

The Development of a Process Theory of Suicidal Behaviour.

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DECLARATION

Unless specified to the contrary, this dissertation is the result of my own work.

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P.Appalsamy

“Suicide is perhaps the most dramatic epilogue of human existence”

Leo and Scocco (2000, p. 556)

For Aunt Sally, Aunt Gracy and Jacqui

who

tragically killed themselves.

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ABSTRACT

This qualitative study attempted to develop a process theory of suicidal behaviour. The Arthur Inman diary, which documents the thoughts and feelings of a suicidal individual (Arthur Crew Inman) who eventually died by suicide, was the primary data source from which the theory emerged. Aspects of the qualitative grounded theory procedure were used to develop the theory. Purposeful intensity sampling, theoretical sampling, open and discriminant sampling were applied at different stages of the research process. In addition, the constant comparative method, which forms the hallmark of grounded theory procedures, was an integral part of the analytic procedure. The emergent process theory, which was firmly grounded in the primary data source and extant literature sources, hopefully offers a new paradigm within which suicidal behaviour can be understood. It proposes the processional aspects of suicide and puts forward phases, which a potentially suicidal individual goes through. It thus attempts to bridge a major gap in the study of suicidal behaviour by providing dynamic pathways that link vulnerability to suicide with the suicide act.

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CHAPTER 1

Introduction

1.1 The Challenge Posited by Suicidal Behaviour

Suicidal behaviour presents a challenge to those who find themselves attempting to understand, intervene and prevent its occurrence. Unfortunately, there is as yet no consensus on the term “suicide” and its derivatives such as “suicide attempt” and “parasuicide”. This has limited communication among those who seek to understand the phenomenon. On a more positive note, the study of suicidal behaviour (suicidology) is in a period of transition, in that attempts are being made to clarify and apply its conceptual base and to develop a universally applicable standard nomenclature (O’Carroll, Berman, Maris, Mościcki, Tanney & Silverman, 1996).

Suicidal behaviour has become a significant health problem. According to the World Health Organization report (1999, as cited in Schlebusch, 2000), in the year 2000 about one million people will have died from suicide. It is also estimated that about 10 to 20 times more people will have attempted suicide worldwide, representing on average one death every 40 seconds and an attempt every 3 seconds. A recent report on the cost of suicide to the American nation (National Strategy for Suicide Prevention, 2001) revealed that (a) twice as many people die from suicide than from HIV/AIDS, (b) every day 86 Americans kill themselves and over 1 500 attempt suicide, (c) between 1952 and 1995, the incidence of suicide among adolescents and young adults nearly tripled, (d) suicide takes the lives of more than 30 000 Americans each year, and (e) more teenagers and young

adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia and influenza, and chronic lung disease, combined. In South Africa, the rate of suicide is estimated to be around 19 per 100 000, depending on the region (Schlebusch, 2000). Local studies (Pillay, Wassenaar & Kramers, 2000; Wassenaar, Pillay, Descoins, Goltman & Naidoo; 2000) have highlighted the paucity of research on suicidal behaviour among South African Blacks and the notion that the apparently increased rates of non-fatal suicidal behaviour among young persons in this racial group compels the need for more research. Furthermore, studies (Pearson, Conwell, Lindsay, Takahashi & Caine, 1997) have found that older persons continue to have the highest rates of suicide in some countries, and that physician-assisted suicide is becoming a global issue in relation to those wanting to terminate intolerable suffering. Thus, both internationally and nationally, suicidal behaviour represents a major health problem.

1.2 Paradigmatic Framework of the Study

Much of the research in the past has not made the paradigmatic principles informing the research process explicit. In line with this shortcoming, an attempt will be made to make such principles explicit.

A paradigm refers to “a set of basic *beliefs* (or metaphysics) that deals with ultimates or first principles” (Guba & Lincoln, 1994, p. 107). It refers to a world-view that incorporates an ontology (the form and nature of reality), epistemology (the nature of the relationship between the inquirer and the known) and the form of methodological inquiry

(how the inquirer comes to know that which can be known). Such epistemological, ontological and methodological aspects of a paradigm inform the research process.

The social constructionist paradigm has informed this study's research process. It argues for a relativistic ontology, a transactional and subjectivist epistemology and a hermeneutical methodology (Guba & Lincoln, 1994). That is, its relativistic ontology acknowledges that multiple realities exist, and that such realities are socially constructed with shared *and* idiographic aspects of a world-view. Thus, the perception of the reality of suicide as a process may comprise just one perception among others. Its transactional and subjectivist epistemology refers to the understanding that the inquirer and the subject reconstruct what is to be known through a dialectical transactional relationship, in which the researcher's world-view or values ineluctably influence the research process (Guba & Lincoln, 1994). This position will be discussed further in the method section together with the hermeneutical social constructionist position of conducting research.

The focus on written discourse in this study highlights the importance of language. Language plays an important role in constructing reality for a person. It provides a person with socially shared resources from which inner experiences can be understood and interpreted. Through language, people create their own realities through meanings assigned to them by the linguistic repertoire to which they are exposed. Such meanings have idiosyncratic and shared features. This principle stems from Wittgenstein's (1967) understanding of the function of language. Furthermore, the Wittgensteinian notion that language is not a passive medium of communication, but a means of performing acts is

quite relevant for this study's focus on how emotions were assessed in the data analysis part of the research process. A caveat should be mentioned here, since not all of Wittgenstein's (1967) principles have been adhered to in this study. His basic tenet as explained above, has been adopted for purposes of this study.

1.3 **Rationale for the Present Study**

The present study arose out of a concern that there was a paucity of research explaining suicide as a process comprising dynamically related phases. The understanding that suicide comprises a process has been around for more than two decades (Beck, Kovacs & Weissman, 1975, as cited in Bonner, 1992; Maris, 1981, 1997). However, the definition of the suicide process has evolved over time, so that what is meant by suicide process has varied since its inception. Initially, the suicide process was interpreted within the stress-vulnerability paradigm and was defined as:

A process by which certain maladaptive processes of an individual (transpiring at any or all system levels of biological, psychological, and sociocultural vulnerability), interacting with particular demands of environmental life conditions (e.g., negative life stress) over time, result in varying degrees of suicidal intention (i.e., ideation, contemplation, attempts and completion), which ultimately may culminate in suicide. (Bonner, 1992, p. 406-407).

Accordingly, the suicide process was defined primarily within the vulnerability level to suicide and lacked an emphasis on phases that lead from this vulnerability to the suicide act, even though there was an impression of linear progression from vulnerability, to suicide ideation to attempts and then to completion. The articulation of the pathways to

the suicide act involving such ideation and attempts have been lacking. Studies that continued to conceptualize suicide as a process (Heikkinen, Aro & Loennqvist, 1994; Leenaars, 1991; Maris, 1997; Wasserman, 1993), also failed to clearly articulate the contents of this process.

Thus, the conceptualization of the suicide process has failed to acknowledge that vulnerability to suicide could comprise just one phase among others within the suicide process. Therefore, attempts to understand the contents of the process of suicide remained a *terra incognita* with a dire paucity of research attempting to understand the possible pathways from the vulnerability status to the suicide act. Recently however, contemporary suicidology has been experiencing the birth of a new paradigm of understanding the process of suicide, in which a clinical and research impression of the existence of phases of the suicide process has emerged (Appalsamy, 2000; van Heeringen, Hawton & Williams, 2000). This impression appears to be breaking away from the stress-vulnerability paradigm of understanding process, even though some researchers continue to situate process within such a paradigm (Maris, 1997). Despite this new impression of suicide process, there has been no study to date, which has understood the suicide process as such, by outlining possible phases of the suicide process. The only attempt to perceive suicide as such and articulate the possible existence of phases was conducted by the present author in the form of a Suicide Processional Model (SP Model) (Appalsamy, 2000). However, this attempt comprised a mere research impression and was not supported by any form of evidence.

Thus, the present study was conducted in order to develop a process theory that would attempt to fill this lacuna in suicidology - by positing phases of a suicide process and by providing qualitative evidence for its existence.

1.4 Aims of the Present Study

The aim of the present study was to generate a process theory of suicidal behaviour, which would facilitate understanding suicide as a process, with a special focus on the pathways (phases) from suicide vulnerability to the suicide act. The selection of a grounded theory methodology was chosen in order to facilitate the grounding of the theory in data. This was believed to be crucial in order to avoid perceiving the theory as a mere form of speculation.

A more salient aim was to instigate a paradigmatic shift in the field of suicidology by facilitating the understanding of suicide as a process comprising many dynamically related phases. It is argued that perceiving the suicide process within the stress-coping paradigm is inadequate to understand the existence of phases and that a new paradigm of understanding suicide process may be needed. The field is already experiencing “birth pains” of such a paradigm. It is hoped that a possible articulation of the phases of a suicide process, supported by evidence, would provide the impetus towards the creation and adoption of this new paradigm of understanding. The ontological assumption of such a paradigm could be dynamic processualism.

1.5 Hypotheses of this Study

The primary hypothesis of the study was that suicidal behaviour comprises a process. The nature of the process was hypothesized to comprise numerous dynamically related phases. The alternate hypothesis was that suicide is not a process, and that there is an absence of dynamically related phases.

CHAPTER 2

Review of Literature

2.1 Introduction

A literature review was conducted during two stages in the research process. Initially, literature was accessed in order to increase theoretical sensitivity to the primary data - the Arthur Inman diary (Aaron, 1985). This involved accessing models and theories in order to understand the phenomenon of suicidal behaviour. Second stage literature review took place during data analysis and was informed by theoretical sampling, in which literature was accessed in order to attempt saturation of categories formed during data analysis. Theoretical sampling is a grounded theory procedure developed by Glaser and Strauss (1967) in order to allow for the expansion of conceptual categories (the building blocks of theory) during data analysis.

2.2. Definition of Terms

The definition of any term or phenomenon reflects an attempt to articulate the meaning of that term or phenomenon.

2.2.1. “Suicide”

Shneidman (1985) proposes that the term “suicide”, according to the Oxford dictionary, is a relatively new conceptualization and was coined in the mid-seventeenth

century. He furthermore postulated that there is some debate regarding who actually coined the term.

Contemporary literature is replete with various definitions of suicide, but there is no general consensus on the adoption of a specific definition. Accordingly, O'Carroll et al. (1996) proposed that "Despite hundreds of years of writing and thinking about suicide, and many decades of focussed suicide research, there is to this day no generally accepted nomenclature for referring to suicide-related behaviours – not even at the basic conversational level" (p. 237).

The definition of suicide appears to have been influenced by a particular paradigm of understanding. "Suicide" is and was perceived synonymously as the suicide act, so that any definition of suicide inevitably attempted to define the suicide act. It is argued that perceiving "suicide" as a process would alter this way of understanding suicide and the suicide act. Such an argument is presented in section 4.2.6.1 of this study. For present purposes, literature attempting to understand suicide as an act will be reviewed.

Shneidman (1981) defined suicide as the "human act of self-inflicted, self-intentioned cessation" (p. 6). This definition is supplemented by Shneidman's (1981) postulation that part of this act involves constricted thinking and heightened intolerable mental anguish termed "psychache". Constricted thinking refers to the "tightening down of the diaphragm of the mind" (1999a, p.86), which sets the context for rigid thinking. Such processes operate within a social context that facilitates or inhibits the suicide act,

and this in turn is played out within the individual's conscious and unconscious dynamics. Shneidman further argues that the goal of suicide is the cessation of consciousness and self-injury. The issue of suicidal intent (the intensity or seriousness of a person's desire to be dead) has become pivotal in defining suicide and is incorporated into numerous other definitions of the term (Douglas, 1967; Mayo, 1983; O'Carroll et al., 1996). As argued by Mayo (1992), suicidal intent could be potentially predictive of the suicide act, yet it is precisely the incorporation of this term into the definition of suicide that has presented researchers and clinicians with much confusion. This notion of suicidal intent will be revisited shortly.

Later, Shneidman (1985) expanded his definition of suicide to "a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which suicide is perceived as the best solution" (p. 203). The definition has numerous implications. By being a "multidimensional malaise", the inter-disciplinary nature of suicide is emphasized. As advocated by Shneidman (1985), suicide can be understood from numerous perspectives (such as systems theory, biology, theology and psychiatry), each of which influences the definition of the term suicide. For instance, Shneidman (1992) adopts a psychological perspective in understanding the term "suicide". This is reflected in his definition of the phenomenon involving the frustration of important needs as outlined by Murray (1938, as cited in Shneidman, 1999a), so that suicide is perceived as the best solution in that situation. Windt (1980, as cited in Shneidman, 1985) operates from a Wittgensteinian perspective and argues that suicide should be perceived as a reflexive death, in which a person must either kill himself or

herself, let himself or herself be killed or get himself or herself killed. Even though perspectives influence the understanding of suicide and inadvertently reflect their meaning through definitions, certain core components of such definitions have become germane to the definition of the term “suicide”. These include concepts such as suicidal intention, lethality (the degree of fatality of a suicidal act) and outcome, which will be discussed shortly. In addition, the meaning of the term as adopted by this study will be explained once review of this literature is completed.

2.2.2 Suicide Attempt and Parasuicide

The initial conceptualization of a “suicide attempt” was a failure to suicide with or without suicidal intention (Kreitman, 1977). The term has evolved since then and has come to be used as an umbrella term incorporating a number of suicide-related behaviours (Kerkhof, 2000). There is general consensus that there is an overlap in characteristics between those who attempt suicide and those who suicide, since a percentage of persons who attempt suicide do go on to suicide (Clark & Fawcett, 1992). Attempting to integrate suicidal intent into the definition of “suicide attempt” appeared to confound the application of the term to those persons who attempted suicide without the intention to die, but who used suicide to change life circumstances (Shneidman, 1981). In addition, persons who attempt suicide and who suicide may lack intention to die but may suicide in order to escape painful affective states and intolerable situations. These persons would evade the definition of suicide attempt that has the inherent implication of the presence of suicidal intent.

