is akin to the deviant amplification system described in Transformational Coping Theory (TCT) in Chapter Two only applied to purely positive outcomes – a sort of 'anti-deviant' amplification. Under the right conditions this explanation could make for very rapid ESN as in 'Alison's' case:

> "**I was really nervous because I'm alright on a one to one (basis), I can't bear all these eyes on me. (I) went up there to do a presentation, spoke to the manager of the department and she wanted to hear it (the presentation)... I did everything I did to avoid them sussing out who I was so [laughs] I got a business line in, they had my private line I used an address some miles away from mine as my business address and anyway going back I did this presentation for her and she said yes that's fine I'll call my staff in… then said are you the Alison Jones that were on our records and the settlement concluded in October last year? I sat there looking at her I was going oh shit and I then thought well I'm not going to bullshit here I said yes I am that Alison Jones I said, and I can <u>honestly</u> say hand on heart if I hadn't have had the <u>support</u> of (your) Rehab Co. I wouldn't be sitting here now and she said [spoken in a confidential voice:] could you tell the staff when they come in? [normal voice, laughs:] so of course we had a laugh about it so they gave me my first clients I've got four or five companies now passing clients on so I'm just flying up and down I go as far as the North of England and at the moment as far south as the south coast. I <u>never ever</u> thought in a month of Sundays I'd be doing this three years ago.**" ('Alison': lines 594-610)

…this extract contains several notable points:

- Despite nervousness, ‘Alison’ went forward with her DSH to become a peripatetic counsellor and travel to see clients who were in a predicament similar to the one she had been in
- ‘Alison’ was quite accepting of losing control of the social situation
- Both ‘Alison’ and the Rehab Co. manager had congruent goals
- By revealing her true self, ‘Alison’ quickly achieved ESN
- ‘I’m flying up and down’ is very reminiscent of Martin’s presence on the train

An overall change from reducing social contact, through a phase of reliance to subsequent ESN associated with NG is illustrated in the next two quotations:

> “T**here was at the time the network of people I had around me. (They) were doing their best that they possibly could to try to get me through the situation. I was trying cope on my own more, I think, because I’ve always been quite self-reliant and then to have to get to the point were you have to rely on other people… I don’t think you truly do that until you need to. I know you appreciate them, they are your family, they are your children, your wife, and I don’t think you truly appreciate the amount of support they give you until you need to rely on it.**” (‘Robert’: lines 240-5 & 252-55)

…‘Robert’ had previously described his sense of self-reliance and independence, but changed to a deep appreciation of others, a theme running through two other NG component themes: AoL and GLT.

The following extract shows how DSH - in this instance, career and hobby - went hand in hand with improved relationships and thus ESN:

> “**I think rosy would be an understatement actually. I’m in a job that I love that is giving me far more responsibility and with a growing part of the business behind me. My archery has just taken off so that’s a fabulous outlet after the stresses and strains of work. My family life is a hundred times better than it’s ever been before and I think my tolerance of people around me is far better than it’s ever been before.**” (‘Robert’: lines 511-6)

5.6.6 ENHANCEMENT of PERSONAL DEVELOPMENT (EPD)

Whereas ESN described the social focus, EPD described the personal focus on learning and/or enhancing skills and there was a connection between COP and the need for new skills:

> "**I had to make a decision on what I was doing and I can't make decisions even now if people want me to do things I'll say yes but you'll have to know if it's bad head day (if it is) I'll have to cancel or can I tell you nearer the time? I've learned to reprogram my whole life.**" ('Christine': lines 424-7)

…in other words the 'new me' requires me to 'do new things'. However, this change is unlike COP in the NS, which was largely imposed upon the client out of circumstance. With EPD typically, participants would see this change as some form of offsetting suffering against overall gain, such as:

> "**Having experienced what I have experienced it was a [laugh] bloody awful experience and the headaches and that I wouldn't wish on anybody, but the learning what I understand about shock and the treatment of trauma (is) a joy and a gift.**" ('Christine': lines 679-81 & 683-4)

…even if 'enforced change' meant doing nothing at all:

> "**We'll just pratt about and do nothing because then I don't have to make any decisions or do any more headwork so I can bring the stress levels down it's all about controlling me stress levels, so if I keep my stress levels down my headaches come down (and) my quality of life goes up.**" ('Christine': lines 726-9)

…an interesting example of the Taoist *wu-wei* concept described earlier? Another interesting point here is 'Christine's' use of the plural, 'we'll', to start with given that 'Christine' had been talking solely about herself. It might just be 'Christine's' way of indicating a sort of 'cerebral committee' making decisions. If so, could this be an indication of the resynchronisation of the two cerebral hemispheres that was offered as an explanation of the effects of EMDR by Shapiro (2001) (see also Chapter Two)?

Another example of EPD, also provided by 'Christine', illustrates the excitement of discovering the 'new me':

> "**From a healing point of view (it's) magical, absolutely magical and the connection's so much better and it's given me the biggest biggest bonus of all, it's given me time to work on my spiritual growth and development.**" ('Christine': lines 785-7)

At face value this extract may seem confusing although the excitement clearly comes through. The context is that 'Christine', who had already made a decision pre-RTA to leave academia and work on complementary health had found that after the RTA and *particularly* EMDR her 'connection' with others had been greatly enhanced. This points not only to ESN, but also to something personally enhanced in her. Furthermore, the development has taken on a spiritual dimension.

Another version of EPD is illustrated by 'David' who turns hypervigilance, a negative symptom (i.e. NS), into positive asset (i.e. NG):

> "**I'm a motorcycle rider. I couldn't get on a bike for ages and it made me more wary of other road users. In fact I would say it probably made me a safer driver on account that you're always constantly on the look out for signs of danger on the road and anticipating other people's moves and manoeuvres. Since that day maybe I probably rode my bike a bit close to the back of cars and stuff and now you know it has the effect of keeping me distance and things like that and being more observant and I'm equally as aware… of what goes on behind me. When I'm out in traffic as in front you keep your eyes on your mirrors as well as keeping your eyes on driveways, openings, gaps in hedges where tractors can come out, all that sort of thing. You become very acutely aware of any danger that's around you or possible danger.**" ('David': lines 271-82)

'David' also provided an example of how EPD and ESN interact with each other:

> "**Since I received (EMDR) treatment I think I've become a little bit more understanding to the needs of other people. I've a more understanding attitude towards people, more of an empathy with people and I seem to get… connected to people at a much deeper level now than I've ever done ever in my entire life. I know several women that have had abuse issues going on and been raped and stuff like that**

and they've confided in me, not because I've asked them to, it just crops up in general conversation… and at the same time they wouldn't normally discuss it with a man... I find it a bit strange. They're picking up on empathy, a sort of an intuition I suppose." ('David': lines 587-600)

…again the word 'connected' arises suggesting a 'connection' between EPD and ESN.

Other variations of EPD cited by participants included being more assertive, insightful, aware, empathic, thoughtful, sympathetic and better able to pace life and self.

5.6.7 SPIRITUAL and PHILOSOPHICAL DEVELOPMENT (SPD)

SPD was evident in only seven of the twelve participants and only in 'Christine' to any extent. SPD tended to illustrate a comparison with its NS equivalent, SRS. SPD however, didn't concentrate so much on trying to make meaning of the RTA as in NS, but rather it provided evidence of *spiritual* meaning. The following are four examples:

1. The RTA confirmed a link between spirituality and premonition:

"**I've been psychic nearly all my life, well as far back as I remember, but I was a bit frightened of it I suppose and I ignored it. I actually knew I was going to have my accident I said to Adele about six weeks prior to the accident I'm going to be involved in a bad car crash and she said [changes voice:] oh don't say that. [normal voice:] I said well I am going to be involved in one I don't know when it's going to happen (or) where.**" ('Alison': lines 634-9)

2. The RTA had hastened the spiritual process:

"**I was on the spiritual path before the road traffic accident. It was like at the seaside and you're paddling and you're going out to sea and the water gets deeper then it suddenly shelves. Prior to the accident I was sort of waste deep after the (previous) accident I just took the plunge if you know what I mean? [laughs] It's like my connection was everything to me and it's the one thing that's taught me saved me.**" ('Christine': lines 586-93)

3. The shock of the RTA enhanced the spiritual process:

> "**A friend who is a healer who work(s) with energy and she's worked on me and you've got to get the shock out of the system there's just no two ways about it. The most important thing of it all has been my connection and my <u>ability</u> to communicate with teachers that are not in physical reality. I've learnt how to channel what the orthodox people call channelling and that has been a privilege.**" ('Christine': lines 639-43)

4. The RTA had been preordained:

> "**I just think it was meant to be, it was meant to be so that I could <u>fulfil</u> what I <u>really really</u> wanted to do which was go on a spiritual journey. The fact that I couldn't <u>journey</u> was immaterial I couldn't journey <u>externally</u> I didn't have any <u>external</u> teachers I had internal teachers. I had connections and it was <u>through</u> developing that connection cos they <u>taught</u> me everything I know.**" ('Christine': lines 1090-4)

Yet again, a Taoist framework is evident as SPD contained an interconnectedness element (Oldstone-Moore 2005, p.272), a concept central to Taoist beliefs in which all is connected through the Tao, which "creates, nurtures, destroys and embraces all things." (Ibid,, p261). 'Christine's' preordination of a 'connected' journey on the 'spiritual path' sounds remarkably similar to:

> "Tao means path. For Lao Tzu, it signifies not just any path, but the path to living in concordance with the unity of the universe... To live life in accord with the Tao is to be in harmony with all others, with the environment and with one's self. It is to live in synchronicity with processes, and to be completely authentic, sincere, natural and innocent." (Dale 2005, p2)

Overall, SPD seemed to indicate a state of being happy being 'connected', a reflection of which can be seen in ESN, and also in being happy not knowing – except perhaps 'Alison's' hindsight-by-premonition example cited earlier.

5.6.8 APPRECIATION of LIFE (AoL)

Participant's over-riding concern in the theme AoL was summed up by 'Alison':

> "**I don't take life for granted (but) I think everybody must fall into that category at one time or another in their life. Nobody likes to talk about death or think about death because it can be quite frightening, but death doesn't frighten me so I don't take so much for granted.**" ('Alison': lines 760-3)

This might suggest there was a link with the magnitude of the traumatic event. If an individual has had to face death, and in so many words has 'won', then death is less frightening. Even in cases where it could have gone 'nasty':

> "**You tend to look on it quite brightly once you think you've had a near death experience. I don't think it particularly was a near death experience but it could have gone nasty and I might not be here today.**" ('Nicola': lines 416-8)

Even where it was less likely that it was a life threatening situation, parts of the body could be appreciated too:

> "**I think it's made me realise life is a lot more precious than I once thought. I think we all know that in the back of our minds, but it's when you have… I don't know if it's the right phrase, a near death experience because… sometimes when I drive in the Summer or you're at the traffic lights you've got the windows down you've got your elbow on the window. I think if we're honest we all do it on occasion, if my arm was on the window then I would have lost my arm. I do value life more now than I did before.**" ('Isabelle: lines 159-67)

Even when damage had been sustained it could be viewed positively:

> "**I joke about my problem now… come on [claps hands:] you've got brain damage now just let's work with this so not quite all up here just explain it simply to me.**" ('Christine': lines 706-8)

Ultimately AoL was a case of:

"…**actually I'm enjoying life and accepting who I am, as I am.**" ('Christine': line 1020)

5.6.9 GRATITUDE for the LITTLE THINGS in LIFE (GLT)

Far from being a mere extension to AoL, GLT expressed two specific themes, gratitude and kindness, ranging from the global:

"**He (the driver that caused the RTA) was actually an instrument in giving me a gift rather than something that's destroyed me life.**" ('Christine': lines 1050-1)

…to the memory of an individual small kindness:

"**I still remember there was an old lady, she'd obviously been behind whilst I'd been propped up against the wall. She brought me a cup of tea out.**" ('Tim': lines 74-6)

Within these parameters were at least eight subjects for gratitude:

1. Gratitude, albeit probably unintentionally, with spirituality (note the link with 'magic'):

   "**When I am free (of headaches) oh ye Gods the world opens up. Those few days have been like magic they're obviously all away from home, they've been when I've been away where I've had nothing to do and everything taken care of, so all I had to do was be.**" ('Christine': lines 415-7)

2. Gratitude for the 'new me':

   "**I wouldn't change it I actually. (I) like me I'm easier to get on with. I must have been hell to live with, because I just worked so hard.**" ('Christine': lines 757-8)

3. Gratitude for unexpected kindness from all:

   "**The support from people that I didn't expect really was quite overwhelming and kindness from people you know they didn't dismiss me as being a fool, they could obviously see how I was.**" ('Olga': lines 344-6)

4. Gratitude to the solicitor in contrast to the legal iatrogenesis cited earlier:

> "**My solicitor and was <u>so</u> helpful. I said what about this solicitor connected with the insurance company? She said don't worry I can take care of all that and she was absolutely brilliant.**" ('Alison': lines 145-7)

5. Gratitude for a caring friend:

> "**I had a flatmate at the time... she was very very good she... stayed here about three nights a week 'cos she worked in London at the Hospital so... she would stay here because it was closer for her to get to work and then she'd go back to her mother's house the other four days then she stayed with me she was an absolute brick.**" ('Alison': lines 293-7)

6. Gratitude for help given by others to a third person:

> "**They've been really excellent... they've actually looked after her, employ people to help her and set up a trust you know. They've done a lot more than I ever expected to be honest.**" ('Fiona': lines 220-4)

7. Gratitude toward the police physiotherapist, although in this extract provided by 'Mike', gratitude was equivocal:

> "**I have been supported, <u>well</u> by the police physiotherapist who has gone above and beyond to try and help me out of it, although the actual impact he has made I'm not sure how… no perhaps I'm being a bit harsh, he's helped me out.**" ('Mike': lines 339-42)

…it is notable that 'Mike' was the one participant who was probably incorrectly recruited and the only one to be equivocal with his praise for another person. Given Mike's level of Hankering (HAN) then maybe HAN is equivalent to 'equivocal GLT' and vice versa.

8. Gratitude, not least, for EMDR and the EMDR therapist:

> "**I think EMDR is absolutely a brilliant technique.**" ('Christine': lines 608-9) and "**Dr. Iman [the EMDR therapist]**

she's done a <u>really</u> good job with me." ('Isabelle': lines 134-5)

5.6.10 ASPIRATIONS (ASP)

> What a man *can* be, he *must* be.
> This need we may call self-actualization.
> Maslow (1943 p.382 – original italics)

As the quotation from Maslow indicates there is a connection between ASP and DSH. ASP was merely the latest manifestation of progress towards the participants' DSH i.e. NG that is yet to happen. ASP was thus an invisible NG – and significantly was reported by all participants. This suggests that although there was a huge variation in visible NG the only subject that ultimately united participants (other than the RTA and EMDR) was that which was to come – their personal aspirations. However, this may also be reflective of the cross sectional methodology used rather than anything else.

Like other participants, 'Christine's ASP *required* ESN:

> "**I would <u>really</u> like to talk to someone (who) works with stress hormones because I'm <u>convinced</u> there's a correlation between stress hormones and headaches and the <u>by-</u>products of stress hormones and the need for meat.**" ('Christine': lines 494-7)

…which also suggests that a return to academia may be required, but academia of a different type to the past:

> "**I would <u>love</u> to find a <u>way</u> where I can do some teaching. I don't want to do the orthodox teaching if I worked again it would have to be totally experiential workshops and that's what I'd love to do <u>stuff</u> all the intellectual stuff just have people that come to share what I've learnt that's what I'd like to do. I'd like to share what I've learnt about the <u>accident</u> about the treatment of trauma about the treatment of <u>stress</u>.**" ('Christine': lines 742-6)

In 'Tim's' case his ASP was to return to work, but that too must be different:

> "**When I literally do go back to work, which I know I will, it's not going to be in the same capacity it's got to be like a complete life change.**" ('Tim': lines 226-8)

In 'Robert's' case ASP involved heading for the Olympics:

> "**If I can continue the way that I'm going then 2012's a possibility, if not then, four years later it really depends on how I progress.**" ('Robert': lines 527-8)

In 'Pat's' case ASP were more focussed on closure:

> "**I think trying to put everything behind us and get the Court case finished.**" ('Pat': lines 823-4)

In 'David's case there were definite goals, but with considerable uncertainty as to how to achieve them, as well as more immediately realistic ASP:

> "**I'd like to practice EMDR with people, I'd like to treat people for trauma in the future. At the moment I'm still in my old trade as a plasterer and I'm quite good at that still, but I do realise that I can't stay in that sort of position, so I'm a little bit sort of on the crossroads at the moment. My future I see as being more stable and settled than ever before... but you know... once you're out of the woods, you can see the clearing, you tend to make… safeguards for myself for the future one to keep myself safe and two to just generally look after myself… and take a more relaxed approach to life.**" ('David': lines 696-706)

5.6.11 NG: Conclusions

NG represented increasing positivity as well as some periodic negativity.

- HIN constituted deriving wisdom by reflection on past events. It appears to be the first manifestation of NG other than those aspects described towards the end of the NS. It is potentially important to EMDR clinicians because it may give insight into adaptive change and the Installation phase of EMDR. This is covered in more depth in Chapter Seven.
- PAR was defined as contradictory wisdom with instances consisting of two, or more, elements in opposition to each other. There were similarities with Taoist philosophy in which paradox holds more wisdom than logical science. Ten of the twelve participants indirectly provided examples.
- FOR was in effect the reverse of HIN and constituted acquired wisdom being applied prospectively. This too is likely to be important to EMDR clinicians and will be discussed more fully in Chapter Seven. FOR was the most frequently occurring theme of all components of NG - examples being provided by all participants.
- DSH indicated a personal 'rule of thumb' to measure future success. It sometimes resulted in changing direction in life and not on other occasions.
- ESN described just that. Whereas NS was associated with a shrinking social network, NG was associated with the reverse.
- EPD described learning or enhancing skills over and above normal personal development.
- SPD described a higher order personal development, roughly equivalent to finding oneself spiritually.
- AoL constituted an appreciation of 'who I am' no matter 'what I am' and cherishing life more dearly.
- GLT differed from AoL because it related to small kindnesses being recognised by the participant rather than a global appreciation.

- ASP described NG yet to happen and was seen as a component that existed primarily as an invisible component of NG because of the cross-sectional methodology.
- Only HIN, FOR and ASP were reported by all participants. HIN and FOR are the two principles underpinning the Janus-Face model of PTG i.e. looking backwards and looking forwards (Zöelner & Maercker 2006, Mearcker & Zöellner 2004), but this study suggests NG is far more complex – and thus more than merely PTG.

Overall then, NG was hugely complex as had been predicted by the literature search. There were general themes that reoccurred between participants, which became the component themes of NG, but the variation and overlap within and between component themes was huge – hence the number of varying extracts quoted in this Chapter.

Overall there were some similarities with Tedeschi & Calhoun's (1996) PTGI subscales, which are shown in Table 5.4.

NG component themes (this study)	PTGI subscales (Tedeschi & Calhoun 1996)	Comments on differences
HINDSIGHTING	No equivalent subscales	Theoretical differences as wisdom considered to be a product of growth and thus not part of PTG, (see Tedeschi & Calhoun 1995 p. 86-7)
PARADOX		
FORESIGHTING		
DEVELOPMENT of SUCCESS HEURISTIC	NEW POSSIBILITIES IN LIFE	DSH is more akin to Maslow's (1943) self actualising tendency or OVT's completion tendency (Joseph & Linley 2005)
EXPANSION of SOCIAL NETWORK	RELATING to OTHERS	ESN has more emphasis on expansion rather than purely relating
SPIRITUAL and PHILOSOPHICAL DEVELOPMENT	SPIRITUAL CHANGE	SPD has less to do with religion and more to do with personal philosophy
APPRECIATION of LIFE	APPRECIATION of LIFE	Roughly equivalent to each other
GRATITUDE for the LITTLE THINGS in LIFE	No equivalent subscales	Probably included within APPRECIATION OF LIFE
ASPIRATIONS		Theoretical differences

Table 5.4: Comparisons between component themes of NG from this study and Tedeschi & Calhoun's (1996) PTGI subscales

Part IV The super-ordinate theme:

FIGURATIVE LANGUAGE USE (FLU)

Res per signa dicuntur [Things are told by signs].
St. Augustine

Meaning just is use
Ludwig Wittgenstein

On the one hand, we have the Image, which is a Gestalt vision of the real, and on the other we have the Concept, an abstract revision of the real… In principle, the image is the support of the symbol, just as the concept is the support of the sign.
Andrés Ortiz-Osés (2008, p.42)

5.7 FIGURATIVE LANGUAGE USE

A fundamental finding of this study was the significance of FLU the third super-ordinate theme, which was not part of NS or NG, but which figured in both.

It is perhaps not surprising that FLU, featured as a super-ordinate theme given that Ortiz-Osés (2008) has hypothesised that language has a symbolic role in the healing of injury, and Solomon (2004), has argued that figurative language has a symbolic role in PPC.

Martin, in Chapter One, described how:

"…the whole experience was hell on wheels…"

If Martin didn't literally mean hell was on wheels, what was he implying and why use this specific phrase? The answer is not straightforward. Hell on wheels is hyperbole, from the ancient Greek *ὑπερβολή*, meaning 'excess or exaggeration' and "…not meant to be taken literally" (OED 2001, p.698). It is not possible to be certain why Martin used this specific hyperbolic phrase, but there may be a clue in the words: 'on wheels'. Martin's story immediately prior to the hyperbole relates to his RTA and its immediate aftermath:

> 'I know this is going to be hard for you to understand, but I'm so grateful it all happened. Of course I certainly wasn't at the

> time, the whole experience was hell on wheels…' (see Chapter 1 of this study)

…so it was possible that Martin was continuing to talk about his RTA, and emphasise it, in hyperbole. Either this or it was coincidence, which is less compelling. Given that Lakoff & Johnson (1980/2003) in *'Metaphors We Live By'* state:

> "No metaphor can ever be comprehended or even adequately represented independently of its *experiential* basis. (Ibid p.19 – italics added)

…It seems more logical that Martin was conveying, albeit very emphatically, additional experiential meaning of his overall experience post-RTA. Therefore, by extension, all metaphors, ('metaphor' being used by Lakoff & Johnson as a representative example of all figurative language which includes hyperbole), can only be comprehended in its experiential context. Berman & Brown (2000) contend that:

> "If a picture is worth a thousand words, then perhaps we can regard a metaphor as being worth a thousand pictures." (p.4)

…so therefore, metaphor, (again used in its generic sense) is likely to provide, at least arithmetically, a million times more information than a word used in its literal sense – hence the importance of FLU in this study. Lakoff & Johnson (2003) continue:

> "Metaphor has traditionally been viewed… as a matter of peripheral interest. We shared the intuition that it is, instead, a matter of central concern, perhaps the key to giving an adequate account of understanding." (p.ix)

…it is the use of 'central concern' that was the reason FLU was allocated the central - revolving - component to the 'wheel' in Figure 5.1. In so doing, it indicates it is not possible to adequately understand what is being narrated without figurative language being examined. The use of an 'adequate account of understanding' has been taken up by Solomon (2004), who has highlighted the use of language in re-establishing meaning after trauma, specifically where PPC is concerned:

> "Recent research on 'posttraumatic growth' also points to the crucial role renewed meaning plays in the healing process (Decker 1993a; b; Jaffe 1985; Seibert 1996, 2002. Tedeschi, Park & Calhoun 1998)." (Solomon 2004, p.300)

Solomon has proposed a model that accounts for this 'renewed meaning', which consists of three components:

- Metaphor construction
- Worldmaking (after Goodman 1978)
- Developing contexts of action

The central component to Solomon's (2004) model is 'metaphor construction', (Solomon, like other authors cited earlier, also uses metaphor in a generic sense). Solomon describes two types of metaphors, firstly primary metaphors, which:

> "…stem from actual primal bodily experience. For example, when a person describes being angry by using the metaphor, 'You make my blood boil', he or she draws upon the experience of increasing body temperature that accompanies anger." (p. 301)

…and secondly complex metaphors which become integrated into a culture and do not require specific experience by the individual using the metaphor (Ibid.)

It is certainly feasible therefore that Martin's experience of hell directly details what it was like for him (e.g. 'burning-up' with emotions) whilst being 'on wheels' i.e. in a car involved in an RTA. Solomon's alternative explanation, that it was a secondary complex metaphor is also feasible, as it is not necessary to have spent time in 'hell' to understand what 'hell' means in this context. Therefore even if 'hell on wheels' didn't refer directly to his experience of the RTA and its aftermath, Martin would at least be understood.

Having identified FLU as theme, it soon became clear there were two major categories:

- Driving-related (DFLU) and
- Non-driving related (NDFLU)

It wasn't clear which of these categories might be describing personal experiences or had stemmed from earlier social acquisition. The suggestion however, was that because about 25% of all FLU was DFLU and that all participants had experienced and RTA, an event that was personally significant, then DFLU *might* relate to personal RTA experience whereas NDFLU might not.

The categories turned out to be somewhat artificial, nevertheless, there was a sufficiently large contingent of DFLU to suggest participants might be rebuilding their assumptive worlds and *extending their expressive capabilities*, by incorporating their traumatic experiences. Mainly because the methodology used was never devised with this in mind it was not possible to be certain. However, the intriguing conclusion must be that if they were, then their abilities to express themselves must have increased over pre-RTA levels – in effect a tangible manifestation of NG. If so then FLU was more than just a 'driving force' behind NG – it was a component of NG itself, specifically EPD and one, which judging by Figure 5.2 occurred immediately post RTA and slightly less so post treatment.

5.7.1 DRIVING-RELATED FLU (DFLU)

All participants used at least some examples of DFLU. The following doesn't describe 'Christine's' precise RTA, but it does specifically describe her personal experience of her cognitive difficulties – not just her understanding about cognitive difficulties in RTA victims generally:

> "**It was like having a traffic jam in me head if you've got three lines of traffic I got a traffic jam in two of those lanes, but providing I took everything very slowly then information could get through if I tried shoving information in it was like having a car accident and my head, it just built up you know a traffic jam built up in me head, and words wouldn't come, thoughts wouldn't come, and then I would have to back off it (and) shut itself down…**" ('Christine': lines 111-6)

The above extract also demonstrates some of the complexity of FLU in this study. An indication of the interconnectedness between DFLU and NDFLU is illustrated by:

> "**I was on the road to being fast tracked for promotion.**"
> ('Mike': lines 183-4)

This extract was placed in DFLU because 'track' was deemed to indicate racing track because of the prior figurative use of 'road'. Had it been interpreted as 'railway track' then it would have been placed in the NDFLU category. Furthermore, there was also a blurring of boundaries between both FLU categories. Taking driving conditions as an example, DFLU could include weather conditions relating to driving etc. The division between the two categories was made at the commonsense level. Proceeding on this basis the following points emerged:

- DFLU was common and accounted for just over 25% (89 out of a total of 346) instances of FLU
- DFLU broadly fell into four groups (see Table 5.5), although there was considerable overlap and several possible interpretations
  - Related to the RTA itself or an RTA in general
  - Related to the road, road conditions etc. (instances cited that involve the word 'track' are only those interpreted as DFLU')
  - Related to a vehicle, its maintenance, or component of the vehicle
  - Related to driving

The definition for DFLU included the need for an RTA and/or driving-*related* word within the instance of FLU. FLU relating to, *but not including* RTA and/or driving-related words were placed in the NDFLU category.

Some of the examples in Table 5.5 are only interpretable as DFLU precisely because they are socially accepted as such. For instance the phrase "**Cut my Dad up**" (first column Table 5.5) is interpreted as DFLU because a) it is not literal, and b) the figurative use of the phrase is instantly recognisable as descriptive of any dangerous overtaking – itself driving-related.

Related to the RTA itself or an RTA in general	Related to the road, road conditions etc. (instances cited involve the word 'track' are interpreted as 'racing track')	Related to a vehicle, its maintenance, or component of the vehicle	Related to driving
Positive impact/ impact on other people/ a significant impact/ the actual impact	Don't go down the road of…/ taking a dangerous route	I'm the Mark 2 version	Taken on board
Crashed every 5 minutes (computer)/ bloody thing kept crashing / cause it to smash	Resistant to going down the road/ Going down the road	Vehicle to social reintegration/ No vehicle to do this	I've been kick started
I was a wreck	Went downhill from there	(mentions wing mirror and then adds)… 'but looking back'	Up and running/ running a home and workshops
Hit me a few months down the road	On the crossroads at the moment/ at a crossroads in my life	Over-inflated opinion (tyres)	Became more driven/ driving people away/ had the drive in me/ drove us out one way
A push-over / bump it up	I turned a corner in January/ come round a corner/ what's round the corner?	There was the imaginary brake/ put the brakes on (brakes)	I started to go downhill
Cut my Dad up	Bypassing orthodox medicine	Bleed it off (brake fluid)	Sit on the tail of other drivers
Knock-on effect	Verging on strange things	Clutch at straws (the clutch)	Pull yourself up/ in a traffic jam
The last brick in the wall (inevitability of the RTA)	In a roundabout fashion	Get behind a wheel (steering wheel)	My neck locks up
Solicitors blew it out of the water (RTA was in a swamp)	Light at the end of the (road?) tunnel	My neck locks up (steering)	Demonstrates hand signal
Trying to clutch at straws (describes accident site)	What's that person doing across the road?	Geared towards growth/ geared towards helping people/ Brain not in gear as much (gearbox)	In a safety zone
Spin-off of the RTA	Fast tracked for promotion	Osteopathy doesn't involve clunk clicking (old seat belt advertisement)	A glass too many (drunk driving)
	Traffic jam/ come to a full stop	Propel me forward spiritually	Keeping an eye on the road
	Slippery conditions	Full MOT (to describe a full examination in hospital)	Pace myself
	One way (to do things)/ No way I want to survive this	He fixed me	Those who have pushed themselves

Table 5.5: Selected examples of DFLU (see text for further explanatory notes)

On the other hand the following was clearly related to personal experience:

> "**Basically her ['Fiona's sister's] solicitors blew it [the defence argument] out of the water before they'd even got going with it… and I think they were embarrassed to be honest… you know… that they were trying to <u>clutch at straws</u>**" ('Fiona': lines 265-7)

This extract combines the literal recounting of the litigation using figurative elements of the specific RTA in question. The extract has been reconstructed in Table 5.6 to highlight these points.

Words taken from 'Fiona': lines 265-7	**Literal context of the defendant's appeal**	**A possible figurative re-interpretation**
"…blew it out of the water…"	Emphatically dismiss the defence's case	Sudden removal from swampy ground (the location of the RTA)
"…before they'd [laugh] even got going…"	Right at the start of the hearing	The RTA, which involving considerable momentum was inevitable before the car even moved (laugh recognises the paradox involved?)
"…they were trying to clutch at straws…"	Use a hopeless argument	Desperate attempt to get out of vehicle, which wasn't easy in swampy ground surrounding the upturned vehicle
"…clutch…"	Take control of the opportunity	Vehicle component for changing gear

Table 5.6:
A literal versus figurative re-interpretation of the extract:
'Fiona': lines 265-7

A periodic feature of DFLU was ‘affect attunement’, which has been described as a:

> “…phenomenologically inspired procedure for data analysis.” (Trondalen & Skarderud 2007)

In essence, affect attunement describes the effect of immersion in data analysis such that the reader connects at an affective level with the narrator. In this study it seems there were several examples of the author (as reader and data analyser) connecting at the figurative language use level, and thus presumably the affective level, with the narrator (the participant). For example:

> “**I remember going to the hospital. (I) got the sirens everything going and it didn’t take very long to get there. There was a nurse and a doctor waiting outside for us. They lifted me up from the ambulance and I was taken into the high dependence place and they put all these wires for an ECG (on me) straightaway and I remember they said that was alright. T<u>wo</u> doctors came into see me. Believe it or not I was in there for about an hour and they did these various checks and then I was discharged.**” (‘Tim’: lines 90-9)

The first hermeneutic shows that ‘Tim’ seemed to be describing his treatment something akin to a ‘full MOT’ (i.e. Ministry of Transport roadworthiness test). In other words, the researcher was using DFLU in an attempt to understand ‘Tim’s’ understanding of the thoroughness of his hospital treatment. This form of attunement, far from being merely a method of data analysis, could arguably mimic the participant’s attempt at understanding and explain how an individual, using their experiences figuratively (primary metaphor), conveys the metaphorical understanding to another who subsequently recycles the same metaphor in the form of a complex metaphor. The argument is made more convincing because the author has never driven in his life.

Finally, the following extract illustrates another common occurrence in the transcripts: non-verbal DFLU for instance:

Hand signals for the sake of emphasis:

> "**[laughs] Just being found guilty of driving without undue care and attention having nine points on his licence and some £750 fine and you've got the courts that side [left turn hand signal] and the Police station that side [right turn hand signal].**" ('Alison': lines 195-7)

Change of voice used to dramatic effect:

> "**[laughs] They think I'm watching everything so... [animated voice:] mind that car and oh [normal voice:] I was actually 'driving' there was the imaginary brake.**" ('Alison': lines 273-4)

Both examples commence with laughing suggesting that the participant was aware of the humour prior to actually engaging in the dramatic explanation. The second example relates to figurative driving, not literal driving – despite the word 'actually' preceding it.

5.7.2 NON-DRIVING RELATED FLU (NDFLU)

Examples of NDFLU occurred about three times more frequently than DFLU although the distinction was not always clear mainly because of multiple use of FLU.

There were numerous sub-categories of NDFLU. The most frequently occurring accounting for approximately half of all instances of NDFLU and were in order – most frequent first:

- 'Light, colour, spectra and depth' equated to understanding, whilst 'darkness' equated to ignorance
- 'Physical damage and deformity' was used to describe secondary trauma of any type, whilst 'weirdness' was equivalent to total lack of meaning
- 'Time elapsed', 'path', 'graph' or 'railway' equated with direction ('road' examples also existed but were included in DFLU)

- ‘Paddling’ and ‘swimming’ equated with levels of confident progress
- ‘Explosion’ equated with loss of control of emotions
- ‘Energy’ was focussed effort, whilst safety in these circumstance were ‘cushions’
- ‘Connectedness’ and ‘coming together’ represented ideas and plans coming to completion
- ‘Visual correction’ was gaining insight, developing plans and achievement (this particular NDFLU is examined in more detail in Chapter Five)

Some examples of these categories of NDFLU and a range of variations can be found in Appendix 5.2.

With the possible exception of ‘light=understanding’ examples of NDFLU, there was little reason to think that NDFLU occurred because they were specifically related to the RTA and therefore it was assumed that the vast majority were probably socially acquired as in the universally understood: “**every cloud has a silver lining**” (‘Alison’: line 883) and thus very likely to have been used by participants prior to the RTA. However, because the methodology used didn’t provide much access to the participants’ pre-RTA lives it was not possible to be certain. However, it is feasible the frequency of ‘light=understand’ NDFLU had increased post-RTA because at a time when there was undoubtedly an intense search for meaning in the traumatic aftermath then it is quite likely that the need for understanding was ‘reflected’ in the use of ‘light=understanding’ NDFLU, either in a direct way:

> “**At the moment (my future is) quite quite bright because I’ve moved on…**” (‘Alison’: line 882)

…or in an indirect way:

> “**My friends and family were absolutely brilliant.**” (‘Alison’: line 432)

…in which ‘Alison’ uses ‘absolutely brilliant’ to describe ‘very helpful’, and quite probably where ‘helpful’ included helping ‘Alison’ to ‘understand’. It is also feasible that ‘light’ NDFLU was describing why FLU was being used anyway – to help with understanding.

5.7.3 FLU: Conclusions

Judging by the sheer extent of FLU, there is little doubt about its significance in this study. There were extensive attempts to make meaning/ understand and to express that meaning/ understanding as best as possible to.

With only a couple of exceptions (see Figure 5.2) every SSIQ included examples of both DFLU and NDFLU. In addition FLU was associated with every component theme of both NS and NG. Perhaps unsurprisingly given the quest for meaning making and expression, the description of the RTA itself, (SSIQ Three) contained the largest number of FLUs overall.

DFLU were most frequent in questions relating to the RTA itself; ways the RTA affected the individual, and experiences of treatment (see Figure 5.2), which probably supports the conclusion that FLU in this situation was of a primary experiential nature (using Solomon's 2004 category).

On the other hand, NDFLU was most frequent in precisely the same SSIQs, perhaps suggesting that these questions most taxed participants' expressive-descriptive abilities and that it was necessary to draw upon complex socially acquired figurative language *as well as* personal experiential figurative language to best describe personal experiences.

Another observation was that the more traumatic the literal experience as in SSIQ three, the more complicated and individualistic the use of FLU.

Given the ubiquitousness of FLU, it was reasoned that it belonged to a process other than purely NS or NG, but rather change *per se*.

However, as will be argued in the next Chapter, there is also a case for considering FLU to be both a process and the very first manifestation of NG.

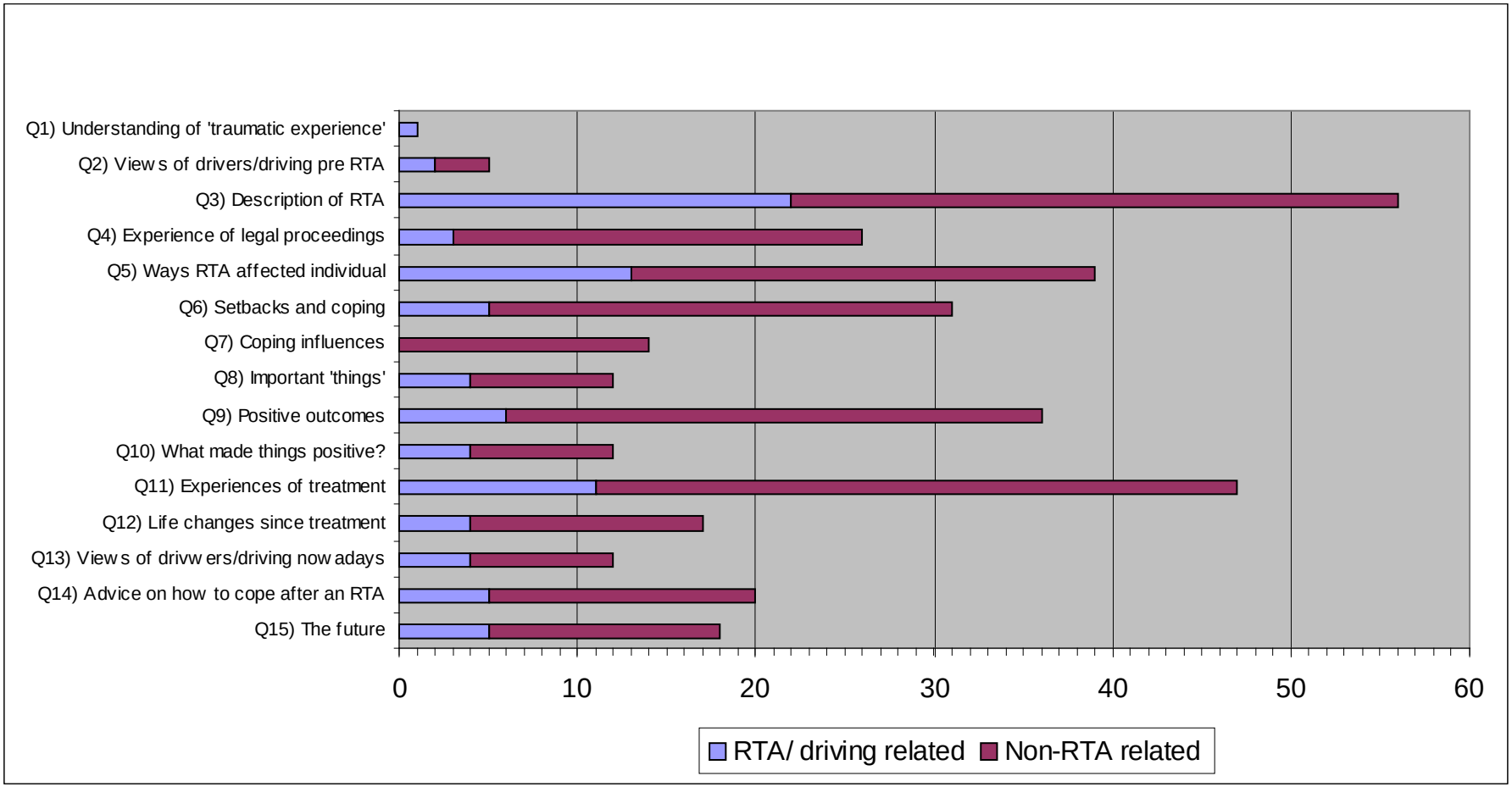


Figure 5.2: Frequency of both category themes of FLU across all SSIQs

Part V: Results summary

5.8 Summary

Results of this study showed that post-treatment progress following EMDR for involvement in an RTA, consistently revealed PPC in the form of NG including in one participant who had been recruited on inadvertently inaccurate information.

A summary of the findings is shown in Table 5.7.

- NS and NG represented the major descriptors of NPC and PPC
- NS and NG co-existed particularly around the cusp between the two
- A Taoist analogy has been provided to explain the inseparability and interconnectedness of NS and NG
- NS involved a struggle with the assumptive world, secondary traumas, and with attempts to cope and control
- The biggest component of NS was 2TE which in turn was made up of avoidable and unavoidable elements
- NG consisted of two categories: invisible and visible.
- Invisible NG consisted of three types of (intangible) wisdom: hindsighting, paradox and foresighting; and of ASP
- Visible NG consisted of seven (tangible) components the last being ASP
- ASP's invisibility was an artefact of the methodology, or more precisely, the point of observation
- Visible NG was associated with wisdom, development (of a success heuristic, social network, personal skills, and spiritual and philosophical development), appreciation of life, gratitude for small things and aspirations
- NG was associated with expansion of social networks, the reverse was the case in NS
- FLU was present in both NS and NG but appeared distinct from both and also the probable first manifestation of NG itself
- FLU consisted of many forms but broadly of driving and non-driving forms. There is some evidence to suggest that DFLU was more personally experiential than NDFLU which was probably more socially acquired

Table 5.7: A brief summary of the findings of this study answering research question one

This Chapter addressed the answer to the first research question: What is the lived experience of PPC following an RTA? The answer to the second research question will be sought in Chapter Six, which concentrates on the contribution to theory whilst Chapter Seven will focus on the resultant contribution to clinical practice and thus answer the third research question.

CHAPTER 6

CONTRIBUTION TO THEORY

6.1 Introduction

This Chapter continues the results discussion from Chapter Five, focussing on the answer to the second research question, namely:

- What theoretical explanation might there be for Positive Psychological Change (now termed Network Growth – NG) subsequent to an RTA?

Because Adaptive Information Processing (AIP) is the generally accepted theoretical underpinning of EMDR (e.g. Solomon & Shapiro 2008; Shapiro 2007a, b; Dworkin 2005; Shapiro 2001), it is appropriate to seek AIP-based answers to the second research question. This process commences by re-examining the wording of current AIP theory, particularly in relation to how experiences are 'metabolised' or 'digested'. The conclusion is that Figurative Language Use (FLU) requires an explanatory extension to AIP to explain which, why and how memory networks become connected. A hypothesis is then proposed at the observable/expressive, rather than neuronal, level.

Finally, a proposed extension to AIP, termed 'Plasticity of Meaning' (PoM), is proposed, the result being a new EMDR-specific unifying theory of psychological change (i.e. both negative *and* positive psychological change).

The new combined AIP/PoM theory can only be considered hypothetical, as a study with only twelve participants may perfectly well point towards, explore, and propose theory development, but it would require further studies, preferably randomised control trials (RCTs) to confirm, refute or modify hypotheses. This point is discussed more fully in Chapter Eight. Furthermore, an elaborate expansion of AIP as is proposed in this Chapter, still does not address the current lack of knowledge of neurophysiological mechanisms. It is hoped however that the new AIP/PoM unifying theory will provide a sound foundation on which to base future knowledge.

6.2 Adaptive Information Processing (AIP) revisited: what exactly do 'metabolised' and 'digested' mean?

Recently the utility of AIP to explain EMDR has been in focus (Greenwald & Shapiro 2010) with Greenwald questioning whether it is essential as a guide to clinical practice (Ibid p.172) and Shapiro robustly defending AIP (Ibid pp.176-8). As regards the inductive argument stemming from AIP theory, the current author commences from the position that AIP is essential in understanding EMDR.

AIP theory was described in Chapter Two within the Negative Psychological Change (NPC) category of theories. This was done because it was argued that AIP, as it stood, was largely concerned with the *reduction* of NPC (Shapiro 2007b; Dworkin 2005; Shapiro 2001). Shapiro (2007b) has stated that:

> "The AIP model is used to explain clinical phenomena, predict successful treatment effects, and guide clinical practice. Consistent with neurobiological findings, it is posited that in order to make sense of incoming stimuli, new experiences are assimilated into already existing memory networks... In a healthy individual, as new experiences are processed, they are "metabolized" or "digested" and what is useful is learned, stored with appropriate emotions, and made available to guide the person in the future." (p.70)

Whether or not predicting "successful treatment effects" consists of more than predicting the reduction of NPC is unclear because it largely depends on how 'successful treatment' is defined. It has been argued in Chapter Two that 'successful treatment', as AIP currently stands, is equivalent to a total reduction of NPC to zero, which is also the effective definition of 'successful treatment' for all evidence-based treatments (see e.g. the efficacy recommendations of EMDR in Appendix 2.10 and the list of RCTs in Appendix 2.12).

Shapiro also uses the word "assimilated" to explain that all new experiences are incorporated into "already existing memory networks", (a memory network being "an associated system of information" Shapiro 2001, p.33). Shapiro explains that assimilation occurs via the experiences

being “metabolised” or “digested”, although this only describes the outcome in figurative terms. In other words, exactly what “metabolised” and “digested” mean is not clear. However, there is arguably a clue to *where* to look for Network Growth (NG) in the final portion of the definition:

> “…what is useful is learned, stored with appropriate emotions, and made available to guide the person in the future.” (Shapiro 2007b, p.70)

…suggesting that “metabolised” and “digested”, can be explained in terms of a “learning”, “storing” and “made available” process. The first term suggests ‘acquisition’, the second ‘retention’, whilst “made available”, hints at some usage at a later date. What could this change process be?

Solomon & Shapiro (2008) in their paper ‘Potential mechanisms of Change’, investigate the ‘Transmutation of Memory’ in which EMDR facilitates:

> “…dynamic linkages to adaptive memory networks, thereby allowing the characteristics of the memory to change as it transmutes to an adaptive resolution. Session transcripts… indicate processing generally occurs through a rapid progression of intrapsychic connections in the session as emotions, insights, sensations, and memories surface and change…” (p.316)

…the problem is that “dynamic linkages” and “intrapsychic connections” to describe how memory networks combine, isn’t explained. Again the theory uses only figurative terms and is arguably a method of indicating lack of knowledge. However this time, Solomon & Shapiro (Ibid p.317) go one step further and argue that memory network connection is most likely one of ‘reconsolidation of memory’ rather than of extinction (see Suzuki et al 2004).

In other words the missing ingredient of the change process is hypothesised to be a neuronal change theory: reconsolidation of memory, which (see Cahill & McGaugh 1998) contends that memories are not fixed once-and-for-all entities, but can be changed and then restored in altered form.

Cahill & McGaugh suggest (Figure 6.1) that for emotionally arousing events the amygdala (the part of the brain that is involved in emotional processing) modulates, declarative i.e. explicit memory storage. The way this is thought to occur is via a feedback system in which cognitive and emotional responses in conjunction with stress hormones are key components of memory modulation i.e. change (ibid, p. 298).

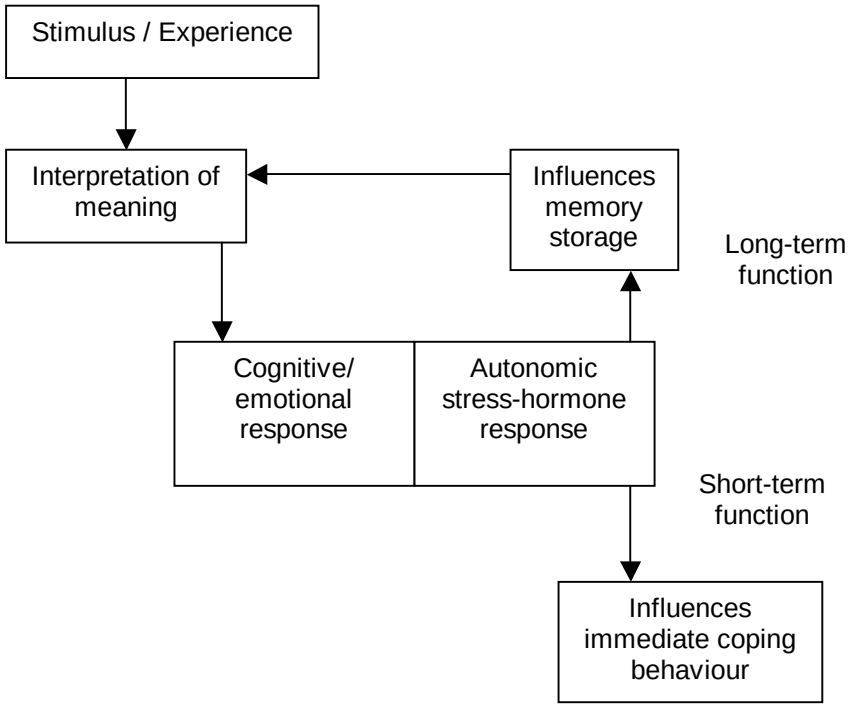


Figure 6.1:
Reconsolidation of Memory Theory
(adapted from Cahill & McGaugh 1998, p.295)

In the reconsolidation of memory theory, the amygdala, together with stress hormones, change i.e. modulate, memories, which are then re-stored in an altered form. Cahill & McGaugh partly place their theory on the basis of:

> "…evidence concerning memory consolidation comes from many domains of investigation, including studies of synaptic plasticity." (Ibid p.294)

…as described e.g. by Frey & Morris (1997). This "synaptic plasticity" is the term given for the changeability of the nature of the spaces between neurones, and thus modulation i.e. 'change' at a neuronal level is

explained. Obviously the current study did not require an examination of matters at the neuronal level so answers at that level to this study's research questions are not expected to be forthcoming.

However, the reconsolidation of memory theory commences with *interpretation*. This is a cognitive event rather than a neuronal one, and interpretation is something that the participants of this study did a great deal of.

Cahill & McGaugh (1998) do not expand in their paper on what form that interpretation takes, nevertheless, interpretation is part of the feedback system and if one component of the system changes then it is reasonable to suggest others will to.

The intriguing question arises: could the *principle* of plasticity i.e. a sort of controlled mouldability derived from the French *plasticité* or Latin *plasticus* from the Greek *plastikos* 'to mould' (OED 2001), at the neuronal level, be mirrored by a 'Plasticity *of Meaning*' (PoM) at the phenomenological i.e. observable/expressive and thus interpretative level?

6.3 Is Figurative Language Use (FLU) representative of change predicted by AIP?

Cahill & McGaugh's (1998) paper, commences with a quotation from William James (1890/2007):

> "Selection is the very keel on which our mental ship is built. And in the case of memory its utility is obvious. If we remembered everything, we should on most occasions be as ill off as if we remembered nothing." (Cahill & McGaugh 1998, p.294)

…whilst Cahill & McGaugh commence their paper with:

> "A man we met recently was only a few blocks from Oklahoma City's Alfred R. Murrah building when the deadly bomb exploded on 19 April, 1995. He described that experience as 'engraved' in his brain, saying, 'I'll have that memory forever'. Cahill & McGaugh (Ibid)

…and end with:

> "This mechanism (i.e. a neurophysiological explanation for the theory of reconsolidation of memory) aids in the selection of long-term memories on which, according to William James, our mental ship rides." (Ibid. p.299 contents of brackets added)

All three extracts have one thing in common – the use of figurative language. It is as though William James and Cahill and McGaugh were trying to explain something in an easily understood way. This is very similar to Shapiro's (2007b) use of the words "metabolised" and "digested". It is not of course that William James meant a literal ship exists nor did Shapiro literally mean memories are somehow swallowed and with the use of gastric juices, the action of the stomach, and the rest of the gastrointestinal tract, memories are broken down by enzymes and so forth. However, in a metaphorical sense that is exactly what appears to happen. The findings of this study suggest that there is more to James' and Shapiro's words than might be obvious at first.

In the current study, FLU was the one super-ordinate theme that was neither exclusively Navigational Struggle (NS) nor Network Growth (NG).

Instead, FLU appeared to be the metaphorical 'petrol' that 'fuelled' NS and NG change.

In this study two specific Semi structured interview questions (SSIQs) yielded the greatest number of FLUs:

Q3 Relating to the description of the RTA and
Q11 The experience of treatment

If FLU is assumed to result from attempts to explain experiences, it is probably logical that the greatest need to draw upon FLU as a tool to achieve that explanation will be when existing understanding and expressive capabilities are most stretched. It is quite plausible that this is why SSIQs three and eleven contained the most FLU – the personal experiences of both the RTA, and subsequent EMDR, were completely new to most participants.

Although a somewhat artificial distinction was made in this study between Driving-related FLU (DFLU) and Non-driving-related FLU (NDFLU), the fact that approximately 25% of all FLU utilised driving related material, cannot easily be ignored. On the balance of probability it does seem that participants incorporated at least elements of their traumatic experience into the reconstruction and expansion of their assumptive worlds. This conclusion is not dissimilar to Tedeschi & Calhoun's (1995) Transformation Theory (TT) model of Post Traumatic Growth (PTG) in which their 'Principle Six' requires:

> "…the trauma assumes a central place in the life story" (Ibid, p.85-6),

…although Tedeschi & Calhoun make no mention of figurative language in this centring of the life story. Instead, their explanation (Ibid, p.86), points at before-and-now views and hence the role of wisdom.

In fact Shapiro (2007b) in using "metabolised" and "digested" is effectively involved in precisely what the participants of this study were doing. They were making use of FLU to explain something that in literal terms they

could not. Shapiro's use of FLU merely reflects the same lack of explaining ability because of gaps in scientific knowledge.

If, as Lakoff & Johnson (1980/2003) suggest, metaphors (here referred to generically as FLU), are crucial to understanding an experiential event, and Solomon (2004) similarly to understanding PPC, then it is feasible that FLU in this study points to the entire experiential history of the participant *including* the RTA and its aftermath, pre-RTA events, socially acquired experiences, and personal experiences. The alternative explanation seems to be FLU was to varying degrees, coincidental – but this seems unlikely.

Taking an entirely different example, Ananthaswamy (2010) has reported about several ongoing studies in which it is proposed that thinking is conducted via the body. He specifically cites the role of personal experience within metaphor – as do Solomon (2004) and Lakoff & Johnson (1980/2003) – and more generically therefore, figurative language. One study that Ananthaswamy reported on:

> "…found that people made to feel socially excluded reported feeling physically colder." (Ananthaswamy 2010, p.8)

…so it is not difficult to see where the metaphor 'being frozen out' in a social setting might originate. Many other metaphors can be seen to have experiential bases such as: 'relief' being described as 'a weight off my shoulders', and anger described in terms of 'it makes my blood boil'. Ananthaswamy (Ibid) also points out that it is likely that:

> "A child watching a glass of water being filled up… will learn that increasing height means greater quantity." (Ibid)

…this is likely to be the typical case for the vast majority 'growing up'. So it is easy to see where figurative language can originate – associations that arise in the routine maturation process. They are clearly a natural resource and possibly a key way in which learning and understanding 'expands' and how memories are, to use Shapiro's (2007b) words, "metabolised" and "digested".

The word ‘expanded’ is deliberately used here because if learning and understanding require connections between concepts, and concepts are memory networks, then connected memory networks must require an expansion of those networks.

Several questions now arise:

- At what point does the connection take place?
- What might that mechanism of connection be?
- Does figurative language indicate network connection?

Assuming that ‘change’ is at least in part, ’network connection’, then, as pointed out by Solomon & Shapiro (2008), reconsolidation of memory may explain network connection at the neuronal level. What about at the observable/expressive level, i.e. the use of words?

If, as Ananthaswamy (2010) and others suggest, figurative language is the result of associative learning and both are considered part of a natural maturation process, then figurative learning must be part of memory *expansion*, and thus *growth* in understanding and, in due course, presumably *growth* of expression.

If the growth in understanding/expression occurs after a traumatic event and could not have done so via the normal maturation process because:

- The experiential component didn’t exist (i.e. the RTA hadn’t happened at that point), and
- The growth in expression was not previously acquired socially

…then presumably the growth in understanding, and later of expressive capabilities, must, by definition, be NG.

How might these learnt associations (and thus memory network expansions) occur? The author proposes that memory networks change to accommodate the association in question, put succinctly, at the observable/expressive level the *meanings* of words change. This could

occur by way of the words themselves becoming ‘plastic’ – in effect the PoM principle described earlier.

Before considering exactly what that hypothesis might entail, it is important to note that PoM is another metaphor like Shapiro’s ‘metabolised’ and ‘digested’, but this time it is hoped that PoM might better explain the *actual* process involved in memory expansion – in other words be a ‘better’ metaphor and thus improve the interpretation and understanding of the minute detail of AIP. Why investigate this ‘better’ metaphor? Because to understand NS or NG fundamentally what causes ‘change’ *per se* needs investigating - and FLU is implicated as an agent within this process.

Succinctly, the closer the ‘better metaphor’ is to an acknowledged neurophysiological theory then the closer psychological change is to being more fully explained.

The following section details a proposed PoM mechanism based on change of word usage. It is illustrated by utilising three inter-related grounded examples of extracts from one participant’s transcript.

6.4 Microtextual analysis: Re-examining examples of FLU to establish a possible mechanism of inter-network connection

The following sections describe the third and final version of a theory induced from the study findings to explain the results. There were two previous versions. A detailed audit trail is contained in Appendices 6.1 – 6.7).

6.4.1 Single and repeat inter-network 'trading'

Smith (2004) in reflecting on progress with IPA methodology states:

> "…there is scope for pushing further the microtextual analysis of small extracts of text…" (p.51).

The following microtextual analysis relates to selected references by one participant, 'Robert', who made far more references to 'sight correction/eyesight' FLU than any other participant. Of course, this might have been merely coincidental, but an intriguing alternative explanation can be made. In extract One, below, 'Robert' is talking about his immediate family as part of the answer to SSIQ Eight: Were there any things that were important to you?

1. "**It's almost like somebody puts a pair of spectacles on you and you go from this half blurred vision and knowing that people are there, to some sort of clarity.**" ('Robert': lines 261-3)

Similarly, during the same SSIQ, but whilst discussing his career in relation to his PPC, 'Robert' stated:

2. "**I think I've become much more focussed.**" ('Robert': line 279)

In the extracts above, 'Robert' didn't use any DFLU, which might have suggested the potential incorporation of his RTA into the narrative. Instead he used 'sight correction/eyesight' NDFLU. Why might that be? A plausible explanation might be that 'Robert's' Developing Success

Heuristic (DSH), and by extension his Aspirations (ASP), required excellent eyesight – he had become, *since the RTA*, a competitive archer. What had been a hobby had become realistic expectations of competing in the Olympics. Thus all matters 'sight correction/eyesight' were immensely important. The topic seemed to 'infiltrate' his thoughts even when not talking about archery.

With 'Robert's' DSH/ASP in mind it could be argued he was answering the SSIQ about 'important things' at two levels - he was discussing the importance of his family/career *and* the importance of good eyesight. He was, in effect, verbally multi-tasking. His *perspective* on his family was his eyesight just as the child in Ananthaswamy's example cited earlier who had made the connection between greater height and greater quantity. It could be argued that in Extract One 'Robert' had made an association between 'family and eyesight'. In effect, 'family' and 'archery' had 'traded' words, but the meaning of some words – those that had been 'imported' into the subject being discussed (family) had changed – from a literal description in the 'archery' network to a figurative description in the 'family' network. In effect some words had no longer been 'rigidly literal', they had become 'plastic'. Figure 6.2, shows a possible mechanism to explain Extracts One and Two.

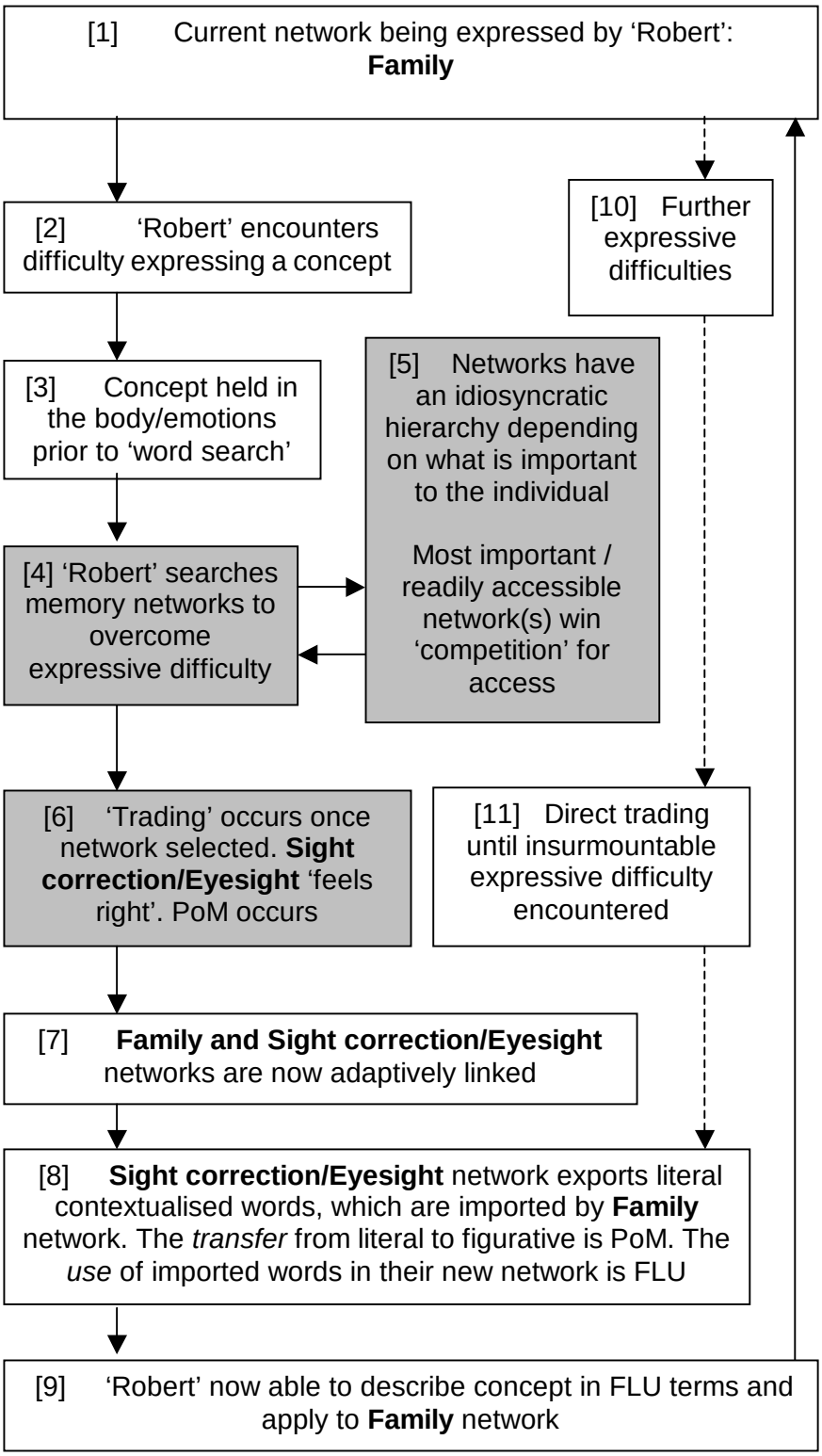


Figure 6.2:
Hypothetical mechanism to explain 'Robert's' narrative extracts
(Grey boxes = memory network searching process
See text for explanation of numbers in square brackets)

In Figure 6.2, just prior to Extract One, ‘Robert’ was talking about his family – Box [1]. In Box [2], It is hypothesised that he encountered problems expressing a given concept – he could not find the ‘right word’. If, at this point, ‘Robert’ had been pressed for more information on this wordless concept, he might have said something like: “I’m not sure, it’s a gut feeling.” This might suggest the wordless concept was literally felt as a sensation much like the example of feeling colder in social situations described earlier. The wordless concept could be held in the body/emotions prior to a ‘word search’ – Box [3]. At this point ‘Robert’ searches his memory networks – Box [4] to overcome the expressive difficulty.

Which memory networks and how might any one be selected? If it is assumed that all networks are ‘weighted’ by experience, personality, knowledge, bias, usage and so forth, and change over time – factors which could lead to the creation of a dynamic and idiosyncratic hierarchy of memory networks - in effect a hallmark of the person: ‘Robert’ – Box [5], then that may explain which network might be selected by a given individual at a given time, in essence: what was important to the individual. This is precisely what SSIQ Eight was attempting to access i.e. Were there any specific things that were important for you?

That leaves *how* the network might have been selected. If it is assumed there is a form of ‘trading’ between networks – Box [6], then the network that has difficulty expressing the concept in question might act as a ‘consumer’ network, whilst the network selected for trading constitutes the ‘supplier’ network. The chosen word would need to ‘feel right’ to be chosen by the consumer network, i.e. there would need to be congruence between word and the physical sensation. ‘Trading’ then occurs – effectively the exchange of words and their physical concomitants between exporting (supplier) network and importing (consumer) network. Crucially this requires the linking of the two networks – Box [7].

It would seem that the chosen word, which in Extract Two, for example, was ‘focussed’, is ‘exported’ from the supplier network in its literal form because it literally described ‘focussed’ to the sight correction/eyesight network. However, ‘focussing’ would mean nothing to the consumer

network *in its a literal sense*, so although it 'feels right' it needs 'moulding' to the 'family' network – it needs to become 'plastic'. This is done by the *concept* of 'focussing' and its physical concomitants being retained whilst the literal connotations are dropped. In essence 'trading' would require PoM – Box [8].

With 'focussed' now imported by the 'consumer' network (family), 'Robert' now has the resources to describe the concept he originally had difficulties with – Box [9]. The *verbalisation* of the word involved in PoM is the *observable* FLU hence, in Extract Two, 'focussed' is used in the context of 'family'. So PoM is proposed as the point at which memory networks trade words and in doing so the words move from the literal to the figurative, a process requiring the memory networks to become connected.

Logically, further trading would seem inevitable, which in Figure 6.2 might occur as follows: with consumer and supplier networks now linked, the supplier network becomes a more likely network to repeat 'trading' in future – thus usage in trading causes the supplier network to move up the hierarchy described earlier. Thus if further expressive problems are encountered – Box [10], it would seem reasonable that 'direct trading' with the same supplier network – Box [11] would occur, thus bypassing the searching process (shown in Figure 6.2, in grey boxes). Direct trading would presumably continue until an insurmountable problem occurs whereupon the original word search is repeated for a new supplier network. The result would be that the original supplier network would then move down the hierarchy of suppliers.

Figure 6.2 represents only a single or repeat 'trading' process. What about more complex 'trading'?

6.4.2 Complex inter-network 'trading'

By extension, it is likely that single and repeat 'trading' will readily become more complex as a result of the normal maturation process, but particularly as the ability to express oneself increases.

Extract Three, below, illustrates a more complex form of 'trading' necessarily illustrated in several types of FLU:

> 3. "**I became much more focussed and much more driven and he (the boss) explained it to me he knew I was a diamond and I was capable of doing what I'm doing, but I had a lot of rough edges, by the time I came out of the whole experience as a finished diamond. From the sport aspect of things my archery has gone from being a sport of enjoyment to a sport of competitiveness far more to the point of winning gold medals. That's really positive concentration and focus. I'm much more singularly focussed on each task."** ('Robert': lines 291-4 and 296-303)

…the same SSIQ is involved as Extracts One and Two. The first point to note is that this is a *continuous* extract i.e. there is no break in the monologue. This suggests that what is being said at this point represents a continuous train of thought and that the chronological order of the monologue is representative of a chronological 'trading' process. This chronology is represented in Figure 6.3.

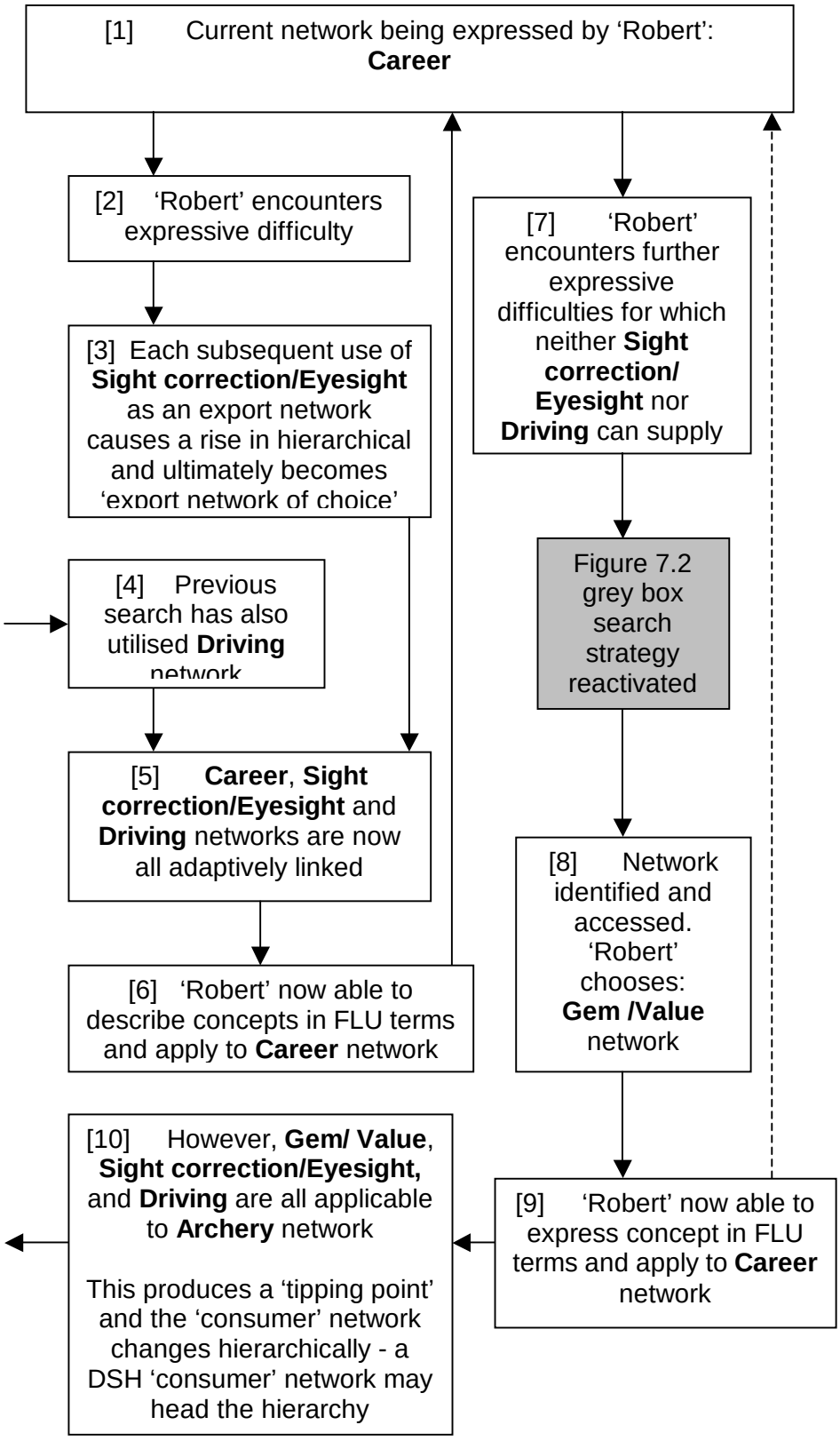


Figure 6.3: 'Robert's Extract Three:
Hypothetical status of PoM and FLU, illustrating the multidimensional connecting of networks and abrupt change of narrative

In Figure 6.3, just prior to Extract Three, 'Robert' was talking about his career – Box [1]. In Box [2], It is again hypothesised that he encountered problems expressing a given concept.

Box [3] now suggests that the 'supplier' network 'sight correction/eyesight' has been used frequently and reached the point of 'export network of choice' i.e. it is the first 'supplier' to be investigated for words that fill expressive gaps. The result is that more and more FLU results. Nevertheless, this doesn't stop searching for, and locating, other supplier networks especially if newly experienced events occur e.g. a RTA. Box [4] shows that a previous search resulted in the use of 'driving' as a supplier network. Boxes [5 and 6] show the result of multiple trading:

> [Commencing with the consumer network: 'career'…]
> "**I became much more focussed** [supplier network: 'sight/correction/eyesight] **and much more driven** [supplier network: driving]**…**"

The situation continues until none of the existing 'supplier' networks can provide words as in Box [7]. This triggers yet another word search – as shown in Figure 6.2 – with yet another 'supplier' network emerging as in Box [8]. The result is Box [9]:

> [Commencing with the consumer network: 'career'…]
> "**…he knew I was a** [supplier network: gem/value] **diamond and I was capable of doing what I'm doing, but I had a** [reuse of gem/value network] **lot of rough edges, by the time I came out of the whole experience as a** [second reuse of gem/value network] **finished diamond.**"

Another factor now emerges – the sudden change of 'consumer' network from 'career' to 'archery'. Why might this have happened? It could be that 'consumer networks' have a hierarchy too. Depending on the 'consumer' network involved at the time, a 'tipping point' could occur – Box [10] and the 'consumer' network, the subject of current conversation, might change abruptly, as in:

> [Commencing with the consumer network: 'career'…]
> "**…as a** [second reuse of gem/value network] **finished diamond.** [Consumer network: 'career' changes abruptly to 'archery']: **From the sport aspect of things my archery**

> **has gone from being a sport of enjoyment to a sport of competitiveness far more to the point of winning gold medals** [probably literally but note the gem/value connection]**. That's really positive concentration and focus** [probably literal but note the sight correction/eyesight connection]**. I'm much more singularly focussed on each task** [probably literal but note the repeated sight correction/eyesight connection]**.**"

The interesting point here is the continued connection between 'consumer' and 'supplier' networks and that words have become 'plastic' again – this time seemingly reverting from figurative back to literal.

This could suggest that ultimately a 'consumer' network could expand almost *ad infinitum*. This might just explain why when someone has a specific "all absorbing interest" – like a DSH with its related ASPs – there is a tendency for that topic to dominate conversation. A continually dominated conversation e.g. "they talk of nothing else" might also be the 'driving force' developing NG. Furthermore it might help to explain the all-absorbing interest noticed in Csíkszentmihályi's (1990) concept of 'Flow' covered in Chapter Two as one of many indicative features of PPC.

6.5 Plasticity of Meaning (PoM), as an extension to AIP

" Neurons that fire together wire together."
Lakoff & Johnson (1980/2003 p.256)

'Robert's' three extracts illustrate the huge complexity of connections between memory networks and it has only been possible to describe a brief outline of what may be happening during connection of memory networks.

Although that outline – a PoM theory - is still metaphorical, it is arguably more detailed than merely "a rapid progression of intrapsychic connections" (Solomon & Shapiro 2008. p.316).

It is proposed that PoM consists of the following:

1. In addition to the proposed processing of information through to an adaptive state as per AIP, it is hypothesised that individuals are driven by the need to find meaning in experiences and specifically express that meaning.

2. Associated systems of information, i.e. memory networks, contain meaning-making concepts. These concepts contain words held in the memory network in literal form, any of which can be 'traded' between memory networks.

3. If an individual encounters an expressive difficulty whilst talking, and thus accessing, a given memory network, the concept will be initially stored in the body and/or emotions. If asked to explain the concept at that point, the individual may respond with a reference to the body e.g. 'It feels like…', this could be termed the 'expressive default'.

4. Solving an expressive difficulty is assumed to be driven by the will to expression. An expressive difficulty triggers a search of memory networks to locate appropriate words to express the concept and thus negate the expressive difficulty. An ultimate effect of this is to interconnect memory networks.

5. The network requiring words to express a concept is the ‘consumer’ network. The network supplying words is the ‘supplier’ network. Consumer networks ‘import’ and supplier networks ‘export’. This ‘trading’ between memory networks requires a PoM in which a word is shared between supplier network in a literal form and consumer network in figurative form.

6. Supplier networks are arranged in a dynamic hierarchy, hierarchical order at any one point being a function of the individual’s experience, personality, knowledge, bias, network usage etc. DSH and ASP networks have a particularly high hierarchical ranking.

7. A supplier network is selected when words it can supply are congruent with the expressive default. The imported word now ‘feels right’.

8. Trading is the combination of exporting and importing and connection of memory networks occurs at the point at which the same word exists in both networks in a PoM i.e. in its literal sense in the supplier network and its figurative sense in the consumer network.

9. Once imported the individual has the figurative language resources to explain and remove the expressive default. The verbalisation of this resource is FLU.

10. FLU is the visible sign that PoM and thus network connection has occurred. Once FLU has occurred, the exporting network rises up the network hierarchy for subsequent searching.

11. Once used, a supplier network will tend to continue to be ‘directly traded’ (i.e. without further word searches occurring), until the individual encounters another expressive deficit that cannot be supplied from that supplier network. When this happens, another search will be triggered for an appropriate supplier network and the PoM process will be repeated as will its subsequent FLU. The

supplier network failure will move the supplier network down the supplier hierarchy.

12. There is no limit to the number of memory networks that can be connected up in this manner and no quota on words that can be exported and imported. Thus there is no limit to the resultant PoM and likewise no theoretical limit to subsequent FLU.

13. Consumer networks connecting with certain networks such as those representing the individual's success heuristic can trigger a sudden switch of attention/ dialogue from the consumer network to the supplier network such that supplier becomes consumer.

14. Consumer networks may also display a dynamic hierarchy.

15. Although connection of memory networks requires literal-to-figurative PoM, PoM can exist in a figurative-to-literal form.

16. The result of overcoming expressive difficulties by network searching, exporting and importing of words, PoM and FLU, is the expansion of interconnecting networks. It is, therefore, trading between memory networks that is the core of NG.

A comprehensive glossary of PoM terms is included in Appendix 6.7.

6.5.1 Some implications of PoM

The following are some of the more obvious implications of PoM theory:

1. Although the will to express oneself as an extension of the will to meaning is perhaps greatest following a traumatic event – at least judging by Figure 5.2 – meaning-making is nevertheless independent of trauma, there is no suggestion that PoM and its concomitants occur *only* as a result of trauma or only as a result of an RTA. Furthermore, it is important not to overlook that traumatic experiences are universally distressing. There is nothing in PoM theory extension that contradicts this.

2. Just as AIP predicts there is a physiologically based self-healing mechanism, so too does PoM. PoM, and its observable effect FLU, can be likened to part of that process. Just as a bone that was broken becomes stronger after it has healed, so does the individual after a trauma become better able to express him/herself.

3. Based on the conclusion that expansion of memory networks is the core of NG, and the first point at which that occurs is the qualitative change of words through PoM, then it can be argued that PoM is the ultimate first point at which NG commences. Where there is FLU there is also NG, but since individuals don't start using FLU for the first time just because of a traumatic experience then NG is ultimately independent of trauma and thus NG and PTG, by definition, cannot be the same entity. In other words, whilst PTG is *de facto* post trauma, NG is an indication of maturation of which trauma is a causative agent that expands maturation. This does not mean that trauma is a necessary requirement of maturation.

4. If NG is occurring – albeit to only a small degree - immediately after the RTA in order to express one's will to express meaning-making and this is at the same time as NS then NS must co-exist with NG.

5. Since it is assumed the will to express oneself is achieved through PoM and utilised through FLU then it can be presumed that NG is inevitable as long as there is a will to express oneself.

6. The combination of reducing NS to an approximation to zero, together with the full development NG, could be described as the 'Total Adaptive Outcome' of EMDR. This totality of change, which would require achievement of all ASPs, is probably equivalent to Maslow's self-actualisation.

7. It could further be proposed that the will to express oneself, will to meaning and actualising tendency are all inter-related and probably symbiotic.

8. Much of humour relates to double meaning between words. It is likely that PoM may also explain humour of this type because of subsequent FLU. Humour, however, was never a component theme of NG identified in this study's findings. Nevertheless, numerous examples of laughing associated with paradox were reported. Assuming the laughing was an acknowledgement of humour, it could suggest the humour was not verbally expressed in the interviews. What then of the will to expression? It could be that 'expression' needs to be considered in both a verbal and non-verbal context. (See also Chapter Five for other examples of non-verbally expressed 'humour'.) In addition it could be that due to the seriousness of the topic being discussed there was an assumed social rule to consider and it was deemed by participants to be inappropriate to turn dialogue into humour. It could be that when these rules permit it, the result is 'black humour'.

9. PoM does not contain a 'polarity' and thus may explain FLU irrespective of its use within NS or NG. This suggests there may be no inherent difference between NS and NG at the FLU level, and might explain an aspect of the inseparability and co-existence of NS and NG.

10. Because PoM is involved in change of both polarities then AIP, *with the addition of* its PoM extension means AIP could be now be considered, to be a unifying theory of change.

11. An AIP/PoM theory that accounts for an NS-NG continuum raises the intriguing conclusion relating to an earlier proposition for a 'continuum-based' theory (see Chapter Two for details). Miller & C'deBaca's (1994) Quantum Change Theory (QCT) was a model seen as having two extremes, a higher level of functioning and its corresponding lower level. However, research didn't support this hypothesis and Linley & Joseph (2004b) concluded that "these (change) constructs are not ends of a continuum." (p.18 – contents of brackets added).

12. It would seem that this study may support Miller & C'deBaca's (1994) QCT conception of change. However, there is a significant difference – not all 'continua theories' are the same – and QCT predicts a continuum of change resulting from a "sudden and transformational change" (O'Leary et al 1998, p.136), whereas this study demonstrates a *continuum of change* resulting from *an inseparable and developing process* of both NS and NG where one or other component is predominant at any one time and where NS and NG co-exist.

6.6 Summary

This Chapter proposes a PoM theoretical extension of AIP. By combining AIP and PoM, a unified continuum NS-NG theory of psychological change is proposed.

The answer to the third research question will be sought in Chapter Seven, which will focus on the resultant implications for EMDR clinical practice of the new combined AIP/PoM theory.

CHAPTER 7

IMPLICATIONS FOR CLINICAL PRACTICE

7.1 Introduction

This Chapter continues the results discussion from the previous Chapters focussing on the answer to the third research question:

- What implications are there for Eye Movement Desensitisation and Reprocessing (EMDR) clinical practice of knowing what the lived experience of PPC is, subsequent to an RTA?

Before considering implications in detail, consideration is given to both:

- Whether or not Network Growth (NG) is a 'clinical' issue in the first instance, and
- Existing advice

7.2 Is Network Growth (NG) a clinical issue?

Tedeschi & Calhoun (2004a, p.408) argue there is no suggestion that trauma is a 'good' thing and point out that not every trauma victim would experience Post Traumatic Growth (PTG), or that PTG was a required outcome for a full recovery. Likewise, there is no intention in this study to belittle or negate the efforts of both clients and therapists in their struggle to alleviate human suffering, but, given that NG may be inevitable outcome anyway, it would seem appropriate to ask: Is NG a clinical issue?

The question is asked because common sense suggests the 'normal' role of the clinician is the relief of suffering. Since NG is not suffering does that mean NG is 'off-limits' to the clinician? The answer appears to depend on perspective. In earlier Chapters, Illich and Foucault have been quoted on the topic of ownership of health-related matters, and adopting their thinking, would result in the need to resist 'imperialist expansion' of the healthcare profession and thus in short NG is not a clinical issue. Likewise Ryff & Singer (1998a, b) in their description of 'Flourishing' would probably advocate removing NG from any medical realm entirely.

However, a more Rogerian or Maslowvian stance – as advocated by the findings of this study - would advocate that the answer decides upon what the client wants and thus in short NG *could* be a clinical issue. Also supportive of this stance is Joseph & Linley (2006) who advocate, "the therapist should always be following the client's agenda" (Ibid, p.87).

It will probably be necessary for each individual therapist to be aware of, and reflect on, their own philosophical perspective before deciding to proceed – or not.

In the standard therapy situation, the two individuals involved are therapist and client and given that EMDR requires a collaborative approach from the outset (e.g. Dworkin 2005; Shapiro 2001), it is as well that both parties agree, and specifically, the therapist accepts and works with the judgements of the client. This after all is the essence of client-centred therapy.

7.3 Existing advice to clinicians

Tedeschi & Calhoun (2004a pp411-5) have provided detailed advice to clinicians wishing to promote PTG. They commence with a warning that PTG:

> "…is likely to be inhibited by heavy handed attempts to move trauma survivors toward experiences they have not yet directly experienced." (Calhoun & Tedeschi 1999)

Their subsequent advice is summarised in Table 7.1.

- Make a good effort to understand the client's way of thinking about the trauma
- Listen carefully to the language of crisis and psychological response that clients use and that then judiciously join the client in this form of communication
- Respect and work within the existential framework that clients have developed or are trying to rebuild in the aftermath of a trauma
- Have some tolerance and respect for benign cognitive biases
- Listen without necessarily trying to solve
- Listen for themes of PTG
- Guard against mechanistic offering of empty platitudes
- Focus on the struggle rather than the trauma
- Listening for and working with metaphors may be particularly salient for discussions of PTG (see also Appendix 8.1)

Table 7.1: Advice to clinicians to facilitate the PTG process, adapted from Tedeschi & Calhoun (2004a pp411-5)

Since Tedeschi & Calhoun (Ibid) emphasise they are not recommending any particular therapy or a proposal for a new therapy, it is reasonable to conclude that their advice to clinicians is generic. However, the same author's Transformation Theory (TT) model of PTG discussed in Chapter Two has a cognitive underpinning:

> "We use an essentially cognitive framework to explain this experience (PTG) because changes in belief systems seem to be so often reported by persons who describe their growth and these beliefs appear to play a central role in relieving emotional distress and encouraging useful activity." Tedeschi & Calhoun 1995, p. ix – contents of brackets added)

In contrast, although the findings of this study indicate cognitive change is important, in EMDR cognitive change is the product of more wide-ranging growth, which includes the will to meaning and expression, and the subsequent chain of events hypothesised in Chapter Six as well as experiential, bodily and behavioural change. So to adopt the TT model to explain NG following EMDR would be arguably both misleading and incomplete.

Tedeschi & Calhoun (2004a) frame some of their advice in terms of "…the clinician who is interested in the encouragement of growth…" (p.415), which may or may not indicate a client-centred approach.

Perhaps more fundamentally is that there is currently no advice on this subject to EMDR clinicians. As has been already highlighted, EMDR doesn't appear at all in Joseph & Linley's (2006) *Positive Therapy*, which, taken at face value suggests NG is not possible with EMDR - something that clearly runs entirely contrary to the findings of this study. More recently McKelvey (2009), has highlighted "the dynamic duo" (Ibid, p.243) of EMDR and positive psychology and stresses that EMDR is inherently positive anyway – witness the use of PCs (positive cognitions) in Phase Three of the EMDR protocol and installation of same in phase Five (ibid).

The following section attempts to build on McKelevey's (2009) view of the 'dynamic duo' by providing specific advice to EMDR clinicians based upon a Navigational Struggle-Navigational Growth (NS-NG) continuum of psychological change underpinned by a combined Adaptive Information Processing-Plasticity of Meaning (AIP/PoM) theory.

7.4 Implications for the clinical use of Eye Movement Desensitisation & Reprocessing (EMDR)

> I think we need to remember that mental health means more than a lack of suffering… The advent of EMDR and the adaptive information processing model really shifted the focus to internal growth."
> (**Luber & Shapiro** 2009 p.227)

The following sections of this Chapter consider the research findings of the current study, summarised in Chapter Five, Table 5.7, and the inductive theory summarised in Chapter Six.

Sections below are arranged broadly according to the Eight-phase basic EMDR protocol (see Appendix 2.11) – commencing with two points relating to all Eight Phases.

7.4.1 Additional underpinning philosophy

The findings of this study point to the clinical awareness of the importance of an underpinning philosophy *over and above* that of EMDR being a client-centred, information processing therapy, which includes:

1. A will to meaning – thus emphasising the Franklian nature of EMDR
2. A fundamental need to express oneself – thus acknowledging the role of Figurative Language Use (FLU) and setting the scene for its Plasticity of Meaning (PoM) cause
3. An interconnected and inseparable NS and NG – thus seeking an examination of the 'Total Adaptive Outcome' of EMDR not just the reduction of Negative Psychological Change (NPC)
4. A tendency to move toward self actualisation – thus emphasising a Maslowvian perspective and that NG is probably an inevitable outcome eventually

The last point might be the most difficult point to accept – effectively that ultimately trauma, as well as no trauma (i.e. merely the passage of time) inevitably results in NG. However, it is explainable by the perspective being taken. If the experiences of living one's life, never mind involvement

in an RTA, results *in at least* the expansion of one's ability to express oneself – then NG has occurred.

7.4.2 Dual listening

Time, and space, did not permit further microtextual analysis of FLU in this study. However, it is likely to be important for future research to identify types of FLU as a 'clue' to which memory networks connect in a given individual.

In the meanwhile, in the clinical situation, the therapist may wish to note examples of FLU during conversations with the client. It may also be feasible to record the client so as to re-listen to segments of narrative. Doing this is not unlike Tedeschi & Calhoun's (2004a) principles concerning:

- Making an effort to understand the client's *way* of thinking about the trauma
- The use of metaphors by the therapist to understand the client and
- Suggestions on effective listening

Tedeschi & Calhoun (Ibid, p.413) provide generic advice in relation to effective listening. However, given the central role in EMDR of the formation of connections between memory networks, and the central role of figurative language, then more specific guidance on listening may be warranted.

It is suggested that a method of 'dual listening' is adopted (as illustrated in Figure 7.1), in which the therapist listens both to the literal narrative provided and FLU. This strategy may shed light on which memory networks are connected and thus the method by which the client makes meaning of his/her experiences. In addition to the possibility of providing material for later cognitive interweaves (which see later in this Chapter).

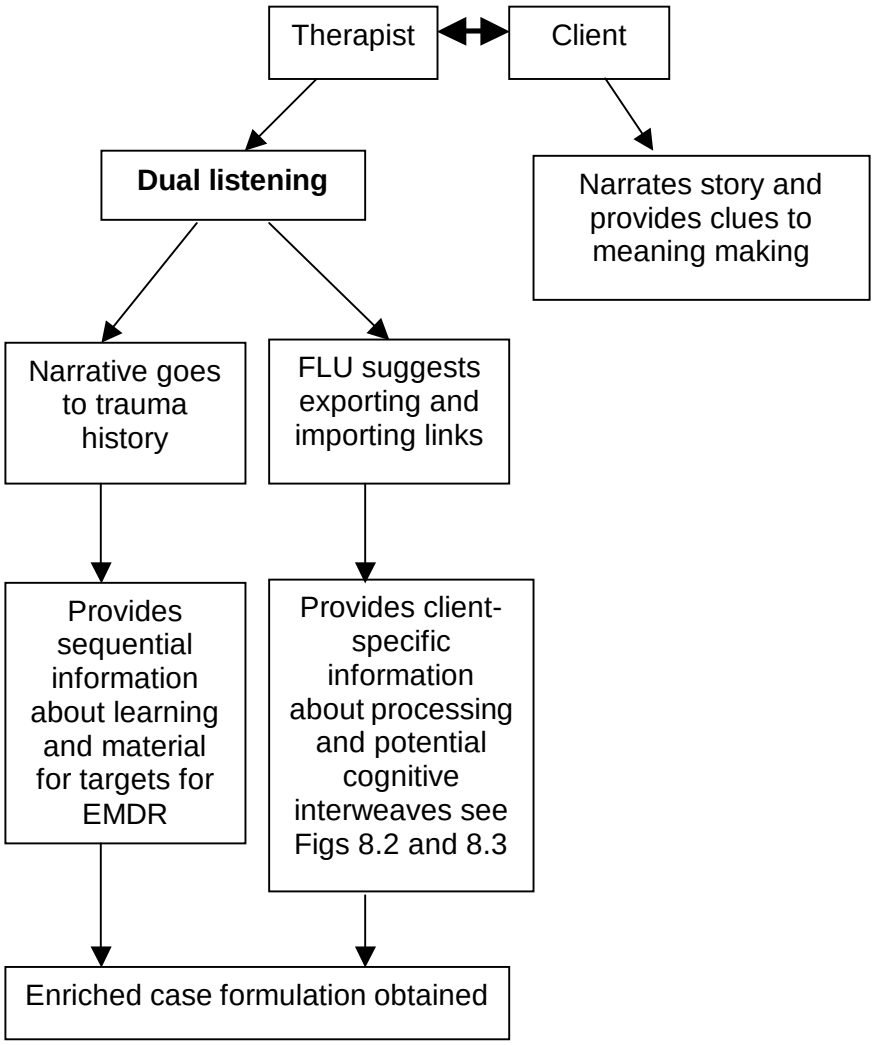


Figure 7.1: The principle of dual listening

In Figure 7.1 the client provides a narrative, which provides the sequential history and the potential treatment targets required by AIP, whilst FLU provides information about how:

- The client made meaning of the experience – in this study the RTA
- How the hypothesised 'expressive difficulty' was overcome, and
- Which memory networks are connected

By adopting 'dual listening' the therapist enriches the case formulation obtained as opposed to a literal 'narrative only' approach.

7.4.3 Implications for Phase One

This study found several clues to the nature of the narrative that might be encountered by an EMDR therapist embarking on an assessment of contraindications and/or history taking at the commencement of EMDR. The following are some of the clinical implications in relation to Phase One:

- Navigational Struggle (NS) and NG co-exist on an NS-NG continuum. A full history is a must, but should not focus solely on the NS. According to PoM it is likely that by the time the clinician meets the client some NG will be present. The client will not only have pre-existing positive resources, but already developing NG can be tapped into
- AIP predicts that dysfunctional memories may pre-date the RTA but be reignited by the RTA – in addition to the distress caused by the RTA and aftermath. In addition, 'Dual listening' may shed additional light on pre-RTA functioning at a PoM level
- It is likely to be unclear what stage of the NS has been reached by the client upon referral for EMDR, although the time elapsed since the RTA may provide a clue
- Secondary Traumatic Experiences (2TE) are very likely to have occurred, and may well require EMDR input. Hankering (HAN) may also need targeting – especially if NG is a target of treatment
- There may be an interaction between contraindications for EMDR (see Shapiro 2001 pp93-104 for details) and the particular NS stage reached, e.g. Coping (COP) may manifest in undue amounts of inappropriate avoidance

Bearing these points in mind, the following are covered in detail in the following sections:

- Adopting a more balanced, and therefore more positive, approach to contraindications and history-taking
- Adding a strengths-based component to history-taking assessment

- Adopting a longer term perspective to promote NG rather than the relatively short term, but entirely understandable, framework required of the relief of suffering

7.4.3.1 Adopting a balanced stance to assessing contraindications

Although assessment of contraindications should remain focussed on safety, extenuating circumstances as to whether or not to conduct EMDR may occur under certain circumstances. The decision to proceed may be based upon personal positive attributes the client may have such as those identified in Appendix 2.3 that may out-weigh a given negative. Nevertheless, there is no suggestion that clear negatives such as a total intolerance of emotional distress can in some way be overcome by an equivalent positive, merely that in what could be termed 'grey areas', a given positive may make the difference between proceeding or not with EMDR.

An example might be where a client is not entirely happy about expression of emotionality yet has a high degree of self efficacy – i.e. a strong conviction that he/she will get better, in this instance in the context of being wary of expressing emotion. Obviously each case will require individual assessment and the experience, confidence, creativity and knowledge of EMDR protocols in providing EMDR under these circumstances, may well be a deciding factor in whether to proceed or not.

7.4.3.2 Adding a 'perceived strengths' assessment

The identification of positive attributes makes for more balanced history taking. The result is what is negative and needs removing is identified, whilst what is positive and can be built upon is also identified. One method of achieving this would be to add a further category of questions to Shapiro's recommended list (2001 pp 106-7) – see Table 7.2.

1. Symptoms
2. Duration
3. Initial cause
4. Additional past occurrences
5. Other complaints
6. Present constraints
7. Desired state (the final suggested question being: What positive experiences exist in the client's history?)

Table 7.2: Recommended history taking questions, adapted from (Shapiro 2001 pp106-7)

Commencing from the final suggested question in Table 7.2, questions enquiring into the client's perceived strengths could be asked – see Table 7.3.

8. Perceived strengths
   - Which of these positive experiences might be useful to you now/ could be drawn upon?
   - What personal strengths and skills do you have?
   - How resourceful/ resilient/ creative/imaginative are you?
   - What coping skills have you developed/ innovative methods of handling the situation have you devised?
   - Would you say you have learnt anything positive about your experience? If yes, what?
   - How might you gauge your future success in life?