In order to overcome this inherent implication, Kreitman, Philip, Green and Bagley (1969) created the term “parasuicide” to refer to “a non-fatal act in which an individual deliberately causes self-injury or ingests a substance in excess of any prescribed or generally recognized therapeutic dosage” (Kreitman, 1977, p. 3). Some researchers and clinicians have adopted this term to refer to those suicidal behaviours in which there is an absence of intention to die. However, Morgan (1979, as cited in Pillay, 1989) explained that “parasuicide” had similar meanings to “suicide” and instead proposed the term “non-fatal deliberate self-harm”. This term describes those recurrent behaviours in which a person does not intend to die but uses low lethality suicide acts to accomplish other ends.

Fairbairn (1998) suggested that the term “parasuicide” is misleading since it is based on outcome, and should instead be based on motive or intent. Similarly, numerous other researchers and clinicians have discarded the term, even though the usage of the term continues in the European literature. It is argued that the term itself is misleading since it implies a dichotomous categorization of suicidal intent, either present or not, and completely disregards the notion that there may be multiple levels of intent. For instance, a person may have an intention to die, but may use a low-lethality suicidal act to build up courage prior to suiciding. In addition, the term adds a “pseudo” meaning to the suicidal act, implying that the person did not intend to suicide even though the very term was constructed to avoid ascribing suicidal intent, whilst retaining a definition based on outcome. Such attempts are futile, since suicidal intent has become germane to the definition of suicidal behaviour. The term “non-fatal deliberate self-harm” could similarly be criticized, in that it does not allow for the incorporation of multiple intents. In addition,

Canetto (1997) has contested the term “suicide attempt”. She argues that the term non-fatal suicidal behaviour should be used instead, since the term suicide attempt implies that the goal of attempting suicide is death. Also, she postulates that there may be a gender bias in the conceptualization of “suicide attempt”, since it typically defines female behaviour and implies that males have to be successful at suicide, that is that the outcome has to be death. Whilst in the Western world females attempt suicide at higher rates than males, and males suicide at higher rates than females, this does not apply to countries in which females have higher rates of suicide than males – such as China and Poland (Canetto, 1997). Thus, to confound things even more, suicidological terms are associated with certain value judgments. These include (a) gender biases (Canetto, 1997), (b) the notion of committing suicide which implies that suicide is a crime, (c) the notion that someone succeeded in killing themselves and someone failed to kill themselves, which implies that if suicide is attempted, it should result in death in order to be perceived as successful and that surviving an attempt is perceived as bad and a subsequent failure. Identification of such biases is important to prevent the perpetuation of their usage.

Accordingly, in this study the term “suicide” has been used as a verb in order to prevent the usage of committing suicide. Also, failure and success at suicide are not used. Rather, the notion that a person suicides or does not is considered to be more value free. Apparently, the use of the word suiciding is not alien to recent suicidological discourse, and has been adopted by some researchers such as Bongar, Goldberg, Cleary and Brown (2000).

Numerous other terms, other than “suicide attempt”, “parasuicide” and “non-fatal

deliberate self-harm” have been proposed and used in an attempt to deal with the difficulty in incorporating suicidal intent in the basic suicidological nomenclature. These include using terms such as “pseudosuicide”, “failed suicide” and “abortive suicide” – none of which have been widely adopted (Wood, 1987). Thus, as evidenced by the state of the basic suicidological terms, there is a need to develop a standard nomenclature of terms, which would facilitate communication among suicidologists, assist in treatment issues, and aid the recognition and prevention of the incipient association of value judgments with such terms.

2.2.3 O’Carroll et al.’s Proposed Nomenclature

A recent attempt by O’Carroll et al. (1996) provided a succinct nomenclature in the field of suicidology in order to facilitate communication among persons dealing with suicidal behaviour. The authors assert that there is a difference between developing a nomenclature for suicide-related behaviours, which they have proposed, and that of developing a classification system. The purpose of a basic nomenclature is to facilitate communication, to minimize confusion among those who work to understand and prevent suicide, and to foster valid cross-study comparisons by using a set of commonly understood and logically defined terms serving as a shorthand for communication. A classification system, on the other hand, is developed from a nomenclature and includes comprehensiveness, a systematic arrangement of items into categories and sub-categories, being exhaustive and scientifically valid, and being sufficiently accurate for research and clinical purposes (O’Carroll et al., 1996).

In their proposed nomenclature, O'Carroll et al. (1996) expand the terms "outcome", "self-infliction" and "intent". They oppose a binary definition of intent (that there is either intent or no intent), and suggest levels of intent instead. In addition, they stipulate a need for a term to distinguish outcomes related to all suicide related acts irrespective of outcome, and for nonfatal suicide, related to acts with or without injury. Thus, the axis of immediate outcome is expanded to include death, injury and no injury. They propose the following terms (O'Carroll et al., 1996. pp. 246-247):

Suicide. Death from injury, poisoning or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted and that the decedent intended to kill himself/herself. This term could be used interchangeably with completed suicide.

Suicide attempt with injuries. An action resulting in a non-fatal injury, poisoning or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted *and* that the person intended at some (non zero) level to kill himself or herself.

Suicide Attempt. A potentially self-injurious behaviour with a non-fatal outcome, for which there is evidence (either explicit or implicit) that the person intended at some (nonzero) level to kill himself/herself. A suicidal act may result in death (completed suicide), injuries or no injuries.

Instrumental suicide-related behaviour. Potentially self-injurious behaviour for which there is evidence (either implicit or explicit) that (a) the person did not intend to kill himself/herself (i.e. had a zero intent to die) *and* (b) the person wished to use the *appearance* of intending to kill himself/herself in order to gain some other end (e.g. to cry for help, to punish others, to receive attention).

Suicide-related behaviour. Potentially self-injurious behaviour for which there is explicit or implicit evidence *either* that (a) the person intended at some (nonzero) level to kill himself/herself or (b) the person wishes to use the *appearance* of intending to kill himself/herself in order to attain some other end. Suicide related behaviour is made up of suicide acts and instrumental suicide-related behaviour.

Suicide Threat. Any interpersonal action (verbal/nonverbal), stopping short of a directly self-harmful act, that a reasonable person would interpret as communicating or suggesting that a suicidal act or other suicide-related behaviour might occur in the near future.

Suicide ideation. Any self-reported thoughts of engaging in suicide related behaviour.

Like previous attempts, the nomenclature attempts to define the suicide act and various configurations of it depending on the variables of intent and outcome. The above nomenclature appears to be hierarchical in nature. Suicidal related behaviour encompasses suicide (S), suicide attempts (SA) and instrumental suicide-related behaviour (ISB). Suicide attempts further comprise suicide attempts with injuries (SAI). Suicide threats (ST) and suicidal ideation (SI) are other forms of suicidal behaviour (O'Carroll et al., 1996). Whilst S, SA and SAI possess intention to die, ISB does not. Intention in relation to ISB is not related to death but is associated with using suicide as a means to accomplish other ends (O'Carroll et al., 1996). A possible disadvantage of the above nomenclature is that it fails to consider cases in which suicidal intent and instrumental suicide-related behaviour co-occur. That is, even though it attempts to understand intent in terms of levels, it fails to acknowledge the presence of multiple intents. Perhaps another term called mixed type could be included, which could consider situations in which a person may have an unresolved intention to die and may engage in a non-lethal suicide attempt in order to muster up courage in preparation for their eventual death by suicide. (Section 4.2.6.1 explicates this in terms of primary and secondary intent and re-conceptualizes the incorporation of suicidal intent into the definitions of suicidal behaviour).

Rudd (2000) postulates that O'Carroll et al.'s (1996) nomenclature has the advantage of showing the critical role played by intent. Indeed, they advance prior definitional attempts by proposing that intent is a continuous property rather than dichotomous, and by emphasizing its subjective *and* objective components. However, it is argued that this should be taken a step further by acknowledging the possibility of multiple intent levels in certain cases of suicidal behaviour. The notion of multiple intent is an under-appreciated factor in suicidological discourse, even though Freud discovered its relevance during his reflections on suicidal behaviour (Litman, 1996).

An added advantage of the nomenclature is that it has managed to incorporate the notion that suicidal behaviour could be used to achieve other ends than death in its definitional spectrum. Also, the above nomenclature provides a clear and succinct way of communicating about suicidal behaviour. But, it is further argued that because the assignment of death by suicide relies upon judgments made by another person, the perceived intent to die may be confounded with the deceased's actual intent. This may be true for suicide and those cases of instrumental suicide-related behaviour that result in death due to chance factors. The problem becomes one of seeking adequate evidence to prove that a suicide was actually an instrumental behaviour with a chance-related fatal outcome. Because the victim is deceased, the motive can only be inferred. One may say that the eventual outcome is death anyway, which may be true. But the perceived intent (perceived by a person other than the suicide victim) may not necessarily reflect the underlying intent of the deceased. Thus, O'Carroll et al. (1996) neologisms have not made

an allowance for the operation of chance factors in which an instrumental suicide-related behaviour could result in a fatal outcome such as death. The consideration of a “mixed type” would further highlight the notion that even though intent may be inferred in certain situations, it’s clarity is further confounded by the existence of multiple intent.

In summary, O’Carroll et al. (1996) have presented a succinct nomenclature to enhance communication among professional persons coming into contact with suicidal behaviour. The advantages of such a nomenclature include, (a) the notion of intent as a continuous property, (b) the emphasis on the subjective and objective components of intent, and (c) the successful incorporation of suicidal behaviour as a means to other ends within the definitional spectrum. In addition, the possible limitations include, (a) the lack of consideration of multiple intent levels, (b) the lack of appreciation of chance factors especially in relation to instrumental suicide-related behaviour which could culminate in death, and (c) the lack of consideration of the ways in which individual value judgments could prevent the adoption of a standard and universal nomenclature. Clearly, there is ongoing need for aspects of the nomenclature to be applied and reformulated so that further consensus could be reached. Nevertheless, it attempts to provide some clarity and reduce conceptual confusion within the paradigm of understanding suicide as the suicide act.

2.2.4 Definitions Adopted in this Study

The definition of “suicide” and related terms adopted in this study, represents a component of the results obtained. To make them explicit here would be premature.

Nevertheless, it suffices to mention that perceiving suicide as a process would entail defining the term as a process comprising many phases. If the suicide act comprised a phase in this process, then the above definitions presented in the literature would be categorized as attempts to define the suicide act and not suicide per se, which is defined as a process. A more detailed argument is provided in section 4.2.6.1.

2.2.5 Associated Terms

Numerous other terms have been created and used in the field of suicidology. These include among others, the terms “suicidology” and “lethality”. “Suicide intention” is also an important term, but it has been adequately discussed in attempting to review definitions of suicide and related terms.

2.2.5.1 Suicidology

Shneidman (1981) defined suicidology as “the scientific study of suicidal phenomena” (1981, p. 9). He appears to be the first person to use the term in the context of suicidal behaviour even though it was coined in Dutch in the early twentieth century (Shneidman, 1981).

2.2.5.2 Lethality

Shneidman (1981) defined lethality as “the probability of a specific individual’s

killing himself... in the near future” (p. 144). He believed that suicidal behaviour could be categorized as having “high”, “medium”, “low” and “no” lethality. Shneidman’s (1981) notion of lethality was based on the person’s suicidal intent and on the action or method used to accomplish death. That is, the higher the intention to die the more lethal the action. McIntosh (1992a) draws attention to the notion that lethality may refer to either present risk of death by a method chosen to suicide or the future risk of death conveyed by a present action. Even though it appears as if lethality is related to intent, since a person with a serious desire to end their life would use a more lethal action than one who is not quite as serious, the relationship appears to be mediated by factors such as accessibility and knowledge of methods used (Pillay, 1989).

2.3 Classification of Suicidal Behaviour

Numerous attempts have been made within the field of suicidology to present typologies of suicidal behaviour, especially that of suicide (Durkheim, 1952; Freud, 1934; Maris, 1992; Sarro-Martin, 1984; Menninger, 1938; Zitzow & Desjarlait, 1994). Review of the literature has revealed that even though there is a host of possible classification systems, this has not helped to create a clearer picture of suicidal behaviour, due to a lack of consensus regarding the very nomenclature that is being classified. However, it is argued that with the introduction of the O’Carroll et al.’s (1996) attempt to produce a conceptually clear framework, further viable classifications may emerge.

For purposes of this study, an exhaustive review of the literature on suicide and

classification systems is unnecessary. Certain typologies, which have relevance to the study, will be reviewed. The purpose of this would be to provide an understanding of the ways in which suicidal behaviour has been used as a vehicle to accomplish a spectrum of ends.

2.3.1 Freud's and Menninger's Typologies

Freud (1934), set the stage for postulating that “suicides” involved an introjected form of hostility or death wishes that were originally aimed at an ambivalently loved significant other. This notion of hostility and guilt, as expressed by Freudian thinking, was synthesized by Menninger (1933).