Table 7.3: Some suggested history-taking questions to be included under an eighth heading: 'Perceived strengths'

The questions in Table 7.3 are based around the themes of NG from this study. Clearly, however, these questions need to be asked cautiously given the earlier caveat so that *when* and *how* to ask these questions may be as important as *what* to ask. Nevertheless, judging by the conclusion that NG appears to coexist with NS, and NG may be inevitable, merely assuming that the client is totally embroiled in the NS may be an inaccurate conclusion. A client history, taking into consideration the findings of this study needs to include some framework as to what stage of the NS-NG continuum the client has reached. In many ways this mirrors

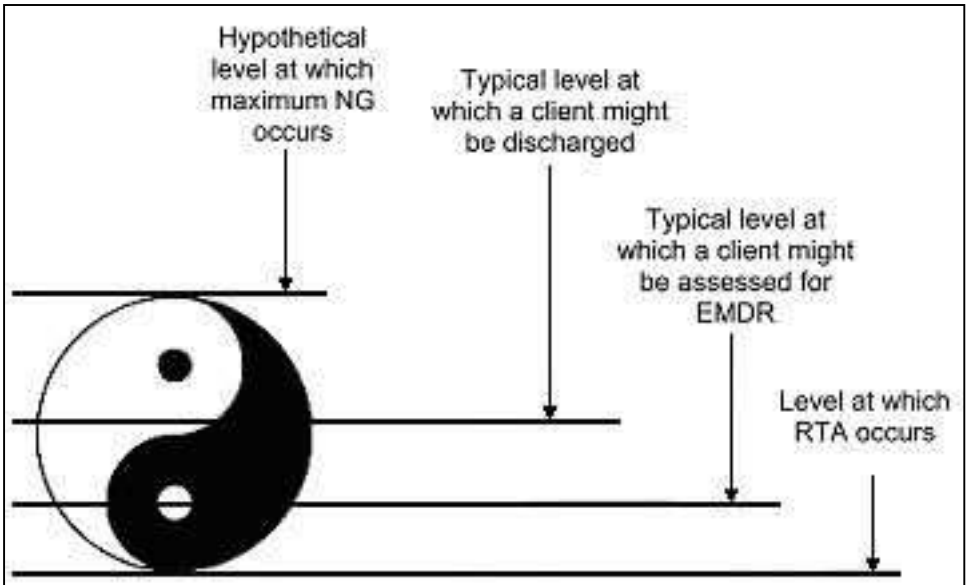
Tedeschi & Calhoun's (2004a) advice to focus on the *struggle* rather than the trauma. Here, however, the advice is to focus on the *continuum* between NS and NG rather than *solely* the NS.

7.4.3.3 Adopting a longer-term perspective to promote NG

Discharging a client who has completed the NS will also discharge insurance liability and from the client's perspective mean the minimal amount of further suffering. However, whereas this would fulfil the parameters of evidence-based practice, it is not the end of the NS-NG continuum. If it is established that a 'Total Adaptive Outcome' of EMDR i.e. the completion of the NS together with optimisation of NG, is desirable, then it follows that both clinician and client need to adopt a longer-term perspective to achieve the ultimate 'desired goal', which in this study was referred to as the Aspirations (ASPs) stemming from the Development of a Success Heuristic (DSH).

'Martin' and several of the participants of the study achieved very significant NG without any involvement of the therapist past the completion of the NS. This illustrates the need to establish whether or not NG is a clinical – or an entirely personal – issue. Either way, there is an enormous gulf between *installing* a Positive Cognition (PC) and establishing what *became* of installing the PC.

A straightforward clinical aid to assist in forming a framework for understanding the longer-term perspective required of a 'Total Adaptive Outcome' can be found in utilising the standard Taijitu symbol of Taoism in Figure 7.2, the black, *yin* area is representative of NS and the white *yang* area by NG. The small dots in the symbol indicate there is always *yin* within *yang* and vice versa – also a feature representative of this study's findings.



Key: ■ Predominance of yin i.e. NS

□ Predominance of yang i.e. NG

Figure 7.2: A Taoist framework for conceptualising progress from RTA to maximum NG

The varying upward levels in Figure 7.2 indicate the predominance of NS or NG at a given point. For instance, immediately after the RTA virtually everything was NS, but quite quickly, and potentially well before the client is assessed for EMDR, matters are changing with a small, but increasing, amount of NG occurring, although NS appears to be increasing as well. At the cross sectional point representing a typical referral for assessment, it is likely that NS will be approaching the maximum. Between this second, and third level - discharge from treatment - there is a considerable reduction in the NS and a steady build up of NG. Thereafter, and generally unseen by clinicians – as in 'Martin's' story in Chapter One – NG continues to increase up to a maximum whilst NS fades to almost zero. It is clear from this conceptualisation that to be aware of what Maslow would call 'the full psychological height' – equivalent to the top of the Taijitu - requires a longer term perspective than that required of usual 'negative only' evidence-based psychological treatments.

7.4.4 Implications for Phase Two: Figurative Language Use (FLU) to engage the client in EMDR

"The use of stories to impart therapeutic lessons is completely compatible with EMDR and may forge the connective links to more adaptive material."
Shapiro (2001 p.265)

Phase Two normally involves key tasks requiring judicious use of FLU. For instance it would not be appropriate to use the speeding train metaphor (Ibid p.130) to describe processing in EMDR amongst traumatised train crew who have been involved in a suicide on the rail tracks.

It is clear that from this example the therapist needs to tread carefully between the potential for forging helpful and adaptive links, and inadvertently further traumatising the client.

For each of the Phase Two tasks:

- Providing a general understanding of EMDR theory in understandable language (Ibid p.123-4)
- Describing the model (Ibid p.127-9)
- Setting expectations (Ibid p.129-31)
- Addressing client's fears (Ibid p.131-2)

…opportunities exist to utilise the results of dual listening. Using the client's own FLU to explain each of the Phase Two tasks provides the opportunity to emphasise that EMDR is client centred, but the clinician must be wary, however, not to overdo it or make it look like heavy-handed 'echoing'.

To illustrate how to incorporate a client's FLU to describe the *potential* of EMDR, if it is assumed that a client has already been using 'carpentry' FLU, then Shapiro (Ibid) has already provided an excellent example:

> "A useful metaphor is to imagine the presenting pathology to be a board screwed down on top of the client. The clinician's job is to remove the board in order to give the client room to

grow..." (Ibid p.104 – see also Appendix 7.1 for a wider discussion)

…although to understand the caution required it is clear the analogy is far less likely to be helpful for a client receiving EMDR for a crush injury.

By acknowledging the importance of FLU the clinician is facilitating the will to meaning and thus the process of growth of networks or, in short, NG is being encouraged from the outset, merely by explaining the intention of EMDR, and certainly before desensitisation commences. In effect, along with the more obvious installation of the safe place during Phase Two, the clinician is also strengthening the client's existing NG resources as well.

The findings of this study suggest that explanations of both how EMDR works and describing the model should include an addendum to the effect that AIP theory predicts more than just a resolution of symptoms. A suggested version of this addendum is shown in Table 7.4.

"The result of adaptive processing is more than just the relief of suffering and emotional distress, but also learning, often in the form of wisdom and understanding, and the availability of adaptive resources so that one is able to move forward in life to achieve one's goals whatever they may be."

Table 7.4: A suggested addendum to describing the model, (adapted from 'Hypotheses of the EMDR Model', item six, Dworkin 2005 p.223), to explain the longer-term effects of EMDR

7.4.5 Implications for Phase Three

The specific assessment required in EMDR is, perhaps unsurprisingly, unaltered by the study findings although one caution about the wording used in relation to the location of bodily sensations, which is also applicable to Phase Six, relates too not confusing literal language with FLU. This is covered in more detail in Implications for Phase Six.

7.4.6 Implications for Phase Four

During Phase Four, the therapist will largely be dealing with the client's journey through the NS. The following sections cover the various aspects of the NS that are relevant:

- Facilitating progress through the NS
- Cognitive interweaves

Because NS and NG co-exist and are inseparable, the therapist should also be mindful that early signs of NG are likely to occur and it will be helpful to identify NG elements. These are described in Phase Five as they become particularly relevant to the Installation of the PC.

7.4.6.1 Facilitating progress through the Navigational Struggle (NS)

In Phase Four the nature of, and progress through, the NS is mirrored in the various channels of association. The components of NS in Table 5.1 (Chapter Five) were shown in a sequence, which was broadly for convenience only. In practice, processing may well follow a different 'road map'.

The component themes of NS suggest that RTAs have an almost unique catalogue of 2TEs any of which are likely to be a source of treatment targets. These include, but are not limited to:

- The nature, duration and specifics of physical and psychological injuries sustained
- Clinical, social and cultural iatrogenesis
- Legal iatrogenesis including events related to involvement with the legal system though the Police, the compensation system, insurers and the Court, the role of the third party in admitting or denying guilt/ liability, groundless defences, delays, appeals and attempts to defend against obvious guilt

- Financial hardship and severe disruption to life, relationships and work

A thorough history taking will of course have identified these during Phase One, but what is arguably harder to do at that stage is establish the significance of individual secondary events, primarily because clients may not know themselves at that point. These might include:

- The point at which the client engaged in EMDR in relation to his/her natural progress through the NS-NG continuum
- The idiosyncratic nature of a given client's ability to forge new networks
- Dynamic, interactive factors related to the client's wider life as well as the therapeutic relationship.

…some of which may also be in a continuous flux. It is the therapist's ability to 'steer' the client through the N-NG continuum that matters and what makes EMDR truly client-centred.

7.4.6.2 FLU-based cognitive interweaves

Cognitive interweaves (see also Appendix 2.11), are methods to:

> "…jump-start blocked processing by introducing certain material rather than depending on the client to provide all of it." (Shapiro 2001, p. 249)

The intention of EMDR is to facilitate adaptive processing, which is achieved, according to AIP theory, by forging links between dysfunctionally stored material and adaptive networks. According to PoM, the exporting and importing of words are responsible for making connections between specific memory networks causing adaptive processing. FLU-based cognitive interweaves utilise hierarchically high-ranking exporting networks as in the examples in Figures 7.3 and 7.4, which show the same subsequent cognitive interweave is worded *differently* because during history taking different FLU was used to describe the same experience.

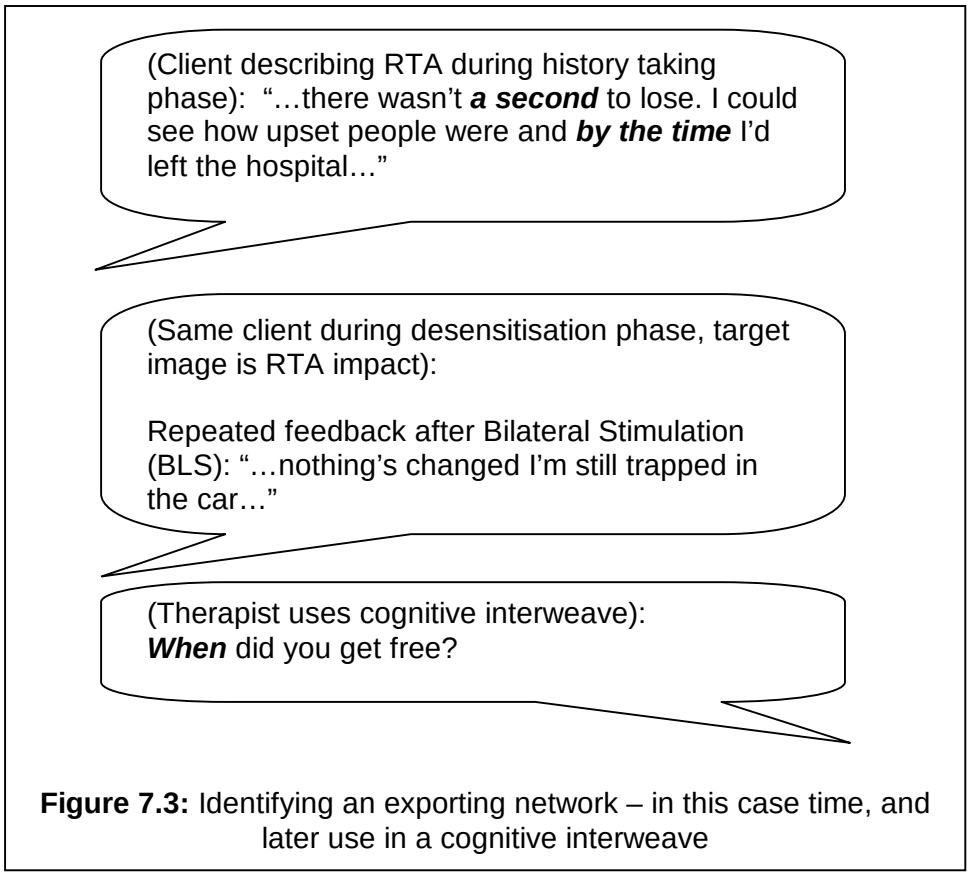


Figure 7.3: Identifying an exporting network – in this case time, and later use in a cognitive interweave

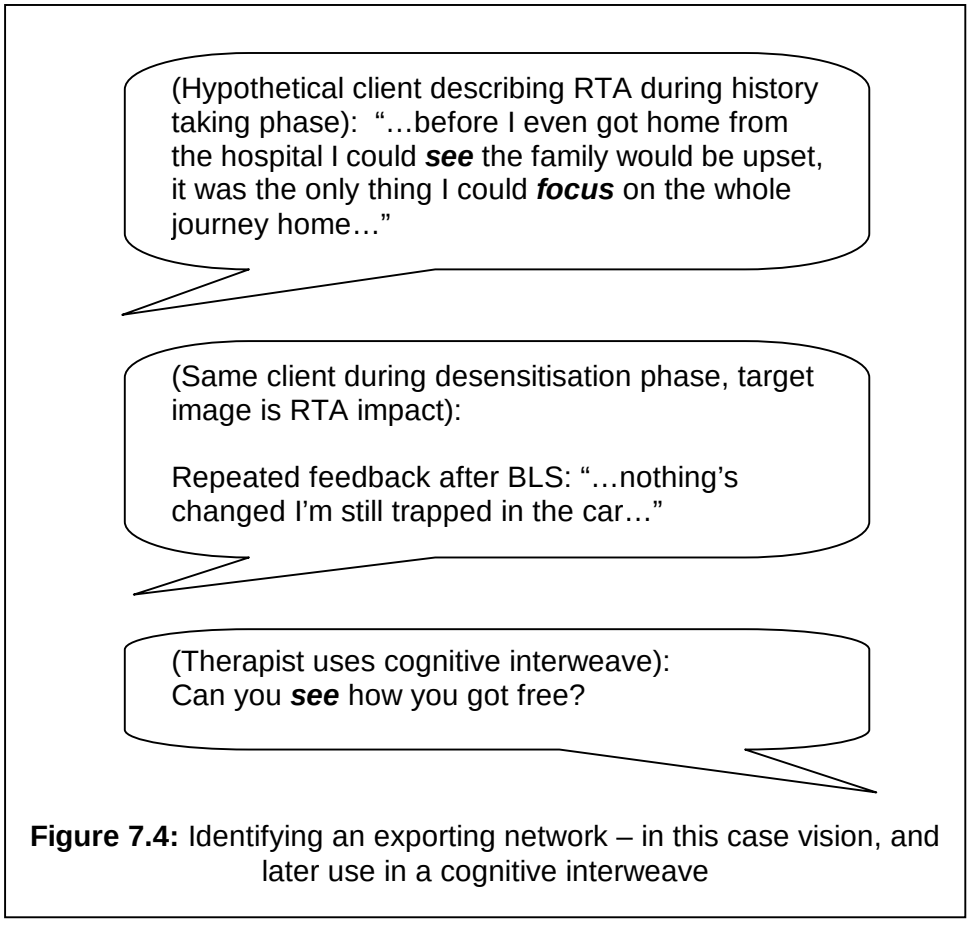


Figure 7.4: Identifying an exporting network – in this case vision, and later use in a cognitive interweave

In both Figures the importing network was the RTA. In Figure 7.3 the exporting network was 'time' and in Figure 7.4 the exporting network was 'sight'. The subsequent cognitive interweaves use the same exporting network as that identified during history taking.

Shapiro specifically mentions metaphorical interweaves (Ibid, p.265) and this study's findings underlines the use of these because PoM predicts that client FLU is an indication of supplier networks that have already been used by the individual to facilitate the inter-connection of networks. So by using client-generated FLU in a FLU-based interweave, the clinician is utilising a client-centred method of connecting that is likely to facilitate the 'jump-starting' of processing.

7.4.7 Implications for Phase Five

Phase Five involves the installation of the Positive Cognition (PC) in relation to the original target memory. At the commencement of Phase Five the PC is checked because the original PC from Phase Three, the assessment, is very likely to have strengthened or even changed during desensitisation (Ibid, p.160). This is because, at the time, the PC existed in the context of the unrated, but clearly valid Negative Cognition (NC). By Phase Four, the NC will have significantly reduced in conviction thus affecting the context of the PC. Since PCs and NG are closely related and PCs are installed in Phase Five, then Phase Five must also be important to NG, just as NCs and NS relate to each other in Phase Four. Thus, Phase Five, in regards to NG is potentially the most important processing Phase of the basic protocol.

The following sections deal with how NG can be promoted during Phase Five, by:

- 'Tiering' PCs
- Collaborating on working towards NG
- Confronting the issue of paradox
- Managing role change
- Promoting visible NG

7.4.7.1 'Tiering' Positive Cognitions (PCs)

As can be seen from the solid arrows in Figure 7.5, normal progress through Phase Five involves checking of the PC, its installation with rapid Bilateral Stimulation (BLS), two reports of a Validity of Cognition (VoC) score of 'seven' (i.e. that the PC is totally true) and then a transition to Phase Six.

Whilst Shapiro (2001 p.160-2) provides reasons why a VoC of seven might not be achieved the obvious question arises, what if seven is exceeded? Given the apparent continuance of NG after participants of this research were discharged, the suggestion is that reassessing the PC again when reaching VoCs of seven might yield a PC, which is stronger still and may access some of the, as yet, untapped NG identified by this study.

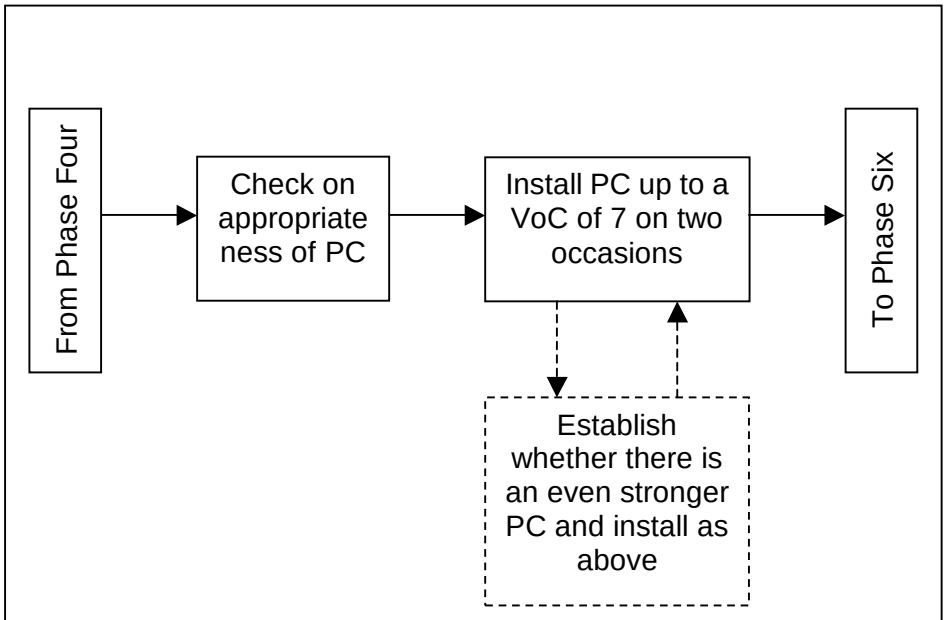


Figure 7.5: Pathway through Phase Five of the basic EMDR protocol with suggested additional stage shown

In fact there is no obvious reason why this should not repeat itself as the dotted lines in Figure 7.5 indicate. Indeed Shapiro states:

> "The increase in validity may continue well past the arbitrary level of 7 on the VoC Scale… The greater the client's sense of

> validity of the positive cognition, the greater the potential for improved self-esteem and a generalized self-enhancement." (Ibid, p.161)

Another explanation of "…continuing well past the arbitrary level of 7…" (Ibid) is that because the VoC scale terminates at 7='absolutely true', then, at face value, a higher figure is meaningless - unless one accepts that 'absolutely true', as a phrase, has changed its meaning for the client.

However, there is also the possibility that an even stronger PC has emerged that the client hadn't envisaged and thus a reassessment of the PC is warranted. This suggests PCs can be 'tiered'. Table 7.5 shows an example in which the first two tiers follow the basic EMDR protocol. Subsequent tiers are obtained by the reassessment of the PC having reached two VoCs of seven (as per Figure 7.5). This example is drawn from the author's own caseload to establish whether or not the *intentional* tiering of PCs would work. A vignette of the specific case is included in Appendix 7.2.

Tier Four:	I am wiser and can help others – 2nd reassessment at the end of Phase Five
Tier Three:	I am wiser and successful – 1st reassessment at end of Phase Five
Tier Two:	I am a success – PC reassessed at start of Phase Five
Tier One:	I can learn to succeed – PC established at Phase Three

Table 7.5: Example of a four-tiered PC

In Table 7.5, it is notable that the third tier PC reflects invisible NG (the use of 'wiser'), and is paired with 'success' from tiers one and two, whilst the fourth tier PC includes both invisible and visible NG ('wiser' and 'helping others'), but also drops the use of 'success' suggesting the goal is no longer to be successful, but something greater.

7.4.7.2 A second 'incomplete session' protocol

Normally, if Desensitisation (Phase Four) cannot be completed in an EMDR session, the requirement is to miss out Phases Five and Six of the EMDR protocol and proceed to Phase Seven (Closure), This is known as the 'incomplete session' protocol.

Given that Shapiro states that ultimately:

> "It is crucial that the client choose the positive cognition that is most meaningful..."(Ibid, p.160)

…and this study suggests an extended Phase Five may be required, a second version of the incomplete protocol may be necessary as a result of the tiering of PCs because of the time that can be absorbed by installing more and more positive versions of PCs.

In this instance it is assumed the clinician continued past zero SUDs in Phase Four and commenced Phase Five because he/she believed there was time left in the session to complete all eight Phases of the standard protocol, only to find that Phase Five became incomplete as time ran out. If this was to occur a second incomplete session protocol would be required in which the clinician this time goes from the point reached in Phase Five straight to Phase Seven making sure there is adequate time remaining to complete Phase Seven. Once Phase Five is completed in a later session, then Phase Six should be completed as per normal.

7.4.7.3 Collaborating on working towards NG

The therapist should not automatically assume the ultimate target of EMDR is NG at all costs. One of the participants in this study was treated with EMDR *nine years* previously and had still not managed to achieve his goal of becoming a therapist. Undue pressure from a therapist to 'achieve' is likely to be counterproductive exactly as advised by Calhoun & Tedeschi (1999). In EMDR, NG, as a goal, should come from the client and the therapist's role is to facilitate it *if* it is chosen. The tiering of PCs is one example of this 'client-led' facilitation.

Although NG is likely to be occurring from the earliest point (see Figure 7.2), initially there is a predominance of NS, whilst NG will not be particularly apparent except with material gleaned through dual listening and subsequently used in preparation and cognitive interweaves. It is only when the NS is significantly diminishing that NG starts to become more apparent. At first, NG is 'invisible' i.e. a form of wisdom occurs which is probably equivalent to many networks linking.

During invisible NG it may be that therapist self-disclosure is relevant so that the client can witness first-hand another's wisdom. Judiciously conducted, it is likely that this form of modelling will also strengthen the therapeutic alliance. Being prepared to explain not just how the therapist handled the NS following a given event, but also NG, makes sense given the investment in the therapeutic alliance stemming from Phase Two.

The same disclosure may be necessary during any of the 'visible' components of NG. The principal of dual listening remains relevant at all times and whichever becomes the topic being focussed upon, the therapist needs to move cautiously.

The findings of this study suggest that at some point it will be necessary to confront the issue of Paradox (PAR).

7.4.7.4 Confronting Paradox (PAR)

It may well be necessary, potentially at any point but particularly from Phase Five onwards, to confront the issue of PAR, the most fundamental of which is that *despite* the traumatic event, clients may recognise growth in themselves at some point. Tedeschi & Calhoun (2004a) sum up a preferred explanation:

> "A useful way to speak of the possibility of growth is to use words that indicate that the experience of growth the patient may have undergone is a result of the struggle to adapt to the trauma and not the situation itself." (p. 415)

…an alternative being if the client has described a changed spirituality and/or philosophy – and according to this study they may well do – then

the therapist might try to establish if that new perspective provides advice about PAR. Once again therapists can be guided from a Taoist perspective:

"Nothing remains itself.
Each prepares the path to its opposite.
To be ready for wholeness, first be fragmented.
To be ready for rightness, first be wronged.
To be ready for fullness, first be empty.
To be ready for renewal, first be worn out.
To be ready for success, first fail.
To be ready for doubt, first be certain."

Opening lines from Verse 22, *Tao Te Ching* (Dale 2005)

Another stratagem would be to introduce the client, at an appropriate time, to one or more selected autobiographies. It is probably advisable the therapist read a potential book beforehand to establish if the book is relevant from the particular 'struggle' perspective. By definition as an *auto*biography, 'struggle against adversity' narratives tend to deal with PAR in their own way (e.g. Mehari 2007; Tomlinson & Tomlinson 2005; Weston 2003; Reeve 2002; Rhodes 2001). As can be seen from Chapter Five, PAR comes in a multitude of different forms – each of which may have issues that the EMDR therapist has to address and some that may well need targeting with BLS.

7.4.7.5 Managing role change

The therapist/client relationship clearly changes when the client is no longer burdened with the NS. Although the study did not examine these changes, clues could be located in two transcripts detailing how the client eventually saw the EMDR therapist as either a sage or a personal coach (see also Dworkin 2005).

7.4.8 Implications for Phase Six

Because of the focus on word usage as a theme in the study's findings, the importance of negative emotions held dysfunctionally in the body and described figuratively is important. The English language contains phrases that describe emotions in terms of the body. For instance:

- Describing disbelief as ‘I can’t swallow that one’
- Describing annoyance as a ‘pain in the neck’
- Describing relief as a ‘weight off my shoulders’
- Describing anger as ‘makes my blood boil’

…are clearly not literal. The interplay between literally having a ‘feeling in my bones’ and the FLU of the same phrase is important. Therapists are advised to be wary when a client expresses such phrases particularly during the body scan (and to a lesser extent the assessment in Phase Three), and not assume automatically that the client is talking figuratively and dismiss the remark as merely an example of ‘making connections’. At the very least, a phrase linking a negative emotion to a bodily location should be checked. If the phrase does relate to an actual bodily sensation then, as per standard instructions (Shapiro 2001 p.162-3) it must be targeted with BLS.

7.4.9 Implications for Phase Seven

Closure effectively addresses two key questions that the therapist must be able to answer in the affirmative:

- Is the client safe to leave the clinic?
- Has the client the skills to cope, and will use them if needed, until attending the next EMDR session (or alternatively until referred at a later date)?

These questions are rightly based on safety, but does this also apply when the therapist is no longer involved with helping the client through the NS, but working on optimising NG? The study findings suggest these clients have a new perspective on life – they may well see the time between sessions as an opportunity to advance their goals and aspirations. Closure would be an ideal time to discuss what could be achieved before the next session. Nevertheless, the clinician should always be alert to the inseparability of NS and NG and therefore retain ‘one eye’ on safety.

7.4.10 Implications for Phase Eight

Re-evaluation commences subsequent EMDR sessions and it is the time to gather together the client's experiences since they last attended. Shapiro (2001, pp.200-20) deals with how, under normal NS circumstances, to proceed. However, when it comes to NG matters are likely to be rather different. The following sections may be useful.

7.4.10.1 Promoting NG

The participants' transcripts consistently showed that any of the components of NG could occur at any point. The implication of this is that therapists will need to be aware of this and to be monitoring points as they arise, possibly from the earliest contact between therapist and client. Clearly, having the baseline of the 'perceived strengths' assessment will be helpful. Therapists will probably find familiarisation with the component themes of NG could act as a useful guide, just as the Diagnostic and Statistical Manual of Mental Disorders (DSM) acts as a guide to those therapists helping clients manage their NS.

Ten of the study's participants identified their goals during the interviews. This might suggest it may be common for the majority of clients to do the same – assuming they are in therapy long enough. The therapist's role is once again to facilitate goals and not be judgemental even if the heuristic chosen isn't something they would pick for themselves or, necessarily, approve of. It would seem that goals may be fertile territory for the identification of future templates as how to get to one's goal in life may be far from obvious.

As regards Expansion of Social Networks (ESN) and Expansion of Personal Development (EPD), making new social contacts and personal development may not be an area that requires input from the therapist – in the case of 'Martin's' ESN this was certainly the case. However, because both require practical skills EMDR may be required if either ESN or EPD *stall*, thus suggesting difficulties in developing either. Standard EMDR would then be indicated.

Spiritual development was a finding of this study and was also identified by Tedeschi & Calhoun (1995). The difference is that this study suggests the development is more than just spiritual but there is an overall philosophical development with EMDR. Having said that, only seven of the twelve participants identified Spiritual and Personal Development (SPD) with one participant accounting for almost 50% of all occurrences of SPD. The suggestion here is that SPD may not occur at all in EMDR sessions, but where it does it may be a central focus for NG.

As regards Appreciation of Life (AoL) all participants reported this with the exception of 'Mike' who was the sole participant included in the study through misinterpretation of the inclusion criteria. There is no suggestion that either AoL or Gratitude for Little Things in Life (GLT) require further EMDR input once treatment for NS is completed.

That leaves the client's Aspirations (ASPs). Table 5.1 (Chapter Five), shows that ASPs was discussed by all participants and it may be that identifying ASPs takes the therapist and client back to confronting PAR i.e. ASP=incompletion, yet paradoxically discharge from therapy suggests completion.

7.4.10.2 Some notes on future templates

Shapiro includes future templates under Phase Eight (2001, p. 210-5).

Future templates are very relevant to NG, not just because to complete the three-layered approach of EMDR (i.e. past, present, and future) it is necessary to set down an adaptive template for the future, but also because NG requires a longer-term perspective than the NS-only approach. Once again there is a long way between installing a PC and establishing what became of installing the PC. Future templates may well tax the creativity of the therapist and might be a journey of discovery for more than just the client.

7.5 Summary

This Chapter has briefly considered the implications for EMDR clinical practice (see Table 7.6). In doing so the third research question has been answered concerning implications for clinical practice.

1-8	Adopting an additional underpinning philosophy
1-8	Utilising the principle of 'dual listening'
1	Adopting a balanced approach to assessing contraindications
1	Adding a perceived strengths component to history taking
1	Adopting a longer term perspective to promote NG
2	Using FLU to engage the client in EMDR
3 & 6	Not confusing literal and FLU
4-6	Facilitating progress through the NS
4	Using PoM/FLU-based cognitive interweaves
5	Tiering PCs
5	Collaborating on working towards NG
5-8	Confronting paradox
5-8	Managing role change
7	A change of perspective on closure
8	Promoting visible NG
8	Using future templates

Table 7.6: Implication of the study's findings to clinical practice – numerals indicate which of the eight phases of the basic EMDR protocol are involved

Given the range of the points covered it may be reasonable to conclude that, as yet, the depths of EMDR's potential have not been fully plumbed.

With this in mind, the final Chapter considers implications for further research along with a summary of the study and a critical examination of the study's limitations.

CHAPTER 8

CONCLUSIONS

8.1 Introduction

This final Chapter draws together the various strands of the study by:

- Summarising the findings of the study
- Considering the limitations of the study
- Suggesting future research
- Listing final conclusions

8.2 Summary of findings

This study has identified a post-trauma process consisting of two distinct but inseparable and coexisting components:

- Negative Psychological Change (NPC) represented phenomenologically as Navigational Struggle (NS), and
- Positive Psychological Change (PPC) represented phenomenologically as Network Growth (NG)

…both of which are 'driven' by a third component phenomenologically represented as Figurative Language Use (FLU).

NG appears to be triggered by an increased ability to express oneself, and is followed by an invisible set of changes relating to wisdom and followed by visible changes reminiscent of Post Traumatic Growth (PTG), in which profound changes can occur setting the individual concerned off on a different direction in life. The final stage of NG seems to be a return to the invisibility of aspirations.

This study concludes it is not possible to separate NS from NG and that 'changes' post RTA – and feasibly other traumas – exist on an NS-NG continuum with only a predominance of one over the other occurring at any one post-trauma point. The findings have been likened to the Taoist philosophical perspective of opposite dualities and interconnectedness, whilst the whole process appears to be 'driven' by FLU.

A proposed Plasticity of Meaning (PoM) extension to Adaptive Information processing (AIP) theory has been formulated to explain the ubiquitousness of FLU, and arguably leads to the conclusion that NG may be inevitable. Clinical implications of the findings have been considered, but it is emphasised that both clinician *and* client should first decide whether NG is a clinical issue or not in a given client.

Findings of any sort are always subject to the limitations of the study conducted. The next section examines the limitations identified.

8.3 Limitations of the study

"No study is perfect, and one form of intellectual honesty involves pointing out areas where (the) study could have been better."
Murray & Beglar (2009 p.183)

"The important thing is not to stop questioning"
Albert Einstein

A range of limitations was identified that may well assist in learning *how* to conduct a study to investigate NG as well as *what* NG consisted of.

Some of the issues raised in the following sections can be answered by:

- The fact the study was intentionally qualitative so as to seek the richness of the lived experience – rather than necessarily seek homogeneity amongst participants or causality
- It soon became apparent that to capture the totality of NG it would be necessary to investigate the nature of the NS, and perhaps, most obviously…
- The benefit of hindsight, by definition, doesn't permit alterations to be made *prior* to commencing a study

However, before considering the limitations in detail, it is worth stressing that all of the following limitations exist within the context of one fundamental issue concerning this study, namely the role of cause and effect. It is one thing to examine a phenomenon that occurs *after* a given event (in this case both an RTA and EMDR), but quite another to attribute the cause of the phenomenon to those same contextual precursors.

The following sections group together limitations according to:

- Research design
- Application of methodology
- Findings

8.3.1 Research design limitations

8.3.1.1 Breadth of focus of the study

With hindsight, the intended focus of the study was too broad, yet could have been even broader. For instance, the original intention was that 'post litigation' would be an inclusion criterion, in other words, a further definition of the cross-sectional point of research. However this created major problems (see the section on sampling and recruitment in Chapter Three), and the criterion was therefore dropped from the study. Nevertheless the study was still too broad as illustrated by the issue of trying not to miss vital clues to answering the first research question. However, the outcome was that despite finding that inclusion of NPC-related Semi-structured Interview Questions (SSIQs) revealed that PPC co-existed with NPC, there was insufficient pre-RTA contextual information gleaned in which to place findings. This was principally due, not to lack of contextual questions, so much as contextual SSIQs being used as 'warm-up' questions rather than part of the main interview. Future studies in this area would be advised to adopt a clearer figure-and-ground approach to the phenomenon.

8.3.1.2 Cross-sectional vs. longitudinal

Findings were restricted by the study being conducted cross-sectionally thus only allowing access to the NS-NG continuum at one point in time. Ideally the study needed to be conducted longitudinally at, if possible three cross-sectional points:

- Pre-RTA to provide contextual information
- A first post-EMDR cross-sectional point to examine the immediate effects of the EMDR and
- At a subsequent point – probably more than a year later - to establish longer term development of NG, particularly its aspirational component

In this study, across the twelve participants, a mixture of the second and third cross-sectional points was utilised.

Another research design issue was illustrated by the NG theme, Aspiration (ASP). Although ASP was deemed to be a phenomenological theme of NG, it was arguably also an artefact of the cross-sectional methodology. It would probably have been a feature of a longitudinal study as well, but this is conjecture. Future research might establish the *ultimate* realness of ASP (i.e. not the 'realness' at the cross-sectional phenomenological level), either by targeting the theme with a qualitative study that specifically targets ASP, or by quantitatively targeting the degree of *realisation* of ASPs at a later date.

8.3.1.3 Qualitative vs. mixed methods

Despite research in the post-trauma field already existing, because the target group for this study was both a post-RTA and, specifically, post-EMDR, this study was unique. In effect this was a new area for research and arguably sufficient reason to indicate a qualitative research design. However, other options existed, for instance a qualitative approach could have been combined with a quantitative component to establish the homogeneity of the recruited participants. Use of self-reporting measures e.g. the Impact of Event Scale Revised (IESR) (Weiss & Marmar 1997), and the Post Traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun 1996) or, perhaps more appropriately given the findings, The Changes in Outlook Questionnaire (CiOQ) (Joseph, et al 1993) since it includes questions equivalent to both NS and NG. The use of these self-report measures or other psychometrics might have estimated a participant's whereabouts on their own NS-NG continuum. In addition, measures to establish which personal factors identified from the literature search were present had been promoted by EMDR e.g. resilience and/or self efficacy, would help 'flesh out' detail to NG. Likewise other treatments cited, or even the passage of time might have explained what was contributing to identified NG. Similarly the same could have been applied to social factors.

On the other hand, including pre-interview self-report and ongoing measures of change, personality and social components would have been costly of time and have needed modifications to the research design with the inevitability of 'sanitising' the group being studied rather than allowing the phenomenon to reveal itself.

8.3.1.4 PPC terminology

NPC is well defined and encapsulated thoroughly within diagnostic categories such as PTSD (e.g. DSM IV TR - APA 2000). However, the main focus for the study was PPC for which no such manual exists. As a result, many authors have defined PPC and, as the literature search shows, even defining the nature of the specific psychological change under study necessitated new terminology so as not to inadvertently adopt a non-generic term for PPC – another reason for not doing precisely the same by using established psychometric measures.

Hence PPC, as a term, was utilised until the findings revealed NG. The problem was that this was not an easy task when most recruiting therapists only understood the term PTG as representing PPC. The confusion of terminology impacted on recruitment (see Chapter Three) and resulted in a curious paradox – a design error, which actually aided the phenomenological process by recruiting 'Mike' who provided a valuable contrast to other participants' narratives. However, although this recruitment issue was probably an asset to this study, it was accidental and therefore would be unreliable should other researchers attempt to replicate this study.

It might be of assistance for future studies involving PPC to have a 'terminology card' that briefly describes the types of PPC that may be applicable to recruiters. (See also 'Sampling method and recruitment' below).

8.3.2 Methodology application limitations

The majority of this category of limitations resulted from insufficiently clearly defined parameters to the study and the lack of generalisability due

to research design. To some extent these issues were offset against the richness of the data obtained. One issue that arose related to how well did 'warm-up' questions access the phenomenon.

8.3.2.1 Pilot study

More attention to the pilot study was required. It was useful to identify technology problems and the order of the SSIQs, but the volunteer, although with a convenient background knowledge of mental health and experience of an RTA some years previously, had not had EMDR - one of the key requirements for inclusion in the study.

8.3.2.2 Sampling method and recruitment

As already discussed, there was no obvious alternative to a snowball sampling method. This was tricky in itself but made more complex than necessary. Although reasonably clear identification of the target population was made, *interpretation* of the inclusion criteria by recruiting clinicians caused sampling problems. The reason was that the words 'positive psychological change' (i.e. PPC) were interpreted as meaning *either* 'reduction of negative psychological change' *or* 'positive psychological change' over and above 'negative change'. It was participants belonging to the second category that were required for the study and it was this reason that resulted in the accidental recruitment of 'Mike', who belonged to the first category. Nevertheless, as stated previously, this was to prove a 'contrasting asset' to the study. 'Mike's' recruitment, nevertheless, revealed the tentative and still fragile signs of early NG underpinning the coexistence of NS and NG.

Future studies would benefit from adopting a form of 'recruiter-training' process prior to attempting to conduct a snowball sample. It could transpire that time spent on recruiter-training would reduce the overall time spent on the snowball process. Furthermore, by including standardised and explicit instructions in which terminology issues and interpretations were clarified with all those involved in recruitment, instead of the researcher initiating the snowball, the recruiter-training process

could result in a group of therapists effectively starting several ‘snowballs’ off at once.

8.3.2.3 Sampling biases

In addition to the sampling ‘error’, the existing method of ‘seeding’ the snowball may have resulted in inadvertently recruiting extroverted participants. It has already been shown that a personal characteristic associated with PPC is extroversion so this may have been inevitable. However, the recruiter-training process could also have carefully addressed this by encouraging recruiters to consider *all* their clients as potential participants not just those who were ‘obvious’ candidates.

Sampling bias was not limited to personal factors influencing recruitment. Although every care was taken to accommodate the participant’s inclusion in the study, the context of the study timing on convenience for the participant was an *ad hoc* factor. There were some suggestions that it was convenient to be included whilst other potential participants effectively self-excluded because of the inconvenience of the study.

Furthermore, participant cross-comparison would have been aided had all participants only experienced a single RTA. Because at least one participant had experienced two significant traumatic experiences – unrelated to the RTA, it meant that considerations such as the cumulative effect of multiple traumas were difficult to establish. Nevertheless, because the objective was ‘richness’ of data this was not considered important. However, in achieving ‘richness’, generalisability possibilities have been further reduced (see also Sample size below).

Other issues relating to sampling bias included the intentionality that all participants were English-speaking adults. This was done solely because of the linguistic limitations of the researcher, but given that findings centred on word-usage (e.g. FLU) then no comparison was available cross-linguistically. Furthermore questions were asked as to whether an identical study conducted in a theocracy might yield very different findings. A more generalisable sample would require a larger number of participants from a wider set of backgrounds – if possible comparing the

experiences of RTAs across several linguistic, theological and legal/geographical boundaries.

8.3.2.4 Sample size

It took 26 months to recruit twelve participants. This was adequate for the purposes of the research design utilised, but despite the additional burden of methodological flaws is insufficient to consider representative of a wider number of participants. Other designs that may help to increase generailisability of the findings include:

A quantitative study
A mixed methods study
A qualitative study involving one or more of the following:

- Multi-centre studies
- Longitudinal interviewing – particularly multiple longitudinal
- Similar study across different traumas
- Similar study within different linguistic, theological and/or legal/geographical settings

8.3.2.5 Multiple treatments other than Eye Movement Desensitisation & Reprocessing (EMDR)

Participants underwent treatments other than EMDR prior to interview. Other treatments ranged from complementary medicine in the context of an abhorrence of anything related to Western Orthodox Medicine (WOM), to surgical and medical treatments. Indeed it wasn't entirely clear what 'treatment' always consisted of. Despite the qualitative nature of the research design with hindsight there was an assumption that the only 'meaningful' treatment was EMDR – despite the efforts at bracketing. Ultimately this may have been somewhat academic given that all participants considered EMDR to have been successful anyway.

To add more preciseness to the interviews, but without jeopardising the gleaning of rich lived experience information, consideration is warranted to the rewording of SSIQ Eleven:
How would you describe your experience of all treatment you have received since the RTA?

Although the SSIQ was deliberately worded to encapsulate *all* treatments, it was the effect of EMDR that was sought. An alternative version that might help might be:
Which treatments have you received since the RTA? …followed by: **How would you describe your experience of EMDR?**

In addition, participants whose EMDR had failed or in which they had dropped out of treatment would have provided a more rounded view of PPC in an EMDR context. So although deliberate, the inclusion of only successful treatment is in effect a further sampling bias.

8.3.3 Limitations of findings

Although a rationale was provided for not using software for analysing themes, the identification of FLU, stretched the manual IPA data analysis process to the limit. FLU seemed to possess an almost fractal-like nature in that it became ever more complex the more it was examined. Its analysis was therefore somewhat limited. Further analysis was deemed to be beyond the scope of the study although this may be a counter argument for using qualitative software packages.

Another limitation in relation to FLU was the paucity of material gleaned about participants' use of FLU prior to the RTA. Carefully targeted SSIQs could overcome this and provide further evidence for, or against the conclusions that:

- The RTA was being incorporated into the rebuilding of the assumptive world
- NG was ultimately independent of trauma and is solely part of a normal maturation process
- The RTA had, in effect, altered the normal maturation process

8.4 A suggested future research agenda

8.4.1 Focussing on causative agents of NG

This study has generated far more questions than it has answered. The following are some broad suggestions for future research:

Although this thesis has described the lived experience at a point in time post RTA and post EMDR, whether or not either can be considered causative agents remains unknown. On the one hand is whether or not RTAs follow Fontana and Resnick's 'curvilinear' hypothesis, Linley & Joseph's contention that the type of traumatic event is not significant, or for that matter an entirely different process.

As yet unresolved is whether or not EMDR is a causative agent in NG. There is a definite suggestion it plays some role – but what? If a role *is* proved then what part or parts of the EMDR protocol/ components of phases are responsible? If EMDR does play a part but none of the phases of the protocol are responsible is the 'magic' ingredient the therapeutic relationship?

However, before causative investigations can commence, there is a need for a measure of NS-NG change and none currently exists. There is one candidate however, namely the Change in Outlook Questionnaire (CiOQ) (Joseph, Williams & Yule 1993). The CiOQ examines psychological change of both valences whereas the Post Traumatic Growth Inventory (PTGI) only examines positive change. This means the CiOQ is preferable, or at least an appropriate adaptation, would match the conclusions of this study that changes of both valences are inseparable. Using the PTGI (by itself) might therefore unnecessarily hamper findings.

Once the appropriate measure is available, Figure 8.1 illustrates how research might then focus down on the causative agents of psychological change. The process of downward focusing will of course be important in a quantitative study so as to isolate the various variables involved. Table 8.1 summarises some of the related hypotheses relating to causality.

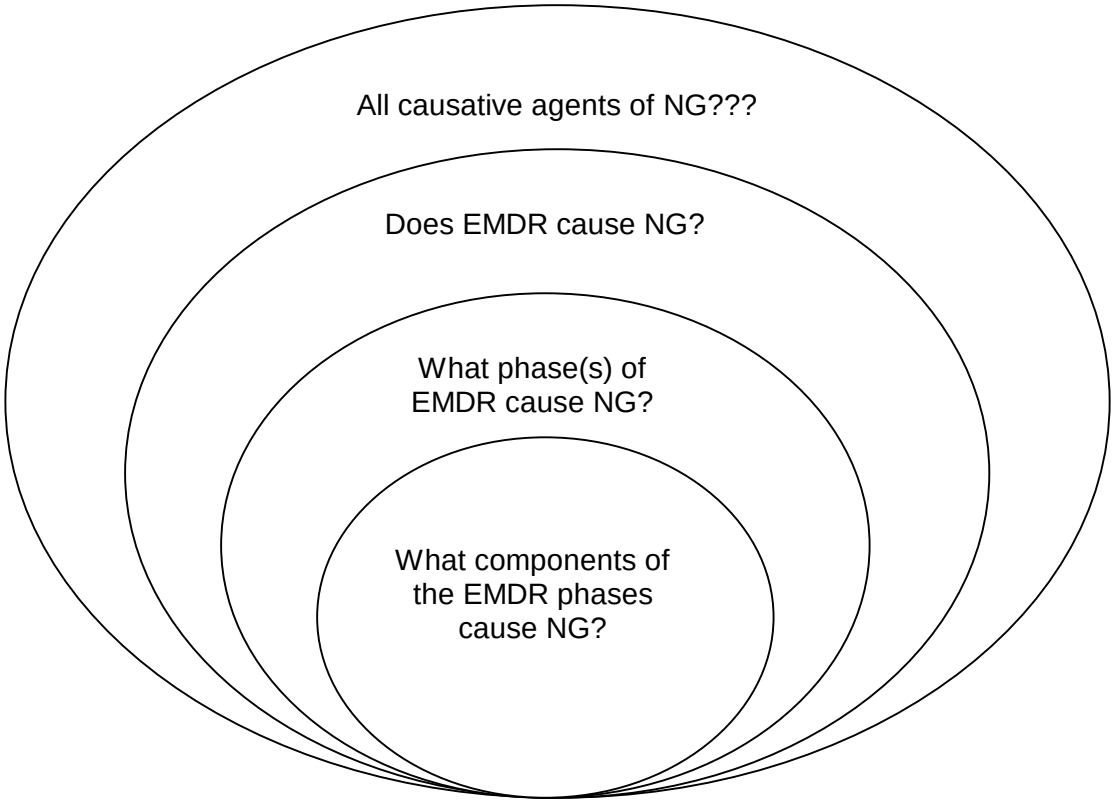


Figure 8.1:
Downward investigation of possible causative agents involved in NG

- **One or more personal factors known to promote PPC provides a causative role in NG**
- **The therapeutic relationship in EMDR provides a causative role in NG**
- **EMDR provides a causative role in NG**
- **Phase Five of the EMDR protocol provides a causative role in NG**
- **Tiering Positive Cognitions in Phase Five provides a causative role in NG**
- **Use of FLU-based interweaves provide a causative role in NG**

Table 8.1:
Some possible causative hypotheses for future research

For instance, it is unlikely that all causative agents of NG will be identified. This has already been made explicit in the literature. The first stage may therefore be a Randomised Controlled Study (RCT) of EMDR versus a Waiting List Control (WLC). **"EMDR plays no causative role in NG"** being the obvious null hypothesis (see also Table 8.1). The result would be to demonstrate whether EMDR was worth exploring further as a causative agent.