Menninger (1933) proposed that suicide comprises three important dimensions – depression, guilt and hatred. Hatred for another person resulted in introjection of that anger, thus resulting in a form of suicidal behaviour, which Menninger described as “murder in the 180th degree” (1938, as cited in Maris, 1992, p. 71). Whilst attempting to kill an introjected object, Menninger postulated that ego splitting and repression resulted, so that the person eventually felt guilty for having death wishes about another person. Here, guilt induced a form of suicide in which the person has a “wish to be killed” or to be punished for harboring murderous impulses. Another form of suicide occurs when depression or melancholia takes place after guilt and self-hatred destroy the ego. This occurs within the context of hopelessness and cognitive constriction and represents a “wish to die”.

Menninger's classification system appears to comprise a synthesis of Freud's thoughts and reflections concerning suicidal behaviour. However, the usage of Freudian terminology to explain the mechanisms involved, restricts the refutation of such processes through empirical testing. Nevertheless, psychotherapeutic records confirm the clinical utility of such processes (Litman, 1996).

2.3.2 Baechler's Typology

There is general consensus that the classification of suicidal behaviour reflects the disciplinary boundaries within which suicidologists operate (Maris, 1992). For instance, Durkheim's types of suicide (which will be discussed in the next section) stemmed from his sociological interest in understanding social types, whilst Menninger's stemmed from a psychoanalytic and psychiatric context. As Maris (1992) postulated, "Quite understandably, we all tend to see suicide through our disciplinary glasses. Suicidology has its own 'Rashomon effect'..." (p. 67). In addition, attempts have been made to understand suicidal behaviour types from a philosophical perspective. One example would be that of the French philosopher Jean Baechler (1979).

Baechler (1979) proposed four types of suicide and eleven sub-categories, represented in Table 1 below.

Table 1

Baechler's Typology of Suicide

Type	Sub-category
Escapist	Flight, grief, punishment
Aggressive	Vengeance, crime, blackmail, appeal
Oblative	Sacrifice, transfiguration
Ludic	Ordeal, game

Escapist suicides involve attempts to avoid intolerable situations or feelings (flight), dealing with loss (grief) and atonement for mistakes (punishments). Maris (1992) found that approximately 75% of suicides were escapist in nature, representing attempts to problem-solve. Baechler (1979) proposed a further category called “aggressive” suicides, in which anger and aggression is interpersonally directed. This represents attempts to seek revenge (vengeance), to kill another person as in murder-suicides (crime), to manipulate another person (blackmail) and to cry for help or mobilize attention to particular distressful states or situations (appeal). Maris (1992) argued that about 20% of suicides represent aggressive suicides.

Oblative suicides involve according another more value than oneself (sacrifice) and obtaining higher states like religious martyrdom (transfiguration). Ludic suicides comprise proving something to someone (ordeal) and engaging in risk-taking ventures (game). The latter type could include components of indirect suicidal behaviour as defined by Farberow (1980, as cited in Maris, 1992) or micro-suicidal behaviour (Firestone, 1997).

Microsuicidal behaviour includes indirect suicide-related behaviour such as driving

recklessly or risk taking (smoking, drinking alcohol) in order to enhance ones quality of life whilst paradoxically compromising it.

The nature of Baechler's (1979) typology may be different from Menninger's (1933) typology. However, Baechler's typology appears to represent "reasons" or motives for engaging in suicide. Within the rubric of O'Carroll et al's. (1996) proposed nomenclature, Baechler's typology could represent the intentions for engaging in instrumental suicidal behaviour. It could also represent attempts to suicide especially if multiple intentions exist. Thus, such intentions may represent intentions at the levels of suicide and instrumental suicide-related behaviour.

2.3.3 Shneidman's Classification

In an earlier work, Shneidman (1981) proposed three types of suicide, namely, egotic, dyadic and ageneratic suicide. Egotic suicides are perceived as essentially psychological and result from intrapsychic debates and cognitive constriction. Dyadic suicides are interpersonal in nature and relate to Durkheim's social types. These result from unfulfilled needs within interpersonal relationships. Ageneratic suicides occur when an individual becomes alienated from significant others and previous generations. Ageneratic suicides may be related to de Catanzaro's (1986) argument that suicide occurs when an individual's ability to reproduce and contribute to society is significantly reduced.

Later, Shneidman (1985) reacted against his own classification system and any

attempts to classify suicidal behaviour, arguing that such attempts to present taxonomies were biologically reductionistic. Hence, he argued that suicides were essentially egotic in nature and began to develop his cubic model of suicidal behaviour, stressing the psychological aspects of suicidal behaviour. However, there is agreement with Maris' (1992) contention that his psychological reductionism is not that different from the biological reductionism he attempts to avoid.

Menninger's (1933) typology appears to overlap with Shneidman's (1985) classification system in relation to the overarching intrapersonal and interpersonal dimensions. In essence, Baechler's typology may be perceived as the fine detail that could be located within these two classifications. His typology includes sub-categories of dyadic and egotic suicides, and suicides stemming from "the wish to kill" and "the wish to die". In addition, his attempts have provided a link between using suicidal behaviour to die and using it as a means to accomplish escapist, aggressive, oblativ and ludic intentions, together with the possibility of having such intentions coexist in a single case (thereby allowing for the perception of multiple intents).

Thus, typologies of suicidal behaviour have recognized the varying motives and intentions involved in suicide. The incorporation of such diverse intentions into the definition of suicide proved to be difficult. O'Carroll et al.'s (1996) inclusion of instrumental suicide-related behaviour may have eased this difficulty by drawing attention to the notion that suicide can take place without a primary intent to die. However, it is still argued that a step towards recognizing and incorporating multiple intent levels needs to be

dealt with.

2.4 Theories of Suicide

2.4.1 Introduction

The Oxford dictionary (Thompson, 1996) defines a theory as “a system of ideas explaining something” (p. 946). There appears to be general consensus that theory contrasts with practice (Maris, Berman & Silverman, 2000). Maris et al. (2000) provide a succinct account of this position and a potent argument against it, when they wrote:

Theory is usually contrasted with practice. The suspicion... often is that they are secondary to practice and at worst that theoreticians are only web spinning, impractical dilettantes who really lack the skills to be able to do much of anything (e.g., they cannot prevent a suicide)...Yet as Shneidman argues...theory is eminently practical. Theory is both a way of seeing and a way of not seeing. Without a theory one does not even know what facts to pay attention to...Our theoretical assumptions (usually unstated and often unrecognized) influences what we attend to as well as what we neglect (p. 26).

Thus, theories serve to construct certain understandings of suicidal behaviour, which are adopted as perspectives of understanding suicide. Such perspectives inevitably inform empirical research by attending to certain segments of the suicidal experience over others. They are orientating frameworks, which are used, adopted and applied to domains of suicidological discourse such as treatment modalities. In addition, theories are informed by ontological and epistemological paradigmatic assumptions. In the field of suicidal behaviour; sociological, intrapsychic, biological, economic, evolutionary, learning and biopsychosocial theories have been proposed. Furthermore, there is a new theoretical

perspective that has been argued for in the field of suicidology (and perhaps in psychology itself). This involves the notion of integration of *empirical research*, informed by the perspectives of theories (van Heeringen et al., 2000). Such a theory could be perceived as a higher-order theory, incorporating numerous other perspectives. This section will focus on the theories that have been developed in the field of suicidology, in order to facilitate comparisons between these theories and the process theory of suicidal behaviour, and to present a broad conceptual background to the present study.

In reviewing theories of suicidal behaviour a specific format is followed. Theories have been grouped according to their attempt to explain certain aspects of suicidal behaviour over others. These include:

1. Interpersonal theories – explaining the relationship between social factors and suicide.
2. Intrapersonal theories – explaining the ways in which factors within the person (such as cognition and emotion) impact on suicidal behaviour.
3. Evolutionary theories – using evolutionary principles of social dynamics and reproductive potential to explain suicidal behaviour.

Theories belonging to these groups will initially be explained in terms of their basic principles, thereafter followed by a discussion. Once all the relevant theories have been treated in this way, section 2.5 will then attempt an integrated discussion of the theories. The review of two models (Maris's biopsychosocial model) and van Heeringen et al's (2000) proposed pathways to suicide, that present some form of integration of material will

follow attempts at integration. In addition, the Suicide Processional Model (SP Model) (Appalsamy, 2000), which explicates the process of suicide, will also be reviewed.

2.4.2 Interpersonal Theories

Interpersonal theories stemmed from Durkheim's (1952) pioneering sociological work, which explained the relationships between individuals and society. Such theories emphasize the social aspects of suicidal behaviour.

2.4.2.1 Durkheim's Theory

Basic Principles

Durkheim (1952) argued that suicide is determined by external, socially constraining forces such as social isolation or anomie and that suicide rates varied inversely with the social integration of a society. Forms of suicide become explainable when this relationship involves a manipulation of society's control of the individual, which is explicitly explained in Durkheim's classification of suicide. Durkheim (1952) proposed that suicides fall into three categories:

1. Altruistic suicide - which is regulated by society and is perceived as honorable.
2. Egoistic suicide - in which the individual's ties to the community are few and tense.
3. Anomic suicide - which results when the individual's ties to the community are

disrupted.

4. Fatalistic suicide – resulting from society's excessive regulation of the individual.

Durkheim (1951) also advocated that higher rates of suicide among Protestant than Catholics during the early 1900's reflected social differences in the regulation and control in these societies rather than religious or theological differences per se.

Discussion

Literature discussing the findings, implications and extended studies of Durkheim's social theory is extensive. For purposes of this only selected aspects will be discussed.

Shneidman (1985) criticized Durkheim's (1952) classification system, arguing that it was merely used to illustrate his sociological method. Douglas (1967) criticized Durkheim's theory for relying on official data in establishing his theory of suicide, arguing that Durkheim was studying "suicide rates" rather than "suicide" per se. Gibb and Martin (1964) explained that Durkheim's "social integration" should be replaced with "status integration" since Durkheim did not define the term in the first place, and their studies revealed that Durkheim's primary hypothesis was confined to occupational status. Thus, they hypothesized that lower status integration (reflecting less frequently occupied status sets) was associated with higher suicide rates.

In relation to Durkheim's explanation of the differences in suicide rates between

different religious affiliations, van Poppel and Day (1996) argued that Durkheim committed the “ecological fallacy”. The ecological fallacy involves treating group data as if it comprises individual data. van Poppel and Day (1996) postulated that the gap in the Protestant and Catholic suicide rates in Netherlands during the period 1905 and 1910 reflected the difference in how the deaths were recorded. For instance, the authors evince that many of the Catholic suicides were categorized as “sudden death” or “death from ill-defined or unspecified causes”, and on this basis it cannot be concluded as to whether Durkheim’s (1952) sociological explanation of the differences in suicide rates is valid, since the explanation merits no support from the data. In addition, Hovey (1999) conducted a study to test Durkheim’s hypothesis that religious affiliation was significantly related to suicidal ideation. He concluded that religious affiliation per se was not related to suicidal ideation. Rather, self-perception of religiosity and church attendance was significantly negatively associated with suicidal ideation. This introduces a caveat: Religion comprises numerous factors that may be related to suicidal ideation rather than the concept of “religion”. There is a general consensus in the literature regarding this caveat.

Durkheim’s (1952) theory of suicidal behaviour spawned further research, which took place in two directions. Dissatisfaction with Durkheim’s exclusive focus on social forces prompted the consideration of integrative models that operated from a biopsychosocial perspective (Maris ,1997). Secondly, parts of Durkheim’s theory were adjusted, resulting in partial modifications of the social influences on suicidal behaviour.

Durkheim’s (1952) theory on the social influences of suicide gave rise to a host of

arguments involving the role of imitation, modeling and suggestion in some suicide outcomes. For instance, Philips (1974) postulated that the death of the actress Marilyn Monroe led to an increase in national suicide rates seven to ten days after it was published and that there was a 2-3% increase in suicide rates after the publication of suicide stories. This imitation of suicide after a publicly reported story of suicide is known as the contagion effect and has been supported by studies, even though findings have been inconsistent. Maris (1997) argues that imitation is an artifact and believes that once a person suicides, it cannot be proven that the person supposedly imitating a suicide, saw the documented suicide of another person. Thus, he argues that because the literature lacks studies that measure positive effects, one can almost never understand the positive effects of publicized stories. However, Sonneck, Etzersdorfer and Nagel-Kuess (1994) attempted to measure such positive outcomes and found a 75% decrease in the suicide rates after a publicized suicide. Thus, more controlled studies, measuring the positive effects or converse imitation effects after exposure to publicized suicide stories, should be conducted to increase such a literature base. In addition to this, Maris (1997) argues that imitation appears to be more applicable to certain populations, such as adolescents, than older persons, with the available literature on suicide and imitation being rather atheoretical. Accordingly, the “Werther effect” (Philips, 1974, as cited in Maris et al., 2000) was developed to explain imitation following a celebrity suicide.

In response to these advancements and criticisms of the sociological study of suicide, Maris (1997) proposed a biopsychosocial model of suicidal behaviour. He believed that Durkheim had a sociological bias and did not emphasize the equally

important contribution of psychological, biological, mental and physical health variables. Maris's (1997) biopsychosocial model is considered in section 2.6.1 where integrative theories are reviewed.

2.4.3 Intrapersonal Theories

“Intrapersonal theories” is used as an umbrella term to review those theories that consider the influence of factors within a person (such as cognition, biology and affect) on suicidal behaviour. These include biological theories, cognitive theories, Shneidman's psychological theory, Freud's psychoanalytic theory and Baumeister's escape theory.

2.4.3.1 Freud's Psychoanalytic Theory

Basic Principles

Freud (1934) placed suicidal behaviour within the intrapsychic realms of the human condition. He explained suicide in terms of the process of ego splitting, which occurs during the introjection of an ambivalently and unconsciously loved and hated object (actual or ideal). Freud located such a process within the context of depression or “melancholia” as he termed it.