The second stage might be an RCT of the potential causative phases e.g. Phase Five where Positive Cognitions (PCs) are a standard component of EMDR (see also McKelvey 2009). Another potential RCT 'target' might be Phase Two, which involves installing resources.

The third stage would be to investigate individual treatment components of the phases, likely RCT targets here might target the installation of 'future templates' and treatment of targets generated that represent images of worst case scenarios (termed 'float forwards' in EMDR). From the current author's experience another component, the recommended 'phase component' such as the tiering of Positive Cognitions (see also Table 8.1) may warrant an RCT. Investigating the therapeutic relationship might fall into any of the above stages.

The problem with these hypotheses is the assumption that reduction of NS is somehow 'detachable' from the creation of NG (and vice versa). This study suggests that it may not be easy to do this. Proving 'detachability' one way or the other would therefore require a prior quantitative study or at least a methodology that permits 'detachment'.

It is therefore proposed that there are likely to be three 'focussing down' stages in the causative research process.

8.4.2 Focussing on the wider issues

If EMDR's causation is not the focus for future research, the following possible hypotheses, may be relevant given the findings of this study:

- Knowledge of the wider non-trauma NS-NG continuum would assist in contextualising NS-NG post trauma. Similarly knowledge of cross-trauma NS-NG might help with comparisons between traumas: e.g. **"As compared to pre crisis, NG increased more rapidly post crisis"** might be one hypothesis.
- Knowledge of pre and post crisis NS-NG, may help with the understanding of the nature of psychological change and the adaptability of humans to suddenly occurring new circumstances: e.g. **"NS-NG changed more rapidly as a result of experience 'X' than before 'X', and/or after experience 'Y'."**
- Given that a Taoist philosophy was found useful in explaining the nature of psychological change in this study, would other religious traditions, particularly Buddhism with its Four Noble Truths all of which concern suffering, or other philosophical traditions help with the practical application of culture-specific findings both of NS-NG generally, but also individual components of either?

  "Practical application of culture-specific NS-NG is facilitated by 'X' philosophy"
- Would 'change' rather than 'disorder' be more helpful in considering a 'Total Adaptive Outcome' of EMDR? The implications of choosing 'change' would be enormous because it would question the entire foundation of evidence-based practice with the inevitability of having to address the question of whether NICE guidelines incorporate change on a NS-NG continuum rather than solely evaluate effectiveness in reducing NS.

  "The use of a diagnosis post experience 'X' to describe NS impacts negatively on the NS-NG continuum than considering the effects of experience 'X' in terms of a 'change process'"
- Related to the previous point is: how is NS-NG quantified and are there any special requirements in so doing in relation to EMDR?

  "The Changes in Outlook Questionnaire better reflects NS-NG than, the Post Traumatic Growth Inventory"
- What are the wider implications on society of considering NG to be an inevitable outcome to psychological trauma? In turn, this might achieve insights into the ethics of focussing on NG following trauma.

  "NG is an inevitable outcome of psychological trauma"

8.4.2 Focussing on the 'narrower' issues

As regards 'narrower' issues for future research: extending this study's findings could be done by any of the following, all of which could be research hypotheses to add further detail to the knowledge of the lived experience of NG so far obtained (see also Appendix 8.1):

1. **"The transition between the pre and post assumptive world is one of 'shattering' (or, transition into a NS-NG continuum)"**
2. **"In the response to psychological trauma, the spiritual struggle is culturally/theocratically bound"**
3. **"The length of time spent in hankering hinders achievement of NG"**
4. **"Duty of care creates legal iatrogenisis".** This hypothesis is suggested because at a time when duty of care is an adversarial issue, does the very system established to settle the 'index' trauma (e.g. the RTA) create new problems? Or, more specifically, why does legal iatrogenesis exist?
5. **"A particular type/ category of RTA leads to a particular type of NG."** This would hopefully shed more light on the 'curvilinear' or 'no effect' hypotheses concerning 'event type' of trauma and effect on NG
6. Given the extent of invisible NG and self-help groups**: "'Lay-therapy' promotes NG more than traditional NICE recommended treatments provided by a trained clinician"**
7. **"'Lay-therapy' is more oriented towards PPC than orthodox professionally provided therapy"** Items 6 and 7 should help elucidate who 'owns' the NG field
8. **"Paradox contributes to both NS and NG".** Although PAR was placed in NG in this study, humour (i.e. the *result* of PAR) is used as a coping strategy in black humour and coping is thus paradoxically part of NS.
9. Given that NG may lead to career change: **"Individuals chose career paths such as a healthcare professional as part of NG"**
10. **"In time, trauma-related FLU becomes part of the social fabric".** This hypothesis might lead to the conclusion that all FLU stems from

psychological trauma – although it will depend on the definition of ‘trauma’.

8.5 Final conclusions

This study commenced with the obvious: RTAs result in considerable suffering and misery – and the study revealed more suffering and misery than needed to occur.

The study has ended with the conclusion that clinicians might benefit from reflecting on the new client who walks into the clinic. How do we know what that client may be capable of… and how do we know we are not addressing, for instance, a future General Secretary of the United Nations?

It has been a truly inspiring experience to conduct a study of 'victims' of RTAs to find it had included a potential Olympian, a plasterer who would be an EMDR therapist, a new market leader in innovative Occupational Rehabilitation, and an academic turned spiritual healer…

"If we did all the things we are capable of doing
we would truly astound ourselves."

Thomas Edison 1847-1931

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APPENDICES

CHAPTER 1 APPENDIX

Appendix 1.1

The role of 'other Martin's' in the recruitment process

Autobiographies by Senait Mehari (Mehari 2007), Christopher Reeve (Reeve 2002), Jane* & Mike Tomlinson (Tomlinson & Tomlinson 2005) and Simon Weston** (Weston 2003) as well as a book of biographies by Pam Rhodes (Rhodes 2001), are of particular note as they were the ones used to illustrate and explain PPC to the recruiting therapists.

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*The current author competed in the York 10K run in 2010 and 2011 for the York Rheumatoid Arthritis Support Group, **www.yorkra.org** - to which he is a member. The race was named in Jane Tomlinson's memory.

**Simon Weston kindly agreed to be involved in this study's SSIQ process. He is gratefully acknowledged accordingly.

CHAPTER 2 APPENDICES

Appendix 2.1

From 'stren' to 'adversarial growth' via Post Traumatic Growth (PTG)

"Our English language is deficient in some respects.
We have the word 'trauma' to denote an unfortunate blow that injures the personality, but as yet we have no word that describes an experience that is fortunate, that strengthens the personality. The closest we come to this is to say it is a blessing, but counting our blessings does not really meet our need for a word directly opposite in meaning to 'trauma'."
Margaret Mead 1901-78 Cultural anthropologist

Hollister coined the word 'stren' to represent the antonym of trauma, defined as an experience in a person's life that builds strength into his or her personality (Hollister 1964; 1967). Finkel (1975) described a combination of 'stren' and 'trauma' as a:

> "…third event that combined elements of both stren and trauma… involving a trauma that was rather suddenly converted (i.e. cognitively re-evaluated) into a stren experience. This new and puzzling event represents a quick resolution of a crisis… as well as a personality-enhancing experience…" (Ibid, p.173 – original brackets)

This 'stren conversion', whilst describing PPC was intended to indicate something that could be built into a personality *pre*-trauma rather than occurring solely post trauma, as in the case with PTG. This 'conversion' only occurred in about a third of all cases post trauma (Ibid), quickly and via cognitive re-evaluation. Several of the terms comprising PPC can be defined by the factors making up the particular term. For instance, McCrae's (1984) 'drawing strength from adversity' consisted of:

- Growing as a person
- Came out better
- Found new faith
- Rediscovered what is important
- Took strength from others' examples

These are actually scale items from Folkman & Lazarus' (1980) Ways of Coping Questionnaire. Although the components of 'drawing strength from adversity' are recognisably those of PTG, the component terms were intended to describe methods of positive *coping* rather than growth for the individual, and particularly relating to dealing with life's challenges rather than traumas. Because McCrae's paper (1984, p.919) cites:

- Rational action
- Perseverance
- Positive thinking
- Intellectual denial
- Restraint
- Self-adaptation and
- Humour

…in *addition to* 'drawing strength from adversity', then it is reasonable to conclude these items do not form part of 'drawing strength from adversity'. When comparing McCrae's two lists, the second list does seem more reminiscent of positive coping strategies. Scheier et al's (1986) 'positive reinterpretation' is different again. These authors examined differences between optimists and pessimists in "successful adaptation to stressful encounters" (Ibid, p.1257). 'Positive reinterpretation' is a cognitive label, and associated with gaining insight into a situation, which is theoretically achievable through problem solving and/or emotional expression. Since such insight could be seen to be a product of wisdom it may be reasonable to assume that positive reinterpretation would manifest itself, at least in part, as wisdom. Taylor and Brown's (1988) 'positive illusions', stems from a theoretical paper that attempts to address what appears to be a paradox:

> "…how can positive misinterpretation of one's self and the environment be adaptive when accurate information processing seems to be essential for learning and successful functioning in the world?" (Ibid, p.193)

They argue that reality is being processed in a biased way that runs against the traditional thinking that contact with reality is vital to mental health (Ibid). It is a naturally adaptive process, to acquire, in Taylor & Brown's words, 'positive illusions' following emotional distress. An alternative explanation is that there is a paradox in 'positive change', from the perspective of the traditionally negative view adopted by psychology. 'Illusion' is arguably an inappropriate word because of the suggestion of a negative value judgement in that such illusions are something unwanted and to be got rid of. One could imagine this effect multiplied if the label 'positive delusion' had been used instead. Yalom & Lieberman's (1991) paper speculates that positive 'psychological changes' are at least partly due to

existential issues stemming from a confrontation with death…" (Ibid, p.334), or more specifically, one's own inevitable death. Again there are a range of defining features of 'psychological changes':

- More open communication with family and close friends
- Fewer fears
- Rearrangement of life priorities
- Less preoccupation with the trivialities of life
- More 'immediate' living, i.e. not postponing experience and pleasure into the future

…which means this term for PPC is probably not compatible with other terms (e.g. McCrae's 'drawing strength from adversity'). Meanwhile, 'perceived benefit' was the term chosen by McMillen et al (1995) the defining features being:

- Protecting children from abuse
- Self-protection
- Increased knowledge of child sexual abuse leading to viewing others more favourably and being more comfortable getting close to others
- Having a stronger personality leading to higher self-esteem

In essence then, 'perceived benefit' is PPC as applied to the specific outcomes from sexual traumata. Rather confusingly the same term (perceived benefits) was used by Calhoun & Tedeschi (1991) to stress the role of paradox much the same as Taylor and Brown's (1988) 'positive illusions'. Tennen et al (1992), although using 'construing benefits', also used 'perceived control' as well. This seems to suggest these authors saw the phrases as interchangeable. However, it seems that 'perceived control', whilst describing PPC, is not the same as PTG because:

> "The term posttraumatic growth… wants to capture the positive outcomes of people having experienced *and coped with* an extremely stressful life event… the 'growth' term expresses that in people's lives there is something positively new that signifies a kind of surplus compared to precrisis level." (Zöellner & Maercker 2006, p.334 –italics added)

Zöellner & Maercker (ibid) clearly require successful coping to precede PTG, whereas McCrae's (1984) 'drawing strength from adversity' suggests that coping is, itself 'positive change'. Yet another facet of 'positive change' is highlighted by O'Leary & Ickovics (1995) in their term, 'thriving', which is used to:

> "…move beyond the vulnerability/deficit model of women and to focus on women's strengths and their ability to thrive in the face of adversity." (Ibid, p.121)

…therefore 'thriving' is inherently a 'gender specific' dimension of PPC. Tedeschi & Calhoun's (1995) term PTG is by far the most widely used term in the literature. A quick search of databases yielded well over two thousand papers listed under the American spelling alone compared with 92 papers for 'adversarial growth' and four for 'stren conversion'.

The Post Traumatic Growth Inventory (PTGI) (Ibid, p.140), used to quantify PTG, consists of:

- New possibilities
- Relating to others
- Personal strength
- Appreciation of life
- Spiritual change

…subscales, which define PTG. The authors have also stated:

> "We use an essentially cognitive framework (to encapsulate PTG)… because changes in belief systems seem to be so often reported…" (Ibid, p. ix)

…so PTG is not interchangeable e.g. with Yalom & Lieberman's (1991) existentialist 'psychological changes'. Park et al's (1996) 'stress related growth' defined it as being (p.71):

- Intrinsic religiousness
- Social support satisfaction
- Stressfulness of the negative (note the word 'traumatic' is not used)
- Positive reinterpretation and acceptance, coping and
- Number of recent positive life events

Thus 'stress related growth' is significant because it contradicts one of the central assumptions of PTG-type labels namely that PPC occurs:

> "…most distinctively in conditions of severe crisis rather than low-level *stress* Tedeschi & Calhoun 2004a, p.406 – original italics).

…although it depends what is meant by 'most distinctively', Park et al (1996) argue stress not trauma necessarily is the important ingredient. Yet another term is 'transformational coping', which judging by Rich's (1989) paper was in use well before Aldwin's (1994) book by the same title. The term appears to attribute 'transformation' directly to coping, and thus coping is the main cause of PPC, perhaps providing an explanation why trauma is not necessarily a pre-requisite for growth. Pargament (1996) describes the 'transformative' nature of religion as a method of understanding, a theme taken up by Argyle (2000) when discussing 'terror management theory' in which:

> "…human beings have a deep-seated fear of death and feel very vulnerable, because we are programmed for self-preservation but are also self-conscious, making us aware of our inevitable end" (Ibid, p.146).

'Transformational coping', would appear to have an existential grounding in paradox and therefore may be compatible with Yalom & Lieberman's (1991) 'psychological changes'. Bower et al's (1998) 'discovery of meaning' acknowledges:

> "One potentially important cognitive outcome of this (trauma) process is the ability to find meaning". (Ibid, p.979 – content of brackets added)

…and subsequently reported the effects of 'discovery of meaning' were more than just a cognitive process, but also translated into immunological markers (Ibid, p.984), thus confirming earlier indications of psychological positiveness resulting in physical changes (see also Affleck et al 1987). An interesting point about Bower et al's (1998) 'discovery of meaning' is that it directly mirrors Frankl's (1959/2004) 'will to meaning' theory, the fundamental assumption that humans have a drive to make meaning of events and specifically traumatic ones. 'Flourishing', coined by Ryff & Singer (1998a, b) removes the subject of positive health from the medical realm altogether, because:

> "…positive health is not, in the final analysis, a medical question but rather is fundamentally a philosophical issue that requires articulation of the meaning of the good life. More than anything, it is the chronic neglect of philosophical perspectives on 'the goods' in life that has handicapped efforts, including well-intentioned efforts, to understand positive health, and has produced instead deeply impoverished conceptions of human functioning." (Ryff & Singer 1998a, p.2)

…thus reiterating Maslow's 'voluntary restriction' quotation cited earlier. 'Flourishing' is a thus a different term to all the others as it encapsulating philosophical rather than PPC. Rather it is based on the Aristotelian principle of eudaimonia – i.e. the 'good life'. 'Flourishing' is a very wide understanding of PPC and is potentially inclusive of all 'positive change' irrespective of it being related directly to the aftermath of psychological trauma or to other forms of stress or related to purely human development without any form of stress precursor at all. Folkman & Moskowitz (2000) return to the emotional focus of PPC in their use of the term 'positive emotions' to describe:

> "…three classes of coping mechanisms… positive reappraisal, problem-focused coping and the creation of positive events…" (p.115)

…thus attributing emotional effect (i.e. not affect), to a mixture of cognitive and behavioural coping causes not unlike Pargament's 'transformational coping' although here the emotional rather than existential component is viewed as the most important PPC and therefore suggesting support for Rachman's (1980) theory on emotional processing (see Table 2.10). Finally, Linley and Joseph 2004a coin the term 'adversarial growth' because:

> "…positive changes share the common factor of struggling with adversity, hence we refer to them collectively as *adversarial growth*… (also known as) posttraumatic growth, stress-related growth, perceived benefits, thriving, blessings, positive by-products, positive adjustment, and positive adaptations" (p.11 – contents of brackets added, original italics).

Appendix 2.2

A brief synopsis of psychological 'change' theories

"Change is the only constant"
Heraclitus of Ephesus

This section briefly reviews theories of psychological change following a traumatic event to explain PPC. Following each theory review, clues are extracted from theory descriptions, which could potentially help towards explaining PPC following EMDR. Six NPC theories are reviewed to establish whether they may additionally account for PPC. Eight PPC theories are reviewed to extract further clues about PPC. A further theory, Organismic Valuing Theory (OVT), is reviewed, which could be termed a 'unifying change' theory, in that it combines both NPC and PPC.

Negative Psychological Change (NPC) theories

Brewin & Holmes (2003) provide a comprehensive review of the first five of the following theories and Joseph & Linley (2005) summarise them, for what the theories say about NPC. Theories are re-reviewed here to establish whether any clues exist about the possibility of PPC. Also reviewed is AIP, the theory that was specifically formulated to explain the observed effects of EMDR (Shapiro 2001), and is therefore particularly relevant to this study. Finally I review 'Martin's' story to look for examples of PPC that matches the literature.

Emotional Processing Theory (EPT)

EPT (Rachman 1980), ties in with the creation of PTSD as a diagnosis, and accounts for the NPC so described. Prior to this, the "previously disparate phenomena" (Joseph & Linley 2005, p.265) of NPC did not have a conceptual framework. EPT points to humans having a drive toward the processing of powerful emotional material (Ibid). The same authors add:

> "...processing (via EPT) can be promoted or impeded by various event, personality, activity, and emotional state factors." (Ibid – contents of brackets added)

EPT describes a drive to reduce NPC rather than to generate PPC, but does suggest that if emotional processing is "promoted" past the point of all NPC being eradicated, then the individual could acquire an entirely new emotional outlook on life, which could therefore, constitute PPC.

Information Processing Theory (IPT)

IPT (Horowitz 1982), highlights, as a central component, the role of memory and also a component Horowitz termed the 'completion tendency', which is:

> "…an intrinsic drive to make our mental models (of the world) coherent with current information." (Joseph & Linley 2005, p.265 – contents of brackets added)

Joseph & Linley (Ibid, p.266) also point out compatibility between EPT and IPT in that both highlight incomplete processing and a drive to absorb and integrate trauma-related information. IPT's compatibility with EPT effectively underscores the conclusions from the previous section of going past the eradication of all NPC.

Social-Cognitive Theory (SCT)

SCT (Janoff-Bulman 1992), is in effect, a cognitive information processing theory and extends Horowitz's IPT (Joseph & Linley 2005, p.265), particularly the 'completion tendency', but also that people have a drive to make sense of and find new meaning after a traumatic experience, very much akin to Frankl's (1959/2004) 'will to meaning' principle. SCT, although an NPC theory, also contains definite clues to PCC. For instance, Janoff-Bulman & Frantz (1997) contend there is, a stage after NPC because not only are people driven to find meaning, but also to live more meaningful lives thereafter. Furthermore, SCT suggests more than individual processes are involved (as compared with EPT and IPT), not just because of its being a *social*-cognitive theory, but because the search for a more meaningful life is presumably likely to drive the individual to *seek* a more meaningful life. Central to Janoff-Bulman's (1992) theory, is the shattering of assumptions that requires schema changes.

Cognitive Synthesis (CS)

CS (Creamer et al 1992) is an amalgamation of earlier theories and holds that a 'fear network' must be activated for recovery too ensue. This process is called "network resolution processing" (Joseph & Linley 2005, p.66), the degree of which is said to predict the outcome of NPC. CS is effectively only focussed on NPC, but nevertheless activation of networks is required for change – presumably this will include PPC (see also AIP).

Psychosocial Perspectives (PP)

PP, Joseph et al (1995; 1997), extends the cognitive theories on NPC "to include a wider psychosocial perspective" (Joseph & Linley 2005, p.266) firmly grounding NPC in a "complex interaction" (Ibid) of events prior to the trauma as well as both individual and personal characteristics. PP does step outside of NPC – specifically prior to a traumatic event. Personal characteristics prior to a traumatic experience are important. If those characteristics are positive it suggests a reduced period of NPC, and, by extension, possibly also the existence of PPC.

Adaptive Information Processing (AIP)

The importance of AIP to this study is that it is the acknowledged theoretical framework to explain how EMDR works (e.g. Shapiro 2001). More recently, views on AIP have become dichotomous with, for instance, the practical 'two method approach' of case conceptualisation (de Jongh, ten Broeke, Meijer 2010), supportive of AIP, whilst the essentialness of AIP to EMDR has been questioned by Greenwald and defended by Shapiro in Greenwald & Shapiro (2010). Whether or not AIP is supportive of EMDR is beyond the immediate scope of this study, suffice to say that AIP is by no means the only theory to account for observed changes as a result of this treatment (Ibid, p172), whilst Shapiro (2001) has detailed nine other possible theoretical mechanisms based upon the role of the orienting response, distraction, hypnosis, cellular and brain-level changes, dream sleep, the relaxation response, hemispheric synchronisation, cortical function and 'integrative effects'. Indeed, an entire edition of the *Journal of EMDR Practice and Research* (Volume 2:4 2008) was devoted to papers discussing 'Possible EMDR Mechanisms of Action'. Just as all theories of NPC can be seen, by extension, to account for the potential for PPC, AIP is no different. AIP principles clearly relate to NPC and its reduction – hence AIP's inclusion under the NPC category of theories.

However, as Dworkin (2005) points out:

> "An important contribution of this book is its emphasis on EMDR as a client-centred therapy that attends not only to symptom reduction, but also to personal growth". (p.x)

This suggests that AIP, if more explicit about how PPC occurs, could ultimately be a unifying theory of psychological change' and Solomon & Shapiro (2008) point out that in AIP:

> "…processing is understood to involve the forging of new associations and connections enabling learning to take place with the memory then stored in a new adaptive form. (pp. 316-7 – see also Shapiro 2007)

So, just as with EPT and IPT, the suggestion is that PPC exists beyond the point of negation of NPC. However the word 'adaptive' can be interpreted different ways: adaptive in the sense of 'no negative', and adaptive in the sense of 'additional positive'. It would appear that current AIP theory is not explicit on this point. Nevertheless there are clues to PPC. For instance, the "results of adaptive processing" includes "relief of emotional distress *and* the availability of adaptive responses". Clearly the relief of emotional distress is the NPC component. The availability of adaptive resources however, is potentially a description of PPC. Furthermore, item six also includes "learning and understanding". These suggest that "learning" could result in – or be itself - PPC through an "understanding" that is also likely to be PPC. Another clue is contained in item eleven. AIP is clearly predicting "new associations within and between memory networks". This could apply to both NPC and PPC and, in relation to the latter, suggests there may be an argument that PPC commences with "forging" new memory networks. In summary therefore, AIP appears here amongst NPC theories solely because much of it explains the process of NPC. However, the potential for explaining PPC also exists thus making AIP, like other NPC theories, potentially a unifying change theory.

NPC theories: A summary

Theories of NPC are directly or indirectly related to information processing. Joseph & Linley (2005), have pointed out that:

> "Despite the extensive literature on PTSD, theories of PTSD do not account for the possibility of growth." (Ibid, p.264 – contents of brackets added)

…but as can be seen from a review of NPC theories, whereas that is largely accurate, that is not the whole of the picture. Most theories do have a contribution to make to PPC, AIP in particular. As regards how these theories can be applied to 'Martin's' story, PP points to an extremely "complex interaction" of factors - no wonder there was so much for 'Martin' to recount and scarcely surprising he remarked "some day I'll write a book". EPT points to the change in 'Martin's' emotions. Emotions certainly changed radically from "irritability and furious" to "cheerful and clearly happy with life". How Martin got there isn't clear, the only clue seeming to be passing through finding "himself alone and at 'rock bottom'". CST points to a duality of change in which 'Martin's' assumptions about life were shattered and subsequently rebuilt in a different way. In addition, CST suggests that social factors are important. This was certainly the case with 'Martin'. During the NPC phase he lost customers, his partner and ultimately was "alone… at 'rock bottom'" by which time he had "lost everything and everyone". Thereafter "he had met someone who was now a close friend" and 'Martin' was, at the time of the train journey, "socially very busy". So a declining social contact seems to go with NPC and increasing social contact with PPC. The various information processing theories point to a shift in

Martin's attention from 'damage' and the "hopeful" recovery of what had been lost, to a totally new direction in life, the link being the use he made of his traumatic experiences stemming from the RTA, which is strongly indicative of the "completion tendency" of IPT. Of particular interest is AIP. It was possible to establish that 'Martin's' positive thinking had strengthened during EMDR treatment from "I survived" to "I will help others survive". AIP explains how the NPC would have progressed, but also gives clues about PPC. It seems very likely that 'Martin's' PPC was explained by "forging new memory networks" following "learning and understanding". Since the positive self-statements occurred within Phase Five of the basic protocol, it is even possible to pinpoint when this change may have occurred. Theories of NPC, therefore, far from being irrelevant to examining PPC (or as Joseph & Linley 2005, state "do not even account for growth"), do in fact hint at quite important information. Nevertheless, the author contends PPC theories, should, by definition, primarily explain PPC rather than NPC.

Positive Psychological Change (PPC) theories

In comparison with the vast literature on NPC following traumatic events, there is far less published on PPC although this is changing rapidly (Linley & Joseph 2004a p7 on publication trends - see also Caplan 1964; Finkel 1974, 1975; Tedeschi & Calhoun 1995; Tedeschi, Park & Calhoun 1998; Frankl 1959/2004, 2000; Tedeschi & Calhoun 2004a, b; Linley & Joseph 2004b; Calhoun & Tedeschi 2006; McGrath 2006). As mentioned previously, there is no formalised categorisation of PPC and whereas this is by no means a bad thing judging by Sinaikin (2004), it does make for uncertainty as to what exactly PPC is and how to predict and promote it. O'Leary et al (1998) in specifically attempting to account for PPC resulting from negative events describe how:

> "…change is not only unavoidable, but may be essential for optimal adaptation, it is important for psychologists to understand the mechanisms of change" (Ibid, p.129 – contents of brackets added)

…and they review eight PPC theories dividing them into those describing intentional and unintentional change. O'Leary et al's 'intentional change' theory category was:

- Mahoney's (1982) Human change processes in psychotherapy (HCP)
- Hager's (1992) Chaos and growth theory (CGT)
- Nerkin's (1993) Resolution and growth in grief (RGG)

…whilst the 'unintentional change' theory category was:

- Schaefer and Moos' (1992) Life crises and personal growth (LCPG)
- Miller & C'deBaca's (1994) Quantum change theory (QCT)
- Aldwin's (1994) Transformational coping theory (TCT)
- O'Leary & Ickovics' (1995) Resilience and thriving theory (RTT)
- Tedeschi & Calhoun's (1995) Transformation theory (TT)

O'Leary et al excluded theories of change that were not related to a traumatic event, such as those that were solely behavioural, related to planned healthcare changes, 'stage-centred', or cognitive but orientated to explaining aspects of NPC (e.g. Seligman's 1975 theory of learnt helplessness). The 'intentional' group of theories were seen to describe an evolutionary process of slow change – including no change and even "backsliding" (O'Leary et al 1998, p.130) – largely describing the types of changes following therapy or occurring over time naturally. Whether this description predicts PPC rather than a reduction in NPC, which might ultimately result in PPC is questionable. The unintentional change group, which O'Leary et al (1998) define as involving *dramatic* change (also referred to in some models as disequilibrium), affects multiple aspects of life and both describes, and predicting, PPC (Ibid, p.130). Most of the unintentional theories view PPC as a by-product of attempts to cope with the uncontrollable (Ibid p.134). The following sections review O'Leary et al's (ibid) list of theories.

Human Change Processes in Psychotherapy (HCP)

Mahoney's (1982) HCP theory describes a generic process of change from a status quo through disequilibrium, which either returns to the status quo or in which restructuring takes place. The therapist is considered important to this model helping the client construct new meaning to events. Mahoney & Craine (1991) indicated change factors were therapeutic relationship as well as personal motivation, insight, social supports and self-esteem. It seems as though this model might actually describe NPC or PPC depending on whether the status quo is maintained or restructuring occurs. Assuming that the PPC option relates to the restructuring then it would seem restructuring is either a precursor to PPC or even a component of it. Either way, it is clear from HCP that the therapeutic relationship is important, probably vital, in PPC. This would directly support Dworkin (2005) in relation to EMDR. It is even possible to predict that the pinnacle of importance for the therapeutic relationship in EMDR in respect of PPC, is Phase Five of the standard protocol:

> "In EMDR our goal is that the client's ability to live in the world not only improves but remains improved… having a permanent change in a character trait to one that is more adaptive and allows for a robust life is more than very nice." (Ibid, p.196)

Chaos and Growth Theory (CGT)

Hager's (1992) CGT is similar to Mahoney's theory, but the disequilibrium – in this model called 'chaos' – doesn't result in a straightforward choice as in Mahoney's model, but rather an existential state of being 'caught in transition'. Existentialism is a philosophical approach that deals with the emotions, actions, responsibilities, and thoughts of the individual person (Macquarrie 1974; Cooper 1999) and his or her conditions of existence all of which may very well be in chaos after a traumatic event. Bretheron & Ørner (2004) contend that:

> "An existential approach to psychotherapy maintains that *human potential can be developed* even in confronting the irreversible difficulties of life…the ability of existential philosophers and psychotherapists to glean profound insights from adversity suggests that a truly positive psychology does not deliver us from our troubles but speaks to us in them." (p.420 – italics added)

…this places adversity in the realm of an 'opportunity to develop potential' (or 'remaining open to the adventures of experience' in Merlau-Ponty's words), for as Tedeschi, Park & Calhoun (1998) put it:

> "…existential changes can be regarded as growth, but they are not always identified as pleasant by the individual who experiences them, because they are issues of the meaning and purpose of life and the inevitability of personal death (Yalom & Liberman 1991)…facing existential questions, of course, is not the same thing as resolving them satisfactorily." (Tedeschi, Park & Calhoun 1998, p.14, original brackets)

A traumatic experience then, existentially, represents a 'chance to discover', which can be realised providing the individual concerned chooses to make PPC.

Resolution and Growth in Grief theory (RGG)

Nerkin's (1993) RGG is rather different to the previous two theories. The model was designed to specifically account for PPC post bereavement and Nerkin proposes that this is a function of a deepening of the 'reflective' self. In this model:

> "The *reflective self* is concerned with meaning and appraisal: this includes perception, interpretation, self-definition, evaluation, and attitudes" (O'Leary et al 1998, p.132 – original italics)

Nerkin (1993) considers the reflective side to be damaged on bereavement because of damage to attachments with the loved one and that meaning making, and active grieving, is presumed to forge PPC.

Life Crises and Personal Growth theory (LCPG)

Schaefer & Moos' (1992) LCPG theory focuses on the antecedents to the critical event, particularly the personal and environment systems as well as subsequent cognitive appraisal and coping responses, and the resultant PPC. There are 'feedback loops' in the process, in which events become linked in circular fashion either strengthening or weakening a given outcome. The apparent strength of this model is its empirical base (O'Leary et al 1998, p.135-6). In terms of a suitable model for use with obviously traumatic events, the model's apparent weakness is that the events themselves can be regarded as stressful, rather than traumatic (Ibid) – although the difference is hard to define. However, the focus on the context to the trauma, both personal and environmental, helps provide an insight into the complexity of PPC. Interestingly, LCPG shows not only the complexity of PPC but also the dynamic way in which subsequent events affect change.

Quantum Change Theory (QCT)

Miller & C'deBaca's (1994) QCT predicts only two outcomes – or possibly a single outcome continuum with two extremes – a new, higher level of functioning and it's corresponding lower level.
Linley & Joseph (2004b) have subsequently drawn the conclusion from their meta analysis that:

> "The evidence reviewed demonstrates a range of associations between growth and distress, and hence suggests these constructs are not ends of a continuum." (p.18)

So it would seem that Miller & C'deBaca's theory is not supported by more recent research. Nevertheless, the theory, as it stands, focuses on process rather than change outcomes and its suddenness. So to understand PPC might require a greater understanding of the order in which PPC takes place. More fundamentally, there may not be a radical difference between NPC and PPC because of their hypothetical positioning on the same continuum

Transformational Coping Theory (TCT)

Aldwin's (1994) TCT considers the process of change in terms of 'opponent process' which describes swings between strong affect (i.e. emotional) states – from negative to positive and vice versa (cf. Solomon 1980), as well as 'deviant amplification theory' based on systems analysis, in which small changes can become amplified via feedback loops (Aldwin 1994) some of which can result in

transformation (von Bertalanffy 1969). The model also proposes three outcomes – which like Miller & C'deBaca's (1994) theory, could exist on a single continuum. The three outcomes are negative transformational coping, homeostatic coping and positive transformational coping. Presumably the deviant amplification theory could work both ways so that small, positive, changes can become amplified into significant 'positive changes' – a sort of "constructive amplification" hypothesis. Furthermore, the observation that swings of strong affect states, from negative to positive and vice versa, suggests two things: it may be possible to have strong positive affect during NPC and strong 'negative affect' during PPC. This could have a paradoxical effect that negative can include positive and vice versa.

Resilience and Thriving Theory (RTT)

O'Leary & Ickovics' (1995) RTT, is similar to both Miller & C'deBaca's (1994) and Aldwin's (1994) theories. The focus in RTT is on outcome, whereas Aldwin's model focuses on the chaotic process of change itself, O'Leary & Ickovics also acknowledge three outcomes, which they term 'survival', 'recovery' and 'thriving'. The main difference between O'Leary & Ickovics' (1995) and Aldwin's (1994) theories is that the former consider the discontinuous change process as due to a 'challenge' to personal resources, whereas the latter merely refers to a 'negative event followed by a period of chaos' (see Calhoun & Tedeschi (1998, p.142). Again 'coping' is highlighted, although here it is termed 'personal resources' in RTT. By extension, it might shed further light on AIP theory as the 'personal resources' might equate with 'adaptive responses', which has been shown to be a contributor to PPC (see section on AIP).

Transformation Theory (TT)

Tedeschi & Calhoun (1995) coined PTG and explained it with their hypothetical TT (Ibid). These authors having apparently become dissatisfied with their earlier term *'perceived benefits'* (Calhoun & Tedeschi 1991), used PTG:

> "…to refer to these reports of positive changes in individuals that occur as the result of attempts to cope in the aftermath of traumatic events… the term posttraumatic growth appears to capture the essentials of this phenomenon better than others because 1 it occurs most distinctively in conditions of severe crisis rather than low-level *stress*; 2 it is often accompanied by transformative life changes that appear to go beyond *illusion*; 3 it, therefore, is experienced as an outcome rather than a *coping mechanism*; and 4 it requires a shattering of basic assumptions about an individual's life that *thriving* or *flourishing* does not imply." (Tedeschi & Calhoun 2004a, p.406 – original italics)

Tedeschi & Calhoun's (1995) original version of TT, was originally presented along with both the process and outcomes – so it was possible to 'see' the theory in action. There have been two minor changes to the theory (Calhoun & Tedeschi 1998; 2006). The most recent version is now reviewed. TT commences with the individual's 'pre trauma' context, followed by the 'seismic event' and subsequent events are conceptualised in a multi-modal way, reminiscent of Lazarus' (1976; 1977; 1989) multi-modal therapy, and consisting of management of emotional distress, beliefs and goals, and narrative. This leads to a cycle of events commencing with rumination – seen as initially automatic and intrusive – followed by a reduction of emotional distress, management of automatic ruminations and disengagement from goals. The cycle continues on a socio-cultural basis in which schema changes occur on a continuum from 'proximate' - the individual's culture, and 'distal' - relating to broad cultural themes either held in small, microsystems, of social networks or in the wider macrosystems (Brofenbrenner 1979 has provided a useful commentary on these 'ecological' systems). Self-disclosure is an integrative component of the process following on from the ecological systems changes. A series of feedback loops affects the final outcome, defined as PTG. Tedeschi & Calhoun (1995, pp.77-87) contend there are seven principles that are involved in the generation of PTG. These are:

- PTG occurs when schemas are challenged by traumatic events
- Certain assumptions are more resistant to disconfirmation by any events and therefore reduce possibilities for schema change and PTG
- The reconstrual after trauma must include some positive evaluation for PTG to occur
- Different types of events are likely to produce different types of PTG
- Personality characteristics are related to possibility of PTG
- PTG occurs when the trauma assumes a central place in the life story
- Wisdom is a product of PTG

There is no indication that the seven principles are intended to occur in the order shown. Broadly, PTG is complicated, multi-dimensional, the role of social systems, subsystems and microsystems are important as is the role of self-disclosure and the personal life-story. Despite their multi-systems theory however, Tedeschi & Calhoun (1995) explain however that their theory is a cognitive theory of PPC:

> "We use an essentially cognitive framework to explain this experience because changes in belief systems seem to be so often reported by persons who describe growth, and beliefs appear to play a central role in relieving emotional distress and encouraging useful activity (Ibid, p.ix)

Nevertheless, Tedeschi & Calhoun have provided a useful impetus to research, because, just as with the formation of the standardised PTSD diagnosis, which has created a huge amount of research activity so, it would seem, has the popularisation of PTG to encapsulate PPC after trauma – albeit at a much lower level. A search of the University of Birmingham Health and Biomedical Sciences Combined Database for 'Post Traumatic Growth', yielded 1609 results primarily contained within CINHAL, Medline, PsychInfo and Web of Science databases, whilst a similar search under the American variant 'Posttraumatic Growth' yielded 1923 results listed in the same databases – easily the highest number of any PPC label.

PPC theories: A summary

The three intentional change models reviewed by O'Leary et al, (1998) accounting for PPC are, really methods of accounting for therapeutic PPC over time. These models are unlikely to account for apparently spontaneous PPC in the individual concerned. As was expected, theories of PCC expounded more on PPC than their NPC counterparts. Of particular note is the sheer complexity, and potentially infinite combinations, of PPC, particularly TT - the theory underpinning PTG. 'Martin's' story reveals many of the points predicted by PPC theories. For instance the restructuring of thinking predicted by some theories and subsequently demonstrated by the casenotes is testament to PPC. The story itself showed that the restructuring was transferred from 'thinking change' to tangible outcome, i.e. thinking about helping others became raising money for charity. PPC theories predict the opportunity to develop potential, but rather conversely, instead of being wiser and *sadder*, 'Martin' appears to have been wiser and *happier*. Another prediction relates to 'loss'. If 'loss' is interpreted more widely than purely bereavement, but also includes loss of the 'old life' (i.e. in 'Martin's' case his business, marriage etc.), then PPC theories seem to support the 'growth in grief' hypothesis. In a wider context, PPC theories predict that the personal and environmental context of 'Martin's' predicament will be important to understanding the complexity of his PPC. The very nature of trauma treatment when working to a time-limited and thus funding-limited framework ('Martin' was an insurance-funded medicolegal client), doesn't readily allow for an in-depth understanding of personal and contextual dimensions of trauma as indicated by some PPC theories. Meanwhile, at least one theory seems to question two points: the order in which events took place – to which a single ninety-minute conversation can hardly do justice, and whether or not – and this is despite seeming commonsense – there is actually a radical difference between NPC and PPC. The hypothesised alternative to deviant amplification, has clear implications for the therapeutic relationship. The 'little things said in therapy' could, according to this "constructive amplification" lead to significant PPC. PPC theories also clearly place the emphasis on coping via personal resources as a precursor to PPC. It is worth noting that there is an emphasis on 'resource installation' in EMDR, but although PPC theories also focus on *coping* with NPC, there doesn't seem to be any reason why the same coping can't apply to PPC. If this is so, then there are several implications for EMDR when aiming at PPC For instance, in Phase One of the EMDR protocol, the assessment of personal resources is indicated (see also Chapter Eight). The only apparent clue from 'Martin's' story stems from the 300-mile roundtrip for EMDR, which might suggest tenacity as a personal resource. The overall impression gained is that PPC is an extremely complex phenomenon and almost certainly, therefore, not explained by any single existing theory. Having examined theories that account for either NPC or PPC, one further theory accounts for both.

Unifying change theory

It has been pointed out that the various change theories examined actually provide clues to both NPC and PPC, but are seen as predominantly one or the other. Payne et al (2007) point out that, other than Joseph & Linley's (2005) theory, there are no existing:

> "…attempts to *integrate* an understanding of posttraumatic stress with posttraumatic growth." (Payne, Joseph & Tudway 2007 – italics added)

…presumably, therefore these authors also see AIP as predominantly a mono-valent theory. The exception, according to Payne et al (2007) is Joseph & Linley's (2005) Organismic Valuing Theory (OVT) that underpins an Organismic Valuing Process (OVP), which is deliberately a *unifying* theory of 'change' that describes both NPC and PPC. This theory is now reviewed, and once again clues to explaining 'Martin's' story are sought.

Organismic Valuing Theory (OVT)

Joseph & Linley (2005) assume from the outset humans are active and growth-oriented organisms (p.269) and that there is a natural inclination to integrate psychological experiences (presumably not just traumatic ones) into larger groups and structures (Ibid):

> "As such, humans are characterised by their needs, values, and aspirations and strive in the pursuit of well-being and fulfilment. Central to OVP is the idea that each person possesses the *innate tendency* to know his or her own *best directions in life* in his or her *pursuit off wellbeing and fulfilment*." (Ibid, p.270– italics added, see also Ryan 1995)

In addition there is a context for this to occur in because:

> "…the social environment either facilitates or impedes the individual's needs, values, and aspirations, the individual may act respectively more or less concordantly with his or her OVP." (Ibid, p.270)

Joseph & Linley predict those guided by their own OVP would be guided by their 'authenticity' (Ibid) and thus would be 'true to themselves'. Subsequent PPC places the installation of new assumptions:

> "…within their own organismic experiencing and guided by their OVP" (Joseph & Linley 2005, p.270)

…in other words, new assumptions (Joseph & Linley use the word 'model') about the world, is found within that person's own experiencing – arguably an indication that understanding anyone's PPC must crucially examine that individual's lived experience of the post trauma world, and that OVT is probably more reminiscent of an experiential theory of change. Furthermore, Joseph & Linley cite Rollo May, a leading existentialist, in relation to:

> "…how conversions to authenticity which are fuelled by a person reaching ultimate despair thus giving up the delusion of false hopes… then and only then can this person begin to rebuild himself" (Ibid, p.270 citing May 1981, p.236)

…thus suggesting that OVT is also an existentialist theory of change. One way of interpreting this is that PPC only commences once an individual has reached 'rock bottom' as in 'Martin's' case. In other words PPC only occurs when the old self is abandoned for a new 'true' self. This closely matches Winnicott's (1965) notion that many problems stem from a false sense of self and by extension are relieved by discovery of a 'true' self. If an awareness of a 'false' self occurs, then is the possibility of PPC thus presumably explaining the vernacular use of 'discovering oneself', an alternative concept to being the person who is "fully functioning" (Rogers 1959, p.235; Rogers 1967/2004), or who has self actualised (Maslow 1968), or who is authentically happy (Seligman 2003). Key clues to 'positive change' in OVT include that when an individual reaches 'rock bottom', 'negative change' is no longer present. Also, human's have a natural tendency to accommodate traumatic information and that a supportive social environment will promote the OVP to accommodation, and thus 'positive change'. However, 'assimilation' of traumatic material into existing schemas will result in no 'positive change' whilst meaning-making leading to accommodation will result in 'positive change'. Finally, 'positive change' may leave a person paradoxically sadder, yet wiser.

Unifying change theory: a summary

Unifying theory of change, is a 'complete' theory of change intended to involve a thorough explanation of both NPC and PPC. The only theory reviewed was OVT, which is based on the premise that humans are 'growth oriented', integrate their experiences meaningfully (i.e. the completion tendency) and know the best directions to make in life. Their social context either facilitates or impedes this. Those experiencing PPC are 'true to themselves' and tend to accommodate traumatic information into a new meaning, which will have significance rather than comprehensibility. Enhanced personal wellbeing will result. Judging by OVT, 'Martin's' story is obviously far more complicated than it first appears. Although OVT gives a framework to understand his story, it doesn't explain how PPC came about in this instance – in other words OVT isn't explicit about the key mechanisms of PPC, which seem to involve a combination of 'Martin's' personal resources, EMDR and its therapeutic relationship.

Appendix 2.3

Factors contributing to, or impeding PPC

Aldwin & Sutton (1998) contend PPC is hugely complex and inter-related. So what follows is by no means exhaustive. All the following are positively associated with PPC unless specified otherwise.

Traumatic event type

Linley & Joseph (2004b) concluded: Mothers of bereaved children showed greatest PPC, whilst husbands of women with breast cancer showed the least (Ibid p.14; Weiss 2002; Polantinsky & Esprey 2000). Research results were generally confusing and:

> "…may not be a function of event type per se. It is more likely that it is the characteristics of the subjective experience of the event… influence(d) adversarial growth." (Linley & Joseph 2004a, p.15)

Sociodemographic factors

Linley & Joseph (2004b) concluded:

- Being female was more associated with PPC than being male, although evidence was mixed
- There were confusing results in relation to age and that generally mature, younger people are more likely to report PPC, whilst older people in "temporal proximity to one's own death" (Ibid; Davis et al 1998) reported less PPC
- Higher levels of education and income were associated with PPC

Personality factors

The 'Big Five' personality factors, is the name given to extraversion, openness to experience, agreeableness, conscientiousness and neuroticism (Gross 2005, pp.742-3). Linley & Joseph (2004b p.16) report that of the 'Big Five' personality factors, all were positively associated with PPC with the exception of neuroticism. Other personality factors include:

Self-efficacy

Self-efficacy relates to a person's conviction about whether they can exercise control (Bandura 1977; 1988). A strong sense of self-efficacy will lead individuals to exert greater effort to master coping challenges, the success of which, makes the likelihood of further success greater (Tedeschi & Calhoun 1995), in effect, a self-fulfilling prophecy. Knowing that one has control through coping, and can freely choose whether or not to use it, is very empowering. Bandura (1988) argues that this available choice produces a sense of being in command, and hence internalises the locus of control. Janoff-Bulman (1992), adds:

> "…survivors begin to have an impact on their environment, they perceive some small measure of self-efficacy and control in a world that is not wholly random." (p.143)

…therefore coping; locus of control; action; and self-efficacy, are all interlinked when it comes to the successful management of NPC and, potentially, subsequent PPC.

Hardiness and toughness

Hardiness is a term from plant biology, and is the ability to resist adverse growing conditions such as frost. Toughness, from materials science, describes a substance's ability to resist fracturing when stressed. The terms are considered psychologically interchangeable (Golby & Sheard 2004). The hardiness personality described by Kobasa, (1979; Kobasa et al 1985), consists of:

- Commitment: characterised by curiosity and active involvement in task-related behaviours
- Control: individuals who believe that they can influence matters
- Challenge: an expectation that life will set challenges which will stimulate personal development

Waysman et al (2001) associate hardiness with PPC. Hardy people are thought to develop optimistic appraisals and meaning as well as a willingness to learn from the traumatic event and to incorporate them into a life plan (Kobasa 1979). Wiebe (1991) reported hardy men appraised tasks as less threatening, responded with less negative and more positive affect and less physiological arousal than those less hardy. The effect was less marked amongst women. Younkin (1992) found hardiness related to less psychiatric symptomatology and greater self-esteem, whilst Tedeschi & Calhoun (1995) proposed that hardiness acted as a buffer against stress.

Self-esteem

Higher levels of self-esteem in combination with optimism is widely associated with higher levels of PPC (e.g. Joseph et al 1993; McMillen et al 1995; Tedeschi & Calhoun 1995; Abraído-Lanza et al 1998; Linley & Joseph (2004b).

Resilience

Lepore & Revenson (2006, p.24) have reported three forms of resilience of which one, 'reconfiguration resilience', is capable of leading to PPC. They use the metaphor of a tree in the wind (ibid p25-7) (i.e. the individual standing in the face of sustained and considerable stress) to illustrate resilience:

- Resistance resilience: the 'tree' stands still in the face of a howling gale (Ibid, p.25). Bonanno (2004) and Wortman & Silver (1989) point out that resistance resilience is frequently seen as unhealthy. The result has been treatments that led to breaching resistant clients' defences (Lepore & Revenson 2006).
- Recovery resilience: the 'tree' bends to accommodate the wind and once the wind stops blowing, the tree retains its original shape. This is the same concept as psychological homeostasis (Selye 1956). However researchers disagree with (Bonanno 2004) contending it is not, whilst Garmezy (1991); Lazarus (1993) and Masten & Reed (2002) that it is. How quickly the 'tree' returns to its normal position is also unclear with Bonanno (2004) arguing recovery needs to be immediate, or even that the tree should not bend at all – suggestive more of the state of resistance resilience. Lepore & Revenson (2006) point out that even a slow return to the normal position is better than no recovery. Thus recovery resilience is perceived as normal and resistance resilience as abnormal. Wortman & Silver (1989) point out both may in fact be normal.
- Reconfiguration resilience: the 'tree' changes its shape to accommodate the prevailing gales. Lepore & Revenson (2006) contend that this is fundamentally different to the other forms of resilience. Logically however, a reconfigured tree growing with the prevailing gales would result in highly adaptive growing *provided* the prevailing gales did not change direction. If it did, the reconfigured tree would become a highly vulnerable, resistant, tree.

Werner (1984) has provided advice on promoting resiliency in children prior to traumatic events and Tedeschi & Calhoun (1995, p.95) point out that Werner's ideas may also be applicable to adults. This suggests preparation for trauma may have an effect on eventual PPC post trauma. Thus, PPC may commence before any change is stimulated by the trauma itself – a concept similar to 'stress inoculation' promulgated by Michenbaum (1985).

Sense of coherence

Antonovsky (1987) coined 'Sense of coherence' as describing the quality people have to respond well to stress. Antonovsky saw this as consisting of three components:

- Comprehensibility: an ability to make sense of the incomprehensible
- Manageability: the ability to manage, cope with, or bear, life's challenges. The opposite has parallels to an external locus of control, for example: traumatic events seek individual's out and victimise them.
- Meaningfulness: Antonovsky (Ibid) considered meaningfulness to be the most important component of the triad because without it, comprehensibility is unstable. Tedeschi & Calhoun (1995, p.59) extended the use of 'sense of coherence' to describe the categories of coping responses that followed a traumatic experience:

> "…to achieve a sense of coherence, there are four crucial spheres that must be seen as meaningful: inner feelings; interpersonal relationships; one's major activity; and existential issues such as death, failure, conflict, and isolation…" (p.53)

These categories are reminiscent of the factors in Tedeschi & Calhoun's (1996) PTGI, and it is plausible that a 'sense of coherence' is merely interchangeable with PPC itself. This might explain why Linley & Joseph (2004b) concluded, unequivocally, that a sense of coherence was not associated with PPC. However, this is conjecture because they did not explain their reasoning.

Coping, control and religion factors

Coping

Linley & Joseph (2004b) concluded:

- Emotion-focussed coping (Maercker & Langner 2001) including emotional social support was associated with PPC, likewise
- Positive and negative religious coping (e.g. Pargament, Smith et al (1998) and Pargament, Koenig et al (2000), and
- Problem-focussed coping (e.g. Armeli et al 2001; Evers et al 2001; Maercker & Langner 2001) as well as acceptance, positive reinterpretation and positive religious coping

Locus of control (LoC)

LoC originates from Rotter's (1966) theory dividing people into:

- Those with an internal LoC will consider themselves to be significant factors in outcomes, whilst the actions of others as well as luck, chance, and fate, will play a minor or no role.
- Those with an external LoC, describes those who feel events are controlled by forces external to themselves.

Those with an internal LoC are seen as taking decisive actions for social change (Gore & Rotter 1963), and after their own struggle to cope with trauma, go on to become catalysts for social change as exemplified by, for example, Simon Weston (Weston 2003).

Baylis (2004) highlights the interactive nature of an internal LoC:

> "An internal locus of control has long been regarded as a key factor creating resilience in the face of extreme adversity (Werner & Smith 1982)" (p.211)

Tedeschi & Calhoun (1995, p.45) contend an extreme degree of LoC could result in traumatic events being harder to cope with than when beliefs are more moderate (Perloff 1983; Swindle et al 1988). Those who have an internal LoC tend to resist influence from others (Crowne & Liverant 1963), whilst aversive events actually produce attempts to reassert control (Thompson 1981).

Religion

Linley & Joseph (2004b, p.16) conclude:

- Religious activities
- Intrinsic (i.e. to the person) religiousness
- Positive religious coping

…are all associated with PPC, whilst McGrath (2006) argued meaning achieved via religion-based schemas may well have underpinned the coping strategies of those immediately bereaved by Christ's death. Religious beliefs can fend off everything (Calhoun et al 1992) to the extent that one set of invulnerability beliefs can be replaced by another set. The result is religion maintains itself. It is this "sacred canopy" (Berger 1967) that protects against chaos, which is:

> "…only adaptive when it leads to positive affect and the confidence to engage in new behaviours to test one's limits and to maximise the possibilities of one's success." (Tedeschi & Calhoun 1995, p.73 see also Janoff-Bulman 1989b, p.169)

An example of resorting to the "sacred canopy" can be seen in the Pew Report (Pew 2001), which surveyed American attitudes to religion post the 9/11 disaster. The report found that:

> "The Sept. 11 attacks have increased the prominence of religion in the United States to an extraordinary degree, but not at the expense of acceptance of religious minorities. Fully 78% now say religion's influence in American life is growing up from 37% eight months ago and the highest mark on this measure in surveys dating back four decades"

This search for meaning is similar to Viktor Frankl (1959/2004) in his book *Man's Search for Meaning* that follows Frankl's own experiences in Nazi concentration camps. Arguably many autobiographies stem from or are part of meaning making. Other factors in the literature associating PPC and religion include:

- 'Spiritual development' (e.g. Pargament et al 1990) including cynicism and becoming less religious (Schwartzberg & Janoff-Bulman 1991)
- Strengthening religious beliefs (e.g. Calhoun, Tedeschi & Lincourt 1992). Pargament et al (1990) have reported that strengthening of religious beliefs may serve a variety of purposes including gaining a sense of control, comfort and meaning as well as feeding back into the perceived changes in relationships with others – in this case with God.
- A mixture of weakening and then strengthening (Tedeschi & Calhoun 1995, p.38).

Affective and cognitive factors

Emotions generally

Linley & Joseph (2004b) conclude:

- Positive affect (i.e. positive mood), was "consistently positively associated…" (Ibid p.16), with PPC
- Negative affect was negatively associated as were depression (Frazier et al 2001; Updegraff et al 2002); anxiety (Best et al 2001) and pre-incident mental health problems
- PTSD was negatively associated early after trauma, but not at one year post event.

Tedeschi & Calhoun (1995, p.66), note that time, in relation to affect, is important because expression of emotion can be beneficial in the early aftermath, but can be counterproductive later. The same authors note that this is complicated by other factors including perceived controllability (Wasch & Kirsch 1992), and cultural and gender differences.

Blame and forgiveness

Blame appears negatively associated with PPC: Purves (2001) illustrates the effect of "clumsy leading questions asked by police officers" (p105) at the scene of an RTA. Thus through a process of blame the driver concerned was made to feel guilty and had an inappropriate belief of responsibility confirmed precisely at a time when the individual was already engaging in copious self-blame anyway. Logically the antonym, of blame, forgiveness, should be associated with PPC, however 'forgiveness' is a notable omission from both Linley & Joseph (2004b) and Tedeschi & Calhoun (1995), although it is covered at length by Fincham & Kashdan (2004) in relation to positive psychology *generally* - rather than specifically psychological trauma. There does seem to be a gap in the literature here as a search of Cumulative Index to Nursing and Allied Health Literature (CINHAL), Medline, PsychInfo and Web of Science databases for the terms 'forgiveness' and any of the terms making up PPC yielded no results, although a similar search for 'forgiveness' and 'positive outcomes' yielded several results including Levenson et al (2006) who found a range of PPCs stemming from forgiveness; and Zechmeister & Romero (2002) who found PPC stemming from forgiveness mediated by whether the forgiveness was 'complete' or 'incomplete'. (See also the literature on forgiveness in relation to trauma available via the online Campaign for Forgiveness Research: www.forgiving.org).

An example of 'Forgiveness' cited by Weston (2003)

Although not featuring in the literature searches, autobiographies show that forgiveness plays an important role in PPC such as in Simon Weston's (2003) *Moving On*, in which he writes:

> "Meeting Carlos Cachón, the Argentinian pilot who dropped the bomb on our troop ship, was a hugely important step on my road to a fuller recovery. Forgiveness didn't come into it. The only person I ever had to learn to forgive was me, for failing to help anyone out of the fire, failing to go into action and all the rest. None of this was Carlos's fault and I was glad to welcome him and his lovely wife, Graciela, into my home." (p.12)

Hope and optimism

According to Seligman (1990/2006) hope, is regarded as emotionally based, whilst optimism is seen as more cognitive. Hope depends on lack of permanence and specificity :

> "Finding *temporary* and specific causes for misfortune is the art of hope: temporary causes limit helplessness in time, and specific causes limit helplessness to the original (traumatic event)." (Ibid p.48 – contents of brackets added)

Hope encompasses not only one's expectancy that desired goals *can* be achieved but to imagine *how* they can be achieved (e.g. Tennen & Affleck 1998). Tedeschi & Calhoun (1995) link optimism "superficially" with control factors such as LoC and self-efficacy, and stress optimism:

> "…focuses directly on how events will turn out rather than who controls them or how well one can perform acts that may affect them." (Ibid, p.47, see also Scheier & Carver 1992).

> Optimists tend to use coping strategies that are active and problem focussed and are willing to prioritise effective problem solving (Linley & Joseph 2004b), as well as appearing to be less anxious, hostile, depressed, self-conscious, and vulnerable than pessimists (Tedeschi et al 1993).

Bellizzi & Blank (2006) found optimism is not necessary for PTG – at least for women with breast cancer, which supports the other two studies on the same traumatic event (Boyers 2001 and Sears, et al 2003) as well as Tedeschi & Calhoun's (1995) position:

> "…the relationship between optimism and perceptions of growth are relatively low…" (Ibid, p47)

…which seems contradictory, to their own opinion cited above. They explain this seeming contradiction by concluding that PPC "cannot therefore be simply optimism" (Ibid, p.48). Holmes (2005) has found that optimism *was* related to subjective well-being post trauma whilst Millam (2004), and Feigel (2004), found that optimism was positively associated with PTG, a finding endorsed by Linley & Joseph (2004b). So the conclusion seems to be that hope is related in some way to PPC. Perhaps the Bible explains the connection:

> "…we also rejoice in our sufferings, because we know that suffering produces perseverance, perseverance, character; and character, hope. And hope does not disappoint us…" (Romans 5v3-5, New International Version)

Attributional style

Attribution theory (Heider 1958) looks at how people explain causality. Stemming from this theory is attributional style, which relates to the individual's usual method of attributing cause to effect. Attributional styles are viewed as inherently a retrospective factor rather than a predictor of future direction. Attributional style was not identified in Linley & Joseph's (2004b) meta-analysis as a factor in PPC, but Joseph (1999) did speculate that attributional style is likely to be a factor, as:

> "…it may be more useful to help survivors gain control over future events rather than focus on… attributions about why the (traumatic) event occurred… Attributional style has been conceptualised as either being pessimistic… or optimistic… (the latter) might be important in determining how people respond to stress." (Ibid, p. 61 – contents of brackets added)

Cognitive appraisal

Linley & Joseph (2004b, pp15-6) concluded high threat and harm was indicative of greater levels of PPC, but:

> "…there does not appear to be a consistently positive linear relation between degree of trauma and growth." (Ibid, p.15)

Fontana & Rosenheck (1998) and Schnurr et al (1993) have proposing a "curvilinear" relationship with traumatic event type, i.e. mid range trauma resulting in the most PPC and mild and severe trauma producing less PPC. It is not clear, however, what constitutes mild, mid and severe trauma. The obvious question is which category does an RTA fall into? Linley & Joseph (2004b, p.16) report several studies show positive associations between the various components of cognitive processing (e.g. ruminations, intrusions and avoidance), and PPC. These components lead to meaningfulness, or more specifically new meaningfulness (Janoff-Bulman 1992) and to Joseph & Linley's concept of association or accommodation (Joseph & Linley 2005; Payne et al 2007). Tedeschi & Calhoun (1995, p.72) point out that when (not 'if') meaning is found it is nearly always positive. In contrast, Joseph & Linley's (2005) OVT concept of accommodation and assimilation suggests only *accommodation* leads to PPC. If meaning is not found and the traumatic material is *assimilated* into existing models of the world, then PPC does not occur.

Wisdom and paradox

Linley & Joseph (2004b) do not list wisdom as a form of PPC, whilst Tedeschi & Calhoun (1995, p.86) see wisdom as a process *leading to* PPC. According to Tedeschi, Park & Calhoun (1998):

> "Western culture tends to consider wisdom an individual difference variable, and that wisdom is not considered an automatic concomitant of aging or experience (e.g. O'Connor & Wolfe 1991). Rather, some individuals, through their experiences, become wise." (Tedeschi, Park & Calhoun 1998, p.15)

So wisdom as a PPC variable may be culturally bound. Wisdom can also permit a new philosophy of life to develop (e.g. Janoff-Bulman 1989a). Tedeschi & Calhoun (2004a) explain that:

> "A common theme… is that after a period of spiritual or existential quest, individuals often report that their philosophies of life are more fully developed, satisfying, and meaningful to them… because existential or spiritual issues have become more salient and less abstract." (p.407)

Wisdom and paradox are clearly linked, the latter being a phenomena that individuals are very likely to encounter at some stage with PPC (Tedeschi & Calhoun 2004a, pp406-7). Principally this is because of the inherent belief that 'only bad results from bad'. Thus paradox is only paradox because of the perspective that one starts with. Presumably if one started with the belief 'good comes from bad' then there would be no paradox.

Other paradoxes include:

- Something unpleasant can, and does, give rise to something positive
- "Losses have produced something of value" (Ibid, p.406), which is similar to 'Martin's' story in which he says he "lost everything and everybody, but gained so much more"
- 'Being stronger' as a result of a traumatic experience that exposed one's vulnerability, appears to be common (Thomas, et al 1991). This 'stronger than I thought' conclusion appears to stem from:
- If I can cope with even that… then I realise I can cope with more than I thought (see also Calhoun & Tedeschi 1989-1990).
- PTG paradoxically "does not necessarily yield less emotional distress" (Tedeschi & Calhoun 2004a, p.407). In other words once 'good' is recognised, then 'good' occurs, but the fact that 'bad' continues is thus paradoxical. However, it may also suggests that NPC and PPC are in some way inter-related – a concept central to OVT (Joseph & Linley 2005).

Social factors

Social comparison

There are the two types of comparison with others, termed upward and downward social comparison (Tedeschi & Calhoun 1995, p.65-6). 'Upward social comparison' describes the conclusion "that one is worse off than others" in similar circumstances (Ibid). 'Downward social comparison', describes "others who are coping less well" in similar circumstances (Ibid). The suggestion is that downward social comparison is compared with better outcomes, but whether this relates to PPC or more effective reducing of NPC is not clear.

Supportive others

Linley & Joseph (2004b) report satisfaction with social support was associated with PPC, but confusing, support *generally* wasn't (ibid p.16). Friends and family have an existing relationship with the traumatised individual pre-traumatic event (Tedeschi & Calhoun 1995, p.95), unlike 'similar others' and professionals, and will thus have likely contributed to the individual's coping repertoire prior to its needing to be used. Poorly functioning families generate additional stress because of a lack of both communication and understanding (Coyne et al 1988). Anxieties of families and friends are also important (Tedeschi & Calhoun 1995, p.96). If good relationships can be maintained or improved, PPC may be possible (Ibid, p.94). Patterson (1989) highlights positive effects on relationships, and thus PPC can result from shared understanding post-trauma. 'Depth of caring', has been reported by Zenmore & Shepel (1989) and is associated with PPC. Both parties in a relationship will feel better if supportive listening, empathy and encouragement are forthcoming (Notarius & Herrick 1988).

Other factors

Existential issues

Existentialism is a philosophical approach that deals with the emotions, actions, responsibilities, and thoughts of the individual person (Macquarrie 1974; Cooper 1999) and his or her conditions of existence. Bretheron & Ørner (2004) contend that:

> "An existential approach to psychotherapy maintains that human potential can be developed even in confronting the irreversible difficulties of life…." (p.420)

This places adversity in the realm of an 'opportunity to develop potential' (see also Joseph & Linley 2006). Some other existentially-related components of PPC reported in the literature are:

- An 'increased appreciation in existence' (Malinek, Hoyt & Patterson 1979)
- Quality of life is *negatively* associated with PPC (Linley & Joseph 2004b)
- An 'improved perspective on life' (Affleck, Tennen & Gershman 1985)
- PPCs in priorities' (Taylor, Lichtman & Wood 1984; Klass 1986-1987)
- Positive reinterpretation and emotion-focused coping including emotional support (Linley & Joseph 2004b)
- 'No longer taking life for granted' and 'living life to the fullest' (Joseph, Williams & Yule 1993)
- 'Renewed appreciation' for simple moments in life and taken-for-granted relationships (Miles & Crandall 1983)
- Cruciality of the moment or 'reckoning time', 'life at a crossroads' (Tedeschi & Calhoun 1988)

Flow

Flow is defined as a state of optimal experience and is associated with the work of Csíkszentmihályi. It describes a state when a person is most happy, a state of concentration or complete absorption with the activity at hand and the situation occurs. It is identical to the feeling of being 'in the zone' or 'in the groove'. The flow state is the optimal state of intrinsic motivation, in which the person is fully immersed in what he or she is doing. This is a feeling everyone has at times, characterised by a feeling of great absorption, engagement, fulfilment, and skill, and during which temporal concerns (e.g. time, food, ego-self, etc.) are typically ignored (Csíkszentmihályi 1975). However, it is not limited to optimal performance, as in his book: *Flow: The psychology of optimal experience*, Csíkszentmihályi (1990) also considers the role of flow in the "transformation of tragedies" (pp193-8). Flow was evident because a traumatised individual develops "…very clear goals while reducing contradictory and inessential choices" (p.193). The book describes numerous people who, having experienced a traumatic event have set out on a quest to 'find themselves'.

An example of 'Flow' cited by Csíkszentmihályi (1975)

Particularly poignant is the story of Reyad, who, described his experiences of the 1967 war against the Israelis after which:

> *"…I decided to leave Egypt and start hitchhiking toward Europe. Ever since I have been living with my mind concentrated within myself. It has not been just a trip, it has been a search for identity. Every man has something to discover within himself… I believe destiny rules life, and it makes no sense to struggle too hard… if I do not earn anything today it*

does not matter. It means that this happens to be my fate. Next day I may earn 100 million – or get a terminal illness. Like Jesus Christ said, what does it benefit to man if he gains the entire world, but loses himself?" (pp.196-7)

Further notes on supportive others as factors contributing to PPC

Traumatised individuals prefer similar others, to professionals who have no personal experience of the traumatic event in question (Shontz 1975; Tedeschi & Calhoun 1993; Shay 1994) resulting in many locally based support groups (Wortman & Lehman 1985) – e.g. the City of York (population just over 200,000) has a thousand support groups, or one support group per 200 population (City of York Council website 2009). Unique opportunities for PPC may occur amongst such groups (Lehman et al 1986) including passing information that describes distress as normal. Information thus conveyed provides a powerful model of 'positive change' (Helgeson & Taylor 1993 – see also Bandura 1977 who describes the roll model qualities involved). It is a 'fine line' however, since the same explanations which are gratefully accepted from mutual/self help sources, can be viewed as platitudes from less credible sources including professionals who have no direct experience of the trauma concerned (Affleck, Tennen & Gershman 1985). Support groups provide a unique opportunity to be helpful to others (Antonucci & Jackson 1990), such altruistic help is viewed as a mature, productive response to trauma (Valliant 1977) and giving support is seen as equally helpful to receiving help (Taylor et al 1988). The relatively unusual knowledge gained by supporting others places the individual self-helper in a "remarkable position" (Tedeschi & Calhoun 1995, p.99). There is also a relationship between non-stigmatising help that satisfies the provider, and increased willingness to seek help themselves without feeling stigmatised (Hobfoll et al 1991). Helping others can increase intimacy amongst similar others, especially because of the intensely personal and emotional issues involved (Tedeschi & Calhoun 1995), which probably explains the cohesiveness of such groups:

> "…there may develop a sense of belonging, paid for dearly, and therefore very valuable." (Ibid p.99)

Appendix 2.4

A brief chronology of psychotraumatology

It has long been known that extreme and life-threatening events produce profound NPC in humans (Weisæth 2002). For instance:

> "…Homer's *The Iliad*, the oldest text in Western literature (around 800 BC), is an impressive account of psychological trauma… not matched until the nineteenth century nor was its view of the psychological complexity of the human being" (Ibid pp.443-4 – contents of brackets added, see also Trimble 1985)

Shay (1994) has even recommended *The Iliad* as a seminal text on psychological trauma. Other early sources of experiential information about psychological trauma include Shakespeare's *Henry IV part II* and Samuel Pepys' *Diary* (see e.g. the Latham 2003 edition), recounting the Great Fire of London in 1666 (Scott & Stradling 1992). It was not until the construction of the railways in England that matters changed fundamentally, and the mid-nineteenth century is acknowledged as the commencement of the modern study of psychological trauma (Weisæth 2002). Hardly surprising then that Weisæth commenced his *European History of Psychotraumatology* (Ibid) with the announcement that: "Psychiatry owes a lot to British Rail" (p.443). Erichsen, (1866) published a book on victims of railway accidents. Enlightening as this book undoubtedly was, the context of its publication was problematic because the nineteenth century accepted wisdom was that "medicine had no real understanding of the mind/body relation" (Weisæth 2002, p.444). Thus, what would nowadays be understood as 'psychological problems' were, in the mid-nineteenth century, simply attributed to a physical cause. For instance, what is now accepted as a whiplash injury was effectively seen as no different to what the scientific community now conceptualise as PTSD (Weisæth 2002; Trimble 1981). Furthermore, Erichsen, was a surgeon rather than a psychologist, and understandably based his conclusions on post mortem findings (Weisæth 2002, p.444). The result was, perhaps, inevitable: some injuries were found to be obviously physical in nature, whilst others were absent, but presumed to be physical. At the time, terms given to manifestations of dis-ease (supported or not by post mortem findings) were *Tunnel Disease* and *Railway Spine* (Trimble 1981) - the latter being a plausible origin of the term 'spineless' (cf. Page 1885). Erichsen likened some of his findings – presumably those that did not 'reveal' themselves at post mortems - to hysteria, which at the time, was only supposed to occur in women (Weisæth 2002). Nevertheless, the construction of the railways contributed greatly to the knowledge of psychotraumatology as well as the, then, new discipline of psychotherapy (Ibid; Foa, Steketee & Rothbaum 1989). Although some early labels for post-trauma psychological symptoms tried to describe their manifestations – such as *Hysteria* (Putnam 1881) and *Nervous shock* (Page 1885) – most followed *Tunnel Disease* and *Railway Spine* as 'event-specific' labels for 'negative change', for instance *Compensation neurosis* (Rigler 1879); *Shell shock* (Myers 1940); *Traumatophobia* (Rado 1942); *War neurosis* (Grinker & Spiegel 1943); *Rape trauma syndrome* (Burgess & Holstrom 1974) and *Survivor syndrome* (Kijak & Funtowicz 1982). It was recognised that differing trauma produced similar types of psychological symptoms (Scott & Stradling 1992, p.2; Gersons & Carlier 1992), it wasn't until comparatively recently that the Diagnostic & Statistical Manual for Mental Disorders (DSM)(APA 1980) collated these symptoms into a unifying diagnosis termed PTSD, the current version of which appears in DSM IV TR (APA 2000). This does not mean that a consensus has been reached and that all NPC following a traumatic event have been condensed into a single diagnosis (cf. APA 2000, pp469-72; pp697ff and pp739-40). In addition, co-morbidity (i.e. secondary NPC associated with the main presentation) is common (NICE 2005). For instance, 48% of PTSD (both genders) has co-morbid major depression, 22% co-morbid dysthymia (a term used to describe a low-grade depression, derived from the Greek for 'bad state of mind') and between 53% and 78% of mood disorders are known to be co-morbid to PTSD (Blanchard & Hickling 1996, p.60; NICE 2005, pp14-5; see also Scott & Stradling 1992, pp4-5). This suggests that PTSD has a wide variability and far from being a 'consensus' description of NPC after trauma may even be misleading. For example, in *Research Agendas for DSM V*, Kupfer et al (2002, p.240) criticise the use of PTSD, whilst Eisenbruch (1992) questions the efficacy of American/European diagnoses anyway. However, the unifying diagnosis of PTSD is now well established and since its introduction has stimulated "major professional attention" (Blanchard & Hickling 1996, p.16). Initially much was learnt about PTSD through Vietnam war veterans (Shapiro 2001, p.339) most likely because the return of Vietnam soldiers from the war roughly coincided with the adoption of PTSD as a diagnosis. However, there are of course, numerous other events ranging from natural and man-made disasters to personal tragedies resulting in PTSD and PTSD-like NPC (APA 2000). Only seven years after PTSD became a diagnosis, EMDR was discovered (Shapiro 1989a, b; 1991). The literature on EMDR is covered in detail in a separate section of Chapter Two.

Appendix 2.5

A brief chronology of RTAs

RTAs are associated with the internal combustion engine, but that was not always the case and traffic fatalities are recorded at least as far back as 1720 with:

> "…furiously driven carts and coaches being named as the leading cause of death in London eclipsing fire and 'immoderate quaffing'..." (Vanderbilt 2009, p.9)

Handel, the composer, was seriously injured in a notable carriage crash in Holland in 1752 (Dent 2007) and matters deteriorated considerably over the next hundred years as Vanderbilt (2009) illustrates that by 1867 in New York:

> "…horses were killing an average of four pedestrians a week – a bit higher than today's rate of traffic fatalities – although there were far fewer people and far fewer vehicles… spooked runaway horses trampled pedestrians underfoot, reckless drivers paid little heed to the five miles per hour speed limit, and there was little concept of 'right of way'" (p.9)

Nevertheless, it was with the advent of vehicles powered by the internal combustion engine that problems of traffic-related injuries "escalated rapidly" (WHO 2004, p.33). The world's first such fatality occurred in London in 1896 (Ibid). The coroner's verdict on that occasion: accidental death, may have resulted in the use of 'accident' thereafter – and hence RTA. Curiously a parallel example in the USA exists in which an initial manslaughter charge was made and subsequently changed to 'unintentional' (thus accidental) death (Ibid). Perhaps this was the origin of the USA equivalent term: Motor Vehicle Accident (MVA) and Charlton (2006) considers this 'legal first use' explanation to be a reasonable hypothesis. Times change however, and in the UK, the Association of Chief Police Officers use the acronym RTC (Road Traffic Crash).

Appendix 2.6

The extent of the RTA problem:

> "There are not many roads, there is a single road that extends across the length and breadth of our vast planet. Each of us is responsible for a segment of that road. The road safety decisions that we make, or do not do, ultimately have the power to affect the lives of people everywhere. We are one road – one world." (Rochelle Sobel, President, Association for Safe International Road Travel, USA – WHO 2004)

The above is from the cover quotes to the joint World Health Organisation (WHO) and World Bank report: '*World Report on Road Traffic Injury Prevention*' (WHO 2004). The reason for the 'global remit' to road safety espoused by Rochelle Sobel, is clear from the statistics on RTAs conservatively estimated at 25 million cumulative deaths to 1997 (Commission for Global Road Safety (CGRS) undated, see WHO 2004, p.33; Faith 1997). It is thought that 90% of collisions worldwide (WHO 2004) are the result of driver negligence, and possibly as much as 93% (Charlton 2006; Lum & Reagan 1995), whilst it has been reported that annually 1% of the entire American population is involved in an RTA (Blanchard & Hickling 1996). Indeed RTAs:

> "…are widespread in the United States as well as in all of the rest of the industrialised world… they are ubiquitous…" (Ibid, p.13).

…it isn't just the industrialised world (see the transcript of a speech by seven-times Formula One racing driver Michael Schumacher to the CGRS.) In the UK, the Department for Transport definition of a RTC (i.e. an RTA) is an event which:

> "Involves personal injury occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence. The vehicle need not be moving and accidents involving stationary vehicles and pedestrians or users are included. One accident may give rise to several casualties..." (Department for Transport 2004, p.135)

RTCs are classified into eight groups by the International Road Assessment Program (iRAP) (iRAP undated) an umbrella organisation that assesses and attempts to improve road safety design. 'Martin's' RTA, would have been classified by iRAP as a rear-end crash. 'Martin' was also a driving instructor and surprisingly little literature exists about this occupational group's involvement in RTAs, although it is perhaps commonsense that driving instructors are more likely to be involved in RTAs involving young inexperienced and elderly drivers than with adults, e.g. Berg et al (2004) have reported on 1081 RTAs following a reduction in the driving age in Sweeden all of whom involved young "instructor-assisted" driving, whilst Wood et al (2009), in relation to elderly drivers have reported that:

> "where the instructor had to brake or take control of the steering to avoid an accident (this was) significantly associated with higher retrospective and prospective crashes; every instructor intervention almost doubled prospective crash risk." (p.2062 – content of brackets added).

A summary of statistics on RTAs adapted from GRSC website:
www.fiafoundation.com/commissionforglobalroadsafety/factfile/index.html
Last accessed: 2.5.10

- Worldwide, the number of people killed in road traffic crashes each year is estimated to be almost 1.2 million. That's 3000 people killed on the world's roads every day
- The number injured in road traffic accidents is estimated to be as high as 50 million – the combined population of five of the world's large cities
- According to World Health Organisation data, deaths from road traffic injuries account for around 25% of all deaths from injury
- It is expected that, without efforts and new initiatives to tackle the causes of road traffic injuries and deaths, they will rise by some 65% between 2000 and 2020
- Over 50% of deaths are among young adults in the age range of 15-44 years. For men aged 15-44 road traffic injuries rank second (behind HIV/AIDS) as the leading cause of premature death and ill health worldwide
- Among both children aged 5-14 years and young people aged 15-29 years, road traffic injuries are the second-leading cause of death worldwide
- More than 80% of those killed in road traffic crashes live in middle and low income countries
- Road traffic deaths are predicted to rise on average by more than 80% in low and middle income countries by 2020
- According to World Bank forecasts, South East Asia will see a 144% increase in road deaths by 2020, from a base date of 2000. If no significant remedial action is taken, India's death rate is not expected to begin to decline until 2042. Sub Saharan Africa is forecast to experience at

least 80% more road deaths in 2020 than in 2000. The Middle East and North Africa are forecast to see a 68% increase in road deaths over the same period 2000-2020

- Overall, road deaths are predicated to rise above 2 million a year by 2020, and to move from the 10th to 3rd cause of premature death and disability
- The World Bank recently estimated that developing countries lose approximately US$100 billion every year due to road crashes. This figure is twice the amount of all development aid provided by donors to developing countries
- Africa bears a huge economic burden from road traffic crashes. Despite having very low levels of motorisation, 10% of global road fatalities occur in Africa and are conservatively estimated to cost the continent approximately US$3.7 billion a year
- Road crashes are estimated to cost most African countries between 0.8 and 5% of their GNP. Furthermore, according to projections by the WHO the economic cost of road crashes in Africa is expected to increase by 80% over the next seven years

Appendix 2.7

Transcript of Michael Schumacher's speech at the 'Make Roads Safe Campaign event', Berlin 15th May 2007 on behalf of the Commission for Global Road Safety

This and other relevant speeches can be obtained from links under the heading 'Background Resources' on the Internet at:
www.fiafoundation.org/commissionforglobalroadsafety/factfile/index.html

Speech by Michael Schumacher

Make Roads Safe campaign event: Berlin 15th May 2007

Firstly I would like to thank the ADAC for hosting this Make Roads Safe event here in Berlin. As Germany is both President of the European Union and of the G8 this year it is very appropriate that we spend some time together here in the capital to discuss the challenge of global road safety. Today we have already heard that road traffic crashes cost the lives of 3,000 people everyday and the number one killer of 10-25 year olds. Worst affected are vulnerable road users, children, pedestrians, and motorcyclists, mostly coming from developing countries. Yet, we know from the experience of the developed nations that much of this tragic loss of life is preventable. In the industrialised countries, our road casualties have been falling for three decades. We are becoming ever more sophisticated in designing road safety systems. We now expect cars to have achieved five stars in the EuroNCAP crash tests. We expect crumple zones, air bags, and electronic stability control. We expect roads to have five-star safety design, too. And we expect road users to wear seat belts or helmets, to avoid excessive speed and drink driving. Yet, on the streets of South East Asia, South America and Africa, we are facing an avoidable epidemic of death and injury on the road. Today, road crashes kill on the scale of malaria or tuberculosis, yet the international community has not woken up to this horrific waste of life. The cost to developing countries alone is estimated at up to $100bn a year – equivalent to all overseas aid. But road safety is not yet recognised as a development priority. And still missing is the political commitment and resources to give global road safety the attention it clearly deserves. But there are reasons to be optimistic. In the industrialised nations, we have demonstrated over 30 years that we can reduce road deaths, even as traffic levels grow. Will we share this knowledge with countries that are struggling to cope with their road injury problems? Or will we let them repeat the mistakes that we made in the past? Sometimes I am asked as a former World Champion racing driver why am I involved in a road safety campaign? Well, in fact, I think the experience of safety in motor sport has some important lessons for all road users. Back in the 1960s when Max Mosley was racing, the sport was extremely dangerous. Drivers back then were told that survival was a matter of luck. If they did not like it they could slow down or stop racing. Then after mainly painful experiences such as the death of Word Champions like Jim Clark and Ayrton Senna, the sport adopted a different approach. The FIA began to adopt a 'Vision Zero' approach. The way in which race cars were designed, the layout of the race tracks, and the way the sport was managed was organised around the principle that wherever possible the consequences of crashes should not be fatal. This approach has been very successful and fatalities in the sport thankfully much less frequent. Having worked with the FIA in making the sport much safer, I believe that we can also work to make roads much safer. The same principle applies of trying to design our road networks with safety in mind. We know that human error is very often the cause of road crashes but we must try to design and manage our road networks so that such mistakes do not have fatal consequences. That is why I am delighted to serve as a member of Lord Robertson's Commission for Global Road Safety and to support the "Make Roads Safe" campaign. We are calling on the United Nations to organise the first ever global ministerial summit on road safety in 2009. The General Assembly of the UN will be debating this issue later this year and I very much hope that Germany and the European Union will support the proposal. A Ministerial summit would give the world a practical opportunity to adopt the measures we know will save lives. Simple things like wearing seat belts, or helmets, avoiding excessive speed and drink driving, and designing not just safer cars, but also safer roads. That is the challenge and the opportunity we offer to the United Nations, a global commitment to make roads safe.

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Appendix 2.8

Further notes on Civil Law in the UK in relation to RTAs

RTAs most usually trigger insurance claims. This occurs in England and Wales through the Law of Tort, and in Scotland by its equivalent, the Law of Delict (Cooke 2009). The word 'Tort' is derived from the middle-English for *injury* and ultimately from the Latin *tortum* meaning 'twisted'. The word 'Delict' is derived from the Latin *delictum* meaning 'fail' or 'to be wanting' (Ibid). English and Welsh, and Scottish laws underpin civil 'wrong doing' rather than the criminal equivalent, and are based on establishing liability (i.e. responsibility) for the 'wrong doing', which can be apportioned on a percentage basis, after which the 'quantum' of damages is expressed in monetary terms is then established (see Mackay et al 2006 for guidelines on the relevant quantum calculations in relation to England & Wales). The largest settlement in the UK following an RTA was for £6.3 million in 2002 (Ibid). Although the court adjudged that the seventeen year-old victim of the RTA would never work again and would require very demanding care needs for the rest of his life, the vast majority of insurance settlements are far less (Ibid) including claims against uninsured drivers' as the government makes provision for these drivers as well - the Motor Accident Solicitors Society (MASS - undated) report there are two million uninsured drivers on the roads of Britain.

Appendix 2.9

Synopsis of pre and post NICE (i.e. advent of evidence-based practice) psychological interventions for psychological trauma

The treatment of NPC after trauma, has, in the past, included psychoanalysis (Weisæth 2002), "brutal forms of electrical therapy" (Ibid, p.448), causal will therapies (Ibid), group psychotherapy (Bion & Rickman 1943), therapeutic community milieu therapy (Main 1989), hypnosis (Spiegel & Cardena 1990), psychodynamic psychotherapy (Weisæth 2002) and supportive counselling (Scott & Stradling 1992) to mention but a few. Apparently little use was made of behavioural therapies (Weisæth 2002) until well after the second world war – something historians regard as hard to understand (Ibid, p.449). Judging by Weisæth's paper (Ibid), decisions as to which psychological treatment to use have gone through phases that have included punishment, "torture" (Ibid, p.448), moral indignation, influence by politicians and military disciplinarians, the use of fashionable theories of the time (Ibid) and what appears to have been sheer guesswork. One thing that modern treatments for PTSD have in common is exposure to aversive memories of the traumatic event in question (Richards & Rose 1991; Fairbank & Nicholson 1987). Furthermore, because it would neither be practical, or more importantly ethical, to recreate the original trauma for the purposes of treatment, treatments often resort to the explicit use of imagery (e.g. Spector & Huthwaite 1993). It is perhaps no surprise then that both tfCBT and EMDR use an imaginal, memory-driven representation of the trauma for treatment purposes.

Appendix 2.10

A brief history of EMDR and current international guidelines recommending its use

What is now known as EMDR, stems from a fortuitous discovery in 1987 by Francine Shapiro in which she described how:

> "…disturbing thoughts lost much of their power when I engaged in a particular kind of repeated saccadic (i.e. rapid and rhythmic) eye movements. Indeed, these thoughts disappeared altogether and if deliberately retrieved, no longer seemed valid." (Shapiro 1991 p.133, contents of brackets added, see also Shapiro 1989b)

This observation of an incidental event was operationalised into an intentionally structured eight phase format, originally termed Eye Movement Desensitisation (EMD) (Shapiro 1989a, b). From the outset, there was little doubt that EMD was unusual. Shapiro's (1989b) paper contained an editorial footnote on the first page remarking that:

> "The technique described in this article is out of the usual run. The results that are claimed in post-traumatic stress disorder are of great magnitude and rapidly achieved…" (Ibid, p211).

This was then followed by the editor adding a mini-case study within the footnote. Shapiro soon found that EMD produced more than just a desensitisation effect, but also 'reprocessed' dysfunctionally stored memories. Because of this the word 'Reprocessing', was added and EMD became EMDR (Shapiro 1991). From the outset, EMD and EMDR have been subject to strongly polarised views as to its validity, effectiveness, the role of eye movements, and the mode of EMDR's dissemination as an effective psychological paradigm (e.g. Rosen 1992; Herbert & Meuser 1992; Jensen 1994; Rosen et al 1998) although space does not permit an investigation of the various points of view, especially given that twenty years after Shapiro's first paper (Shapiro 1989a), acceptance that EMDR is highly effective is now well established (cf. the list of international recommendations adopted in Table 2.9; the meta-analyses on EMDR to date: van Etten & Taylor (1998); Davidson & Parker (2001); Maxfield & Hyer (2002); Bradley et al (2005); Seidler & Wagner (2006); Bisson et al (2007); Rodenburg et al (2009) and the 25 RCTs currently listed on www.emdr.com/efficacy.htm). Despite this level of evidence in support of EMDR there is still skepticism (e.g. www.skepdic.com/emdr.html) to this day.

- The Revised International Society for Traumatic Stress Studies (ISTSS) guidelines on effective treatments for PTSD (Foa, E.B., et al 2009) gives EMDR an 'A' research evidence rating for adults.
- NICE (2005) Report. 'PTSD: The management of PTSD in adults and children in primary and secondary care' Recommended tfCBT and EMDR treatments of choice for PTSD.
- The USA Veterans Health Administration, Department of Defense (VA/DoD 2004) Clinical Guideline for the Management of PTSD for the Department of Veterans Affairs, Department of Defence found EMDR and three other psychotherapies obtained the highest level of recommendation.
- French (INSERM 2004) Report found EMDR and CBT to be treatments of choice for PTSD.
- The Northern Ireland, (CREST 2003) official guidelines on the management of PTSD in adults in Northern Ireland designated EMDR and Cognitive Behavioural Therapy as effective in the treatment of PTSD
- Dutch National Steering Committee Guidelines Mental Health Care (2003). Recommend EMDR and CBT as treatments of choice while the advantage of EMDR is that is tolerated better.
- The Israeli National Council for Mental Health guidelines for the assessment and professional intervention with terror victims (Bleich et al 2002) designated only EMDR, Cognitive Behavioural Therapy and some hypnotic techniques as effective treatments.
- The Swedish Council on Technology Assessment in Healthcare (SBU 2001) assigned EMDR a "moderate" scientific evidence rating for treatment of PTSD in young people. No other methods were given such a rating.
- The UK Department of Health evidence-based clinical practice guidelines for the treatment of PTSD (DoH 2001) designated cognitive behavioural methods, stress inoculation and EMDR as having "best evidence of efficacy".
- The American Psychological Association (APA) (Chambless et al 1998) found that EMDR, exposure, and stress inoculation training were the only empirically supported treatments for civilian PTSD.

Table A1: International recommendations in relation to EMDR
(A continually updated research evidence-base for EMDR can be found at: http://emdr.nku.edu/)

Appendix 2.11

Standard 8 phase protocol for conducting EMDR

Over the twenty years of EMDR's existence, the eight phase, step-by-step procedure of its application has been modified only slightly specifically in the early years (cf Shapiro 2001 with Shapiro 1989b, p213). A brief overview of the current procedure (Shapiro 2001) is:

Phase 1 – History taking

EMDR commences with history-taking which involves two key activities: checking for client safety factors (i.e. contraindications) and obtaining a thorough personal history. This will require assessment of the 'touchstone memory' (the original event that led to the current dysfunctional state) as well as identifying potential present and future targets, the latter being an anitcipated or 'hoped for' representation, often referred to as the 'future template'.

Phase 2 - Preparation

This phase is characterised by preparing a client for reduction of NPC. This commences with adopting a clinical stance and developing a therapeutic relationship, explaining the theoretical explanation of EMDR and then creating and installing – with slow eye movements - a safe, or calming, place. Other skills and resources can also be visually installed at this stage. Phase Two concludes with setting expectations and addressing the client's fears.

Phase 3 – (specific) Assessment

This phase marks the assessment of the target memory. The client is asked to focus on a presenting issue to be treated and then on a static visual representation of that issue. This representation is the target memory. The client is then asked for a self-referencing negative cognition (NC), worded in the present tense, about the target image This done, the client is then asked for a positive cognition (PC), which is rated on a Validity of Cognition (VoC) scale from one to seven in which 'one' indicates that the PC is totally false and 'seven' is totally true. The client is then asked to identify the emotion generated by the target, which is then rated on a Subjective Units of Distress (SUDs) scale in which 'zero' indicates no distressing emotion and 'ten' the worse rating of distress imaginable. Finally the client is asked where in their body they feel the emotion. The client is then ready to move to the desensitisation phase.

Phase 4 – Desensitisation

In this phase the target memory is processed through to a neutral emotional state (i.e. zero SUDs) by the administration of rapid Bilateral Stimulation (BLS) via eye movements, hand taps or auditory tones. Having commenced with asking the client to notice the target memory, the NC and the body location, BLS then starts. On completion of BLS, the client is asked to provide brief feedback of what is noticed. Any change to the pre-BLS memory is regarded as evidence of information processing. The sequence of feedback and further BLS continues until two neutral or positive feedbacks occur. This is followed by returning to the target, when a further 'channel of association' is subject to BLS and the process is repeated until no further chaneels are found and zero SUDs is reached. There are procedures to follow if processing becomes 'stuck' or 'loops', basic procedures including changing the speed or direction of the BLS or changing BLS modality e.g. from eye movements to tapping. If these strategies do not work, cognitive interweaves can be utilised in which following feedback from the client the therapist introduces a brief statement often a question, which requires a response. The anwer content is not particularly relevant and the therapist does not challenge the response. However, the client's answer should indicate that processing is no longer 'stuck' or 'looping' and BLS then continues. If the cognitive interweave does not cause this change then another is introduced by the therapist and so on until it does work. When zero SUDs is reached, the next phase is Installation. If zero SUDs is not reached in a given session, the therapist moves directly to Phase Seven.

Phase 5 – Installation

The Installation Phase is the second processing phase. It addresses the PC, firstly by establishing whether a more appropriate PC now exists, and then by installing the chosen PC. The client is asked again to notice the target memory, but this time think also of the PC. Again rapid BLS then follows. The aim is to get the PC to reached 'seven' (i.e. totally true) on the VoC scale on two consecutive occassions. When this occurs, the therapist then moves to the next phase.

Phase 6 – Body Scan

This is the last of the three processing phases. Having asked the client to scan their body for physical sensations, discomfort or unusual sensations, the therapist again administers rapid BLS. Completion of this phase is marked when, on scanning the body, there are no physical sensations on recalling the target memory.

Phase 7 – Closure

This phase is the last in a given EMDR session. The prime objective in this phase is to establish the client is safe to leave the clinic and has the resources to cope until the next session. Various exercises aimed at achieving this can take place at this point.

Phase 8 – Re-evaluation

This phase commences the second and subsequent treatment sessions and provides the opportunity to assess between-session processing and the starting point for further EMDR from Phase Four onwards.

Appendix 2.12

RCTs on EMDR

(Summaries adapted from: www.emdr.com/general-information/efficacy.html and www.trauma-pages.com/s/emdr-refs.php websites)

- Shapiro (1989)

Seminal study appeared the same year as first controlled studies of CBT treatments. 3 month follow-up indicated substantial effects on distress and behavioural reports. Marred by lack of standardised measures and the originator serving as sole therapist.

- Vaughan, Armstrong, Gold, O'Connor, Jenneke & Tarrier (1994)

All treatments led to significant decreases in PTSD symptoms for subjects in the treatment groups as compared to those on a waiting list, with a greater reduction in the EMDR group, particularly with respect to intrusive symptoms. In the 2-3 weeks of the study, 40-60 additional minutes of daily homework were part of the treatment in the other two conditions.

- Wilson, Becker & Tinker (1995)

Three sessions of EMDR produced clinically significant change in traumatised civilians on multiple measures.

- Sharpley, Montgomery & Scalzo (1996)

Results suggest support for the working memory theory. Eye movements were superior to control conditions in reducing image vividness.

- Marcus, Marquis & Sakai (1997)

Funded by Kaiser Permanente (medical insurance). Results show that 100% of single-trauma and 80% of multiple-trauma survivors were no longer diagnosed with post-traumatic stress disorder after six 50-minute sessions.

- Rothbaum (1997)

Three 90-minute sessions of EMDR eliminated post-traumatic stress disorder in 90% of rape victims.

- Andrade, Kavanagh & Baddeley (1997)

Tested the working memory theory. Eye movements were superior to control conditions in reducing image vividness and emotionality.

- Carlson, Chemtob, Rusnak, Hedlund & Muraoka (1998)

12 sessions of EMDR eliminated post-traumatic stress disorder in 77% of the multiply traumatised combat veterans studied. Effects were maintained at follow-up. This is the only randomised study to provide a full course of treatment with combat veterans. Other studies evaluated treatment of only one or two memories, which, according to the International Society for Traumatic Stress Studies Practice Guidelines, is inappropriate for multiple-trauma survivors. The VA/DoD Practice Guideline also indicates these studies (often with only two sessions) offered insufficient treatment doses for veterans.

- Scheck, Schaeffer, Gillette (1998)

2 sessions of EMDR reduced psychological distress scores in traumatised young women and brought scores within one standard deviation of the norm.

- Edmond, Rubin & Wambach (1999)

EMDR treatment resulted in lower scores (fewer clinical symptoms) on all four of the outcome measures at the three-month follow-up, compared to those in the routine treatment condition. The EMDR group also improved on all standardised measures at 18 months follow up (Edmond & Rubin, 2004, Journal of Child Sexual Abuse).