Freud (1934) argued that the ego splits, resulting in anger and aggression being directed inwards. The normal process of object-cathexis is blocked, and libido becomes

invested in the introjected love object, instead of being directed outwards. This results in a narcissistic identification with the lost object. Thus, as argued by Freud (1934) "... the loss of the object became transformed into a loss in the ego, and the conflict between ego and the loved person transformed into a cleavage between the criticizing faculty of the ego and the ego as altered by the identification..." (p. 159). When this criticizing faculty of the ego with its accompanying aggression, becomes strong enough, the person will engage in suicidal behaviour as a symbolic expression of the murder of the introjected love object. To Freud (1938), acts of self-destruction were essentially acts of "murderous impulses against others re-directed upon... (oneself)..." (p. 162).

Discussion

There is general consensus in the literature that Freud's theory has limitations. For instance, Zilboorg (1996) explained that the process of introjected anger resulting from an ambivalently loved significant other, cannot be applied to some cases of suicide. Moreover, there appears to be a lack of emphasis on the role of hopelessness in suicide.

Nevertheless, it has also been argued that Freud's contribution to the understanding of suicide has been largely misunderstood (Litman, 1996). This is due to the notion that Freud did not present a synthesized article on the topic, but his reflective inferences were scattered in other articles he wrote, in his letters to Wilhelm Fleiss and in his psychotherapeutic experiences with suicidal clients. By understanding all these reflective

inferences, it becomes logical to deduce that Freud contributed to the understanding of suicidal behaviour by positing the following ideas: (a) the experience of guilt arising from death wishes of others; (b) identification with a suicidal patient; (c) the refusal to accept loss of libidinal gratification; (d) suicide as an act of revenge, cry for help and means of communication; and (e) the relationship between death and sexuality (manifesting itself as a symbiotic relationship in which the ego becomes overwhelmed) (Litman, 1996, p. 207).

In addition, Freud's understanding of suicide was influenced by two streams of thought, (a) his attempt in 1910 to understand suicide within the libido theory, and (b) understanding the phenomenon within the death instinct theory after 1920 (Litman, 1996). Within this context, Freud could not understand, either way, how suicide could satisfy the basic human instincts of sexuality and self-preservation.

Hendin (1991) elaborated on the psychoanalytic understanding of suicidal behaviour. He argued that the psychodynamic meaning of suicide includes affective components such as rage, hopelessness, despair and guilt, including conscious cognitive elements. These cognitive elements include meanings given to death such as reunion, rebirth, retaliatory abandonment, revenge, self-punishment or atonement. Death as reunion, involves fantasies held by suicidal persons in effecting a reunion with a lost object through suicide. Such reunion may be expressed as rebirth when the object of loss is not deceased. Death as retaliatory abandonment involves using the medium of suicide to effect mastery over a situation through the persons control over living or dying. Suicidal death as revenge evokes the concepts of Freudian analysis. Here, suicide is perceived as the

repressed wish to kill an ambivalently loved object, which is ultimately an act of revenge. Finally, suicide as self-atonement reflects Menninger's (1938) proposition of a "wish to be killed" among suicidal persons, which stems from experiencing guilt when murderous impulses against another is harbored. Thus, in destroying oneself, revenge as well as self-atonement is being achieved. Contemporary object relations theory attempts to incorporate this image into its explanation of suicide. It explains suicide as an attempt by the superego (with which the good self is identified) to eliminate the bad self. One of the major limitations of psychoanalytic theory is its use of terminology which is difficult to operationalize and subject to empirical testing. Nevertheless, its proposed mechanisms have been able to explain certain cases of suicidal behaviour, especially "interpersonally motivated cases" involving revenge and guilt (Litman, 1996).

2.4.3.2 Cognitive Theories

Cognitive theories will be reviewed in order to get a basic sense of their primary principles. A more detailed discussion will be reserved for section 2.8., dealing with "suicide and cognition"

Basic Principles

The cognitive understanding of suicidal behaviour arose from Ellis's (1973, as cited in Weishaar, 2000) Rational Emotive Therapy (RET), which proposed that irrational beliefs led to self-defeating behaviours in depressed persons. Later, Beck (1976) expanded

this premise, and described the role of automatic thoughts in the depressive process. Such automatic thoughts include negative beliefs about the world, oneself and others. When such negative beliefs succeed in generating a negative affective state, which becomes intolerable, a person is argued to be vulnerable to suicide.

Discussion

The cognitive perspective has been quite successful in treating suicidal behaviour. It has informed research investigating the presence of cognitive distortions associated with suicidal ideation (Weishaar, 2000). Prezant and Neimeyer (1988) found that among moderately depressed persons, selective abstraction (SA) and overgeneralization (OG) predicted suicidal ideation. Both SA and OG are perceptual errors in that the former involves attending only to a portion of the available information whilst the latter involves abstracting a rule from a single event and applying it to other events (Weishaar, 2000).

Other studies have focused on the role of dysfunctional assumptions in suicidal ideation (Beck, Steer & Brown, 1993; Ellis & Ratliff, 1986), the attributional style of suicide attempters (Rotheram-Borus, Trautman, Dopkins & Shrout, 1990), the presence of problem solving deficits (Mraz & Runco, 1994; Schotte & Clum, 1987) and the predictor variable of hopelessness (O'Connor & Sheehy, 2001). Such cognition has been categorized as "cognitive risk factors" for suicide. Thus, cognitive theories have spawned a wealth of research on the relationship between suicidal ideation, suicidal affect and cognitive or perceptual errors, thus resulting in the identification of specific cognitive risk

factors associated with suicide.

2.4.2.3 Shneidman's Psychological Theory

Basic Principles

Shneidman (1992) proposed a psychological theory of suicide, which attempts to combine his purported commonalities of suicide. He argued that (1992, p. 6) :

1. The common purpose of suicide is to seek a solution
2. The common goal of suicide is cessation of consciousness.
3. Common stimulus in suicide is intolerable psychological pain.
4. Common stressor of suicide is frustrated psychological needs.
5. Common emotion of suicide is hopelessness-helplessness.
6. Common cognitive state in suicide is ambivalence.
7. Common perceptual state in suicide is constriction.
8. Common action in suicide is egression.
9. Common interpersonal act in suicide is communication of intent.
10. Common consistency in suicide is with life-long coping patterns.

Shneidman (1992) argued that these commonalities could be combined more succinctly into a theoretical cubic model represented in Figure 1.

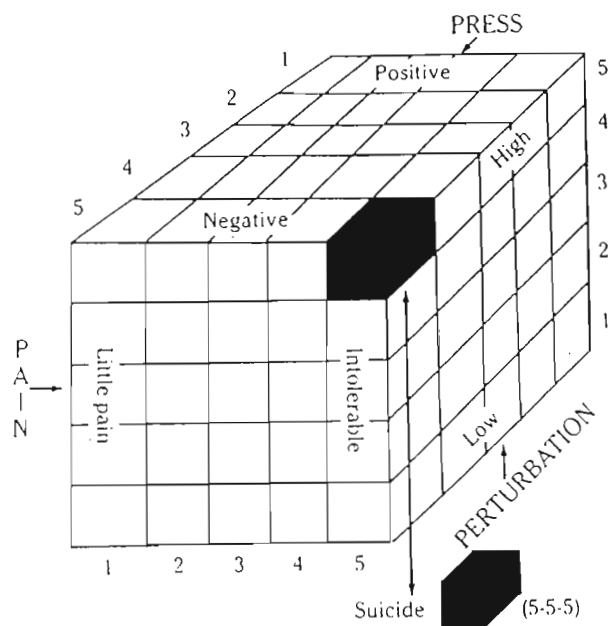


Figure 1

Extracted from: Shneidman (1992, p.11)

Shneidman's Cubic Model

The model is defined by 3 dimensions – pain, perturbation, and press. Pain refers to the psychological pain resulting from thwarted psychological needs and is termed “psychache” (Shneidman, 1992, 1997, 1999a). The magnitude of the pain ranges on a scale from one to five. On a level of 1 – there is little or no pain; the next level represents bearable pain and the last and fifth level represents intolerable psychological pain. Perturbation includes (a) perceptual constriction and (b) a tendency towards self-harming action (Shneidman, 1992). Perceptual constriction refers to a reduction in the individual’s perceptual and cognitive range and includes “tunnel vision”. Levels of perturbation have a scale rating similar to that of pain levels. The first level reflects open-mindedness, wide mental scope and relatively clear thinking, whilst the last (fifth) level represents tunnel vision and a narrowing of focus to a few options with thoughts about cessation and death. Impulsivity may feature during this state. Press refers to those aspects of the inner and outer world that affect the individual. In turn, press includes both positive and negative press. Positive press represents such aspects as happy fortune and good genes, whilst

negative press includes such factors that threaten the individual (Shneidman, 1992).

Shneidman (1997) argues that in this theoretical cube of 125 cubelets, only one cubelet (5-5-5, representing maximum pain, maximum perturbation, maximum press) signals lethal suicide potential. Shneidman (1992) does acknowledge that not all individuals in this stage will suicide, but he asserts that no one suicides, except those in the 5-5-5 cubelet. Thus, he stresses that the goal of therapeutic intervention is to reduce any of the three dimensions to a more bearable level.

Discussion

Shneidman's (1992) theory appears to have influenced the conceptualization of the suicide act and that of the suicidal individual. The notion of "psychache" has been widely adopted by contemporary suicidologists. However, it is argued that the notion of "psychache" or psychological affect is reductionistic and prevents the understanding that "psychological pain" may have cognitive and physiological components. In addition, Shneidman's (1992) proposal that suicide does not occur unless one is in the 5-5-5 cubelet appears to be an overgeneralization. The literature (Jacobs, Brewer & Klein-Benheim, 1999) warns of the person who has recovered from depression and who possesses sufficient energy levels to suicide. Here, there may be a lack of intolerable psychache accompanied by an overt predominance of positive affect, even though the person may be highly vulnerable to suicide. Thus, even though being in a 5-5-5 state may be a sufficient condition to result in suicide, it may not be necessary.

2.4.3.4 Baumeister's Escape Theory

Basic Principles

Baumeister (1990) attempted to integrate personality and social psychological perspectives into a sequential model. He proposed an escape theory of suicide in relation to reactions to stressful changes in life. He postulated that suicide represents an attempt to escape from the affective, motivational and cognitive consequences of unacceptable experiences. Stage one involves falling short of standards. Here, Baumeister (1990) explains that the person becomes aware of these shortcomings and perceives the self as unacceptable due to perceived failures emanating from shortcomings. In stage two, the person attributes the failure to the self, resulting in the generation of negative affect. This leads to the third stage in which cognitive deconstruction takes place. This involves shortness of time perspective, concreteness in thinking and a lack of focus on distal goals (Reich, Newsom & Zautra, 1996). Prior to reaching stage four, the individual experiences a loss of inner restraints, loss of emotional tone and passivity. In stage four, irrationality and disinhibition emanates from the latter feelings and cognition, and evolving fantasies and irrational thought patterns make the person vulnerable to suicide risk.

Discussion

Baumeister's (1990) escape theory has been subject to empirical testing and support for the theory has been documented (Dean & Range, 1999; Reich et al., 1996).

Reich et al. (1996) tested the theory on a sample of elderly adult subjects undergoing a recent health downturn. The study provided evidence for the theory's fit to the data and emphasized the importance of including life events, especially health downturns, and cognition (irrational and confused thought patterns) in understanding suicidal ideation (Reich et al., 1996). In addition, Dean and Range (1999) attempted to decipher the theory's Goodness of Fit index using a sample of clinical outpatients. Path analysis supported the escape theory of suicide in outpatients who are vulnerable to suicide because of the expected relationships of depression, hopelessness, reasons for living and suicide ideation (Dean & Range, 1999).

2.4.3.5 Biological Theories

Basic Principles

Biological theories emphasize the biological factors (biochemistry, genetics) that induce vulnerability to suicidal potential. Mann and Arango (1999) proposed that suicide was the result of multiple internal and external factors affecting an individual who was already at risk for suicide, due to the presence of a biochemical abnormality.

The association between psychiatric illness and suicidal behaviour confused the understanding of whether genetic mechanisms independent of psychiatric illness were involved in suicidal behaviour. There was an increasing need to understand whether suicide vulnerability was induced by hereditary mechanisms independent of the influence of psychiatric illness. Irrespective of this apparent confusion, twin and adoption studies

supported the notion of a genetic component to suicidal behaviour in certain cases (Roy, Segal, Centerwall & Robinette, 1991; Tsuang, 1977). Studies have also found that genetic and familial transmission of suicidal behaviour takes place independent of the transmission of psychiatric disorders (Brent, Bridge, Johnson and Connolly, 1996; Schulsinger, Kety, Rosenthal & Wender, 1979). Thus, there appears to be an independent genetic risk factor that induces vulnerability to suicide, notwithstanding the vulnerability induced by the genetic and familial transmission of psychopathological disorders.

In contemporary investigations into the neurobiological basis of suicide, decreases in the neurotransmitter serotonin (5-HT-Hydroxytryptamine) and its metabolite 5-hydroxyindoleacetic acid (5-HIAA), have been implicated in cases of completed and attempted suicide. This alteration of the serotonergic system has been supported by numerous studies (Arango, Underwood & Mann, 1997; Asberg, 1997; Pandey, 1997; Rao, Hawellek, Papassotiropoulos, Deister & Frahnert, 1998; Stockmeier, 1997; Stockmeier, Shapiro, Dille, Kolli, Friedman & Rajkowska, 1998; Wasserman, Hellstroem, Wasserman, Beck, Anderson & Asberg, 1998; Weiss & Coccaro, 1997). However, the findings have been inconsistent, with some studies reporting no alterations in serotonergic functioning (Arango & Underwood, 1997). The nature of the serotonergic alterations involves:

1. Reduced levels of both cerebrospinal 5-HIAA.
2. Reduced nerve terminal serotonin transporters in suicide groups compared to control groups.
3. Upregulation of the 5-HT_{1A} and serotonin-sub (2A) receptors (Rao et al., 1998).