- Kavanagh, Freese, Andrade & May (2001)

Tested the working memory theory. Eye movements were superior to control conditions in reducing within-session image vividness and emotionality. There was no difference one-week post.

- Van den Hout, Muris, Salemink & Kindt (2001)

Tested their theory that eye movements change the somatic perceptions accompanying retrieval, leading to decreased affect, and therefore decreasing vividness. Eye movements were superior to control conditions in reducing image vividness. Unlike control conditions, eye movements also decreased emotionality.

- Kuiken, Bears, Miall & Smith (2001-2002)

Tested the orienting response theory related to REM-type mechanisms. Indicated that the eye movement condition was correlated with increased attentional flexibility. Eye movements were superior to control conditions.

- Chemtob, Nakashima & Carlson (2002)

EMDR was found to be an effective treatment for children with disaster-related PTSD who had not responded to another intervention. This is the first controlled study for disaster-related PTSD, and the first controlled study examining the treatment of children with PTSD.

- Ironson, Freund, Strauss & Williams (2002)

Both EMDR and prolonged exposure produced a significant reduction in PTSD and depression symptoms. Study found that 70% of EMDR participants achieved a good outcome in three active treatment sessions, compared to 29% of persons in the prolonged exposure condition. EMDR also had fewer dropouts.

- Lee, Gavriel, Drummond, Richards & Greenwald, R. (2002)

Both EMDR and stress inoculation therapy plus prolonged exposure produced significant improvement, with EMDR achieving greater improvement on PTSD intrusive symptoms. Participants in the EMDR condition showed greater gains at three-month follow-up. EMDR required three hours of homework compared to 28 hours for stress inoculation training with prolonged exposure.

- Power, McGoldrick, Brown, Buchanan, Sharp, Swanson & Karatzias (2002)

Both EMDR and exposure therapy plus cognitive restructuring (with daily homework) produced significant improvement. EMDR was more beneficial for depression and required fewer treatment sessions.

- Soberman, Greenwald & Rule (2002)

The addition of three sessions of EMDR resulted in large and significant reductions of memory-related distress, and problem behaviours by 2-month follow-up.

- Barrowcliff, Gray, MacCulloch, Freeman & MacCulloch (2003)

Tested the reassurance reflex model. Eye movements were superior to control conditions in reducing arousal provoked by auditory stimuli.

- Christman, Garvey, Propper & Phaneuf (2003)

Tested cortical activation theories. Results provide indirect support for the orienting response/REM theories. Saccadic eye movements, but not tracking eye movements were superior to control conditions in episodic retrieval.

- Taylor (2003)

The only randomised study to show exposure statistically superior to EMDR on two subscales (out of 10). This study used therapist assisted *in vivo* exposure, where the therapist takes the person to previously avoided areas, in addition to imaginal exposure and one hour of daily homework (50 hours). The EMDR group used only standard sessions and no homework.

- Barrowcliff, Gray, Freeman & MacCulloch (2004)

Tested the reassurance reflex model. Eye movements were superior to control conditions in reducing image vividness and emotionality.

- Edmond, Sloan & McCarty (2004)

Combination of qualitative and quantitative analyses of treatment outcomes with important implications for future rigorous research. Survivors' narratives indicate that EMDR produces greater trauma resolution, while within eclectic therapy, survivors more highly value their relationship with their therapist, through whom they learn effective coping strategies.

- Jaberghaderi, Greenwald, Rubin, Dolatabadim & Zand (2004)

Both EMDR and CBT produced significant reduction in PTSD and behaviour problems. EMDR was significantly more efficient, using approximately half the number of sessions to achieve results.

- Rothbaum, B.O., Astin, M.C., & Marsteller, F. (2005)

In this National Institute of Mental Health funded study both treatments were effective: Potential clinical implication is that EMDR seemed to do equally well in the main despite less exposure and no homework. It will be important for future research to explore these issues.

- Van der Kolk, B., Spinazzola, J. Blaustein, M., Hopper, J. Hopper, E., Korn, D., & Simpson, W. (2007)

EMDR was superior to both control conditions in the amelioration of both PTSD symptoms and depression. Upon termination of therapy, the EMDR group continued to improve while the Fluoxetine participants again became symptomatic.

- Högberg, G. , Pagani, M., Sundin, O., Soares, J., et al., (2007)

Employees who had experienced "person-under-train accident or had been assaulted at work were recruited." Six sessions of EMDR resulted in remission of PTSD in 67% compared to 11% in the wait list control. Significant effects were documented in Global Assessment of Function and Hamilton Depression scores.

- Cvetek, R. (2008)

EMDR treatment of disturbing life events (small "t" trauma) was compared to active listening, and wait list. EMDR produced significantly lower scores.

- Wanders, F., Serra, M., & de Jongh, A. (2008)

26 children (average 10.4 years) with behavioural problems were randomly assigned to receive either 4 sessions of EMDR or CBT. Both were found to have significant positive effects on behavioural and self-esteem problems, with the EMDR group showing significantly larger changes in target behaviours.

- Kemp M., Drummond P., & McDermott B. (2009)

An effect for EMDR was identified on primary outcome and process measures including the Child Post-Traumatic Stress – Reaction Index, clinician rated diagnostic criteria for PTSD, Subjective Units of Disturbance and Validity of Cognition scales. All participants initially met two or more PTSD criteria. After EMDR treatment, this decreased to 25% in the EMDR group but remained at 100% in the wait-list group.

- de Roos, Greenwald, den Hollander-Gijsman, Noorthoorn, van Buuren & de Jongh (2011)

Children (n=52, aged 4-18) were randomly allocated to either CBT (n=26) or EMDR (n=26) in a disaster mental health after-care setting after an explosion of a fireworks factory. Both treatment approaches produced significant reductions on all measures and results were maintained at follow-up. Treatment gains of EMDR were reached in fewer sessions.

Appendix 2.13

Raw results of literature search matrix

Each cell containing three digits provides the result for RTA (top digit), RTC (middle digit) and MVA (bottom digit). Cells with hyphens relate to terms where either a singular or plural version could not by definition exist Letters correspond with footnotes shown after the tables.

Search criteria	Health and Biomedical Sciences – singular version of search	Health and Biomedical Sciences – plural version of search	Manual search of papers in Journal of EMDR Practice & Research	Manual search of papers in The EMDR Practitioner
"Stren conversion" AND "RTA or RTC or MVA"	0(RTA) 0(RTC) 0(MVA)	-	0 0 0	0 0 0
"Drawing strength from adversity" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Positive reinterpretation(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0
"Positive illusion(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 **1**[a]	0 0 0	0 0 0
"Psychological change(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0
"Perceived benefit(s)" AND "RTA or RTC or MVA"	0 0 **2**[b]	**4**[c] 0 0	0 0 0	0 0 0
"Construing benefit(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0
"Thriving" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Post traumatic Growth" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Posttraumatic Growth" AND "RTA or RTC or MVA"	0 0 **14**[d]	-	0 0 0	0 0 0
"Stress-related growth" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Transformational coping" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Discovery of meaning" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Flourishing" AND "RTA or RTC or MVA"	0 0 0	-	0 0 0	0 0 0
"Positive emotion(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0

Table A2: Literature search of terms identified by Tedeschi & Calhoun (2004a) and their plurals, in combination with "RTA or RTC or MVA"

Key to Table A2:

[a] 'Positive illusions' + 'MVA' generated one hit which wasn't relevant

[b] 'Perceived benefit' + 'MVA' generated two hits neither relevant

[c] 'Perceived benefits' + 'RTA' generated four hits none relevant although one hit referred to "…combat exposure perceived benefits…"

[d] 'Posttraumatic growth' and 'MVA' generated 14 hits of which twelve were relevant hits. Eleven hits were recovered which consisted of four papers, Zöellner et al (2008) and Maercker et al (2006), (duplicated three times, one of which was the paper in [a] above), and Benight et al (2008). Other papers were not relevant.

Search criteria	Health and Biomedical Sciences – singular version of search	Health and Biomedical Sciences – plural version of search	Manual search of papers in Journal of EMDR Practice & Research	Manual search of papers in The EMDR Practitioner
"Adversarial growth" AND "RTA or RTC or MVA"	0(RTA) 0(RTC) 0(MVA)	-	0 0 0	0 0 0
"Blessings" AND "RTA or RTC or MVA"	-	0 0 0	0 0 0	0 0 0
"Positive by-products" AND "RTA or RTC or MVA"	-	0 0 0	0 0 0	0 0 0
"Positive adjustment(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0
"Positive adaptation(s)" AND "RTA or RTC or MVA"	0 0 0	0 0 0	0 0 0	0 0 0

Table A3: Literature search of terms additionally identified by Linley & Joseph (2004b) and their plurals, in combination with "RTA or RTC or MVA"

Appendix 2.14

RGSS and CASP criteria for evaluation of quantitative and qualitative papers

The RGSS (Maxfield & Hyer 2002) for assessing quantitative research is derived from Foa & Meadows' (1997) Gold Standard Scale (GSS) with the addition of three further questions. The RGSS was particularly designed with EMDR in mind.

GSS
(adapted from Foa & Meadows, 1997)

GSS1 Clearly defined target symptoms.
- 0: no clear diagnosis, symptoms not clearly defined
- .5: not all subjects with PTSD, clear defined symptoms
- 1: all subjects with PTSD

GSS2 Reliable and valid measures.
- 0: did not use reliable and valid measures
- .5: measures used inadequate to measure change
- 1: reliable, valid, and adequate measures

GSS3 Use of blind independent assessor.
- 0: assessor was therapist
- .5: assessor was not blind
- 1: assessor was blind and independent

GSS4 Assessor reliability
- 0: no training in administration of instruments used in the study
- .5: training in administration of instruments used in the study
- 1: training with performance supervision, or reliability checks

GSS5 Manualised, replicable, specific treatment.
- 0: treatment was not replicable or specific
- 1: treatment followed EMDR training manual, Shapiro 1995

GSS6 Unbiased assignment to treatment.
- 0: assignment not randomized
- .5: only one therapist, OR other semi-randomized designs
- 1: unbiased assignment to treatment

GSS7 Treatment adherence
- 0: treatment fidelity poor
- .5: treatment fidelity unknown, or variable
- 1: treatment fidelity checked & adequate

Additional Items Added to GSS to Create the RGSS

GSS8 No confounded conditions.
- 0: most subjects receiving concurrent psychotherapy
- .5: a few subjects receiving concurrent psychotherapy, or unspecified and no exclusion for concurrent treatment
- 1: no subjects receiving concurrent psychotherapy

GSS9 Use of multimodal measures:
- 0: self-report measures only
- .5: self-report, plus interview or physiological or behavioral measures
- 1: self-report plus two or more other types of measures

GSS10 Length of treatment for participants with single trauma (e.g., civilian) PTSD
- 0: 1–2 sessions
- .5: 3– 4 sessions
- 1: 5+ sessions

Length of treatment for participants with multiple trauma (e.g., combat) PTSD
- 0: 1– 6 sessions
- .5: 7–10 sessions
- 1: 11 sessions

CASP criteria

Three broad issues need to be considered when appraising qualitative research:
- Rigour: has a thorough and appropriate approach been applied to key research methods in the study?
- Credibility: are the findings well presented and meaningful?
- Relevance: how useful are the findings to you and your organisation?

Ten criteria then follow of which the first two are seen as gateway criteria:

1. Was there a clear statement of the aims of the research?
Consider:
– what the goal of the research was
– why it is important
– its relevance

2. Is a qualitative methodology appropriate?

Consider:

– if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Is it worth continuing? Only proceed if the answers to questions 1 and 2 are both 'yes'. If continuing then:

Appropriate research design

3. Was the research design appropriate to address the aims of the research?

Consider:

– if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)

Sampling

4. Was the recruitment strategy appropriate to the aims of the research?

Consider:

– if the researcher has explained how the participants were selected

– if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study

– if there are any discussions around recruitment (e.g. why some people chose not to take part)

Data collection

5. Were the data collected in a way that addressed the research issue?

Consider:

– if the setting for data collection was justified

– if it is clear how data were collected (e.g. focus group, semi-structured interview etc)

– if the researcher has justified the methods chosen

– if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they used a topic guide?)

– if methods were modified during the study. If so, has the researcher explained how and why?

– if the form of data is clear (e.g. tape recordings, video material, notes etc)

– if the researcher has discussed saturation of data

Reflexivity (research partnership relations/recognition of researcher bias)

6. Has the relationship between researcher and participants been adequately considered?

Consider whether it is clear:

– if the researcher critically examined their own role, potential bias and influence during:

– formulation of research questions

– data collection, including sample recruitment and choice of location

– how the researcher responded to events during the study and whether they considered the implications of any changes in the research design

Ethical Issues

7. Have ethical issues been taken into consideration?

Consider:

– if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained

– if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)

– if approval has been sought from the ethics committee

Data Analysis

8. Was the data analysis sufficiently rigorous?

Consider:

– if there is an in-depth description of the analysis process

– if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?

– whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process

– if sufficient data are presented to support the findings

– to what extent contradictory data are taken into account

– whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

Findings

9. Is there a clear statement of findings?

Consider:

– if the findings are explicit

– if there is adequate discussion of the evidence both for and against the researcher's arguments

– if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)

– if the findings are discussed in relation to the original research questions

Value of the research

10. How valuable is the research?

Consider:
– if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)
– if they identify new areas where research is necessary
– if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

CHAPTER 3 APPENDICES

Appendix 3.1

Reflections on the development of the author's personal philosophy of healthcare 1968-2006 (Blore 2006b)

In 2006 the author attempted to trace the entire genesis of his epistemological position and personal philosophy of healthcare. There were several reasons for doing this including a personal understanding of how the author knew what he knew and thus a foundation to the study as well as understanding his upbringing in a fundamentalist religion that professes it is the sole owner of 'The Truth'. The method by which the religion established truth is not directly relevant to this thesis, suffice to say that the question of 'how we know what we know' has intrigued the author for many years. The author managed to trace a lineage of his epistemological thinking back to his school days in 1968 (Blore 2006b), stressing the importance of context throughout. The "synthetic or magpie approach" (Sim & van Loom (2004) referred to in the main text broadly consists of two main categories of thinking:

1. Elements of Foucauldian thinking on power relationships with its "regimes of truth" (Foucault 1972, 1973, 1980) and
2. Illichian thinking on the imperialist pretensions of the medical profession and the concept of iatrogenesis (Illich 1975/1995), which combined, could be described as a 'pragmatic Marxism' i.e. Marxist sympathies, within the ethos of a capitalist healthcare system.

Subsequent to the 2006 publication of this contextual 'ground', which could be seen as broadly sceptical in nature are two, more recently acquired, lines of thinking:

3. A worldview derived from Taoist philosophy with a range of 'softer' beliefs of interconnectedness with its ecological leanings, Buddhist 'sympathies', and most recently,
4. The symbolic philosophy of the Spanish philosopher Andrés Ortiz-Osés.

This 'combination epistemology' appears to have mirrored a better known 'transition', namely that of Martin Seligman, the 'Father of Positive psychology' in moving from the theory of learned helplessness (Seligman 1975) to that of learned optimism, in which Seligman (1990/2006), in the chapter entitled 'Two Ways of Looking at Life' contends:

> "…the traditional view of health turns out to be flawed… optimism and pessimism affect health itself, almost as clearly as do physical factors" (Ibid, p.14).

However, there is an immediate potential for bias, partly because the author's philosophy is within a 'comfort zone' and thus the broad area of study was always likely to be viewed in a 'comfortable and familiar' way. Bias, was inevitable because it is arguably not possible to adopt any position without generating a potential for bias. In other words, if there was no bias, then the broad research could not, by definition, be an extension to the epistemological position of the researcher. As regards the priority of healthcare - or perhaps more accurately 'illcare' - the understandable and laudable relief of suffering can be viewed as less laudable perspective if one considers there has been, and continues to be, a dominant negative regime of truth for political power reasons (Foucault 1972, 1973, 1980, 1994; Illich 1975/1995; Le Fanu 1999; Fitzpatrick 2001). Whether or not this less laudable perspective on the relief of suffering represents either social engineering, a biased view of health and healthcare, political expediencies or downright manipulation, is beyond the scope of this Appendix although it does generate strong feelings in the author and is thus relevant. Since there is no such thing as evidence-based practice based on a equitable combination of reduction of NPC and an optimisation, or at least acquisition, of PPC, it therefore follows as a methodological consideration that the author may, purely, by researching the phenomenon, be contributing to the regime status quo in relation to PPC. This is not the author's intention of the study nor is it to contribute to the dominance of the current regime of truth. It is worth bearing in mind that ownership of health-related knowledge (for to call it medical knowledge deems the knowledge is already owned by the medical profession rather than the individual), is a subject entwined in the development of medicine, particularly in the 19th century (see Brunton 2004 pp.121-6 & pp.135-8) and stems from the movement of medical training into Universities and the Medical Act 1858. As a result, more and more knowledge was concentrated in more and more highly qualified doctors. Thus possession of knowledge was, and still is, power:

> "Possession of highly specialized knowledge is the basis of the economic success of all professions". (Ibid, p.121)

…not least of which is the medical profession (see Illich 1975/1995 pp155-73). Arguably only once a decision has been made to use 'useful' knowledge for the benefit of patients solely, does the time arrive to consider how to enhance relevant psychological interventions. Effectively this means the pursuit of 'truth' needs research to be focused upon:

- Widening the traditional research focus away from the solely negative side of psychological trauma, but not lose sight of a balanced positive and negative view

- Applying refined and acquired knowledge to aid understanding of both ‘healthcare providers’ and ‘healthcare recipients’
- Increasing awareness of the significance of that refined and acquired knowledge
- Providing an enhanced and wider array of ‘treatment options’, and
- Increasing awareness of the effects of these ‘options’ on both ‘healthcare providers’ and ‘healthcare recipients’

The first problem that arises is that the process of improving awareness and understanding of psychological trauma inevitably means asking those affected about what is potentially very painful and upsetting. We can again briefly turn to history for wisdom, for in the late 18th and early 19th century, such a ‘problem’ could have been bypassed under the pretext that the ‘healthcare recipient’ was lucky to access any form of healthcare (e.g. as the following relating to French healthcare):

> “The hospital was, moreover, increasingly seen as a site where new medical knowledge was developed... Within the ‘clinic’ the patient occupied an entirely subservient position. He or she became teaching material to be probed and examined during life and... a ‘commodity’ to be dissected after death… In return for free medical assistance, the poor made their bodies available to the medical gaze....” (Jacyna 2004, p.11, citing Jewson 1976 and Foucault 1973)

Of course, and rightly so, ethical situations cannot now be bypassed. The author argues the success of this study should be judged not only on the creation of new knowledge, but on how well the author has not ‘medicalised’ that new knowledge.

Appendix 3.2

Funding the study

Funding was via David Blore Associates Ltd. – the author's own company. The company provides 'corporate and personal solutions' as well as 'promoting personal growth'. A specific budget was put in place in 2004 and reviewed annually so as to meet the financial resources required throughout the study. There were no expected outcomes for the business – it was seen as supporting research in a positive area of psychological trauma. No promotion or salary increases were dependent upon research - the author remains the company's Clinical and Research Director. The company did not have any corporate expectations of the research in, for instance, promoting new products. Neither were other agencies approached for funding, nor were offers of other funding made. Because research was conducted 'out of hours' on a part-time basis, there was no paid time costs. Nor were there any costs in relation to independent reviewers and validation stages. The author conducted all transcription, and likewise no costs were incurred.

As for costs incurred:

- A total of 178 books were purchased during the course of studies costing about £1878
- Non-electronic media consisting of paper, files, miscellaneous stationery, postage etc., amounted to £500
- Electronic media: memory sticks, laptop, in-house printing materials, IT support and webmaster etc., cost a further £1000
- Travel, telephone usage and miscellaneous expenses were £900

The basic cost of the research was therefore approximately £4300. Inclusive of university academic fees the overall cost was about £15000.

Appendix 3.3

"In the fields of observation
chance favours only the prepared mind."
Louis Pasteur

A précised version of the phenomenological epoché to this study

Because this epoché is a very personal bracketing of views the following is written in the first person: The purpose of an epoché is to remove anything – as far as ever possible – that might obscure the phenomenon being studied. Reflecting on my first attempt at identifying biases, I was struck with how I had worded topics authoritatively as though they were the correct and, in some cases, the only view of reality. In fact I subsequently utilised this observation as ontological 'evidence' of the accuracy of having identified biases. I have purposely not used published sources to support or refute any stated position below *other than those of my own authorship*, because I don't wish to 'hide' my prejudices behind external (i.e. other authors and thus author-ority) 'evidence'. My own published references do not imply author-ority either. Topics below are placed under convenient headings and listed alphabetically. Neither of these implies a hierarchy of the strengths of beliefs. To remind the reader that what follows are my biases, I have commenced each topic with the words 'I believe' and ended by a bullet point summary of the issue being bracketed.

Common Sense:
I believe common sense isn't 'common' enough, if it were 'common sense' problems that commonly arise would not do so. This does not mean I believe ignorance is bliss or even widespread, but that it is who, and how, common sense is dispensed, that determines its usefulness. Both the 'who' and 'how' have power implications and the 'how' particularly must surely be open to abuse. As a result I view common sense as an ethical issue, but it also may not be.

- **Ignoring a commonsense dimension of ethics is being bracketed.**

EMDR:
I believe the genesis of EMDR was important in my own professional development. As a Cognitive Behavioural Therapist, I became aware of EMDR at an particularly 'opportune' time as I was becoming increasingly disillusioned by the 'sanitisation' of CBT by ever more refined quantitative methodology that reflected less and less like the clients attending my clinic. It seemed that research was being claimed to be evidence-based purely on research rather than practical application. The 'opportune' time was the Bilsthorpe Colliery Disaster of 1993. The effectiveness of EMDR at such a time resulted in a sort of loyalty to EMDR as though it were an 'old friend'. However, I believe – rightly or wrongly - that EMDR, although a very exciting modality, has, incurred the wrath of the scientific-knowledge-is-the-property-of-all lobby (see also Blore 1997)

- **Blind loyalty to EMDR is being bracketed.**

Litigation (civil):
I believe there is a paradox in that medicolegal cases form a proportion of my company's income and that as a consequence that income is directly funding my research. If the research shows that litigation is a hindrance to the (as yet presumed) efficacy of PPC, then there may be a conflict of interest generated and thus an ethical position becomes identified. In addition, the litigation process seems perfectly capable of being a self-perpetuating system of psychological trauma. The clear similarity with clinical iatrogenesis means that the extension (and even aggravation) of psychological trauma as a result of the litigation process could be a complicating factor in this study.

- **Not being aware of the paradoxical involvement of the litigation system in this study is being bracketed.**

Mental Health (as a stigma):
I believe that as a label, 'mental health' is highly stigmatising – especially when associated with suffering. The comparison of the original title for this field that the author trained in was 'mental illness'. A clue to its stigma was the change to 'mental health' and more recently (2005) the change of the National Institute for Clinical Excellence (NICE) to the National Institute for *Health and* Clinical Excellence (also NICE) as a sort of covert way of masking that 'Health' was an after thought in the battle for evidence-based practice. Another clue to stigma is the curious use of the euphemistic term 'psychological problem' (rather than 'mental problem') when referring to mental health. I believe it is well known that stigma leads to adoption of coping strategies to avoid a stigma.

- **Not being aware of my own prejudices in relation to stigmatisation is being bracketed.**

Personal philosophy:
I believe personal philosophical positions form the basis for the judgement of others and can lead to severely biased judgements of others. Thus the process of bracketing, effectively the identification of personal philosophical positions, is an 'ethical preliminary', because the identification of biases directly addresses issues which may not be immediately obvious, but which have clear ethical dimensions. This is expanded upon under the heading 'Religion and its temporal association with spirituality (see also Blore 2006a, b).

- **'Closing' my mind to philosophical positions that run counter to my own epistemological position is the issue that is being bracketed.**

PPC (fear for):
I believe my chief fear is that PPC will become medicalised with only the 'officially sanctioned' practitioner able to dispense this seemingly very human of commodities. I am aware that humanity has 'got by quite nicely' constructing its own self-help groups and writing its autobiographies after disasters and personal traumas, without the need for it to be officially sanctioned. Also, studying PPC does not mean that NPC is of no consequence or that people should suffer so as to acquire PPC (see also psychological trauma and suffering below).

- **When considering the clinical implications of this study I need to be aware that the ultimate implication is no treatment and thus no 'empire-building'. I should also be aware that healthcare is a 'political animal' and by no means is it always driven by altruistic motives.**

Psychological trauma and suffering:
I believe that although much has been learnt about psychological trauma, precious little has filtered through to the man and woman 'on the street'. The current proletariat view of psychological trauma and suffering appears to range from "pull yourself together" statements such as "I would be able to cope if it were a broken leg" to the modern litigious 'justification' that "because hurt deserves compassion, hurt deserves compensation" i.e. everything has a price tag on it. The participants I will be interviewing will have suffered – for which there is no doubt – but much good can, and does seem to stem from the greatest of adversity. The research predictably needs to be conducted with a rounded view of psychological trauma and being aware of what might seem positive, but is reported negatively and vice versa will require astute judgement when it comes to interpretation.

- **Assuming that I, or anyone other than the participant knows what is positive or negative to a given participant especially when my beliefs are at variance with the participant is being bracketed.**

Religion and its temporal association with spirituality:
I believe that based on my own painful experience of encountering religious recruitment, the whole subject of religion is viewed by me with considerable mistrust – particularly religion in the form of fundamentalist cults who refer to their fervent view of reality as 'The Truth'. A foreseeable problem may arise for me if a given participant is either from the particular cult in question and/or adamant that PPC is merely religious conversion. Furthermore, I believe there is a second strand to religion, as a theme for bracketing, because by implication, I associate religion with spirituality, although much less so than in years gone by. Nowadays I see organised and especially fundamentalist religion as nothing to do with spirituality at all and solely a form of social control or power-broking. On the other hand I see spirituality (which I specifically mean is 'religionless'), as very human and a very neglected component of the human experience – at least in psychotherapy. Nevertheless, I recognise an interaction between spirituality and religion to this day. Given these comments there are three points to bracket:

- **The first issue being bracketed is that I realise I must accept a participant being adamant that religious conversion is PPC and that I must not discriminate on any grounds particularly religion. This will require two things:**
  - **During the interview, I must not attempt to influence or steer any subsequent conversation. I already know my views, the interview is not a debate and it is the participant's views that are being studied not mine.**
  - **During data analysis and reporting on subsequent results, I must faithfully acknowledge and re-present others' views and, if necessary, also 'own up' to my scepticism.**
- **Being gently questioning rather than overtly suspicious of motives of anyone professing religious conversion – especially in the guise of spirituality.**
- **Not consider spirituality and religion as interchangeable entities.**

Appendix 3.4

Six stages of development of the SSIQs

Demise of the interview?

"You know what charm is: a way of getting the answer yes without having asked any clear question" **Albert Camus in *'The Fall'***

"To ask the hard question is simple." **W. H. Auden**

…so logically to ask the simple question must be hard…

The stages of question generation and wording revision were not arbitrary despite the parallel events that occurred. The key events affecting the development of questions and wording, are shown chronologically below and for ease of reference, the dates in brackets relate to the individual dates in the research diaries. Matters proceeded by using Crotty (1996) (see also Crotty 1997) step-by-step methodological research process:

1. Develop a general question. Question chosen: "What is the experience of posttraumatic growth?" and sample those who have intensely experienced the phenomenon.
2. Implement a process of phenomenological reduction (bracketing):
    a) Ask more specific questions about the experience, treating it as removed from the researcher's own experience (What is it? / What is it like?).
    b) Move back further, remove all theoretical perspectives, symbols and constructs, as well as the researcher's own preconceived ideas, experiences and feelings regarding the experience being researched.
    c) Prepare to confront the phenomena with a blank sheet (a la an alien from a distant planet).
    d) Focus on the experience, and become open and passive.
    e) Set reasoning aside.
    f) Listen carefully, and allow the researcher to be drawn-in in a sustained and receptive manner.
3. Document a detailed description of the experience, based on answers to the question: "What does the experience appear to be now?"
4. Examine this description, considering the question: "Does it arise from my own experiences or from other sources (past knowledge, reading, previous personal experiences)?" All aspects that can be seen to have come from other sources must be abandoned.
5. Locate the experience's essence, and identify and critique the essence's elements. Ask the question: "Would the phenomenon still stand without any of these?" Negotiate the essence's elements with those observed.

The first version of the SSIQ (v.1) (Table A4) was derived from the first episode of bracketing biases consisting of a three month period of reflective diary writing, mainly prior to commencing formal studies, relevant diary chapters being: 'A very personal history', 'Clearing away life's rubbish' (in which the author interviewed himself) and 'Zones of Interest' (28.12.04 to 24.3.05). As can be seen from the result, SSIQ v1 was highly structured not allowing for any 'semi-ness' in the structure. With hindsight it reflected the author's prior experiences with quantitative research with its search for a reality 'out there'. Whether or not it was important to go through this stage is a moot point. Another way of looking at SSIQ v1 was that the bracketing hadn't been particularly successful. A pilot interview was held with a neighbour using the first version of the SSIQs (29.3.05). A review of the results of pilot interview were discussed with fellow Mphil/PhD students, in which there was in effect, a peer review by email. This stage also gave rise to an opportunistic review of anonymised interviews stemming from research into the Dunblane shootings, to gain a 'feel' for the wording of questions (31.3.05 – 2.4.05). The result of this was the drafting of a second version of SSIQs (2.4.05) (Table A5). There was now a second episode of bracketing biases as the author became more comfortable with the process of designing a phenomenological interview, although the intention was to pursue a pure Husserlian approach, it was becoming evident that knowledge could not be merely ignored (14.4.05) nor was it entirely feasible to 'bracket' everything. A supervision tutorial followed and resulted in a third version of SSIQs (14.4.05) (Table A6), which was duly presented at a research study day as 'Moving over to Phenomenology' (University of Birmingham 11.5.05). The next stage was a posting on the EMDR Research listserv (Internet discussion forum)(19.7.05) inviting discussion about the whole subject of 'positive change' after MVAs (the phrase 'post traumatic growth and acronyms 'PTG' and 'MVA' were used as most subscribers to the forum were American and it was assumed the invitation would therefore be better understood). In the end, the invitation achieved very little in the way of new material and seemed instead to underline lack of focus amongst clinicians on PPC as a concept – at least in relation to EMDR, post traumatic growth and MVAs. Next followed the third episode of bracketing biases 'An interview with myself' (14.8.05) was followed by SSIQ v.4 (23.9.05) (Table A7), prior to an informal meeting of colleagues directly and indirectly involved in the study, discussed the SSIQs in an open-peer review of questions. The result was SSIQ v.5 (24.9.05) (Table A8). Another presentation provided the opportunity to hone questions further and to become more directly associated with PPC (rather than PTG) after trauma (15.11.05).

Q1: I would like to start by asking you to tell me in detail about your current state of health.
Note: OK but was in the wrong place.

Q2: What do you understand by the phrase 'traumatic experience'?
Note: ?not sure on this, but did generate an interesting response which gave an insight into how PM saw the trauma experience as a concept (which was what the Q asked – so I suppose it was a good Q). Not sure about the correct place in Q sequence.

Q3: Following your RTA, what were the hardest things for you to cope with?
Note: OK but needs far more thought particularly because…..

Q4: How did you cope? (or) What did you do?
Note: Q4 was needed first (this highlights the order and clarification issues).

Q5: What types of decisions did you make that influenced how you coped with things?
Note: PM could only think of one decision and this didn't really answer the question. Therefore Q ?rewording or at least rethinking.

Q6: Considering the whole experience of coping, was there anything that you would describe as positive?
Note: This was a good Q and did generate replies despite my concern that the word 'positive' might be too 'leading'.

Q7: What made them/it positive for you?
Note: This was also a good Q as long as the questioner appreciates the potential overlap with 6 - (another clarification point).

Q8: Compared to before the RTA, how do you see yourself nowadays?
Note: PM found this difficult to answer, probably because of the time elapsed and the effects on his memory recall. The Q seemed good though.

Q9: What are your views of other people now?
What are your views of life in general now?
What do you put all these views down to?
Note: This Q was clearly linked to 8, but was far too overwhelming to answer, splitting into several Qs, and/or needs completely rewording or the use of a different approach to access the experience.

Q10: Before the RTA, could you have seen yourself having these views?
Note: Like 1, was Q OK but was in the wrong place.

Q11: How would you sum up your experience of treatment?
Did the treatment have any influence on how you now view things?
Note: Really two Qs. The first part of the Q was excellent but probably should have been 1 on the list. The second part of 11 was fine but it was clearly confusing to have it associated directly with part 1.

Q12: Have you any advice to others concerning how to cope after a SAH?
Note: Q quite good but needs slightly rewording.

Q13: Are there any other questions I should have asked that would have helped you 'tell me like it is'?
Note: Definitely one to include.

Table A4: SSIQ v1 – with comments from pilot interview

From the outset, it was planned that one stage should be a review of the SSIQs by a well-known, national or internationally known traumatised person known for his/her positive view of being traumatised. The author's rationale for doing this was that if someone was picked who was widely known for their positive views of the aftermath of trauma then, without making any judgement as to why that person was viewed as having positive views, it was likely that that person would be a good judge of the appropriateness of the SSIQs chosen. An initial approach was made to a nationally known trauma victim who was known to the author because of his connection with the, now closed, Nottingham Trent University Psychological Trauma Unit to which the author had been a visiting therapist. However this approach drew a blank. The next approach however was immediately successful. Having read Simon Weston's book 'Moving On', contact was made via the relevant publishers. They immediately provided Simon's contact details. He was *very* interested in the proposed study and was very happy to help and gave verbal consent to cite his involvement by name. After a few alterations to dates, a second telephone discussion was held with Simon on 13.12.05 to review SSIQ v.5 (13.12.05). Discussion with Simon was humbly revealing and he provided a different perspective on some questions. The result was the addition of a new question and modification of wording to another question. The outcome was the SSIQ v.6 (20.12.05) (Table A7).

1	What do you understand by the phrase 'traumatic experience'?
2	Can you describe your views of drivers and driving, before your RTA?
3	Would you say these views have changed since your RTA?
4	I do appreciate you must have been through the events of your RTA many times and with many people. However, to be certain that I understand your experience of the RTA, please tell me in detail what happened.
5	How did you cope with all this?
6	What types of decisions did you make that influenced how you coped with things?
7	Was there any specific thing that you felt helped you cope?
8	Considering the whole experience of coping since the RTA, was there anything that happened that you would describe as positive?
9	In your opinion, what made them/it positive?
10	How would you describe your experience of the legal proceedings that followed your RTA?
11	How would you describe your experience of EMDR treatment?
12	Have you noticed any changes in your life, or your attitudes to life, since you received EMDR?
13	Have you any advice to others concerning on how to cope after an RTA?

Table A5: SSIQ v.2

1	What do you understand by the phrase 'traumatic experience'?
2	What were your views of drivers and driving, before your RTA?
3	If you views have changed since your RTA, please state how.
4	To be certain that I understand your experience of the RTA, please tell me in detail what happened.
5	How did you all of this affect you?
6	What types of decisions did you make that influenced how you coped with things?
7	Was there any specific thing that you felt helped you cope?
8	Considering the whole experience of coping since the RTA, was there anything that happened that you would describe as positive?
9	If yes, in your opinion, what made them/it positive?
10	How would you describe your experience of the legal proceedings that followed your RTA?
11	How would you describe your experience of EMDR treatment?
12	Have you noticed any changes in your life, or your attitudes to life, since you received EMDR?
13	Have you any advice to others concerning on how to cope after an RTA?

Table A6: SSIQ v.3

1	What do you understand by the phrase 'traumatic experience'?
2	What were your views of drivers and driving, before your RTA?
3	To be certain that I understand your experience of the RTA, and its aftermath, please tell me in detail what happened.
4	How would you describe your experience of the legal proceedings that followed your RTA?
5	How did the RTA and what followed, affect you?
6	What types of decisions did you make that influenced how you coped with things?
7	Was there any specific thing that you felt helped you cope?
8	Considering the whole experience of coping since the RTA, was there anything that happened that you would describe as positive?
9	If yes, in your opinion, what made them/it positive?
10	How would you describe your experience of treatment?
11	Have you noticed any changes in your life, or your attitudes to life, since you received treatment?
12	What are your views of drivers and driving nowadays?
13	Have you any advice to others concerning how to cope after an RTA?
14	How do you see yourself in the future?

Table A7: SSIQ v.4

The author's opening remarks (prepared beforehand)	Simon's response (the author's subsequent additions in brackets)
The doctoral research I am conducting at the University of Birmingham is focusing on Post Traumatic Growth - that is the positive outcomes experienced by people who have been traumatised. As a part of the pilot study to the research I decided to ask a well-known person who has been traumatised, what their opinions are about the series of 14 questions to be asked in the main research project. I would like to read out all 14 questions first and then go through each one, taking down some notes on the way. If you think I have missed a key question that would help me encourage RTA victims to tell me about their lived experience of positive recovery from trauma, please let me know. That question(s), once worded correctly, may be added to the other research questions.	Simon listened patiently to what was said and all questions were read out. On going through all the questions again, Simon started to make comments on the questions. Notes were taken of Simon's remarks. Related comments are in square brackets. Contents of curved brackets are to make reading quotes easier.
1 What do you understand by the phrase 'traumatic experience'?	
2 Before your RTA, what were your views of drivers and driving?	
3 To be certain that I understand your RTA, and what happened afterwards, please tell me your experiences in detail.	This question is hugely important. "Telling your story is so important"
4 Please describe your experiences of the legal proceedings that followed your RTA.	
5 In what ways were you affected by **both** the RTA and what followed it?	[My note: This question seemed 'awkward' and I wonder if this should be modified by deleting the **bold** text?]
New Q: What, if any, setbacks did you have and how did you cope?	"Ask what setbacks people had because it's how they coped *as a result of setbacks* that counts." One interesting variety on this one related to when a traumatised person *starts* to cope: "an early start (to coping)!" suggesting that one setback was a late start. [This question and the next two were the ones that Simon spent most time talking about. It was difficult to keep up with him and what appears in these three response boxes is merely an annotated summary.]
6 What influenced how you coped with things?	This question is important people need to be genuine. Most comments by Simon about the questions came in the coping section. He referred to "no counselling" because the MoD declared there were "no psychological symptoms concerning what happened to me." He spoke at length on "black humour" [NB. The essence of what Simon's examples of humour, could be labelled 'appropriate patronising'] and "making light" of things. And the role of "those around you" as well as the "effects of he trauma on others."
7 Were there any specific things that were important for you?	"For me it was 'tough love' and stopping crying internally". "It was so important to have the acceptance of others." [The interesting point was that answers to this question were mirrored in answers to the next question almost as though they were the same question in two parts.]
8 Considering the whole experience since the RTA, were there any things that	"hope"; "do things for yourself despite rejection"; "belief in oneself"; "focus on the future (i.e. don't

happened that you would describe as positive?	avoid it) [NB. Interesting mirror of foreshortened future criterion for PTSD]
9 If yes, in your opinion, what made them/it positive?	
10 How would you describe your experience of all treatment you have received since the RTA?	
11 What changes in your life, or your attitudes to life, have you experienced since you received treatment?	
12 What are your views of drivers and driving nowadays?	"We're all bad drivers – we're all lazy."
13 What, if any, advice would you have for others concerning how to cope after an RTA?	*"Important question* – it's also the wisdom of others around you."
14 How do you consider your future?	*"Important question"* – [See also question 8 above, does the repetition mean that 'aspirations' and 'positive outcomes' are in some way equivalent themes?] "- it is no good if you don't focus on the future and believe in oneself"
Finally (and not part of the research but more about current affairs) you have been widely quoted about recent news of a French lady who had a partial face transplant, why do you think the media contacted you for an opinion?	"This lady's facial transplant she believed she was not a woman that's why she tried to commit suicide. The media contacted me (I assume) because they knew I would give a 'balanced view' (by implication therefore a positive *and* negative view)"
Simon spent most of the conversation discussing how he coped himself – in some considerable detail. Initially I was slightly disappointed that we hadn't followed my agenda. However, on reflection I changed my mind because it was clear that my questions had 'sparked something off' for Simon and that what subsequently happened was the result of my questions facilitating Simon to talk about his experiences. This suggests that the SSIQs are likely to work when tested out. Simon also came up with a theme of 'ownership' of the trauma, which doesn't seem to easily fit into any of the questions. Comments such as "Who do you blame if anyone?" and "OK what part did I play in all this?" and "What role did I play?"	

Table A8: SSIQ v.5 is discussed with Simon Weston

A final review of SSIQ v.6 took place (19.12.05 – 21.12.05) to consider any aspects that may have been overlooked. It was decided that SSIQ v.6 (Table A9) should be able to facilitate access to PPC however it might occur.

1 What do you understand by the phrase 'traumatic experience'?
2 Before your RTA, what were your views of drivers and driving?
3 To be certain that I understand your RTA, and what happened afterwards, please tell me your experiences in detail.
4 Please describe your experiences of the legal proceedings that followed your RTA
5 In what ways were you affected by the RTA and what followed it?
6 What, if any, setbacks did you have and how did you cope?
7 What influenced how you coped with things?
8 Were there any specific things that were important for you?
9 Considering the whole experience since the RTA, were there any things that happened that you would describe as positive?
10 If yes, in your opinion, what made them/it positive?
11 How would you describe your experience of all treatment you have received since the RTA?
12 What changes in your life, or your attitudes to life, have you experienced since you received treatment?
13 What are your views of drivers and driving nowadays?
14 What, if any, advice would you have for others concerning how to cope after an RTA?
15 How do you consider your future?

Table A9: SSIQ v 6 – the final version used in the study

Appendix 3.5

Laminated technology/ interview procedure sheet

Before interview:
Make sure you recall interviewee's first name
Last minute verbal check on consent and answering any final questions

Setting equipment up:
Make sure correct MD cassette disc is in recorder
Plug mains lead into DC-in socket and make sure supply socket is switched on
Only where mains access is impossible, use a new battery
Plug microphone lead into red socket and check microphone is switched on, on base
Plug in earphones via remote control
Recording will be heard on left channel only (short earphone lead)

Test microphone position in room and recording level/settings:
Press PAUSE and RECORD to test recording level - aim at –12dB
If needed, adjust via volume control on MD recorder itself
Press SEARCH MENU for 2 seconds+, scroll to REC SETTINGS,
Press to get REC MODE, press to scroll down to HI-LP

Ready to record:
DO NOT RUSH THERE IS NOTHING WRONG WITH SILENCES
Press PAUSE again.
Clock will now start to show recording is taking place.
Start by saying "THE RECORDER IS NOW ON"

Adding track marks manually (for ease of replay later):
Again, DO NOT RUSH… While recorder is recording, press REC/T MARK at the end of a SSIQ.
Display will show MARK ON
Then state question number of, and read next question
Stating question number will distinguish between pauses and new questions

Pause interview:
Press PAUSE to pause
Press PAUSE again to restart
Note: pressing PAUSE again will also add track mark (see above)

On completion of interview:
Press STOP.
Display will show DATA SAVE followed by SYSTEM FILE WRITING
Say "THE RECORDER IS NOW OFF"

After interview:
Thank research participant
Give research participant DEBRIEFING SHEET and answer any further questions… Say goodbyes

Table A10: Laminated 'technology crib' and interview procedure sheet

Appendix 3.6

Invitation to take part in a study concerning Post Traumatic Growth amongst RTA victims

(Part of an PhD (Doctor of Philosophy) project)

Researcher: Mr. David Blore
Supervisor: Dr. Derek Farrell

Why am I being invited to take part in this study?

So that the researcher can establish whether adult accident victims experience positive outcomes following their recovery. If you have been **involved in an accident any time after the age of 18** and **completed both treatment and litigation** and have **English as your first language**, then your views are of interest. The researcher would be grateful if you read the information below before you decide whether you want to take part or not.

What does this study involve?

The study involves the researcher interviewing you face-to-face for a period of about one hour and recording the entire interview. Recording of interviews would only take place following your signed consent to record an interview. The interview would occur at a time and place that is convenient to you and would consist of being asked questions about your experiences of being an accident victim. Questions asked would relate to identifying your attitudes before and after the accident you were involved in, the accident itself, your subsequent experiences of treatment and litigation and how you arrived at your present perceptions and how you see yourself in the future.

What if I change my mind about taking part?

If you decide you no longer wish to take part you are free to stop the interview at any time. You are under no obligation to take part and even after the interview has been concluded you can request that your data be destroyed if you are unhappy.

What if I become distressed at talking about my experiences?

You may request the interview stops completely or is suspended (including pausing of the audio recording) so as to give you time to consider your position. You are under no obligation to complete an interview. If you are distressed, whether or not you complete the interview, then you are advised to contact your GP or NHS walk-in service promptly who will advise you further. Alternatively you may prefer to contact other positive supporting persons such as your family members/loved ones or key professionals already known to you. The emphasis is to provide every opportunity to help you and the interview will always take second place to any requirements to reduce distress. In addition, further information contacts will be provided on a debriefing sheet after the interview.

What if I don't want to respond to a question during the interview?

For the study to be valid it is important that participants answer all questions both in the interview and the questionnaire. However, you don't have to answer any question you do not wish to. The interview and questionnaire answers are all anonymous and your responses will be treated respectfully and confidentially and stored safely.

Who will have access to the recorded materials and what will happen to recorded materials after the research?

Only the research group will hear and review the recordings. There will be no divulging of recorded material outside of this group and no copies will be made. After transcription of recorded material, all data that can identify you personally including the original recording will be destroyed. Any publications that are made as a result of the research will not use your name and you will not be identifiable.

What do I need to do now?

You can keep this information sheet for your information. If you have any questions about the study, before you decide whether or not you want to take part, you can ask the researcher who will try to answer your queries. If you agree to take part, we will ask you to sign a consent form to confirm your willingness to participate in the study.

What do I do if I decide to join the study?

If you have decided you would like to take part in the study, please contact your EMDR therapist, who will contact the researcher. On receipt of your therapist's, you will be contacted by the researcher to confirm your interest and to establish where you wish to be seen. The researcher will come to a place you feel comfortable with and at a time that is convenient to you, to be interviewed.

Appendix 3.7

Consent form for the study concerning Post Traumatic Growth amongst Road Traffic Accident victims

Researcher: Mr. David Blore
Supervisor: Dr. Derek Farrell

Please sign below to show that you agree to the following points. Please ask for clarification if you are uncertain.

- I have read and understood the study information sheet.
- I have had time to consider participation and the opportunity to ask any questions about the study, and these have all been answered to my satisfaction.
- I understand that I am under no obligation to take part in this study.
- I agree to take part in this study as it is outlined in the information sheet, but I understand that I can withdraw from the interview at any time without any consequences.
- I understand that my data will be stored securely and treated confidentially and I will not be identified in any reports, which will only describe grouped data across all participants.
- I understand that all data that identifies me personally will be destroyed at the end of the study, including the recording of the interview.

Your signature…… Date ……./……/……

Your name (printed)……

Researcher's signature…… Date ……./……/……

Researcher's name (printed)……

Please provide your email address or postal address, if you would like to receive a full report on this study when it is completed (in addition to a debriefing sheet that you will receive immediately after the interview).

Your email address……@……

Your postal address……..

Appendix 3.8

Debriefing on the study concerning Post Traumatic Growth amongst Road Traffic Accident victims

Thank you, very much for taking part in my study – please do not discuss it with others who have not yet taken part.

What is the aim of this study? Those who have experienced a traumatic event are understandably likely to concentrate on how painful, upsetting and negative the traumatic event was. Nevertheless it has been known since ancient times that traumatic events can and do lead to positive outcomes on occasions. Why this is so and what exactly the experience of positive outcomes are, is still poorly understood. This is mainly because, until fairly recently, positive outcomes following traumatic experiences have tended to be overlooked probably as the understandable priority has been to relieve suffering and thus reduce negative symptomatology. By understanding both positive *and* negative outcomes following psychological trauma, it will hopefully become possible to both relieve suffering and to encourage a positive resolution.