4. Increased density of the serotonin-synthesizing neurons in the dorsal raphe nucleus (Arango & Underwood, 1997; Du, Faludi, Palkovits, Demeter, Bakish, Lapierre, Sotony & Hrdina, 1999; Underwood, Khaibulina, Ellis, Moran, Rice, Mann, Arango, 1999).

5. Altered HVA (the dopamine metabolite homovanillic acid) levels and ratios with 5-HIAA and MHPH (the norepinephrine metabolite 3-methoxy-4-hydroxyphenylglycol) and genetic risk factors involving the tryptophan hydroxylase gene (TPH).

In addition to serotonin, dopamine and noradrenalin studies, more recent studies (Hibbeln, Linnoila, Umhau, Rawlings, George & Salem, 1998) have found that polyunsaturated fatty acids rather than cholesterol levels, may serve as markers of serotonergic functioning and subsequent suicidal behaviour.

Studies have also been conducted to understand the relationship between biological variables and behaviour. For instance, changes in serotonin levels in the prefrontal cortex have been reported to influence personality traits such as impulsivity (Verkes, van der Mast, Kerkhof, Fekkes, Hengeveld, Tuyl & van Kempen, 1998). Such impulsivity is perceived to result in reduced behavioural inhibition, increases in depression and aggression, which further increase vulnerability to suicide potential.

Discussion

Research into the neurobiological basis of suicidal behaviour has focused on the

exacerbating and moderating influences of biology. It is argued that this has prevented research into the parallel influences of biology. Parallel influences would aim to understand the concomitant biological factors associated with state changes in the suicide process, such as the biological factors accompanying emotive and cognitive aspects of the suicide crisis phase. Such a parallel understanding could be facilitated by the use of *in vivo* methods such as Positron Emission Tomography (PET) and electroencephalographic (EEG) scans. Such attempts to understand the parallel influences of biological variables may enhance the understanding of the corresponding behavioural, cognitive and affective components of suicidal behaviour.

In relation to the inconsistent neurobiological findings, Arango and Underwood (1997) outline possible confounding factors: (a) direct and inappropriate ligands used to label the receptors; (b) differing post-mortem intervals that influence transporter binding in suicide victims; (c) examination of different prefrontal brain regions; and (d) the use of medication, which influences receptor bindings. Thus, inconsistent findings may be a product of methodological and measurement issues rather than being a reflection on the validity of the neurobiological influences of suicidal behaviour.

In relation to the influence of polyunsaturated fatty acids, more studies need to be conducted to determine whether essential fatty acid supplementation could influence central nervous system serotonin and subsequently serve as a mediator against impulsive behaviour (Hibbeln et al., 1998).

The relationship between personality variables and biochemical factors is not made explicit in contemporary suicidology. More research needs to be conducted to identify personality characteristics and their corresponding serotonin, dopamine and noradrenalin metabolisms. This may provide alternate points for therapeutic intervention and prevention.

In essence, there is a desperate need to advance the psychobiological understanding of suicidal behaviour in specific relation to the parallel relationship between the biological, affective and cognitive aspects of suicidal behaviour.

2.4.3.6 Economic Theories

Basic Principles

Economic theory has adopted a cost-benefit approach towards understanding suicidal behaviour. This approach perceives suicide as a rational act, since the decision to suicide depends on the perceived costs and benefits of suicide and its alternatives. The proposed benefits include escaping pain and distress, and the impact of the act on others (achieving interpersonal revenge, restoration of image, spiting others). Possible costs would include, money needed to buy equipment to die, the pain involved in killing oneself, the expected punishment as advocated by religion, the emotional reactions of the suicide survivors, the perceived pain in killing oneself and the fear of surviving a suicide attempt with permanent disability (Lester, 1990). Once the benefits are perceived to exceed the

costs, the potential for suicide is great, but once the costs are perceived to exceed the benefits, the possibility of dying from suicide is reduced.

Discussion

In accordance with its basic principles, economic theory proposes that ways have to be constructed to convert the benefits and demands into costs and supplies. It is suggested that such variables should be converted into monetary units that can be effectively manipulated (Lester, 1990). For instance, Lester (1990) suggests that to measure distress, one could equate it with the cost of the psychological services needed to eliminate the distress experienced by a person, so that each level of distress is equivalent to a monetary unit. This however seems to be complicated by the fact that not all psychological services are effective in treating suicidality. To overcome such a limitation, Lester (1990) suggests that the probability of the cost of treatment could be used instead of the cost of treatment.

The economic approach appears to explicate one of the many possible mechanisms involved in the decision to suicide. This apparent rational decision to suicide may oppose the arguments made by cognitive theories, in which suicide is influenced by the operation of cognitive distortions. Such a rational decision would also oppose the arguments made by Shneidman (1999) in which suicide takes place within the context of cognitive constriction. Nevertheless, it may be that these seemingly opposite processes actually operate in different contexts of suicidality, so that a quest towards establishing a single universal “truth” may be unnecessary. Indeed, the attempt to establish single universal

rules, opposes the relativistic and context-driven epistemology advocated by the social constructionist paradigm informing this study.

2.4.4 Evolutionary Theories

Basic Principles

Evolutionary theories begin with the premise that social and reproductive facets of human existence influence suicidal behaviour. Such facets are considered the essence of human survival. de Catanzaro's (1986) evolutionary theory appears to be the leading contribution in the evolutionary understanding of suicide. This mathematico-evolutionary theory proposes that suicidal individuals are low in reproductive potential and staying alive may reduce their inclusive fitness, thereby posing a threat to the reproductive potential of close kin. This would subsequently cost them opportunities to reproduce.

The evolutionary understanding of suicide has been relatively ignored in the field of suicidology, and its attempted integration with other theoretical perspectives as proposed by Shneidman (1992) has also been relatively neglected.

Discussion

Brown, Dahlen, Mills, Rick and Biblarz (1999) tested de Catanzaro's (1986) predictions on a sample of university students. The criterion variables were measures of depression, hopelessness and suicide ideation whilst the predictor variables were measures

of the reproductive potential of the subject, perceived benefit or cost to kin and the reproductive potential of the subject's kin. Findings revealed that there were significant bivariate correlations between the predictor variables and one or more of the criterion variables. Multiple regression analysis showed that benefit to kin was the best predictor of depression and hopelessness, whilst discriminant analysis showed that the reproductive potential of the kin significantly differentiated attempters from nonattempters. Section 2.5 will attempt to integrate the findings of the evolutionary theory with other theories.

2.5 Integrative Review of the Theories

2.5.1 Complementary Aspects of Theories

Durkheim's (1952) sociological theory and de Catanzaro's (1986) evolutionary theory appear to complement each other. That is, Clark and Fawcett (1992) have reviewed empirical risk factors of suicidal behaviour and have argued that factors such as having children under the age of 18 in the home, protect individuals against suicide potential, whilst single, divorced and widowed persons have higher rates of suicide than married persons. Thus, Durkheim's concept of social alienation or anomie appears to be applicable here. Accepting that social dynamics play a role in this determination, it may be possible that de Catanzaro's (1986) model explicates one of the processes or mechanisms underlying these differential suicide rates. The absence of spouse support in the single, divorced and widowed persons may be a factor; but the reduction of inclusive fitness and the subsequent support needed from close kin (which may or may not be available) may be

another explanation for the higher suicide rates in these marital groups. It could be that single, divorced and widowed persons exhibit higher suicide rates because of the factor of reproductive potential and perceived benefit to kin, rather than due to the factor of social isolation. The issue would be to understand the underlying mechanisms involved in such demographic risk factors (such as specific marital status groups).

In addition, the third stage of cognitive deconstruction as advocated by Baumeister (1990) is similar to the notion of cognitive constriction explicated by Shneidman (1997). Both describe concrete thinking, a lack of focus on distal goals and a shortness of time perspective.

In essence, human functioning involves a combination of interpersonal, intrapersonal (cognitive, emotion, biological), evolutionary and situational factors comprising the human condition. Thus, each perspective may complement the other. The degree to which these factors exist in relation to each other may depend on the idiographic context within which each individual exists. Perhaps different aspects of human functioning complement each other in different ways, so that whilst a biological factor may represent just another way of understanding a cognitive factor, in another context, a biological factor may be causally or concomitantly associated with a cognitive factor. Therefore, different relationships between the aspects of human functioning may exist, which could confound attempts to understand the integration of such aspects.

Presently, there is a lack of adequate understanding of the ways in which various

aspects of human functioning interact with each other. Biological theories appear to be more advanced though, and empirical research within this perspective has shown the interaction of biological factors, behaviors such as impulsivity, affect such as aggression, and cognition such as planning and memory (van Heeringen et al., 2000). However, despite these advancements, the understanding of the relationships between aspects of human functioning is in need of more clarification. Considering this limitation, the understanding of such relationships as they unfold within the process of suicide, as being virtually indecipherable today, would be understandable.

2.6 Suicide as a Process

The background to understanding suicide as a process has been mentioned in section 1.3 of the introduction. This section presents an elaboration of such contentions.

The notion that suicide constitutes a process was reinforced by Maris' (1981, as cited in Maris, Berman & Silverman, 2000) concept of the suicidal career. Maris (1981, as cited in Maris et al., 2000) argued that

The concept of suicidal careers is central...No one suicides in a biographical vacuum; life histories are always relevant to the final act of suicide. Suicidal decisions develop over time against certain social, psychological, and genetic (or biological) backdrops; they are never completely explained by acute, situational factors (p. 38).

Even though the intention for the adoption of the concept was to facilitate the integration of biopsychosocial factors in understanding suicide, the salient implication of

suicide as a process was evident with the conceptualization that “Suicidal decisions develop over time...” More recently, researchers have attempted to clearly articulate this process, but have failed to explicitly identify the phases of the process even though they hypothesized it’s existence (van Heeringen et al., 2000). Notwithstanding these attempts, the lack of uniformity in defining the “suicide process” has been a further hindering factor. This contention will be discussed later in this section. For present purposes, it suffices to understand that the conceptualization of suicide as a process remained in the shadows of mainstream suicidology for close to 3 decades, and more researchers have made attempts to adopt this new way of understanding suicide only recently. Clearly, the clinical and research impression that varying pathways led to the suicide act was present, but to date no study has been able to identify such pathways as comprising phases leading to the suicide act. Hopefully, the present study would facilitate such a paradigmatic shift in understanding, by proposing phases comprising the suicide process.

Because this study aimed to develop a process theory of suicidal behaviour, by making explicit phases of the suicide process, it is important to create the context for its inception, by reviewing past attempts to understand pathways to suicide. This includes Maris’ (1997) biopsychosocial model, van Heeringen et al.’s (2000) proposed pathways to suicide and the SP Model (Appalsamy, 2000) which are reviewed below.

2.6.1 Maris’ Biopsychosocial Model

Maris (1997) developed a biopsychosocial model based on the principles that the

suicide act represents a complex interaction of biopsychosocial forces, the interaction of which wax and wane during the course of a suicidal career. A diagrammatic representation of his model is represented as Figure 2:

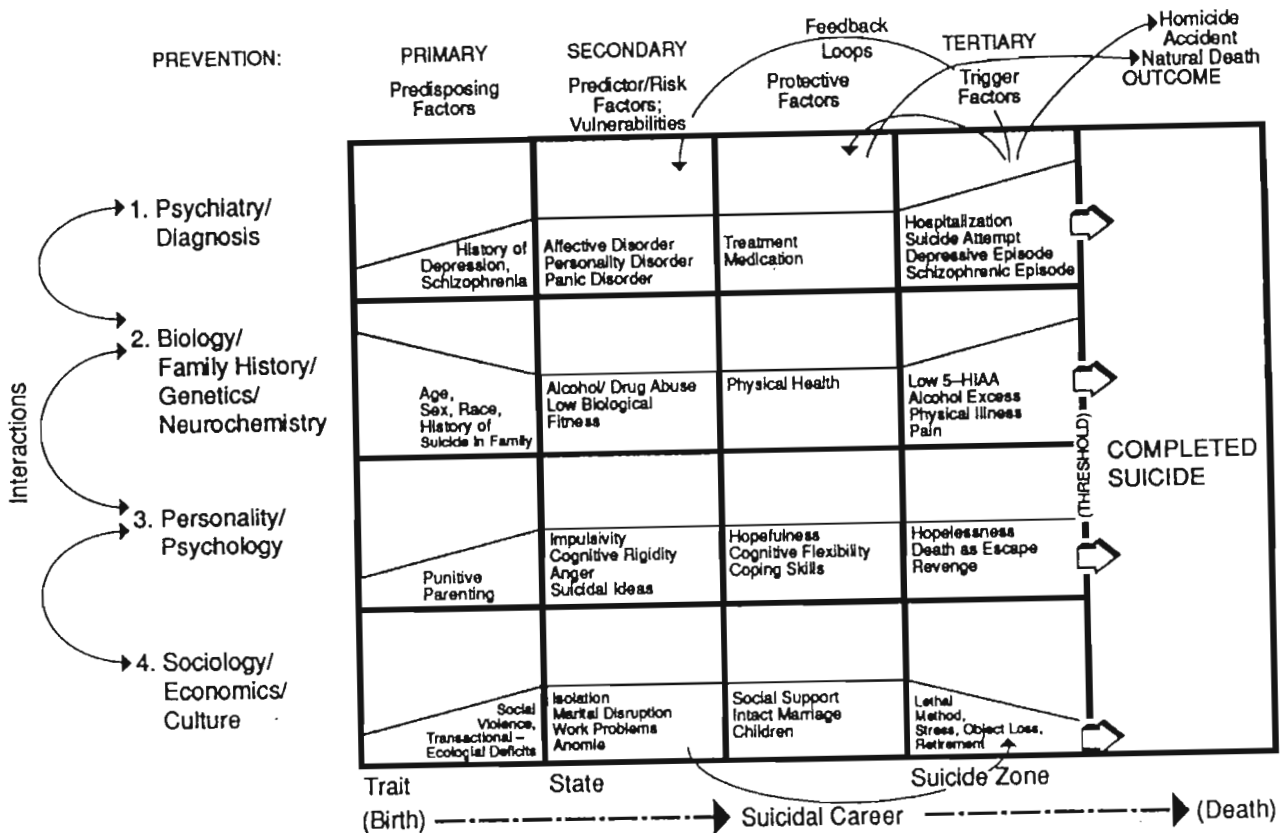


Figure 2

Extracted from: Maris (1997, p. 54)

Maris' Biopsychosocial Model

Variables are characterized as predisposing, risk, protective and triggering factors in the suicidal careers of suicidal persons. In addition, the model (Maris, 1997) proposes that there is a "suicide zone" of acute self-destructive risk, from which 98-99% of suicidal

persons wax and wane back to the risk or protective factor component (made possible by feedback loops). In relation to the generation of false positives, the model acknowledges that suicide is a rare outcome and that most individuals may never suicide. The predisposing, risk, trigger and protective factors comprise psychiatric, biological (genetics, family, history, and neurochemistry), personality, and sociological (economic) factors (Maris, 1997). Accordingly, the predisposing factors include a history of depression, schizophrenia, age, sex, race, history of suicide in the family, punitive parenting, social violence and transactional-ecological deficits. The risk or predictor factors include the presence of an affective disorder, personality or panic disorders, alcohol abuse, low biological fitness, impulsivity, cognitive rigidity, anger, suicidal ideas, isolation, marital disruption, work problems and anomie (Maris, 1997). Protective factors are inclusive of being in treatment, on medication, physical health, hopefulness, cognitive flexibility, coping skills, social support, intact marriage, and having children in the home (Maris, 1997). Tertiary or trigger factors include hospitalization, suicide attempts, depressive episodes, schizophrenic episodes, low 5-HIAA levels, alcohol access, physical pain, hopelessness, death as escape, seeking revenge, the lethality of the method, stress, object loss and retirement (Maris, 1997).

Maris' biopsychosocial model provides a succinct account of the factors leading to suicide potential as well as the interaction of these factors. Furthermore, it represents an attempt towards integration, by considering the influence of biological, psychological and social variables. However, the model is insufficiently dynamic. For instance, the primary (predisposing), secondary (risk) and tertiary (trigger) factors are fixed, possibly not

allowing for the manipulation of factors at an idiographic level. For instance, social violence may not necessarily be a primary predisposing stressor for an individual, but a trigger factor. Likewise, low 5-HIAA levels may not be a trigger factor for a specific individual but a primary predisposing stressor. Hence, there may be a dynamic relation between the stressors and Maris' feedback loops (at the level of the secondary-protective and trigger factors) cannot adequately capture this dynamic relation. Secondly, some of these factors relate more to one age group than another age group. For instance, interpersonal conflicts resulting from disciplinary crisis with parents appear to pertain to adolescents more than any other age group (Berman & Jobes, 1992), whilst problems with deteriorating physical health pertain more to older persons. Hence, Maris (1997) should have developed stressor factor profiles for specific age groups, which could have further enhanced the dynamic nature of the model. A final limitation of the model is that it assumes that the combination of risk factors is sufficient to lead to a suicide act. In relation to this, there is a huge gap in the literature concerning the pathways from the achievement of vulnerability (through the presence of risk factors) to the suicide act itself. It is in this gap that van Heeringen's et al.'s (2000) pathways to suicide and the Suicide Processional Model (Appalsamy, 2000) could be situated.

2.6.2 Van Heeringen et al.'s (2000) Pathways to Suicide

Van Heeringen et al. (2000) defined the suicide process as:

The intra-individual process in reaction to a person's environment, starting with feelings of despair, then fleeting suicidal thoughts and evolving through more concrete plans and suicide attempts, which are often recurrent and may show increasing levels

of suicide intent and lethality of methods used, to complete suicide (p. 230).

The authors perceive suicide as the complex result of the interaction of psychological, social and biological factors. The definition appears to move beyond the definitions emanating from the stress-coping paradigm (Bonner, 1992) and includes the incorporation of affect (despair) in the linear perception of movement from vulnerability to suicidal affect and ideation, and then to suicide acts. In addition, this definition of suicide process is accompanied by the author's explicit proposition of how a lack of escape potential and accompanying despair leads to the suicide act. This will be elaborated on shortly.

The authors argue that one's environment may be an extended phenotype, so that a person's genetic predisposition may influence the kind of stressors or environments a person is exposed to. In addition, they attempt to understand the relationship between the functioning of the prefrontal cortex; behavioural factors such as behavioural inhibition; and cognitive aspects such as autobiographical memory, planning and the generation of alternate solutions to problems. Using Williams' (1997) understanding of suicide, they argue that the process begins with initial protest and anger, but when escape potential from a situation is perceived as impossible, despair and hopelessness sets in, which creates the context for engaging in the suicide act. The authors propose that they are unable to clearly define the phases of the process, but they have managed to produce some form of integration of biological, psychological and social factors associated with suicide.

It is here that the SP model (Appalsamy, 2000) could fit in, since it does attempt to make explicit the possible phases comprising the process of suicide.

2.6.3 The Suicide Processional Model

The present author developed the SP Model (Appalsamy, 2000) in order to highlight the processional aspects of suicidal behaviour. The proposed definition of the suicide process, departs from previous attempts at definition (Bonner, 1992; van Heeringen et al., 2000). Here, it is defined as the phases, which a potentially suicidal person may pass through, with vulnerability to suicide being one phase among others. Moreover, the suicide act is considered to be just one of the many possible outcomes when a person moves through the phases. The phases of the SP model (Appalsamy, 2000) were insufficiently dynamic and assumed that a person moves through the phases in a linear progression as did van Heeringen et al. (2000).

The model begins by explaining that stressors may be mediated by protective factors. This conceptualization was adopted from Zubin and Steinhauer's (1981) understanding of vulnerability to schizophrenia. Appalsamy (2000) argues that when a certain threshold level is achieved, vulnerability to suicide potential occurs. Such a threshold level may be typified by the presence of suicidal ideation. Stressors are perceived as biopsychosocial in nature and are categorized as primary (etiological), secondary (precipitant) and correlative (Appalsamy, 2000). Moreover, they are related to idiographic contexts, so that a primary stressor in one case may be a secondary stressor in another. This compensates for the lack of dynamism in stressor profiles as reflected in Maris's (1997) model. The achievement of the vulnerability status occurs through

mediation of the effects of stressors by protective factors (resources that an individual possesses).

Once a person engages in suicidal ideation, he or she moves to an Ideational Dominance Phase (ID Phase). This phase is characterized by a continuum of suicidal ideation and the person engages in an internal debate concerning killing themselves, the people who left behind and the method to be used. The phase is characterized by considerable discursive ambivalence concerning the suicidal act. Suicidal affect (psychache) is present, but is suppressed by suicidal ideation. Once affect reaches intolerable levels, the person moves to an Affect Dominance Phase (AD Phase). Appalsamy (2000) argues that the term “psychache” may be misleading since it excludes the possibility that suicidal affect may have physiological components as well. Thus, the term physiopsychache (PPA) was coined to refer to suicidal affect. Figure 3 shows the possible pathways in the AD phase, which could be experienced by potentially suicidal persons.

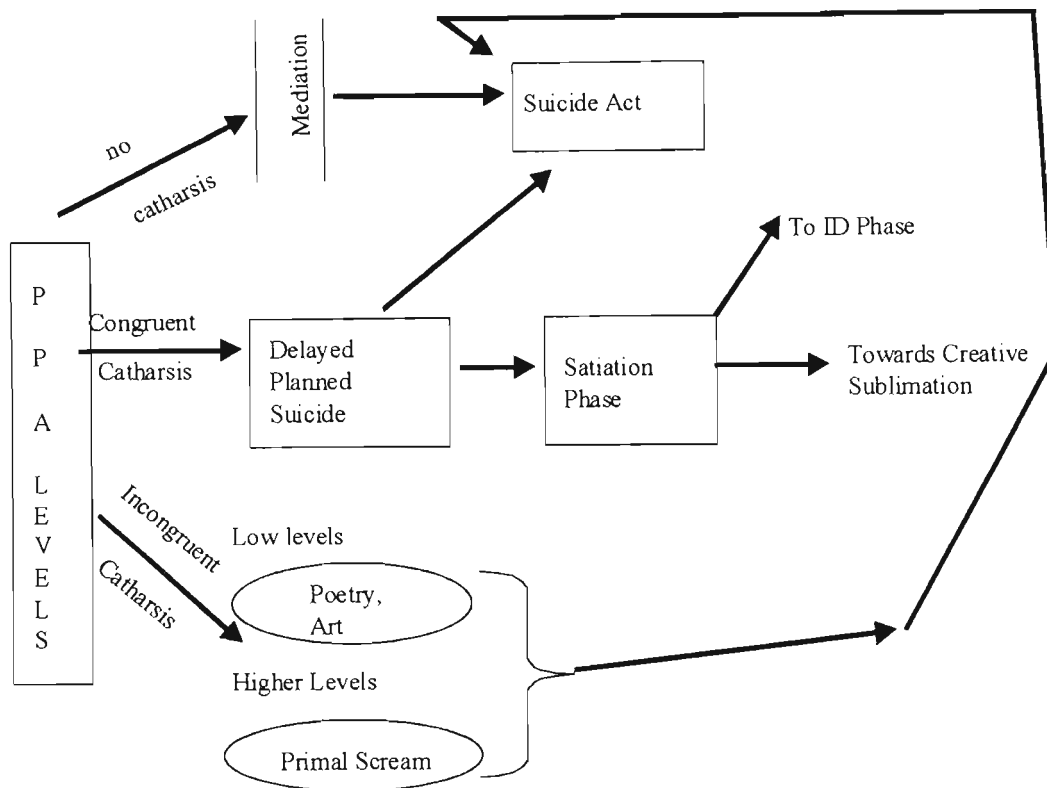


Figure 3. Cathartic pathways in the AD phase.

Once intolerable affect levels are established, catharsis or ventilation of such affect may occur. Accordingly, two types of catharsis become possible: (a) congruent catharsis and (b) incongruent catharsis. Congruent catharsis involves flowing with suicidal feelings, resulting in a delayed planned suicide act in which the individual may temporarily postpone the suicide act to get aspects of their lives in order, such as giving away prized possessions to be taken care of and saying farewells. Incongruent catharsis involves channeling the suicide affect into sublimated activities such as diary and poetry writing for low levels of affect, or engaging in a primal fight-off for high levels. A primal fight-off is similar to the primal scream (Janov, 1970) and includes intense spasmodic crying, clenching

of fists, tensing of the body and ventilating the suicidal pain.

The potentially suicidal individual could engage in either of the above cathartic routes, or not engage in any form of catharsis, the latter of which would predispose the individual to engage in a suicide act. In the latter case, the relationship between a lack of catharsis and the suicide act is mediated by factors such as the availability of means to suicide. However, if catharsis has been achieved, the person may move to a Satiation phase (SP) in which there is a state of mental clarity, physical calmness, emotional stability and a considerable reduction of cognitive rigidity.

For the individual who has managed to ventilate painful suicidal feelings, interpersonal forms of therapy may be crucial in attempting to deal with the stressor that allowed the person to spiral down the process of suicide. Appalsamy (2000) argues that if such attempts are not taken, then the presence of the stressor may mean that the person may re-cycle through the process. Limitations of the model include, (a) a lack of consideration of how biological factors could influence movement through the process of suicide, (b) insufficient dynamism between phases, (c) a lack of consideration of possible cognition influencing the process of suicide, (d) the lack of consideration of cultural factors and boundaries of the model, the latter of which would influence the generalization of the model's tenets, and, (e) the absence of empirical or clinical evidence to support the existence of such phases of the process.

The SP model (Appalsamy, 2000) was a work in progress and has now been

assimilated into the Process Theory of Suicidal Behaviour, which forms the crux of this thesis. Aspects of the model have been modified to fit the grounded theory methodology of theory construction.

2.7 Vulnerability to Suicide

Theories of suicidal behaviour provide perspectives that inform empirical research into various domains of suicidological discourse, such as understanding vulnerability to suicide, and the relationship between suicide and affect and cognition. There has been extensive coverage in contemporary suicidological literature concerning the development of vulnerability to suicide (Pfeffer, 1986). Mostly, this vulnerability has been rigidly informed by the empirical prediction offered by the presence of suicide risk factors. Risk factors are defined as “a measurable characteristic, variable, or hazard that increases the likelihood of development of an adverse outcome” (Last, 1983, as cited in Mościcki, 1999, p. 44). Thus, risk factors are opposed to the notion of correlates of suicidal behaviour, due to their required ability to predict the behavioural outcome of suicide.