Has the interview made you upset or 'stirred up' memories or emotions? Obviously we hope it hasn't, but if you need further help, the researcher would like to remind you of various resources that may be helpful:

- Firstly, your GP will be able to advise you and will certainly have access to contacts in your local area such as practitioners who specialise in psychological trauma.
- Other useful contacts include walk-in NHS clinics (to locate the nearest to you: search on the Internet at **www.nhs.uk** and type 'walk-in' into search engine, alternatively try NHS-direct on the 0845 46 47 helpline).
- Identifying a therapist yourself can be done either through the British Association for Behavioural and Cognitive Psychotherapy (01254 875277 or **www.babcp.com** click on 'find a therapist'), or via the EMDR Association of UK and Ireland (no central telephone number but email: **emdrassociation@hotmail.com** or their website **www.emdr-uki.org** click on 'find a therapist').
- You could also try typing 'PTSD UK' into any Internet search engine – there are thousands of pages of help although do exercise caution as many sites are purely commercial rather than independently information-based.
- Do not forget other resources such as rereading material supplied by your original therapist as well as your own personal assets and skills (do you do yoga or meditation for instance?)
- Alternatively someone in the family, or amongst friends, may be helpful because they understand you unique situation.
- Organisations such as CRUSE that can help with issues such as bereavement problems can be contacted via their day-by-day helpline number is 0870 167 1677 or **www.crusebereavementcare.org.uk**
- If problems are principally concerning relationships, then RELATE **www.relate.org.uk** could help (their website also contains lots of other useful contacts).
- Useful books include "Overcoming Traumatic Stress" by Herbert and Wetmore (ISBN 1841190160) and "I can't get over it: handbook for trauma survivors" by Matsakis (ISBN 157224058X).
- Another useful book you might not think of for local help lines is Yellow Pages and any of the Directory Enquiries numbers starting 118 (such as 118500) is another source of contacts.
- Finally, don't be frightened to ask questions of any of the above. No question is 'silly' but by asking, you may well find the key answer that helps you.

Appendix 3.9

Ethical approval letter

ETHICAL APPROVAL LETTER

UNIVERSITY OF BIRMINGHAM

REMOVED

Appendix 3.10

Data Protection Act registration certificate (2004-10)

DATA PROTECTION ACT

REGISTRATION CERTIFICATE

COVERING PERIOD OF RESEARCH

REMOVED

Appendix 3.11

Compliance with DPA requirements for data storage

Mason (2002) states:

> "…records (must be) confidential… kept safely, securely and responsibly, and in accordance with data protection, freedom of information and privacy legislation." (Ibid, p.148)

The author was bound professionally by the Nursing & Midwifery Council code of conduct (available online at: www.nmc-uk.org/aArticle.aspx?ArticleID=3057). The code includes rules on record keeping. In practice, all issues related to data storage had to comply with David Blore Associates Ltd's., registration with the Data Protection Authority (DPA). Re-registration was complied with throughout the study in the normal manner including formal updating of DPA registration each August – confirmation and details of registration and renewals are available via the Information Commissioner at the DPA. The intricacies of compliance with DPA requirements for data storage are detailed below: Given the current sophistication of storing data the following were necessary:

- The researcher was the named data controller
- All documentation was kept in a locked filing cabinet within a locked room (i.e. 'doubly locked')
- Electronic data was password protected. Data cables, rather than, wireless modems were used throughout. The company's IT manger was consulted in relation to the existing wireless network and confirmation was provided that other external wireless networks could not access data via external computers. For extra security, however, electronic data was not placed on the internal network so that *internal* security could also be guaranteed
- Transportation of electronic data was done via password protected computer 'memory stick', which did not leave the possession of the researcher – and in any case contained no confidential material (see previous section)
- Particular care was exercised to delete all data from host PCs at presentations, even though all material was already fully confidentialised
- Print-offs of paper material containing confidential data that were to be destroyed, were initially collected and stored 'double locked' and then cross-shredded in a dedicated machine by the author
- All data whether based in hard copy or electronic form and including all minidisks, cassettes and other stored data formats will be destroyed at the completion of the research. At present these materials are also stored 'doubly locked'
- If, at the end of the research, currently defined as 1st March 2010, there is any doubt as to whether electronic data is completely erased, then the relevant hard discs will be reformatted entirely. If there is *still* doubt, then hard disks will be 'drilled' (i.e. literally destroyed by having a matrix of quarter inch holes drilled through the entire hard disk and its casing to ensure total physical destruction). Facilities for doing this in-house already exist in order to comply with DPA rules. Totally new hard disks will then be installed to computers. Likewise if any doubt remains about erasure of confidential information on memory sticks, facilities also exist to destroy them.

Appendix 3.12

Thoughts on data saturation

Although McLean et al (2010, p.288) clearly state:

"Stop data collection when saturation is achieved"

…meaning stop when no new themes emerge. Table A11, based on newly emerging themes from this study shows that the rule may not always be easy to apply. The participants in this study were interviewed in the order shown, and based on MacLean et al's advice, the study would have stopped at Isabelle's' interview as no new themes emerged. However, as can be seen, despite no new themes emerging for six consecutive interviews, both of the last two interviews produced new themes. In 'Robert's case it resulted in FLU as a theme - a finding which turned out to underpin all other findings. Furthermore, the theme had been identified in 'Christine's' transcript but overlooked until 'Robert's' transcript was analysed. This suggests there may be an additional factor to consider: *recognition* of new themes may only take place *after* data saturation has been reached.

Participant	New themes arising?
'Alison'	Yes
'Christine'	Yes
'David'	Yes
'Fiona'	Yes
'Isabelle'	No
'John'	No
'Mike'	No
'Nicola'	No
'Olga'	No
'Pat'	No
'Robert'	Yes
'Tim'	Yes

Table A11:
When exactly did data saturation occur?

Appendix 3.13

List of presentations and publications relevant to the study

The following peer reviewed presentations and publications relate to different aspects of the study under the headings shown:

Background to the research, bracketing and contextual work:

Blore, D.C., (2005a)
Moving over to Phenomenology. Research presentation, School of Health Sciences, University of Birmingham 11.5.05

Blore, D.C., (2005b)
Affect and Traumatised Train Crew: Using an Integrated CBT/EMDR Approach to Facilitate an Early Return to Work. *Abstract book* p114-5. Symposium 36, XXXVth Annual Congress of the EABCT. Thessaloniki, Greece 21/24. 9. 2005

Blore, D.C., (2005c)
Discovering Post Traumatic Growth. Presentation to 2nd Military conference on CBT & EMDR in the Military, RAF Donnington, nr. Birmingham 15.11.05

Blore, D.C., & Holmshaw, E.M., (2006)
The Railway Experience: the Non-Disclosure of Traumatic Memory Content and EMDR. 4th EMDR UK & I Conference, London 3/4.3.06

Philosophy of healthcare:

Blore, D.C., (2006a)
Another 'Possible' Future for Positive Psychology: An *Anti*-Antithesis? Unpublished essay: Philosophical Bases of Research (Masters) module, University of Birmingham submitted 15.5.06

Blore, D.C., (2006b)
Growing a Philosophy of Healthcare: The germination and flowering of a personal experiential healthcare philosophy. *Journal of Critical Psychology, Counselling and Psychotherapy, 6*(3), 127-33

Дзвид Блор, (David Blore) (2006c)
Some Marxist Reflections on a Decadent Capitalist 'Battle': the CBT/EMDR War. *The EMDR Practitioner (Autumn edition),* the Internet: www.emdr-practitioner.net last accessed 24.12.08

Preliminary results of research:

Blore, D.C., (2007a)
EMDR Generates Post Traumatic Growth (PTG): Preliminary research results. 5th EMDR UK & Ireland Conference Glasgow, Scotland 23/24.3.07

Blore, D.C., (2007b)
Towards a Perspective-related Categorisation of PTG: Preliminary results from Phenomenological Research into EMDR. Founding Conference of the Centre for Applied Positive Psychology, University of Warwick, England 18/20.4.07

Blore, D.C., (2008a)
"I'm so grateful it happened": The Lived Experience of Post Traumatic Growth following Road Traffic Accidents and EMDR treatment. Research presentation, School of Health Sciences, University of Birmingham 28.4.08

Blore, D.C., Farrell, D. P., & Clifford, C. (2008)
The Experience of Post Traumatic Growth amongst Road Traffic Accident Victims who have completed EMDR treatment: A status report on research. Poster Presentation 9th EMDR Europe Conference, London 2008

Development of a new theoretical model:

Blore, D.C., (2009a)
The Range and Diversity of Post Traumatic Growth following EMDR for involvement in a Road Traffic Accident. 7th EMDR UK & Ireland Conference Manchester, England 27/28.3.09

Blore, D.C., (2009c)
From Post Traumatic Growth to 'Network Growth': What happens after successful EMDR? 10th EMDR Europe Conference, Amsterdam, The Netherlands 2009

Blore, D.C., (2010)
Towards a phenomenology of change: Plasticity of Meaning (PoM): a contribution to AIP theory. Research presentation, School of Health Sciences, University of Birmingham 11.5.10

Appendix 3.14

Background information on iRAP

The following information provides contextual background to IRAP as an organisation. The material is derived from various pages on their website: www.irap.net/about.aspx

The International Road Assessment Programme (iRAP) is dedicated to saving lives in developing countries by promoting safer road design. iRAP targets high-risk roads where large numbers are killed and seriously injured, and inspects them to identify where affordable programmes of safety engineering can reduce large numbers of deaths and serious injuries. The initiative relies on a strong partnership of key local stakeholders and international experts to work together to make roads safe. iRAP aims to:

- Generate and prioritise large, affordable, high-return programmes of safety engineering countermeasures using a globally consistent methodology.
- Generate and prioritise large, affordable, high-return programmes of safety engineering countermeasures using a globally consistent methodology.
- Operate on a scale that is cost-efficient and can be project managed to deliver reductions in the cost of death and crippling injury that are economically significant.
- Provide the methodology and procedures to implement performance tracking so that funding agencies are able to track outcomes and outputs and enable continuous global improvement in safety performance.
- Provide the training, technology and reporting tools to build and sustain national, regional and local capability.
- Share experience and knowledge of effective road safety programmes worldwide.

Global Road Safety: *A global epidemic*

Deaths and injuries from road traffic crashes are a major and growing public health epidemic. Each year 1.2 million people die in road crashes and the number of seriously injured could be as high as 50 million. Road crashes are now the leading cause of death for children and young people aged between 10 and 24. The burden of road crashes is comparable with malaria and tuberculosis, and costs 1-3% of the worlds GDP. More than 85% of global road deaths and serious injuries occur in developing countries. Whereas road deaths are expected to fall in high-income countries, they are likely to increase by more than 80% in the rest of the world. In developing countries it is the poor that are most vulnerable. Pedestrians, bicyclists, motorcyclists and those using informal public transport are many times more likely to be harmed on the roads.

The role of the road

Most crashes are caused by human error. For this reason, road safety initiatives have traditionally focussed on fixing the driver in order to prevent crashes. Approaches typically involve education, testing and enforcement. However, to err is human; psychology tells us that people will always make mistakes. More recently, engineers have focussed on mediating the outcome of a crash by designing safe vehicles and safe roads. It is possible to protect the road user in the event of a crash by designing vehicles and roads to work together to ensure crash energies do not overwhelm the human. For vulnerable road users the road design must work even harder to ensure they are not exposed to high-speed traffic. In leading developed countries where great progress has already been made on driver behaviour and vehicle safety, national safety strategies show investment in safer infrastructure is expected to deliver twice the casualty saving provided by investment in either behaviour or vehicles. There are still many countries in which fundamental road-safety education and enforcement (seat belts, helmets, drink-driving and general adherence to traffic law) are not in place. In these countries basic infrastructure, such as clear signs and road markings, is essential if road users are to know what they are expected to do and if traffic law is to be effectively enforced.

Getting organised

What can give us hope is that other health epidemics, that seemed impossible to fix, have been eliminated. As recently as 1967, some 10-15 million cases of smallpox claimed two million lives every year, with many survivors left disfigured or blind. In 1967, the World Health Organization launched a mass vaccination programme that was later followed by Operation Smallpox Zero a programme with a vision to eliminate the disease altogether. The vision zero was brought to fruition when the last case of smallpox was reported in Somalia in 1977. The programme was described as a triumph of management, not of medicine. In the same way, we know what can be done to prevent road deaths. However, in order to combat this public health epidemic we must ensure that we create a sustainable and structured approach to aim for vision zero we must get organised to make roads safe.

Designing safer roads

Safe roads are designed to be self-explaining and forgiving. Self-explaining roads show all road users where they should be and how to use the road safely. Clear road layouts not only explain where road users are expected to be, but they also take into account the road users ability to process information

and make decisions. An inexpensive, simple pedestrian refuge island not only shows where to cross but makes safe crossing much easier the pedestrian has to check only one stream of oncoming traffic at a time. The refuge also calms drivers' speed and restricts overtaking at the crossing point. Forgiving roads are designed to protect road users in the event of a crash. The design of the road must recognise that crashes can occur and ensure that fatalities and injuries are minimised by protecting road users from hazards. Engineering features, such as safety barriers can be used to separate fast moving traffic from people and cushion crashes when they happen. Crashes are less likely to occur on self-explaining roads and injuries are less severe on forgiving roads.

Crashes that kill
Vulnerable road users

Pedestrians are most vulnerable when they must cross busy roads without crossing facilities, and where they have to mix with motorised traffic as they move along a road because footpaths are not provided. In developing countries motorcyclists and moped riders can account for a high percentage of road deaths; in some Asian countries over 70% of road deaths are motorcyclists. Engineering countermeasures that work to reduce the likelihood of a serious or fatal crash for vulnerable road users include:

- Exclusion of traffic from areas where there is high pedestrian activity
- Slowing of traffic (traffic calming) in areas where there is high pedestrian activity
- Paths for pedestrians and bicyclists so they do not mix with motorised traffic
- Crossing facilities that follow crossing demand and show where pedestrians are expected to cross and reduce the complexity of crossing the road
- Provision of separate motorcycle lanes or facilities
- Crash barriers that are passively safe for motorcyclists

Crashes that kill
Vehicle occupants

For vehicle occupants, fatal and serious crashes fall into three main categories:

- Run-off crashes typically a single vehicle leaves the carriageway and crashes into a fixed object such as a tree or lighting column
- Junction crashes the most serious crashes occur at T-junctions or crossroads where side impacts occur at high speeds
- Head-on crashes vehicles travelling in opposing directions have high-energy collisions

Engineering countermeasures that work to reduce the likelihood of a serious or fatal crash for vehicle occupants include:

- Clearing roadsides of fixed objects (such as trees, lighting columns, road signs), replacing fixed objects with passively safe alternatives (e.g. deformable signposts and lighting columns), or protecting the road user with crash barriers
- Limiting the number of minor accesses to main roads, providing turning pockets, and replacing cross roads and T-junctions with roundabouts and grade separated junctions
- Separating opposing traffic travelling at high-speeds with a safety barrier or wide median

Formal safer road infrastructure programmes:

The casualty reduction strategy for any country at any stage of its road safety development needs to define the contribution that simple, affordable infrastructure improvements can make. Footpaths, paint and fencing save lives. Designing, building, financing, procuring and evaluating a motorway scheme is possible nearly everywhere in the world. But projects that upgrade the safety of an entire route or network are rare, even though they would often offer the most competitive economic returns in a national, regional or local project pool. Affordable road infrastructure improvements have the potential to cut road casualties on a scale significant at the national level in the short, medium and long term. This is only possible if whole routes and networks, on which large numbers of deaths and serious injuries are concentrated, are targeted systematically with the application of effective countermeasures.

Network safety management:

In order to effectively manage the safety of an existing road network, three basic activities need to be established:

- Reliable crash data should be collected. Police and statisticians must work together to ensure that serious crashes are recorded accurately according to internationally accepted protocols and definitions. Risk Mapping can be produced using these data in order to show where individuals and communities face high levels of risk.
- Road authorities must have information about the level of safety and traffic flow on their network. They must have an understanding of how road features on their network contribute to risk and the potential for a serious or fatal crash. Star Rating inspections document this road attribute information and more detailed road safety audits can be used to identify specific sites and problems.
- As safety treatments are used, the outcomes must be measured, analysed and recorded so that lessons can be learnt about the impact of different schemes. The evidence base should direct future action, ensuring that the most efficient life-saving measures are implemented.

Effective safety management should involve infrastructure improvements at targeted locations throughout the road network and should not focus on just a few black spots that might have high short-term crash experience

Further information on iRAP studies can be found at:
www.irap.net/about/irap-methodology.aspx and
www.irap.net/about/irap-pilot-results.aspx

CHAPTER 4 APPENDICES

Appendices 4.1 to 4.15 **chart the progress of the sample page through the entire data analysis process.**

(LEFT hermeneutic)			(RIGHT hermeneutic)
	103	shouted and cried and I realised I was having problems there so I went back to the	
	104	doctors then… I thought at first I was having hot flushes because the accident	
	105	precipitated the menopause and treated myself homeopathically for the…	
	106	menopause… but realised that the panic attacks it… they were panic attacks	
	107	rather than flushes because… before I had a hot flush I had this overwhelming	
	108	feeling of not being able to cope must get out… I couldn't deal with something and it	
	109	was always associated with stress… the… dyslexia and head problems…	
	110	persisted and if anything got worse the more I tried using me head the worse it	
	111	got…found I couldn't do left brain stuff anything I was… it was like having a traffic	
	112	jam in me head if you've got 3 lines of traffic I got a traffic jam in 2 of those lanes	
	113	but <u>providing</u> I took <u>everything</u> very slowly then information could get through if I	
	114	tried shoving information in it was like having a car accident and the… my head just	
	115	built up you know a traffic jam built up in me head and… words wouldn't come…	
	116	thoughts wouldn't come and then I would have to back off it shut it shut itself	

Appendix 4.1:
The sample page of 'Christine's' transcript ready for IPA data analysis

Repeats 'I realised I was having problems' is 'doctors' Western orthodox medicine (WOM) or complimentary? Returns to doctors as thought menopause triggered by impact	103 shouted and cried and I realised I was having problems there so I went back to the 104 doctors then… I thought at first I was having hot flushes because the accident 105 precipitated the menopause and treated myself homeopathically for the… 106 menopause… but realised that the panic attacks it… they were panic attacks rather 107 than flushes because… before I had a hot flush I had this overwhelming feeling of 108 not being able to cope must get out… I couldn't deal with something and it was 109 always associated with stress… the… dyslexia and head problems… persisted and if 110 anything got worse the more I tried using me head the worse it got…found I couldn't 111 do left brain stuff anything I was… it was like having a traffic jam in me head if you've 112 got 3 lines of traffic I got a traffic jam in 2 of those lanes but <u>providing</u> I took 113 <u>everything</u> very slowly then information could get through if I tried shoving 114 information in it was like having a car accident and the… my head just built up you 115 know a traffic jam built up in me head and… words wouldn't come… thoughts 116 wouldn't come and then I would have to back off it shut it shut itself down… for a 117 long time my head… and I'd wait a while and then usually I could pick	

'Overwhelming feeling of not being able to cope'

Associated with stress
Symptoms persist

Considerably extends cerebral 'traffic jam' analogy

First mention of adapting to new circumstances: 'providing…'

Trial and error coping adaptations

Picking up threads again coping +/- help from others

Appendix 4.2:
The left-hermeneutic in its initial form

Repeats 'I realised I was having problems' is 'doctors' Western orthodox medicine (WOM) or complimentary? Returns to doctors as thought menopause triggered by impact	shouted and cried and I realised I was having problems**}** there so I went back to the doctors then…**{**I thought at first I was having hot flushes because the accident precipitated the menopause**}** and **{**treated myself homeopathically for the… menopause…**}** but {realised that the panic attacks it… they were panic attacks rather than flushes because… before I had a hot flush I had this overwhelming feeling of not being able to cope must get out… I couldn't deal with something and it was always associated with stress…**} {**the… dyslexia and head problems… persisted and if anything got worse the more I tried using me head the worse it got…found I couldn't do left brain stuff anything I was… it was like having a traffic jam in me head if you've got 3 lines of traffic I got a traffic jam in 2 of those lanes but <u>providing</u> I took <u>everything</u> very slowly then information could get through if I tried shoving information in it was like having a car accident and the… my head just built up you know a traffic jam built up in me head and… words wouldn't come… thoughts wouldn't come**}** and then **{**I would have to back off it shut it shut itself down… for a long time my head… and I'd wait a while and then usually I could pick	

Appendix 4.3:
The use of bold brackets '**{ }**' to indicate portion of text being commented on in the left-hermeneutic

Repeats 'I realised I was having problems' is 'doctors' Western orthodox medicine (WOM) or complimentary? Returns to doctors as thought menopause triggered by impact	shouted and cried and I realised I was having problems**}** there so I went back to the doctors then…**{**I thought at first I was having hot flushes because the accident precipitated the menopause**}** and **{**treated myself homeopathically for the… menopause…**}** but {realised that the panic attacks it… they were panic attacks rather than flushes because… before I had a hot flush I had this overwhelming feeling of not being able to cope must get out… I couldn't deal with something and it was always associated with stress…**}** **{**the… dyslexia and head problems… persisted and if anything got worse the more I tried using me head the worse it got…found I couldn't do left brain stuff anything I was… it was like having a traffic jam in me head if you've got 3 lines of traffic I got a traffic jam in 2 of those lanes but <u>providing</u> I took <u>everything</u> very slowly then information could get through if I tried shoving information in it was like having a car accident and the… my head just built up you know a traffic jam built up in me head and… words wouldn't come… thoughts wouldn't come**}** and then **{**I would have to back off it shut it shut itself down… for a long time my head… and I'd wait a while and then usually I could pick	DRAWS OWN HEALTH CONCLUSIONS HOMEOPATHY DRAWS OWN (INCORRECT) HEALTH CONCLUSIONS OWN EXPLANATIONS BASED ON KNOWLEDGE OF BRAIN & EXTENDED TRAFFIC JAM ANALOGY USES PACING STRATEGY TO COPE
'Overwhelming feeling of not being able to cope' Associated with stress Symptoms persist Considerably extends cerebral 'traffic jam' analogy First mention of adapting to new circumstances: 'providing…' Trial and error coping adaptations Picking up threads again coping +/- help from others		

Appendix 4.4:
The right-hermeneutic added

Repeats 'I realised I was having problems' is 'doctors' Western orthodox medicine (WOM) or complimentary? Returns to doctors as thought menopause triggered by impact	shouted and cried and I realised I was having problems**}** there so I went back to the doctors then…**{**I thought at first I was having hot flushes because the accident precipitated the menopause**}** and **{**treated myself homeopathically for the… menopause…**}** but {realised that the panic attacks it… they were panic attacks rather than flushes because… before I had a hot flush I had this overwhelming feeling of not being able to cope must get out… I couldn't deal with something and it was always associated with stress…**}** **{**the… dyslexia and head problems… persisted and if anything got worse the more I tried using me head the worse it got…found I couldn't do left brain stuff anything I was… it was like having a traffic jam in me head if you've got 3 lines of traffic I got a traffic jam in 2 of those lanes but <u>providing</u> I took <u>everything</u> very slowly then information could get through if I tried shoving information in it was like having a car accident and the… my head just built up you know a traffic jam built up in me head and… words wouldn't come… thoughts wouldn't come**}** and then **{**I would have to back off it shut it shut itself down… for a long time my head… and I'd wait a while and then usually I could pick	DRAWS OWN HEALTH CONCLUSIONS **(CONH)** HOMEOPATHY **(OWN)** DRAWS OWN (INCORRECT) HEALTH CONCLUSIONS **(OWN)** OWN EXPLANATIONS BASED ON KNOWLEDGE OF BRAIN & EXTENDED TRAFFIC JAM ANALOGY **(OWN)** USES PACING STRATEGY TO COPE **(COP)**
'Overwhelming feeling of not being able to cope' Associated with stress Symptoms persist Considerably extends cerebral 'traffic jam' analogy First mention of adapting to new circumstances: 'providing…' Trial and error coping adaptations Picking up threads again coping +/- help from others		

Appendix 4.5:
Suffixes added to the right-hermeneutic

WOM WESTERN ORTHODOX MEDICINE OPINION, UNDERSTANDING & PRACTICE

OWN PERSONAL HEALTHCARE OPINION, UNDERSTANDING & PRACTICE

CONH BATTLE FOR CONTROL OF OWN HEALTHCARE

EQ DESIRE TO MET OTHERS ON EQUAL TERMS (COMPROMISE & LEARNING)

LS LEGAL SYSTEM OPINION, UNDERSTANDING & PRACTICE

CONL BATTLE FOR CONTROL OF LITIGATION

CONF BATTLE FOR CONTROL OVER FINANCES

NEG NEGATIVE OUTCOMES

HAN HANKERING YET ACKNOWLEDGING CHANGE (SADNESS FOR LOSS OF PAST WITH EVIDENCE OF PERSONAL BATTLE FOR CONTROL)

2TE SECONDARY TRAUMA EXPERIENCES

COP COPING

FMH FORWARD MEANINGFUL HEURISTIC

S SPIRITUALITY (A SUBSET OF 'OWN')

H HINDSIGHTING (MAKING SUBSEQUENT ATTRIBUTION, JUSTIFICATION OR SENSE OF PRE-RTA EVENTS IN PTG TERMS)

PRETG PRE RTA TRAUMA GROWTH

PTG POST TRAUMA GROWTH

W LEARNED WISDOM

A ASPIRATIONS

Appendix 4.6:
The complete list of themes at the completion of the First HC

Q1 DEFINITON OF TRAUMATIC EXPERIENCE

OWN - TRAUMA IS ABSORBED ENERGY - **3:12**

Q2 OPINIONS OF DRIVERS AND DRIVING PRIOR TO RTA

OWN - PRE RTA OPINIONS - **3:20**

Q3 EXPERIENCES OF RTA AND AFTERMATH

H - ACTIVITY IMMEDIATELY PRIOR TO RTA - **3:32**

NEG - PHYSICAL DAMAGE DUE TO IMPACT - **3:37**

NEG – ASSUMED FOCUS ON NEGATIVES - **3.50**

NEG - FUNCTIONAL PHYSICAL DAMAGE - **3.52**

NEG – EXPERIENCE OF COGNITIVE PROBLEMS AS A TRAFFIC JAM ANALOGY - **3:57**

NEG – EXPERIENCE OF COGNITIVE PROBLEMS DESCRIBED AS DRUNKENNESS - **3:61**

FMH - DELAY IN RETURNING TO NORMALITY - **3:71**

FMH – WORK AS AN INDICATOR OF NORMALITY - **3:76**

OWN – OSTEOPATHY - **3.77**

NEG - FUNCTIONAL PHYSICAL DAMAGE - **3:78**

NEG - ASSUMED FOCUS ON PHYSICAL NEGATIVES - **3:83**

NEG - LISTING PHYSICAL PROBLEMS - **3:94**

FMH - DELAY IN RETURNING TO NORMALITY - **3:95**

NEG – EMOTIONAL PROBLEMS - **3:97**

CONH - DRAWS OWN HEALTH CONCLUSIONS - **3:104**

OWN – HOMEOPATHY - **3:105**

OWN – DRAWS OWN (INCORRECT) HEALTH CONCLUSIONS - **3:106**

OWN - OWN EXPLANATIONS BASED ON KNOWLEDGE OF BRAIN & EXTENDED TRAFFIC JAM ANALOGY - **3:109**

COP - USES PACING STRATEGY TO COPE - **3:116**

2TE - SECONDARY TRAUMATIC EXPERIENCES - **3:120**

HAN - COMPARISONS AS PRECURSORS TO LATER POSITIVES - **3:122**

Appendix 4.7:

The first page of the sequentially listed themes from ‘Christine’s’ First HC

CONH - DRAWS OWN HEALTH CONCLUSIONS - **3:104**

CONH - TECHNICAL ACRONYMS AND WOM CONTROL - **3:134**

CONH - STRUGGLE FOR CONTROL OVER HEALTHCARE - **3:139**

CONH - WOM ASSERTS CONTROL OVER HEALTHCARE - **3:141**

OTHERS' UNDERSTANDING BASED ON PHYSICAL APPEARANCES INCONGROUS TO SELF UNDERSTANDING - **3:148**

CONH - WOM PAINKILLERS REFUSED - **3:169**

CONH - WOM ANTIDEPRESSANTS REFUSED - **3:171**

SUCCESS OF CRANIO-SACRAL THERAPY AND CRANIAL OSTEOPATHY - **3:217**

- NOT SEEING SPECIALISTS A CONSEQUENCE OF LEGAL IATROGENESIS - **3:295**

- NOT SEEING SPECIALISTS A CONSEQUENCE OF LEGAL IATROGENESIS - **3:302**

- LITIGATION CONTROL OF HEALTHCARE MADE WORSE BY IGNORANCE - **3:318**

WOM ANTICONVULSANTS AND BETA BLOCKERS REFUSED - **3:343**

CONH - JUSTIFICATION FOR REFUSING WOM MEDICATIONS - **3:345**

CONH - 'IMPORTANT' AS A VALUE-LADEN WORD - **3:638**

WOM 'RUBBISH' BECAUSE THEY EITHER IGNORED ME OR GAVE ONLY TOKEN ACCEPTANCE OF MY WISHES - **3:832**

WOM INITIAL REFUSAL TO ALLOW ACCESS TO COMPLEMENTARY MEDICINE **3:834**

WOM DECISIONS DRIVEN BY FINANCIAL CONTROL OF HEALTHCARE - **3:838**

WOM 'NAFF' BECAUSE OF PATCHY ACCESS TO COMPLEMENTARY MEDICINE - **3:840**

CONH – COMPLEMENTARY MEDICINE SEEN AS 'SAVIOUR' - **3:841**

COMPLEMENTARY MEDICINE ON NHS A 'SAVING GRACE' - **3:847**

CONH - STROPPY WOM DUE TO MEDICATION REFUSAL - **3:962**

Appendix 4.8:
Segment of the 'clustered' list of themes showing all right-hermeneutics belonging to the theme 'CONH' from Christine's transcript, First HC

Returns to doctors as thought menopause triggered by impact. Were there some things Christine trusted Doctors with (i.e. Western Orthodox Medicine - WOM) whilst complimentary medicine is trusted for other things? Is there a conflict here? For whom? Also is there a conflict over control of healthcare – the 'overwhelming feeling of not being able to cope' could be suggesting that 'coping' = 'control'.

This text portion shows how at least 3 driving/RTA metaphors have been elaborately assembled to describe the experience of dyslexia and head problems. This shows how that from the seemingly meaninglessness of the RTA, paradoxically meaningful - and possibly crucial – understanding of negative symptomatology emerges. The conclusion must be that Christine couldn't explain the experience of the dyslexia and head problems without having been in an RTA.

shouted and cried and I realised I was having problems**}** there **{**so I went back to the doctors then… (over road rage incident) I thought at first I was having hot flushes because the accident precipitated the menopause and (I) treated myself homeopathically for the… menopause… but realised that the panic attacks it… they were panic attacks rather than flushes because… before I had a hot flush I had this overwhelming feeling of not being able to cope must get out… I couldn't deal with something and it was always associated with stress…**}** **{**the… dyslexia and head problems… persisted and if anything got worse the more I tried using me head the worse it got…found I couldn't do left brain stuff anything I was… it was like having *a traffic jam in me head if you've got 3 lines of traffic I got a traffic jam in 2 of those lanes* but providing I took everything very slowly then information could get through if I tried shoving information in *it was like having a car accident* and the… my head just built up you know *a traffic jam built up* in me head and… words wouldn't come… thoughts wouldn't come and then I would have to back off it shut it shut itself down… for a long time**}** my head… and **{**I'd wait a while and then

CONSULTS DOCTORS OVER OWN INCORRECT DIAGNOSIS YET TREATS SELF HOMEOPATHICALLY

TENSION BETWEEN WOM AND CHRISTINE'S UNDERSTANDING OF HEALTHCARE

IMPORTANCE OF EXPERIENCING RTA AS A *VEHICLE* TO UNDERSTANDING THE LIVED EXPERIENCE OF KEY SYMPTOMS

Appendix 4.9:
The sample page at completion of the Second HC

THE PERI-TRAUMA ASSUMPTIVE WORLD PROCESS

OWN ASSUMPTIVE WORLD PRE AMALGAMATION

HANKERING (wish/struggle to maintain assumptive world)

PRE PRE AMALGAMATION SUCCESS HEURISTIC

OAS PRE AMALGAMATION SPIRITUALITY

THE READJUSTMENT PROCESS

RES IMMEDIATE RESCUE BEHAVIOURS

2TE SECONDARY TRAUMA EXPERIENCES

COP STRUGGLE TO COPE WITH NEGATIVE OUTCOMES

CON STRUGGLE FOR CONTROL OF READJUSTMENT

AMALGAMATION OF READJUSTMENT AND ASSUMPTIVE PROCESSES

HIN HINDSIGHTING (retrospective wisdom)

WIS WISDOM (modified assumptive world)

PTG POST TRAUMA GROWTH (at the point of interviewing)
- (NSH) POST AMALGAMATION SUCCESS HEURISTIC
- (NLP) NEW LIFE POSSIBILITIES
- (R2O) ENHANCED RELATING TO OTHERS
- (EPS) ENHANCED PERSONAL STRENGTH & DEVELOPMENT
- (EAL) ENHANCED APPRECIATION OF LIFE
- (PAS) POST AMALGAMATION SPIRITUALITY
- (PEM) POSITIVE EXPRESSION OF EMOTIONS

ASP PERSONAL ASPIRATIONS

Appendix 4.10:
The complete list of themes derived from the 2nd HC

103ff) Returns to WOM (Western Orthodox Medicine) as thought menopause triggered by impact. Were there some things Christine trusted WOM with whilst complimentary medicine is trusted for other things? Is there a conflict here? For whom? Also is there a conflict over control of healthcare since Christine had an 'overwhelming feeling of not being able to cope' could she be suggesting that 'coping' is 'control'?	103 **{**so I went back to the doctors then… (over road rage incident) I thought at first I was 104 having hot flushes because the accident precipitated the menopause and (I) treated 105 myself homeopathically for the… menopause… but realised that the panic attacks 106 it… they were panic attacks rather than flushes because… before I had a hot flush I 107 had this overwhelming feeling of not being able to cope must get out… I couldn't deal 108 with something and it was always associated with stress…**}**	CONSULTS DOCTORS OVER OWN INCORRECT DIAGNOSIS YET TREATS SELF HOMEOPATHICALLY TENSION BETWEEN WOM AND CHRISTINE'S UNDERSTANDING OF HEALTHCARE
109ff) This text portion shows how at least 3 driving/RTA metaphors have been elaborately assembled to describe the experience of dyslexia and head problems. This shows how that from the seemingly meaninglessness of the RTA, paradoxically meaningful, and possibly crucial, understanding of negative symptomatology emerges. The conclusion must be that: • Christine couldn't explain the experience of the dyslexia and head problems without having been in an RTA. • A new assumptive world is emerging around the RTA experience	109 **{**the… dyslexia and head problems… persisted and if anything got worse the more I 110 tried using me head the worse it got…found I couldn't do left brain stuff anything I 111 was… it was like having *a traffic jam in me head if you've got 3 lines of traffic I got a* 112 *traffic jam in 2 of those lanes* but providing I took everything very slowly then 113 information could get through if I tried shoving information in *it was like having a car* 114 *accident* and the… my head just built up you know *a traffic jam built up* in me head 115 and… words wouldn't come… thoughts wouldn't come and then I would have to back 116 off it shut it shut itself down… for a long time**}** my head… and	IMPORTANCE OF EXPERIENCING RTA AS A *VEHICLE* TO UNDERSTANDING THE LIVED EXPERIENCE OF KEY SYMPTOMS A NEW ASSUMPTIVE WORLD FORMING AROUND RTA EXPERIENCE
	117 **{**	

Appendix 4.11: The sample page at completion of the Third HC [ff=and following]

OWN ASSUMPTIVE WORLD PRE RTA

STRUGGLE

SAW PERI-RTA STRUGGLE WITH ASSUMPTIVE WORLD

SRS SPIRITUALITY TO RESOLVE STRUGGLE

2TE SECONDARY TRAUMATIC EXPERIENCES & IATROGENESIS

HAN HANKERING (wish/struggle to maintain assumptive world)

COP STRUGGLE TO COPE WITH NEGATIVE OUTCOMES

CON STRUGGLE FOR CONTROL OF READJUSTMENT

LEARNING

HIN HINDSIGHTING (retrospective wisdom)

WIS WISDOM (prospective wisdom)

POSITIVE CHANGE (at the point of interviewing)

NDL NEW DIRECTIONS IN LIFE

ESD ENHANCEMENT OF SOCIAL DEVELOPMENT

EPD ENHANCEMENT OF PERSONAL DEVELOPMENT

AOL APPRECIATION OF LIFE

SPD SPIRITUAL & PHILOSOPHICAL DEVELOPMENT

DSH DEVELOPMENT OF SUCCESS HEURISTIC

EPE EXPRESSION OF POSITIVE EMOTIONS

ASP GROWTH ASPIRATIONS

Appendix 4.12: The list of themes at the end of the Fourth HC

103ff) Returns to WOM (Western Orthodox Medicine) as thought menopause triggered by impact. Were there some things Christine trusted WOM with whilst complimentary medicine is trusted for other things? Is there a conflict here? For whom? Also is there a conflict over control of healthcare since Christine had an 'overwhelming feeling of not being able to cope' could she be suggesting that 'coping' is 'control'?	103 **{**so I went back to the doctors then… (over road rage incident) I thought at first I was 104 having hot flushes because the accident precipitated the menopause and (I) treated 105 myself homeopathically for the… menopause… but realised that the panic attacks 106 it… they were panic attacks rather than flushes because… before I had a hot flush I 107 had this overwhelming feeling of not being able to cope must get out… I couldn't deal 108 with something and it was always associated with stress…**}**	CONSULTS DOCTORS OVER OWN INCORRECT DIAGNOSIS YET TREATS SELF HOMEOPATHICALLY TENSION BETWEEN WOM AND CHRISTINE'S UNDERSTANDING OF HEALTHCARE
109ff) This text portion shows how at least 3 driving/RTA metaphors have been elaborately assembled to describe the experience of dyslexia and head problems. This shows how that from the seemingly meaninglessness of the RTA, paradoxically meaningful, and possibly crucial, understanding of negative symptomatology emerges. The conclusion must be that: • Christine couldn't explain the experience of the dyslexia and head problems without having been in an RTA. • A new assumptive world is emerging around the RTA experience	109 **{**the… dyslexia and head problems… persisted and if anything got worse the more I 110 tried using me head the worse it got…found I couldn't do left brain stuff anything I 111 was… it was like having *a traffic jam in me head if you've got 3 lines of traffic I got a* 112 *traffic jam in 2 of those lanes* but providing I took everything very slowly then 113 information could get through if I tried shoving information in it was *like having a car* 114 *accident* and the… my head just built up you know *a traffic jam built up* in me head 115 and… words wouldn't come… thoughts wouldn't come and then I would have to back 116 off it shut it shut itself down… for a long time**}** my head… and	A NEW ASSUMPTIVE WORLD FORMING AROUND RTA EXPERIENCE LOGIC METAPHOR **[oth]** EXTENDED TRAFFIC JAM METAPHOR **[D]** CONTROL METAPHOR **[D]**
	117 **{**	

Appendix 4.13:
The result of the Fifth HC with metaphors shown in square brackets '**[ ]**' in the right-hermeneutic

STRUGGLE

OWN ASSUMPTIVE WORLD PRE RTA
SAW PERI-RTA STRUGGLE WITH ASSUMPTIVE WORLD
SRS SPIRITUALITY TO RESOLVE STRUGGLE
MET FIGURATIVE LANGUAGE USE (to explain experiences)
HAN HANKERING (struggle to maintain assumptive world)
2TE SECONDARY TRAUMATIC EXPERIENCES & IATROGENESIS
COP STRUGGLE TO COPE WITH NEGATIVE OUTCOMES
CON STRUGGLE FOR CONTROL OF READJUSTMENT

LEARNING

HIN HINDSIGHTING (retrospective wisdom)
WIS PROSPECTIVE WISDOM
PAR PARADOXICAL WISDOM

POSITIVE CHANGE (at the point of interviewing)

NDL NEW DIRECTIONS IN LIFE
ESD ENHANCEMENT OF SOCIAL DEVELOPMENT
EPD ENHANCEMENT OF PERSONAL DEVELOPMENT
AOL APPRECIATION OF LIFE
SPD SPIRITUAL & PHILOSOPHICAL DEVELOPMENT
DSH DEVELOPMENT OF SUCCESS HEURISTIC
EPE EXPRESSION OF POSITIVE EMOTIONS
ASP GROWTH ASPIRATIONS

Appendix 4.14:
The list of themes at the end of the Fifth HC

NAVIGATIONAL STRUGGLE

AWP **ASSUMPTIVE WORLD PRE RTA**
SAW STRUGGLE WITH ASSUMPTIVE WORLD
SRS SPIRITUALITY TO RESOLVE STRUGGLE
HAN HANKERING
2TE SECONDARY TRAUMATIC EXPERIENCES & IATROGENESIS
COP STRUGGLE TO COPE WITH NEGATIVE CHANGES
CON STRUGGLE FOR CONTROL OF READJUSTMENT

NETWORK GROWTH (INVISIBLE)

HIN HINDSIGHTING
PAR PARADOX
FOR FORESIGHTING
ASP ASPIRATIONS

NETWORK GROWTH (VISIBLE)

DSH DEVELOPMENT OF SUCCESS HEURISTIC
ESN EXPANSION OF SOCIAL NETWORK
EPD ENHANCEMENT OF PERSONAL DEVELOPMENT
SPD SPIRITUAL & PHILOSOPHICAL DEVELOPMENT
AoL APPRECIATION OF LIFE
GLT GRATITUDE FOR LITTLE THINGS IN LIFE

FIGURATIVE LANGUAGE USE

DFLU RTA-RELATED
NDFLU NON RTA-RELATED

Appendix 4.15:
The collated (final) list of themes derived from all final hermeneutic cycles across all 12 interviews

Appendix 4.16

Credibility of themes: representative sample results returned by IR

Quote 1:
"…the orthodox treatment… was totally inadequate the doctors took no notice of me telling them that I'd become dyslexic even though I'd been back to them within 2 or 3 days of the accident and they tell you to report any changes subsequent to a head injury it took them months and months and months before I got treatment"

Chosen hermeneutic theme:
SECONDARY TRAUMATIC EXPERIENCE / IATROGENESIS

IR comment: Good theme

Quote 2:
"I feel there was a great chunk of my life lost to being ill… and you know that makes me feel sad in a way…"

Chosen hermeneutic theme:
HANKERING (after the past)

IR comment: Good theme

Quote 9:
"The treatment is still ongoing cos I'm still working with myself… and it's these treatments these emotional management techniques and the visualisation it's the kind of work that I do that has enabled me to… start building a whole new life that's brought me in… so actually I'm enjoying life and… accepting who I am… as I am…"

Chosen hermeneutic theme:
DEVELOPMENT OF SUCCESS HEURISTIC (i.e. a new way of valuing self)

IR comment:
I'm not sure about the success part, although unconditional self-acceptance seems to be a part. He/she is accepting him/herself for who he/she is **as** he/she is not because he/she is striving to success.

Quote 12:
"I would wake up anything up to 6 or 7 times a night… from what I call panic dreams I can't say they were full blown nightmares cos they weren't they were… because for a full blown nightmare to me is you wake up screaming whereas I would just wake up with me in a bad situation in the dream where something nasty was happening to me… but I wasn't screaming… sometimes I would just be woken up… I haven't been able to meditate properly since the accident because every time I go down into sleep and every time I go down into meditating… my body would scream meself awake and I'd come back with a jolt and a start… and I would be there…"

Chosen hermeneutic theme:
STRUGGLE TO COPE WITH NEGATIVE CHANGES

IR comment:
Yes seems good. He/she is struggling to cope but I wonder if you could just code it as re-experiencing?

Table A12:
Credibility of themes:
representative sample results returned by IR

CHAPTER 5 APPENDICES

Appendix 5.1

Further notes on the study findings and Taoist philosophy derived from the *Tao Te Ching*

Several verses of the *Tao Te Ching* are relevant to the findings of this study – particularly paradox and were consulted as such. The following commentary and quotations are taken from the 'Dale' Translation (Dale 2005). The *Tao Te Ching* has been universally attributed to the Chinese sage, Lao Tzu, but there is considerable doubt as to whether anyone with this name actually existed. It is likely that:

> "…many generations of his disciples and followers summarized his philosophy of life in these metaphoric fragments which sing the literary music of the right brain, the transcendence of language through unoridinary language." (Ibid, p4)

Dale also points out that:

> "…paradox is the principle mode of Lao Tzu's thought processes… and how else does one merge yin and yang whose very nature expresses polarization?" (Ibid)

…indeed the *Tao Te Ching* seems to make paradox a central component of existence, for instance, Verse 22 (Celebrate Paradox!):

> "Nothing remains itself.
> Each prepares the path to its opposite.
>
> To be ready for wholeness, first be fragmented.
> To be ready for rightness, first be wronged.
> To be ready for fullness, first be empty.
> To be ready for renewal, first be worn out.
> To be ready for success, first fail.
> To be ready for doubt, first be certain.
>
> Because the wise observe the world through the Great Integrity (Dale's phrase meaning Tao), they know they are not knowledgeable.
> Because they do not perceive only through their perceptions, they do not judge this right and that wrong.
> Because they do not delight in boasting, they are appreciated.
> Because they do not announce their superiority, they are acclaimed.
> Because they never compete, no one can compete against them.
>
> Verily, fragmentation prepares the path to wholeness, the mother of all origins and realizations." (Ibid 66-7)

…and Verse 41 (Observing and Nourishing Paradox):

> "When most people hear about the Great Integrity, they waiver between belief and disbelief.
> When wise people hear about the Great Integrity, they diligently follow its path.
> When ignorant people hear about it they laugh out loud!
> By this very laughter, we know its authenticity.
>
> It is said that – enlightenment appears dark,
> the progressive way appears retrograde,
> the smooth way appears jagged, the highest peak of revelation
> appears empty like a valley, the cleanest appears to be soiled, the greatest abundance appears insufficient, the most enduring inner strength appears like weakness, and creativity appears imitative.
>
> Great talents mature slowly.
> Great sounds are silent.
> Great forms look shapeless.
> Transcendent squareness has no corners.
>
> The Great Integrity hides behind all forms,
> stubbornly nourishing the paradoxes
> that can enlighten us." (Ibid 117-8)

Appendix 5.2

Further microtextual analysis: Examples of the 8 most frequent categories of NDFLU

In relation to the most frequent sub-category see also the main text.

1. 'Light, colour, spectra and depth' were understanding, whilst 'darkness' was ignorance – this was the largest category
2. 'Physical damage and deformity' was used to describe secondary trauma of any type, whilst 'weirdness' was equivalent to total lack of meaning
3. 'Time elapsed', 'path', 'graph' or a 'railway' were direction ('road' examples also existed but were included in DFLU)
4. 'Paddling' and 'swimming' were levels of confident progress
5. 'Explosion' was loss of control of emotions
6. 'Energy' was focussed effort, whilst safety in these circumstance were 'cushions'
7. 'Connectedness' and 'coming together' represented ideas and plans coming to completion
8. 'Visual correction' was gaining insight, developing plans and achievement

The following are selected examples of the eight most frequent sub-categories:

1. 'Light, colour, spectra and depth' represented understanding, whilst 'darkness' was described as associated with ignorance:

> "**It sounds a bit melodramatic but I've had to rebirth meself into who I am now I went on this workshop when we were in total darkness and without hearing, in total darkness for four days and without sound for two of those four days and it was a brilliant workshop and during the process of it one of the things I actually did in visualisation in my own head was actually to go through a full burial service of me - of the old me.**" ('Christine': lines 427-33)

…in other words, although events described involved literal darkness, 'Christine's' emerged from this 'ignorance' into 'brilliant' and literal en-light-enment as well as understanding and gaining knowledge. 'Alison' described:

> "**Spiritual lights (which were) similar to but brighter than fibre optic lights.**" ('Alison': lines 922-3)

An equivalent Biblical quotation linking spirituality, light and understanding (i.e. knowledge and meaning) is:

> "For God, who said, "Let light shine out of darkness," made his light shine in our hearts to give us the light of the knowledge of the glory of God in the face of Christ." (II Corinthians 4v6, NIV)

This linking suggests 'higher order' answers to unanswerable questions, is the purpose of SRS i.e. to find knowledge and meaning. Clichés also appeared within 'light' NDFLU:

> "**At the moment (my future is) quite quite bright because I've moved on. I mean you got this old cliché every cloud's got a silver lining and I'm the type of person that when anything, inverted commas, bad happens… if you look for it there's always something good that comes out.**" ('Alison': lines 882-5)

...in which 'quite quite' may emphasise 'bright' as meaning sincere optimism and belief in positive outcomes especially since the narrator explains why 'I've moved on'. The cliché includes a light colour (silver) understood universally as 'valuable'. Other colours included orange=warm and free:

> "**I remember sort of leaving my body, sort of in a physical sort of (sense). It was a kind of drifty sense and there was a bright yellowy orange light and it felt very warm and free.**" ('David': lines 88-90)

…whilst red=angry:

> "**You're getting a bit red-misty, not quite driving as you should be… perhaps driving a bit too fast and thinking ooh that's a bit lucky.**" ('Mike': lines 56-8)

Light in the form of a 'spectrum'=a range, in this case, abilities:

> "**I think I recognised there was a spectrum of abilities.**" ('Mike': line 28)

2. 'Physical damage and deformity' was used to describe secondary trauma of any type, whilst 'weirdness' was equivalent to total lack of meaning

> "**There were lots of crippling financial situations 'cos I obviously lost my business and lost my income.**" ('Christine': lines 404-5)

…in this case 'crippling'=severe financial loss. Similarly:

> "**I suggested to them that I went to Clearhead Association for help. They told me not to bother they said that it wasn't for the likes of me and that it was only people with <u>serious</u> head injuries which in hindsight was one of the most crippling things they ever did or one of the most damaging things they ever did.**" ('Christine': lines 139-42)

…in which 'most crippling' and/or 'most damaging'= worst possible trauma, perhaps indicating that the experience of seriously undiplomatic advice was even worse than severe financial hardship and even than the RTA itself. The following was both mad ('freaky') and funny ('joke'):

> "**I felt like it was really freaky I felt like really extremely <u>frightened</u> and scared. I was terrified. I thought what they doing here? This has got to be a joke.**" ('David': lines 478-80)

…the quote also suggests that if 'freaky'=total lack of understanding/ignorance and 'darkness'=ignorance, then logically this must suggest that freakiness=darkness. Furthermore, 'David' also uses the word 'joke' suggesting a darkness=joke connection. Could these links account for 'black humour'?