Contemporary literature includes a plethora of research attempting to study the clinical utility of risk factors from different facets of human functioning (biology, family, social, medical, mental, and intrapersonal realms) and hence different theoretical perspectives. However, the establishment of vulnerability to suicide based on risk assessment, has been largely inadequate due to the following generally acknowledged reasons:

1. The low base rate of suicide in the population implies that suicide is a statistically rare event and subsequent attempts to predict individual suicide would generate large numbers of false positives (Goldney, 2000).

2. The use of risk factors, is predictive of groups of individuals and not individual persons per se, thereby creating the context for the generation of more false positives (Goldney, 2000).

Such considerations need to be borne in mind when risk factors are used to establish vulnerability to suicide in an individual.

A further complicating factor concerns the frequent lack of consideration of protective factors. Protective factors refer to the resources (psychological, social, cultural factors) that increase an individual's resiliency and adaptive capacity in the face of stressors. Even though there are attempts to include protective factors by some researchers (Jurich & Collins, 1996; Metha, Chen Mulvenon & Dode, 1998; Schotte & Clum, 1987), such an endeavour is by no means universally adopted. For instance, some authors such as Stoelb and Chiriboga (1998), propose frameworks for understanding suicide risk, but fail to include protective factors that mediate the effects of stressors.

The review of the vulnerability to suicide in this section will include a review of risk factors and protective factors in certain areas of human functioning. This endeavour is not intended to be exhaustive or specifically aimed at certain populations (such as older persons or adolescents), but is conducted for illustrative purposes. The aim is merely to illustrate the generic risk factors that have been subject to study, which would form the

basis for the second endeavour, which is, to review models and studies attempting to enhance the predictive power of a vulnerability to suicide, based exclusively on the consideration of the presence of risk factors. It must be kept in mind, that generic risk factors have specific threads. For instance, if the presence of family conflicts is believed to be a risk factor (generic), the nature of its manifestation may be different for adolescents as opposed to older persons (specific threads). This specificity may also be influenced by demographic and cultural factors.

2.7.1 Suicide Risk Factors

2.7.1.1 Psychiatric risk factors

Certain psychiatric risk factors, such the presence of major depression, have been strongly statistically associated with suicidal behaviour (Angst, Angst & Stassen, 1999; Aoki & Turk, 1997; Cattell & Jolley, 1995; Haliburn, 2000; Hendriksson, Marttunen, Isometsae & Heikkinen, 1995; Takahashi, Hirasawa, Koyama & Asakawa, 1995). The Suicide Risk Advisory Committee of the Risk Management Foundation of the Harvard Medical Institutions (1999) found that the presence of depression increases the lifetime risk for suicide by 15 times. Such a contention, that the presence of a depressive disorder significantly increases the risk for suicide, has become an empirically researched adage. In line with this Bostwick and Pankratz (2000) have cautioned against the ways in which researchers and clinicians have uncritically accepted this. The authors argue that the risk

posed by depression and other affective disorders is population specific, and would be different for psychiatric inpatients compared to non-hospitalized patients, for instance. Thus, the subsequent risk posed by the presence of an affective disorder varies from population to population.

Besides depression, other psychiatric disorders have come to be associated with suicidal behaviour. The comorbidity of such psychiatric disorders has frequently been shown to increase the risk for suicide more than the independent existence of specific disorders (McIntosh, 1992b). In line with this, McIntosh (1992b) states that “suicide etiology is likely to involve several factors interacting rather than a single one, this multifactor [sic] nature of suicide is present for suicides of all ages, but is particularly relevant among the elderly” (p. 113). Other psychiatric disorders which have been found to be associated with suicidal behaviour include schizophrenia (Tsuang, Fleming, & Simpson, 1999), personality disorders (Davis, Gunderson & Myers, 1999), bipolar disorder (Harris & Barraclough, 1997), anxiety disorders (NIMH, as cited in Fawcett, 1999), posttraumatic disorder (PTSD), substance abuse disorders (Murphy, 2000) and conduct disorders (Apter & Freudenstein, 2000). Borderline personality disorder (BPD) has been most frequently associated with suicidal behaviour, where it has been found that up to 75% of such persons have attempted suicide at least once (Soloff, Lis, Kelley, Cornelius & Ulrich, 1994). Antisocial personality disorder has also been associated with suicidal behaviour (Murphy, 2000). Pathological anxiety has been found to increase the risk for suicide both imminently and over a lifetime (Allgulander, 2000).

Thus, the central role of psychiatric disorders in suicide has been firmly established in the literature. Whilst empirical studies have validated its presence in over 90% of persons attempting suicide, it has conveniently ignored the remaining 10% who show no signs of psychiatric illness. The notion that psychiatric disorder is a necessary antecedent to suicidal behaviour has become an adage in the field and it is argued that this does not provide researchers and clinicians with permission to ignore and study the possibility of suicide independent of psychiatric illness. Such possibilities have recently been recognized in aspects of human functioning such as emotional exhaustion (Motto, 1999). Thus, it is argued that whilst psychiatric illness is sufficient to induce suicidal behaviour, it may not be necessary, and by ignoring the 10% who appear to have no psychiatric diagnosis, intervention and preventative efforts become biased. In this way, a group of suicidal persons are being denied the opportunity of being therapeutically assisted by a lack of acknowledgment that their distress signals may be incompatible with the view that psychopathology is a necessary antecedent to suicide. Despite this, there may be a possibility that the individuals comprising this 10% may have undiagnosed psychopathology.

2.7.1.2 Family risk factors

Aspects of familial functioning have been found to be associated with suicidal behaviour. These include:

1. Family conflicts and pathological boundary functioning (Wassenaar, 1987).

2. Broken and disrupted familial relationships such as widowhood and divorce, which have higher incidences of suicide than married counterparts (Li, 1995).

3. The presence of family members who have attempted suicide or who have suicided, thus creating the context for imitation among already vulnerable persons (de Wilde, 2000; Laederach, Fischer, Bowen & Ladame, 1999).

4. Inadequate rearing during the formative years which may include factors such as physical, sexual and emotional abuse that predispose one to establish low self-esteem levels, inappropriate problem solving abilities and low frustration tolerance (Brent, Moritz, Liotus, Schweers, Balach, Roth & Perper, 1998; Kaplan, 1996).

5. A history of psychiatric illness in the family, together with pathological interactions with significant others (Aoki & Turk, 1997; Brent et al., 1998; Wagner, 1997).

The constellation of familial risk factors would depend on the interaction of demographic, cultural and idiographic familial factors.

2.7.1.3 Physical health risk factors

Certain illnesses have been found to be associated with suicide. These include cancers of the brain and nervous system (Storm, Christensen & Jemson, 1992), multiple sclerosis and spinal cord injuries (Harris & Barraclough, 1994). Despite this, studies (Dennis & Lindsay, 1995) have found that the presence of physical health problems pose a particular risk for older persons especially when it is accompanied by chronic and unremitting pain due to physiological changes accompanying old age. This appears to be

valid for older persons in China (Liu & Fei, 1997; Xu, Xiao, Chen & Liu, 2000), Finland (Heikkinen & Loennqvist, 1995), Germany (Schmitz-Scherzer, 1995) and the United States (Dennis & Lindsay, 1995; Duberstein, 1995; Lester, 1994). Specific threads exist here too, since Quan and Arboleda-Florez (1999) found that whilst physical illness was more frequently found among older males, mental illness was more frequent among older females. In addition, Kleespies, Hyghes and Gallacher (2000) explained the risk posed by terminal illness to suicidal behaviour. The point to be stressed is that the presence of physical illness has been established as a risk factor for suicide.

2.7.1.4 Psychosocial risk factors

The presence of certain life stressors has been established as a risk factor for suicide. These include, homosexuality (Nelson, 1994), suicide contagion (Callahan, 1993; Hau, 1994), social isolation and perceptions of relationship quality and support (Clark & Fawcett, 1992), interpersonal loss and conflicts (Marttunen, Aro, Henriksson & Loennqvist, 1994), acculturation effects (Bhamjee, 1984; Rasmussen, Negy, Carlson & Burns, 1997), financial difficulties (Quan & Arboleda-Florez, 1999; Yip, Chi & Yu, 1998), social stressors including unemployment and divorce (Lester, 1994), psychological variables such as low openness to experience (OTE), affective dampening, cognitive rigidity, a rigidly defined self-concept and a diminished behavioural repertoire (especially among older persons) (Duberstein, 1995).

2.7.1.5 Biological risk factors

Reduced levels of the serotonin metabolite 5-HIAA and homovanillic acid have been found to correlate with both suicide and attempted suicide as reviewed in section 2.4.3.5. In addition, it has been found that lesions in the prefrontal cortex influence some cognitive variables associated with suicidal behaviour (van Heeringen et al., 2000). These include planning, the generation of alternate solutions to problems (McLeavy, Daly, Murray, O’Riordan & Taylor, 1987) and autobiographical memory (Williams, 1997). Even though postmortem studies (for those who suicide), and the administration of 5-hydroxytryptamine (5-HT) antagonists (for suicide attempters), have established altered serotonergic functioning as a risk factor (Traskman-Bendz & Mann, 2000), there is as yet no biological predictive test that could be used to establish the presence of this risk factor in persons at risk for suicide. Much of the research has been retrospective in nature. Presently, behavioural markers of lowered serotonin functioning such as impulsivity and aggression are used as possible indices of biological functioning.

2.7.1.6 Cognitive risk factors

Numerous cognitive risk factors have been empirically researched and established. These include several cognitive distortions and dysfunctional assumptions, hopelessness, attributional style, problem solving deficits, perceiving suicide as a “desirable” solution, available coping mechanisms and social desirability (Weishaar, 2000). These cognitive risk factors will be discussed in the section 2.8.

2.7.1.7 Demographic risk factors

Demographic risk factors refer to those risk factors that pertain to a person's gender, race, age, culture, marital and parental status. Research has shown that males are at a higher risk for suicide than females, older persons are at a higher risk than younger persons and that widowhood is a demographic risk factor for suicide (Clark & Fawcett, 1992). However, such conclusions are drawn from data situated in specific cultures and countries (in the latter case – the USA). In countries such as Sri Lanka or China, being a female would be construed as a risk factor (Canetto, 1997). Furthermore, Bille-Brahe, Jensen and Jessen (1994) found that in Denmark, unlike in the United States, elderly suicide makes up a decreasing proportion of all suicides. Thus, demographic risk factors should be regarded as geographically and culturally specific.

2.7.2 Classifying Suicide Risk Factors

Suicide risk factors are classified according to two types. These include their time-specific nature, such as being distal and proximal (Mościcki, 1999). Distal risk factors lay the foundation for suicide, are necessary but insufficient for suicide, and include factors that would predispose an individual to develop suicidal potential (ibid, 1999). Proximal risk factors are those that are considered to be precipitant factors and occur antecedent to suicidal behaviour. In addition, risk factors are classified as short-term and (or) long-term (Clark & Fawcett, 1992). Short-term risk factors are those risk factors found to be related to imminent suicide (within a year), whilst long-term factors are those that have been

found to be related to suicide at a later stage in a persons life (1-10 years later). Examples of short-term risk factors would be severe anxiety, anhedonia and the presence of an affective illness, whilst examples of long-term risk factors would be acute suicidal ideation and hopelessness (ibid, 1992).

The notion of looming vulnerability proposed by Riskind, Lang, Williams and White (2000) explains that stressors could evolve, intensify and subsequently change over time. Thus, stressors may not necessarily be a static factor situated within a rigid point in time.

2.7.3 Protective Factors

Protective factors refer to the resources that an individual possesses that would aid the mediation of the effects of the stressor. These factors include:

1. Personality factors such as self-esteem levels, feelings of autonomy and control, locus of control, use of denial and repression as defense mechanisms, assertiveness as a trait and a willingness to seek help from others (Plutnick & van Praag, 1994, as cited in Maris et al., 2000).

2. Interpersonal factors such as the presence of social support (Plutnick & van Praag, 1994, as cited in Maris et al., 2000).

3. Familial factors such as the presence of familial support, cohesion and warmth, the ways in which family discord is dealt with, boundaries of functioning, and perceptions of familial functioning (Clark & Fawcett, 1992).

4. Reasons for living, which would include the reasons a person would use to stay alive - such as family responsibility, fear of social disapproval and moral objectives (Malone, Oquendo, Haas, Ellis, Li & Mann, 2000).

The presence of social events and ties is perceived as a protective factor, but as Comstock (1992) argued, such social and interpersonal contingencies may also push or drive a person towards suicide vulnerability.

Even though protective factors are considered within the nexus of vulnerability to suicide by some authors, the nature of the mediation by such protective factors is not clearly spelled out. That is, even though the presence of protective factors would seemingly protect an individual from the effects of risk factors, the understanding of the underlying contingencies of the process of mediation has received little attention in suicidological discourse. Current understanding is merely relegated to the presence or absence of relevant protective factors, with a lack of consideration of aspects (such as perceived availability of social support) of a person's perception of the protective factors. In addition, there is acknowledgment that the presence of reasons for living would also constitute a protective factor (Malone et al., 2000), even though there is a paucity of research conducted within the "reasons for living" context.

2.7.4 Predicting Suicide

For over four decades the problem of predicting suicide has remained (Goldney, 2000). Initially, Rosen (1954) drew attention to the limitations involved in predicting those who would go on to suicide, referring to the drawbacks introduced by a low suicide base rate and large numbers of false positives.