3 **<u>'Time elapsed', 'path', 'graph' or a 'railway' were direction ('road' examples also existed but were included in DFLU)</u>**

This group of NDFLU combined a variety of FLU that had common themes of time and following a path. It was a group that also overlapped with DFLU because the 'path' was sometimes described as a 'road'. There seemed to be a universal expectation amongst participants that life should follow a correct direction, for instance:

> "**I wanted desperately to get my life back so that influence of wanting that needing that desire to get my life *back on track...***" ('Isabelle': lines 249-51)

…was a typical example of using a railway-related metaphor – 'track' being more typically 'railway' than 'road' - to indicate the 'one correct direction', although an alternative explanation here was that there was a combined dimension of progress versus time. If correct this might suggest a formula of some sort that related progress along a direction to the time taken to make that progress - a description of Formula One racing perhaps? This would make 'back on track' analogous to the 'rat race'. Which of the two possibilities is a matter of fine judgement and illustrates the difficulty in categorically deciding whether a given FLU was DFLU or NDFLU. It is quite possible that the distinction between DFLU and NDFLU is too fractal-like to distinguish. Some examples did use 'back on the right road' and were clear cut DFLU unless they were mixed in which case they were counted in both as per the following example:

> "**I'd had commercial insurance that time and I was insured for a million and a half because so I was legally covered, *the whole works* and they gave me this solicitor up north and I thought blimey it couldn't be you know *down the road*.**" ('Alison': lines 129-33)

…an example in which the struggle for control is described *firstly* by NDFLU ('the whole works'), and subsequently by DFLU ('down the road'). Thus a further interconnection exists between two literal subjects, in this case struggle for control over litigation, and her failure to control (i.e. avoid) the RTA itself. A variation was to turn the 'track' into a 'graph' as in this example relating to how the participant's business was affected:

> "**The business suffered quite dramatically my younger son had to leave and work elsewhere because the business *dropped off* quite considerably.**" ('John': lines 532-5)

…suggesting that because graphs are used to chart a business's progress it is appropriate to use a 'congruent' example of FLU to describe it. In this case 'John's' business had deteriorated considerably from its pre-RTA projections, by using 'dropped off' he had 'employed' a figurative explanation congruent to the topic being described. This argument adds weight to using the RTA as a figurative way of rebuilding the assumptive world. Another version of congruency in FLU was one that provided an implicit insight into the use of prescribed medication as though it were illicit drugs:

> **I took no drugs throughout this (time). The doctors offered me painkillers I refused because I'm very sensitive to drugs so I've never *done* painkillers I haven't *done* antidepressants. I refused antidepressants in fact I haven't even taken an Aspirin that is I've treated all the pain and all the problems through natural therapies the further I got *down the line*.**" ('Christine': lines 168-71)

…in this instance, the CON relating to healthcare. Note that the word 'done' appears twice and provides an explanation for 'down the line': 'Christine's' use of the word 'done' as a verb preceding the type of drugs involved, makes her narrative sound more akin to the language of illicit drug-taking. This interpretation by extension suggests her lived experience of doctors were as drug-pushers. In this context, the addition of 'down the line' can now be seen to resemble 'mainlining', which in turn suggests that 'down the line' is more akin to intravenous drug misuse rather than a use of railway 'FLU'. The subject of possible congruency between expressed topic and equivalent FLU may shed light on how memory networks become connected.

In this study, participants seemed to presume that they had come off a 'path' or 'track' and that HIN somehow restored progress as in the following:

> "**[In relation to advice] …it's applicable and it's actually stopped me from committing suicide and helped me to *get back on a different path*, (a) *different keel* and so I know it works.**" ('Christine': lines 275-7)

...here the 'different path' suggests the preordained path and thus 'righting' herself almost suggesting a boating analogy. The addition of 'different keel' seems to emphasise this. Another way of describing being 'off track' was to utilise 'perspective'. This example also appeared in relation to HIN:

> "**I was *on the outside looking in* it was almost like it was almost like *a dream* it was (as if) I knew it happened, but there was a lot of non belief.**" ('Alison': lines 248-50)

…with 'on the outside looking in'='off track'. The use of 'a dream' probably suggests unreality and this is supported by 'non belief'. The only certain thing 'Alison' could rely upon seems to be the fact that 'I knew it happened'. Another HIN related NDFLU is a complex 'path' that also involves water/swimming FLU:

> "**I was on the spiritual *path* <u>before</u> the road traffic accident you know how if like *at the seaside and you're paddling and you're going out to sea and the water gets deeper then it suddenly shelves*? Well prior to the accident I was sort of *waste deep* after the (previous) accident I just took the *plunge*.**" ('Christine': lines 586-9)

...suggesting that the 'path' 'Christine' was following meant she was almost 'out of her depth' prior to the RTA, but that after the RTA, she 'launched' herself on her spiritual path. More directly related to FOR was some advice provided by 'David':

> "**Counselling is not *the way forward* so I say *don't go down the road* of counselling, see your GP, see someone who specialises in trauma, but most of all make sure that you have a couple of friends or <u>a</u> friend... that can be with you in your vulnerable periods <u>not</u> so much to look after you but to look out for you.**" ('David': lines 681-5)

…this example that includes DFLU in reference to the 'road' uses 'the way forward' to clearly distinguish prospective advice. This 'way forward' represents a successful recipe for coping for others 'coming along' behind 'David'. As such it is easy to see a role for 'David' in a support group for RTA victims.

<u>Other NDFLU:</u>

When a participant wished they had done something differently, as in 'Pat's' case, been more selfish, NDFLU within a mixed HIN/FOR context tended to be related to 'containment':

> "**Don't *bottle it up*, don't, I think for me personally the worst thing I did was try to please everybody else.**" ('Pat': lines 783-4)

other NDFLU included a combination of a 'threshold/explosion' FLU:

> "**The back problem persisted for nearly three or four years before I got that sorted *to a level that I could keep on top of it* (as for) panic attacks, (and) road rage, I realised I was having problems when I *blew up* at something because it was a particular road that you either had to do a long circuit round or you could reverse into this particular farm gateway and come back out again, and I started reversing and the farmer came right up behind me to stop me doing it and I *threw an absolute wobbler*.**" ('Christine': lines 93-9)

…the use of 'keep on top it' provides a clue to CON. Nevertheless on occasions COP was more difficult hence, 'Christine' 'blew up'. It is likely that this is a primary metaphor describing – in effect – 'Christine' 'losing her cool', or, in other words getting angry and raising her voice. She also 'threw an absolute wobbler', which provided emphasis.

FLU and PAR were commonly contained in a subtle acknowledgement of the paradox in the form of a laugh, as in the following description of 'John's' experience of EMDR:

> "**What she explained to me was what this [EMDR] did and I might have a bit of difficulty [laughs] remembering what she [the EMDR therapist] said, but while you're recounting these thoughts it works certain areas of your brain by moving your eyes and watching the hands moving from side to side and what I found was that by the second time… the second visit… I was actually *struggling* to recall the images that were upsetting me.**" ('John': lines 370-6)

…the PAR being a struggle to recall something that had required a struggle to forget. In the extract below, the PAR is described as an 'idea' coming together. Note the laugh again:

> "***The idea came together* that I thought about myself having to travel to my counsellor [laughs] and being in a *right state* when I got there and the (right) state I was in when I got home.**" ('Alison': lines 545-7)

…whilst the paradox itself is clearer when the word 'right' is inserted as in brackets above. Both 'rights' can be seen as sarcasm another form of FLU. The following extracts illustrate connections between the various component themes of NG and NDFLU. DSH was described using 'energy' FLU. The following also includes a figurative 'safety net' here described as a 'cushion':

> "**Putting my *all my energies* into setting the business up and I <u>actually</u>… got my car in March 2004 although I'd got enough money to last me a considerable time, I didn't want to use that to live on *I wanted that as a cushion* so, I put *all my energies* into the business into contacting businesses. I did presentations (and) what with the printer, getting the leaflets done, business card buying the computer *the whole shebang*…**" ('Alison': lines 575-8)

ESN was referred to in terms of a 'connectedness' FLU and emphasised by 'depth' as in the following:

> "**Since I received (EMDR) treatment I think I've become a little bit more understanding to the needs of other people. I've sort of more understanding <u>attitude</u> towards people, more of an <u>empathy</u> with people and in fact I do get *connected* to people... at a *much deeper level* than I've ever done ever in my entire life.**" ('David': lines 587-91)

EPD was expressed in several ways with NDFLU, including with a 'combining' theme as in:

> "**So all that *started to come together,* the stone that I lost eventually ran onto 4 stone that I've lost overall now, so yea I was 17 stone when I had the accident and I'm just under 13 now, so I feel physically better. I've dropped 8 dress sizes.**" ('Alison': lines 614-7)

…or in 'body' FLU as in:

> "**I've done college work… I'm very interested in (it), but (it) <u>also</u> subsequently *took my mind off* the accident so I was *focussing*.**" ('Alison': lines 657-9)

…interestingly several of these 'body' FLU were descriptive of actual damage suffered during the RTA, such as in the following example describing returning to driving in which 'Christine', had suffered a literal blow to her head in the RTA:

> "**If there were roadworks or (similar) that sometimes came up in the city then that would be sufficient to *blow me head*.**" ('Christine': lines 422-3)

SPD didn't appear to have a specific NDFLU, but there were examples of lengthy metaphors like the one quoted earlier:

> "***…at the seaside and you're paddling and you're going out to sea and the water gets deeper then it suddenly shelves*? Well prior to the accident I was sort of *waste deep* after the (previous) accident I just took the *plunge*.**" ('Christine': lines 587-9)

and:

> "**I'm working on my spiritual path and growth, *like your yogi will in his little cave I'm just doing it in the comfort of a king sized bed*.**" ('Christine': lines 791-3)

…possibly suggesting that SPD was more difficult to describe using single worded FLU as in other categories. AoL was described in terms of an 'expansion of life' FLU, either by 'retrieving' life that was lost as in:

> "**I'm getting the strength to try and *claw It* (my life) *back* and turn it round, which is I mean a lot of this is I must admit down to some of the (EMDR) treatment I've had.**" ('Tim': lines 423-5)

…or by having a 'more accurate view' of the life, such as:

> "**It's almost like putting a *pair of spectacles on* and *seeing the world* without the *blurs* that's exactly what it's as though everything's *pin sharp*.**" ('Robert': lines 448-50)

GLT was generally not described in figurative terms. Examples were hard to find, one being an appreciation of the 'solidity' of friendship:

> "**She ['Alison's' friend] would stay here because it was closer for her to get to work and then she'd go back to her mother's house the other four days. When she stayed with me she was *an absolute brick*.**" ('Alison': lines 295-7)

ASP appeared to be described in 'clichéd' FLU including:

"…***every cloud's got a silver lining…***" ('Alison': lines 883 repeated 894

"…***pushing my boundaries…***" ('Christine' line 1190)

…being typical examples. The suggestion was that clichés replaced actual aspirations, although there were numerous literal examples of ASP. There was also what could be described as 'cross-uses' of FLU. In the following example, NDFLU was used to describe an urgent driving situation:

> "**I saw coming from a left to right a big HGV and thinking oh Christ this bloke's not going to stop. He <u>did</u> stop *he put on the anchors*… put on the brakes and managed to stop in time.**" ('Mike': lines 82-4)

…whilst in this example DFLU is used to describe a non-driving event:

> "**I mean most people I suppose are *geared towards* growth and enlightenment, but there are some people out there that they are inherently bad.**" ('David: lines 403-5)

Finally, FLU was also used to recruit the listener to a way of thinking:

> "**My understanding of these kind of things is a bit *stiff upper lipish* and was I was *resistant to going down the road* that… you know… I was a bit suspicious of the process because it wasn't paid by me it was through the medicolegal process and you know I wasn't sure what Dr. Marchant was going to report back. I was a bit suspicious about it. I didn't like the method… dology of how she explained to me what we were going to do, talking therapy you know it *wasn't my bag*. I think you should just *crack on*, get on with things.**" ('Mike': lines 358-65)

In this rather disjointed extract, 'Mike' commenced with 'my understanding' and seems to try to recruit the listener to that understanding with three uses of 'you know' and a mixture of 'FLU', which includes both DFLU (going down the road) and NDFLU (stiff upper lipish; wasn't my bag; and crack on).

CHAPTER 6 APPENDICES

Appendix 6.1

Introduction to theory evolution

Although PoM was a sudden insight for the author based up Solomon and Shapiro's (2008) explanation of possible memory change mechanisms in which they favoured the reconsolidation of memory theory (Cahill & McGaugh 1998), it was not a sudden insight without having attempted two earlier explanations for the study findings.

Appendices illustrate the first and second attempts to cohesively and comprehensively explain findings:

- The Hemispheric Resynchronisation Theory (HRT), and
- Dual Change Theory (DCT)

The rather unfortunate acronym HRT, might still turn out to be an explanation of memory change after all. However, it was not to be for this study mainly because HRT was too inflexible to allow for the various different orders of events and ultimately it was to lead to an inductive *'cul-de-sac'*. The other reason for the demise of HRT was that the theoretical induction was attempted before all data analysis was completed.

The second attempt was quite different. With all results in and clearly no order to the themes other than PPC *generally* following NPC, the focus changed to the dual nature of change, thus relating to DCT, which was the direct precursor to PoM.

Indeed many of the components of the final PoM explanation are contained within DCT. The main drawback with DCT was that although it acknowledged no order to emerging themes, as well as specifically, and crucially, FLU, it didn't see FLU as *central* to the whole process of change.

Appendix 6.2

First attempt at devising theory

HRT (Hemispheric Resynchronisation Theory), DCT (Dual Change Theory) and ultimately PoM (Plasticity of Meaning) all had the same underpinning aims, to:

- List themes into some sort of order
- Make observations from the findings
- Pull the findings together into an overall explanation

The material below is presented 'as is' and doesn't necessarily provide a coherent whole given that it represents various attempts to piece together findings. It will be noted that initially the idea of NPC & PPC (negative and positive psychological change) being forced apart and slowly re-amalgamating was considered to be a possible explanation – hence the concept of HRT. Initially, various diagrams were tried out to see how themes might fit together as a 'coherent whole'.

In Figure A1, the 'streptococcal' nature of the top drawing led to the 'baguette' version in the bottom drawing. Several editions of the above were destroyed the above is the only one remaining.

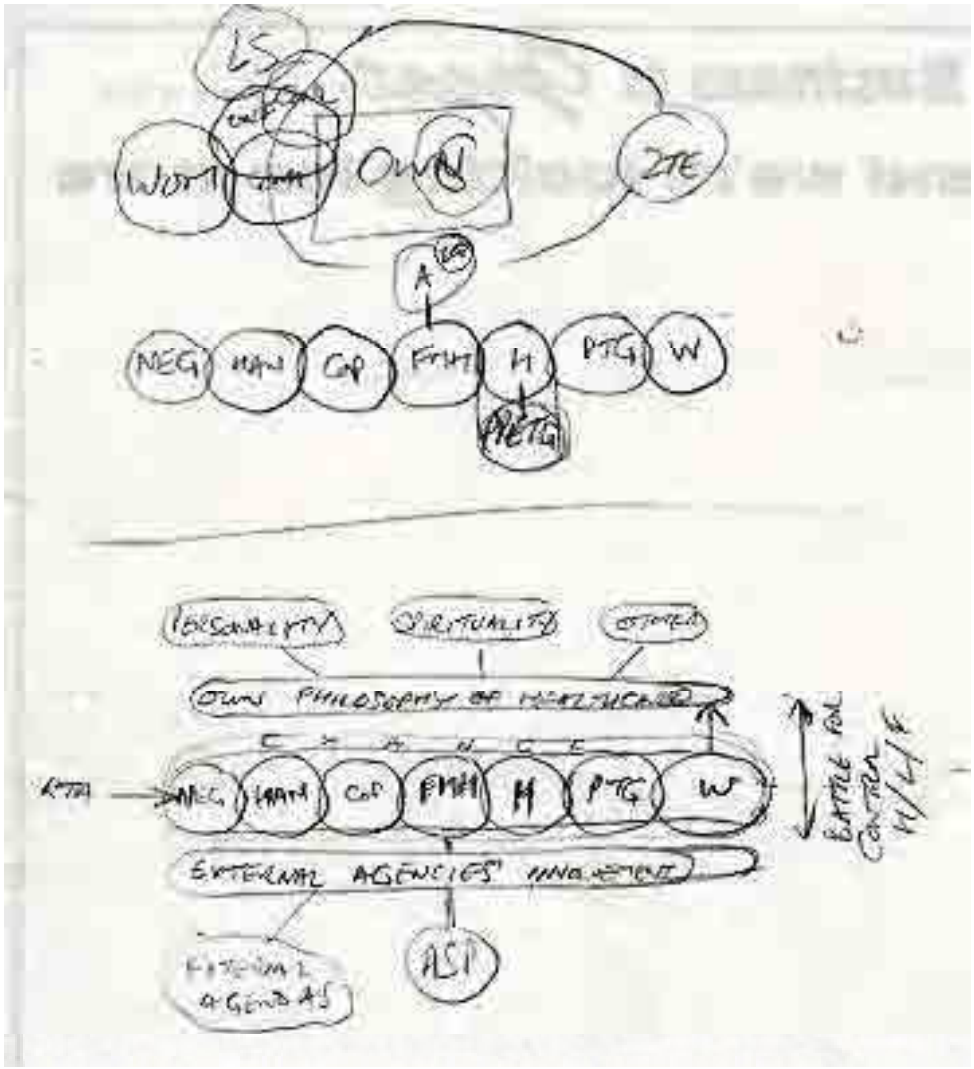

Figure A1:
First attempt at devising HRT
(scribbled on the back of the note paper)

Appendix 6.3

Manual arrangement of cards representing themes

The second attempt was to write all the topics, (NB. not the final ones at this stage), onto cards so they could be arranged and rearranged into some sort of order. The original arrangement placed the cards in a single vertical list. Here, purely for convenience, they have been arranged into two columns. The left hand column of seven themes represents NPC and the right hand column of five represents PPC. Note that at this stage PPC is labelled as PTG, whilst success heuristic, hindsighting, aspirations and wisdom where 'additional' PPC.

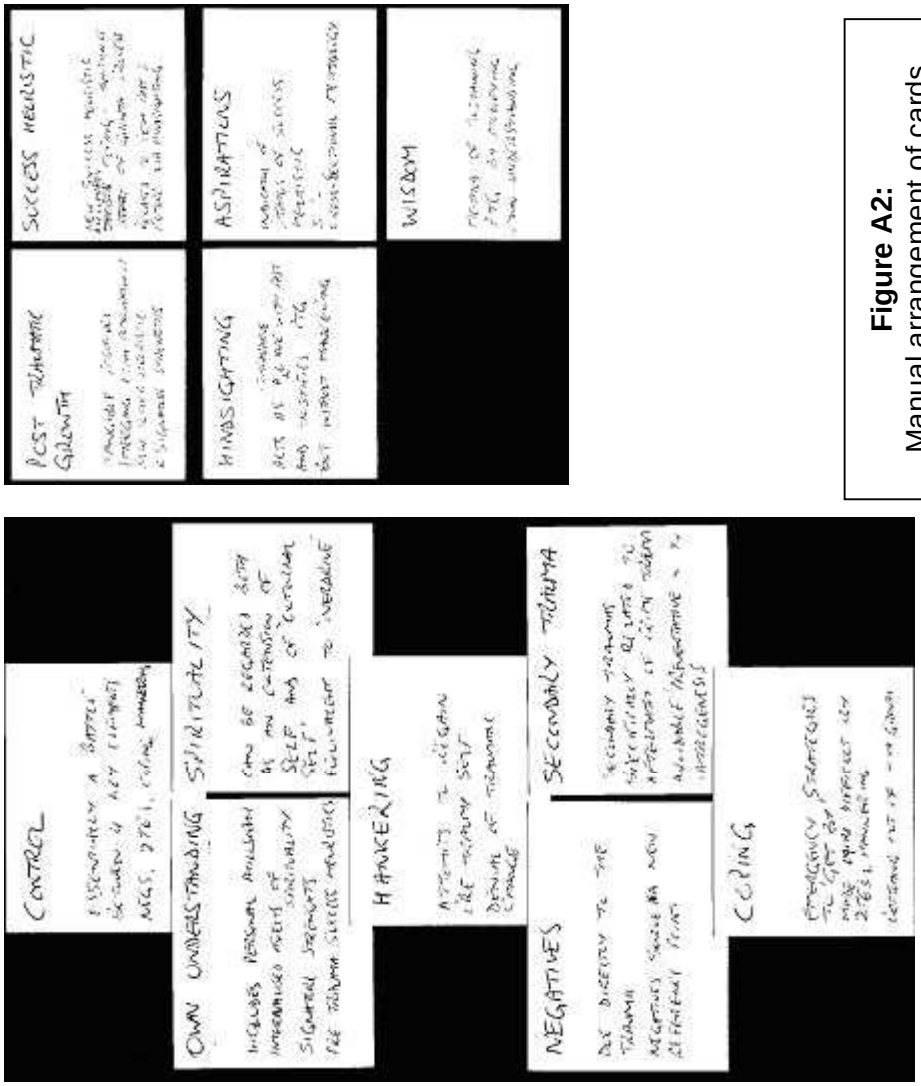

Figure A2:
Manual arrangement of cards representing themes

Appendix 6.4

Block diagram based on theme cards

After further modifications, an overall block diagram emerged. Note the addition, albeit fleetingly, of 'Post-Struggle Understanding' as well as the word 'Struggle' itself and the inclusion of 'Aspirations' in dotted lines, as there was doubt as to whether 'Aspirations' was a 'real' theme.

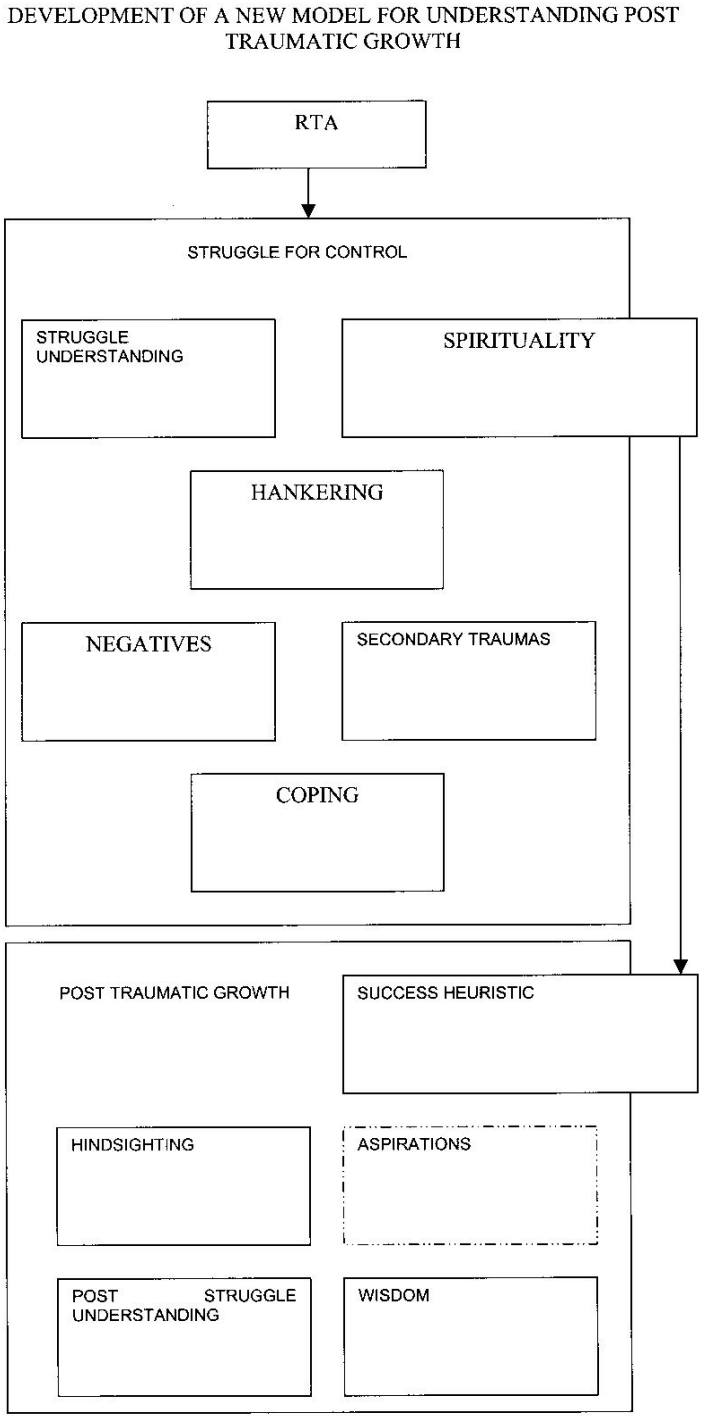

Figure A3:
Block diagram based on theme cards

Appendix 6.5

The proposed HRT model of psychological change post-RTA

The next attempt, certainly seemed impressive, but still didn't explain how the process of change seemed to overlap and that elements of NPC co-existed with PPC. Brief consideration was given to a three-dimensional model at this stage and rejected as too complex. Interestingly the role of the RTA seemed to be less important and at this stage the RTA becomes the cumbersome: 'Road-based transportation impact event'. With, hindsight, it was probably because the author was having doubt about terminology (again – given the enormous tangle of terminology surrounding PPC terminology), to describe the traumatic event, which by extension might be related to attribution by the participant.

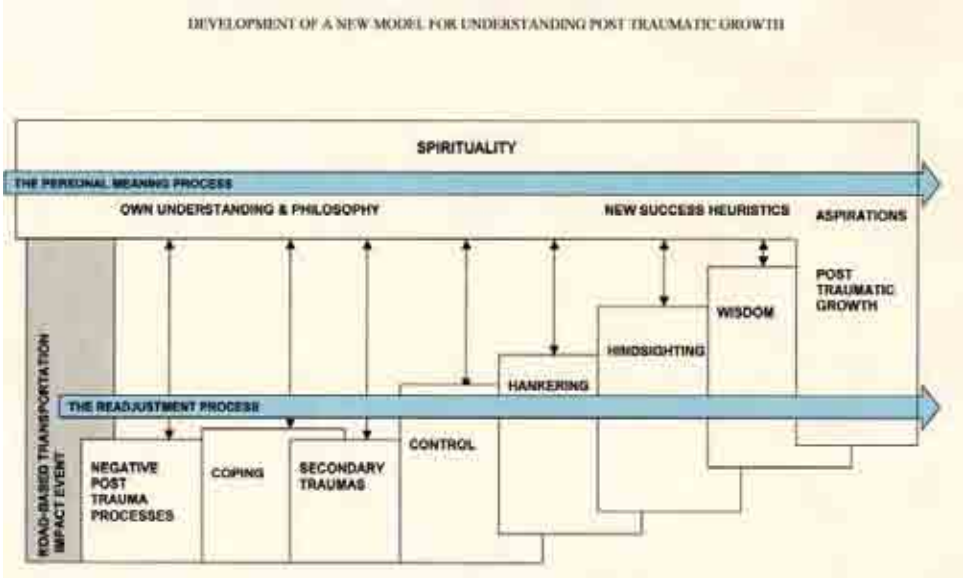

Figure A4:
The finished product?
An HRT model of psychological change post-RTA

Appendix 6.6

The HRT model starts to breakdown

In an attempt to incorporate the coexistence of NPC and PPC, HRT went through another modification – but even this couldn't explain why subsequent themes could occur in almost any order whatsoever, worse still, it now seemed that no traumatic event may be required to trigger the change process.

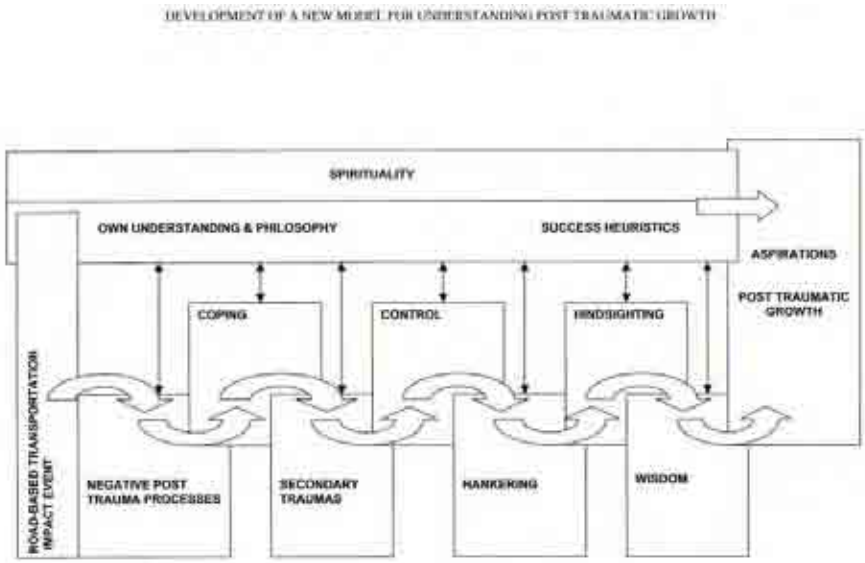

Figure A5:
The HRT model starts to breakdown

Back to the drawing board: Dual Change Theory (DCT)
Eventually the HRT model was dropped, data analysis was completed and the whole set of findings re-examined. In due course the concept of a 'duality of change' developed – and DCT came into being. Subsequent modifications of the theory resulted in PoM and many of the original DCT concepts were retained – or in 'PoM-speak' were imported into a PoM theory. Note particularly the text below in bold text, which clearly shows that thinking about the mechanism behind PPC was connection of memory networks at an expressive level.

Observations drawn from the research:

- The object of the research was to investigate PPC. Participants presented differently, some more obviously positive than others
- Participants were recruited because they had given an indication to their therapists that something 'positive' had happened
- All 12 of the participants reported both negative and positive change
- It is reasonable to propose that this is a common occurrence, but not necessarily an obvious one
- Positives were found embedded and unrecognised within negatives and vice versa
- Likewise both change of both polarities co-existed

Inductive theory based on observations from research:

- Although the intention was to seek to define PPC after EMDR, and this was achieved, once revealed, it became clear that change was inherently a dual process anyway
- Traditionally psychology has concerned itself with only NPC to the extent that PPC has been overlooked. For instance, evidence-based practice is solely based on the ability to minimise NPC, whilst PPC has, in effect, been ignored until recently.
- More recently positive psychology has reversed the process concentrating on PPC and although NPC has not been overlooked, the potential for a 'blind spot' remains. For instance, although the CiOQ measures both positive and negative change, the PTGI only measures positive change and by implication, ignores negative change.

- It is inherent for humans to learn adaptively from Significant Life Events (SLEs) they experience.
- SLEs initially result in negative change frequently referred to globally as suffering, (now conceptualised as NS).
- Suffering is a central pillar of Buddhist teachings and is seen to be unavoidable and necessary in life – presumably much as SLEs are unavoidable.
- NS experiences drive people to seek help and traditionally this has been the realm of therapy – to alleviate suffering. This is inherently a process of reducing NPC, or pseudo-PPC, but does not equate with 'true' PPC.
- The process of 'true' PPC (now conceptualised as NG) is distinguishable from pseudo-PPC by virtue of change: resulting in the creation of something new that did not exist pre-SLE and is not merely the eradication of NPC and (currently) for which help is not usually sought.
- It is proposed that NS and NG can be seen as a process of Dual Change, are in essence, a totality, being inseparable, interactive and dependent upon each other. Furthermore that there is a continuum in which NS and NG co-exist, the former more prominent initially, and the latter more prominently at a later stage.
- The inter-related nature of these apparent opposites, appear to be mirrored by the concepts of yin and yang of Taoist philosophy. By extension therefore, Dual Change is representative of Tao.
- NS is an attempt to recover from the SLE and consists of various components any of which can occur many times before the NS phase disappears.
- During the NS, secondary SLEs (2TEs) occur, which are similar to the aftershocks of an earthquake.
- 2TEs trigger their own NSs. An example of this can be seen in which Legal Iatrogenesis (which is an extension of Illich's theory of Iatrogenesis), cause further suffering.
- Another component of NS is Hankering in which the individual strives to recover pre SLE status. Hankering represents a process of dysfunctionally stored memories and may present as a temporary phase or result in prolonged resentment and delayed NG.
- Hankering as a theme, also has a strong Taoist equivalent (e.g. see *Tales from the Tao* (Towler 2005 p40ff) as well as parallels in other religions such as Christianity.
- NG consists of two components – invisible, hallmarked by a reassessment of the SLE and development of wisdom – and visible, hallmarked by practical outcome, although at the point of observation this may be present as less tangible, Aspirational outcomes
- The wisdom of Invisible NG is of three particular types:
    - Retrospective, termed Hindsighting,
    - Prospective, termed Foresighting, and
    - Paradoxical, which is not necessarily voiced, but which has connections with Figurative Language Use (FLU -see below), which by definition, is voiced.
- The inclusion of Paradox and Wisdom is also mirrored by Taoist philosophy (see The Tao Te Ching – particularly verses 22,27,28,41 & 49).
- Visible NG is characterised by practical outcome, which may appear as aspirational at the point of observation.
- Unprocessed SLE memories are contained in isolated networks and result in dysfunctionally stored memories.
- It is proposed that AIP drives Dual Change, and that processing of SLE memories is a function of connecting isolated, dysfunctionally stored networks.
- It is proposed that networks are initially connected semantically and specifically at the figurative level.
- The first signs of NG were:
    - FLU that relates directly, albeit figuratively, to the SLE itself and more subtly,
    - Paradoxical wisdom.
- Once started, FLU continues to link networks in such a way that the SLE now becomes embedded in the individual's life story driving Dual Change to completion. Once 'completion' has happened the person is transformed such that their life takes a different course.
- Further SLEs will cause Dual Change to be triggered again and the whole process is repeated.
- In essence, human experience is the product of SLEs and Dual Change.

Some thoughts on the consequences of DCT for EMDR:

- EMDR contains, as standard, an installation phase and is therefore ideally placed to observe and guide Dual Change within the therapeutic process itself.
- Phase 4 is roughly equivalent to the NS and Phase 5 to NG, although in practice these two components of Dual Change overlap, i.e. they are not sequential but at least parallel, and probably multi-dimensional.
- It is likely primarily because of the pressures to see clients through just the NS (e.g. as a function of insurances claims and the need to mitigate loss) that the installation phase is currently the least understood EMDR Phase and has the greatest potential for overall change in understanding.
- One area that should be examined is whether 2 x VoC of 7 is actually the end of processing, e.g.
- Re-rechecking the PC and establishing whether there is an even stronger PC and thus 'installation repeating' until the PC 'potential' is exhausted. This would have the effect of 'tiering' PCs.

- Another area is to ask how effectively utilised is the future template, particularly given that the individual has yet to 'discover' their capabilities and potential?

Some thoughts on the consequences of DCT globally

- Because decisions on the effectiveness of EMDR and all other psychological therapies are based on their ability to complete the NS, the total effectiveness of all psychological treatments – conducted fully and efficiently – is currently grossly underestimated.
- Establishing the totality of change following a given therapeutic intervention would require evidence-based practice to consider Dual Change. Current practice only examines the effectiveness at completing the NS.
- All evidence-based practice relating at least to psychological therapies needs revisiting if DCT is adopted.

Appendix 6.7

A glossary of PoM terminology

Term	Explanation
Expressive difficulty	An inability to verbally express a concept because the memory network does not contain appropriate words that physically 'feel right' to express the concept. An expressive difficulty triggers either a word search or direct trading. Solving an expressive difficulty is assumed to be driven by the will to expression
Expressive default	The concept, waiting to be expressed which only contains a physical property. 'It feels like…'
Trading	The combination of exporting and importing assumed to be driven by the will to expression
Consumer network	The memory network currently engaged in verbal expression that has encountered an expressive difficulty. The consumer network imports from a supplier network
Importing	The acquisition by a consumer network of a word from a supplier network that overcomes an expressive difficulty
Supplier network	The memory network that can supply a word to a consumer network that will overcome the consumer network's expressive difficulty
Exporting	The sharing by a supplier network with a consumer network of a word that overcomes an expressive difficulty. Exporting causes the supplier network to move up the supplier hierarchy.
Word search	The first stage of trading in which the consumer network searches for words that fit the wordless concept. A word for trading is identified when the selected word is congruent with the expressive default. The word 'feels right'.
PoM	The point at which memory networks connect because there is a shared ownership of words in which the supplier network retains the literal meaning of the word and the consumer network acquires the figurative meaning of the word
Supplier hierarchy	An idiosyncratic and dynamic hierarchy of supplier networks. It is influenced by the individual's experience, personality, knowledge, bias, network usage etc. Networks representing the individual's DSH have a particularly high hierarchical ranking.
Supplier network of choice	The supplier network at the top of the hierarchy and thus most likely to be selected and by PoM connect with consumer networks
FLU	The verbal use of the imported word
Direct trading	PoM not requiring a word search
Supplier failure	Supplier network's inability to provide an exportable word and its resultant move down the supplier network

Table A13:
A PoM glossary

CHAPTER 7 APPENDICES

Appendix 7.1

Tedeschi & Calhoun's (2004a) explanation of the use of metaphor by the therapist as applied to PoM to help the client understand EMDR

> "Clinicians who work with trauma survivors often find themselves using metaphors in conversations with these clients because description of the traumatic events and their effects may be difficult to achieve in more straightforward language. Listening for metaphors a client uses or introducing metaphors that might be particularly salient for an individual allows for discussions of posttraumatic growth in these more indirect ways, allowing trauma survivors to acknowledge things that otherwise would be difficult. For example, we have described a case in which a photographer whose son died could recognize changes in himself as photos emerging from developing fluid (Ibid 415; see also Calhoun & Tedeschi 1999)

In the extract cited above, Tedeschi & Calhoun provide the explanation for the use of metaphors in therapy:

> "…because description of the traumatic events and their effects may be difficult to achieve in more straightforward language." (Ibid)

PoM predicts 'expressive difficulty' and not being able to 'find the right (literal) word(s)'. Presumably therefore, Tedeschi and Calhoun, in their use of "straightforward language"(Ibid) interpreted in PoM terms mean 'literal language'. Tedeschi & Calhoun then explain that the reason *why* metaphors:

> "…might be particularly salient… (is because they allow) trauma survivors to acknowledge things that otherwise would be difficult." (Ibid – words in brackets added)

Thus Tedeschi & Calhoun focus on 'acknowledgement' as the answer to the 'expressive difficulty'. Instead, whilst PoM acknowledges there is a change post metaphor selection – which could include acknowledgement - the focus is on 'how' the metaphors might occur. In:

> "…case in which a photographer whose son died could recognize changes in himself as photos emerging from developing fluid."(Ibid)

…Tedeschi & Calhoun are indicating that a desired 'acknowledgement' comes from the congruent use of metaphor to the client's role in life. PoM suggests that because the client's role is likely to be an important component to his life – probably his success heuristic – then a 'photography' memory network is likely to be at or near the top of the hierarchical word search for trading choices when it comes to the inevitable word search in PoM in order to resolve the expressive difficulty. PoM also predicts:

- That until that connection is made the expressive difficulty will manifest itself in somatic ways
- That difficulties in resolving the expressive difficulties during EMDR – i.e. 'blocked processing' can be resolved by utilised by incorporating a high ranking memory-network (in this case 'photography')

Appendix 7.2

Case vignette of tiering PCs

The following is the brief case vignette referred to in the main text. No name is used and part of the narrative has been changed to further protect the client's identity.

The client was a 32 year-old fine tool-maker who had lost a finger in an accident with a lathe. He was seen for EMDR as part of a medico-legal claim. He was troubled by intrusive images of the accident and had ruminative thoughts about losing his career. He was assessed for EMDR and a subsequent history found no complicating factors. During history-taking he described losing his 'grasp' on his career (an interesting version of PoM in which his DSH, his career, required dexterity – very similar to 'Robert's eyesight relating to archery in the study – connecting the supplier network 'hand' to the consumer network 'career'.

EMDR proceeded as normal. The Table below shows the status of his PC at Phases 3 and 5 of the EMDR protocol. On completion of Phase 5, the client was asked to rate the VoC on the usual 1-7 scale and he provided a figure of 9.

Initially the author assumed he had used the SUDs scale and said "are you sure?" the reply was "Definitely, it's more than completely true." Intrigued I then said "OK, how about a stronger PC? Eventually we arrived at a wording of the PC that included the theme of success and the invisible category (FOR) of NG:" I am wiser and successful".

The client was thrilled that further BLS resulted in a 7 on VoC and spontaneously volunteered yet another PC. This time, once the wording was sorted out, the PC no longer included a reference to success, but items from both categories of NG: "I am wiser…" (invisible category FOR) "…and can help others" (visible category: ESN).

The obvious question is how far can tiering of PCs continue?

Tier Four:	I am wiser and can help others – 2nd reassessment at the end of Phase Five
Tier Three:	I am wiser and successful – 1st reassessment at end of Phase Five
Tier Two:	I am a success – PC reassessed at start of Phase Five
Tier One:	I can learn to succeed – PC established at Phase Three

Table A14: (Copy of Table 7.5) Example of a four-tiered PC

CHAPTER 8 APPENDIX

Appendix 8.1
Further thoughts on further research

The following expands on the material in the main text. Each point is accompanied by explanations for why these points have been selected and what contributions to further knowledge might accrue from their being researched.

1. Is the transition from AWP to SAW one of 'shattering' or does a parallel transition between the two exist?
   This question clearly alludes to Janoff-Bulman (1992). However, the distinction between 'shattering' and 'not shattering' is an issue that is likely to shed light on the difference between PoM under normal conditions of maturation and likewise under conditions of a traumatic experience. Answers are likely to add to knowledge of the maturation process (see also Park, Cohen & Murch 1996 on stress-related growth).

2. Is SRS culturally/theocratically bound?
   Given the various existing research on the role of religiosity and the seemingly pivotal nature of meaning making along with Frankl's will to meaning, then arguably any future research needs to be 'theocratically-contextualised'. The first question however is to establish whether SRS is actually theocratically bound or not.

3. Does length of time spent in HAN affect eventual NG?
   The role of HAN was an accidental finding given that questions only arose because of 'Mike's' accidental inclusion in the study. However, if HAN is a type of 'gateway' to NG (or not as the case may be), then more needs to be known about HAN and, if as the author suspects, this is tied up in issues of resilience (e.g. see Lepore & Revinson 2006) then assessing resilience should determine not just if NG will occurring tangibly but how long it might take to appear.

4. Why, at a time when duty of care is an adversarial issue, does the very system established to settle the 'index' trauma (i.e. the RTA) create new problems? Or, more specifically, why does legal iatrogenesis exist?
   Legal iatrogenesis has surely got to be the topic that begs the question why has nothing been done before now to address the client's further traumatisation? The author predicts that this subject will become a research priority as soon as a plaintiff in a civil case takes legal action against his/her own legal representative or, perhaps more likely to occur first, the defendant's representative.

5. Does a particular type of RTA i.e. iRAP category, lead to a particular type of NG? Similarly does the 'event type' of trauma affect NG at all?
   This question is asked because although Linley & Joseph (2004b) question the role of the *event type* as having a bearing on PTG, no research appears to have been done on the *salience* of the event type to a given individual. Given that 'Fiona' described her life being 'turned upside down' and was the only participant to describe anything like a turning over of the vehicle during the RTA, then *unless* total coincidence has been observed, *and* it is accepted that the trauma will be incorporated into extended expressive abilities; it seems the event type – in this case of the RTA - *will* have a bearing on expressive abilities subsequently and thus event type needs revisiting by researchers. The intriguing possibility also arises that different RTAs may lead to different manifestations of NG.

6. Given the extent of HIN, PAR, FOR and self-help groups, what is the nature of 'lay-therapy'?

7. Is 'lay-therapy' more oriented towards PPC than more orthodox professionally provided therapy?
   These two questions require a definition of lay-therapy and both are inter-related and may shed light on the 'ownership' of NG as well as the role of the professional therapist. Likewise, both questions could consider whether traditional perspectives on the 'sage' or 'guru' might constitute lay-therapy. In relation to Taoism, which is cited in various Chapters of this study, the role of lay therapy may reside squarely within PAR.

8. To what degree can NICE guidelines – or for that matter any evidence-based practice guidelines help with the development of PPC?
   Obviously this would require a 'sea change' of opinion about Cochrane's (1972) views, and would certainly be seen with highly polarised views between insurers and politicians on the one hand and between individuals and politicians on the other. The comments from the insurers during the early days of recruitment for this study are worth repeating here:

- That there was a potential for claims to be reopened that had been closed.

- That there existed a *"public perception potential"* that the insurance company might be seen to be either *"condoning"* being traumatised and/or implying that psychological trauma *"may be a good thing"*.

…these views give an inkling of what would happen for the current *'regime of truth'* to alter.

9. To what degree does PAR contribute to humour as a coping strategy and also to what degree is humour a form of NG?
This question is effectively addressing a gap in the current study. It was not possible in the time available to delve further into this area, but so called 'black humour' is obviously an important are not least for COP. The fact that it is often based on PAR suggests a link between COP (which in this study is identified with NPC) and PAR (which in this study is linked with PPC). Thus humour could represent the crossover between NPC and PPC.

10. Given that DSHs may lead to career change, what is the explanation for why individuals have a particular career such as a healthcare professional?
At first these two points may seem unrelated, but are they? How does someone choose a career to start with? All things being equal and assuming equal opportunities all round, don't people pick careers – at least one's of choice – precisely because of choice? If choice is based on a vision of future life isn't that defining DSH anyway? If the answer is yes that would seem to underpin DSH (associated in this study with an important bearing on PPC) as a maturational process not just a post-trauma one – given that not everyone enters a career *once they have been* traumatised.

11. Do parameters for expression of FOR affect the extent of ESN?

12. What are the limiting factors to ESN? Are there any?
These two questions are interrelated. The first question particularly alludes to FOR in one setting namely that of ESN and thus by extension self-help groups. Does FOR increase by virtue of ESN? This study didn't reveal anything obvious on this subject, but that doesn't mean it isn't closely related. Likewise does NG occur without ESN? According to the results of this study – yes in 25% of cases (although n=12 should be borne in mind).

13. To what degree does trauma-related FLU become part of the social fabric rather than an expression of a personal experience?
This would address the somewhat artificial divisions of FLU in this study and hopefully – although the methodology would be interesting – shed more light on whether traumatic experiences are genuinely incorporated in post trauma expression.

14. What further additions to AIP and PoM might be warranted?
This is difficult to comment on as it depends on the outcome of research yet to be conducted. It might just be that neurophysiology will have caught up on the 'figurative theorists' and a definitive answer would then be forthcoming.

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