Goldney (2000) postulates that this early work was overlooked for two decades until Farberow and MacKinnon (1975, as cited in Goldney, 2000) reported similar arguments about the prediction of suicide. Goldney (2000) further argued that the most influential study in the attempt to increase the predictive power of certain risk factors was that of Pokorny (1983) who identified 67 suicides in a study of 4,800 American veterans. Initially, Pokorny (1983) conducted a discriminant function analysis and found several factors (predictors) significantly associated with suicide. He thereafter calculated the power of the predictors and using the 20 best predictors, identified 35 of the 67 persons who suicided. During this process, 1 206 false positives were identified. This led Pokorny (1983) to conclude that there was a lack of ability to predict future suicide. Even though Pokorny (1993) revisited the issue a decade later, and attempted to deal with the problem with more sophisticated methods, he maintained a similar position on the issue.

It appears as if the low base rate of suicide would pose an immense obstacle in research studies attempting to improve the prediction of suicide. Goldney (2000) used the example of the sample size needed to demonstrate the effectiveness of a suicide intervention strategy. He cited the estimates by Gunnell and Frankel (1994, in Goldney, 2000) which illustrated that to demonstrate a 15% reduction in suicide in those discharged

from inpatient hospitalization, where there is a 0.9% chance of suiciding a year later, a sample of 140,000 patients will be needed. In addition, to demonstrate a 15% reduction in suicide in those who have attempted suicide, where there is a 2.8% chance of suiciding in the next 8 years, a sample of 45,000 persons would be needed (Goldney, 2000). Such an obstacle appears insurmountable because of the low base rate of suicide.

Goldney (2000) concludes quite cogently that

When one considers the uncritical enthusiasm with which some researchers and clinicians approach suicide prevention in areas such as individual schools or school regions, it is quite evident that there is a lack of understanding of the limitations of the low base rate of suicide and the impossibility of ever demonstrating scientifically that the intervention would be effective (p. 589).

Numerous studies have established the inability to predict suicide (Furst & Huffine, 1991; Goldstein, Black, Nasrallah & Winokur, 1991). Despite this, Goldney (2000) concludes that numerous clinical signs are statistically associated with suicide. Such signs would include the presence of hopelessness (Beck, Brown & Steer, 1989), suicidal ideation (Lynch, Johnson, Mendelson, Robins, Krishnan & Blazer, 1999), psychiatric disorders (Suicide Risk Advisory Committee on the Risk Management Foundation of the Harvard Medical Institutions, 1999), physical illness (Harris & Barraclough, 1994) and social isolation (Durkheim, 1952). Thus, even though attempts to predict suicide have reached an impasse, the usage of risk factors found to significantly predict suicide in groups of individuals possesses the best clinical utility to date. Despite this consolation, the notion that such risk factors serve to predict groups of individuals rather than individual persons, is a further seemingly insurmountable problem. It is maintained that the lack of

consideration of the mediation of risk factors by protective factors, may be a further factor responsible for the generation of a large number of false positives. This is equivalent to looking for potential stressors in a person without taking into account that people have varying resources that form their coping ability.

An added critique is the notion that much of the knowledge of risk factors is based on using the psychological autopsy method (Hawton & van Heeringen, 2000). Whilst such a method should be complimented for its contribution, it has drawbacks that could be dealt with by using other methods. For instance, it has been pointed out that the psychological autopsy method limits the range of factors that could be investigated; such as a lack of understanding of the underlying psychological mechanisms involved in suicide (Hawton & van Heeringen, 2000). By supplementing such methods with studying survivors of serious suicide attempts, a more processional account could be developed. Survivors, who have miraculously survived a lethal suicide attempt, provide a potent (though underused) resource, to understand the psychological variables associated with the suicide experience. Notwithstanding this supposition, there is recognition that such an attempt will be confounded by what constitutes a “serious attempt” in the first place (Hawton & van Heeringen, 2000).

It is hoped that future research could strive to overcome the above methodological and conceptual limitations, which are summarized as follows: (a) the serious drawback posed by the low base rate of suicide and accompanying large numbers of false positives for research studies, (b) the lack of consideration of the mediation of protective factors in

models of vulnerability to suicide, (c) the rigid definition of vulnerability to suicide informed by risk factors and a lack of focus on the underlying operating mechanisms involved in such risk factors, (d) the streamlined focus on the psychological autopsy method which prevents the investigation of some aspects of the suicide process.

2.8 Suicide and Cognition

As previously stated, attempts have been made to understand the role of cognitive risk factors in the vulnerability to suicide. It is argued that cognition is not only related to suicidal behaviour as a risk factor, but may feature in the very content of suicidal ideation itself. This section will attempt to understand the relationship between suicidal behaviour and cognition. Firstly, attempts will be made to understand the notion of suicidal ideation and secondly, the various cognitive elements that have been researched in conjunction with suicidal behaviour will be reviewed.

2.8.1 Suicidal Ideation

There is as yet no consensus on the meaning of the term “suicidal ideation”. Various definitions have been proposed. For instance, O’Carroll et al. (1996) defined suicidal ideation as “any self-reported thoughts of engaging in suicide related behaviour” (p. 247). Hintikka (1999) defined it as “cognition that can vary from transient thoughts about the worthlessness of life to concrete plans of killing oneself and obsessive preoccupation with self-destruction” (p.47). In addition, very few studies have explicitly stated their understanding of the term.

A review of the literature is essential towards framing a later discussion. It would also serve as a background against which the definitions proposed by the process theory could be compared. Existing literature on suicidal ideation has accepted the notion of passive and active suicidal ideation. Active suicidal ideation would refer to thoughts of self-destruction in which a person is the agent of suicide, whilst passive suicidal ideation would refer to a person wishing for or accepting circumstances in which he or she may be killed (Jacobson, 1999).

2.8.1.1 The contents of suicidal ideation

Research has shown that certain concepts have become germane to the understanding of suicidal ideation. These include, the notions of “ambivalence”, “hopelessness”, “suicidal intent”, “suicidal plans” (Jacobs, Brewer & Klein-Benheim, 1999) and “cognitive constriction” (Shneidman, 1999).

Suicidal Intention

Suicidal intention has been previously discussed in section 2.2.2 . Basically, suicidal intent indexes the seriousness of a person’s suicidal wish. It includes such aspects as the lethality of methods to be used, knowledge of using such methods, resources and circumstances that would protect the person from acting out the suicidal wish, and the person’s transformation of a wish to die into an action (Jacobs et al., 1999). There is general consensus in the field that the higher the suicide intent, the greater the risk for

suicide. Furthermore, research has established that hopelessness has a strong predictive relationship with suicide intent, independent of the influence of depression (Minkoff, Bergman, Beck & Beck, 1973). Hopelessness as a cognitive variable related to suicidal behaviour is discussed in more detail in section 2.8.2.4.

Ambivalence

Barraclough, Bunch, Nelson & Sainsbury (1974) argued that thoughts of suicide include a mental conflict between a wish to die and a wish to live. This notion of ambivalence has been accepted in contemporary suicidological discourse (Shneidman, 1992). It is argued that this ambivalence does not reflect uncertainty, but a collision of two equally potent but opposing forces (Jacobs et al., 1999). The notion of a desire for rescue and intervention when contemplating suicide, is included in this concept of ambivalence (Shneidman, 1985).

Suicidal plans

The existence of a plan to suicide indexes higher suicide risk than passive suicidal ideation (Jacobs et al., 1999). Plans using violent and irreversible methods such as shooting and jumping are associated with greater suicide risk and intent (Jacobs et al., 1999). Planning includes other activities such as writing suicide notes and conducting final acts in preparation for the suicide (Jacobs et al., 1999).

Cognitive Constriction

Cognitive constriction, as part of Shneidman's (1999) understanding of suicide, has

been discussed in section 2.2.1. In conjunction with suicidal ideation, it represents a greater focus on death and dying and a concomitant reduction in a person's perceptual field.

2.8.1.2 Empirical research on suicidal ideation

Extensive research has been conducted in relation to suicidal ideation. An exhaustive review is beyond the purposes of this study. Main threads will however be reviewed to highlight the present state of the field.

Contemporary research has attempted to

1. Understand the role of cultural forces in suicidal ideation (Bhatia, Aggarwal & Aggarwal, 2000; Lai & McBride-Chang, 2001; Novins, Beals, Roberts & Manson, 1999).
2. Explicating the prevalence rates of suicidal ideation in different populations (Hem, Gronvold, Aasland & Ekeberg, 2000; Hintikka, 1999; Tyssen, Vaglum, Gronvold & Ekeberg, 2001).
3. Understanding the family dynamics associated with suicidal ideation (Harris & Molock, 2000; Lai & McBride-Chang, 2001).
4. Explicating the role of cognitive variables associated with suicidal ideation (Duberstein, 2001; Wagner, Rouleau & Joiner, 2001).
5. Assessing the psychosocial correlates of suicidal ideation (Sachs-Ericsson, 2000; Lester, 2000; Mehotra, 1998; Schwartz & Cohen, 2001; Lynch et al., 1999) in order to facilitate its prediction.

Lai and McBride-Chang (2001) found that suicidal ideation was associated with perceived authoritarian parenting, low parental warmth, high maternal overcontrol, a negative family climate and child-rearing practices. In a non-clinical sample of subjects, Mehotra (1998) found that depression and reasons for living predicted 42% of the variance in suicidal ideation in males, whilst trait hope and social desirability predicted 32% of the variance in suicidal ideation in females. Duberstein (2001) found that low openness to experience was associated with suicidal ideation. Thus, much of the research to date has comprised attempts to understand the correlates and prevalence rates of suicidal ideation. Only recently, with interests in the influence of culture on suicidal behaviour (Canetto, 1997) have there been attempts to understand suicidal ideation in different cultural groups.

Together with such findings, there is general agreement in the field that suicidal ideation predicts suicide completion (Lynch et al., 1999). Psychological autopsy studies (Bunch, Nelson & Sainsbury, 1994) have revealed that about 70% of suicide victims evidenced suicidal ideation prior to their deaths. Although 5 million people in the U.S.A are estimated to have suicidal ideation each year (Mościcki, 1989, as cited in Jacobs et al., 1999), “only” 30 000 die by suicide during that time span (National Strategy for Suicide Prevention, 2001). Attempts have been made to interpret this seeming inconsistency. It has been argued that even though suicidal ideation may predict eventual suicide, this may not be so in every case. The process theory provides an alternate interpretation of such an inconsistency, which will be discussed in section 5.6.1.

2.8.1.3 Firestone's theory of suicidal ideation

Firestone (1997) developed the notion of suicide and the inner voice in order to explain the developmental process informing suicidal ideation. He argued that people have self and anti-self systems that influence their behaviour and thoughts. The self-system refers to positive and unique aspects of a person; including biological genetic factors, affirmative qualities with parents and positive effects of education and experience. The anti-self-system is developed early in childhood and represents the depersonalization that children experience in relation to painful experiences (Firestone,1997). When a child is faced with such experiences, Firestone (1997) postulated that the defense mechanism of identifying with the aggressor takes place and negative, hostile parental introjects and voices leads to a division of the self, thus creating the anti-self system which houses such negative and hostile voices. Identification with the aggressor takes place in order to preserve some form of integration for the child, even though it paradoxically results in the formation of the anti-self system. Firestone (1997) argues that the intensity of presence of critical parental introjects comprising the anti-self system, would vary from individual to individual, but reaches its climax in the suicidal experience.

Using therapeutic records and personal experience, Firestone (1997) illustrates how components of suicidal ideation (critical attacks on the self for instance) represent the operation of these critical introjects. Such introjects are also believed to play a role in the adoption of an inward lifestyle, which is argued to comprise a major defense against emotional pain (Firestone, 1997). An inward lifestyle would comprise seeking pleasure in

fantasy rather than in reality, self-destructiveness, self-denial, impersonal relating, social withdrawal, nonadaptability, addictive personal habit such as substance abuse, and a hypercritical attitude towards the self (Firestone, 1997, p. 41). Firestone (1997) argued that for a person to live a healthy life, they would have to get rid of such defended lifestyles.

The power of Firestone's (1997) theory lies in the explication of the voice process in the suicide experience. He defined the voice as "an organized system of internalized thoughts and associated affects alien or hostile to a person's self-interest" (p. 2). Using case examples, Firestone (1997) shows how the voice manifests itself, by allowing for the degradation of the self and fostering self-destruction through the adoption of an inward lifestyle. An example will be provided to illustrate the operation of this voice. Firestone (1997) describes the case of Stephanie, a 50-year-old woman who lived an inward lifestyle, but who displayed a facade of being outgoing and friendly. She displayed low self-esteem, was very uncomfortable in social situations, engaged in binge drinking, was overwhelmed with claustrophobic feelings and possessed an impersonal style of relating to others. Whilst speaking to Firestone (1997) about her inward lifestyle, Stephanie shared the following example of the voice that dominated her thoughts:

You're so stupid all the time. Every word out of your mouth is stupid! You don't know how to speak. You don't know how to talk...Just look at you. You're bothering everybody...Don't look at people. You'd better not look at people, because then people will see. They'll see it in your eyes. They'll see it deep down inside of you how really bad you are (p. 43).

The acceptance of the voice involved in the suicide experience has not been widely adopted, even though Firestone (1997) provides support for its existence and his theory.

Perhaps time is needed for this theory to be integrated into mainstream suicidological discourse, together with further attempts to test its scope and tenets.

2.8.2 Suicide and Cognitive Risk Factors

There has been increasing interest in attempting to understand cognitive factors associated with vulnerability to suicidal behaviour. Such factors have been understood as cognitive risk factors (Weishaar, 2000), and represent outgrowths of the cognitive vulnerability in unipolar depression. Weishaar (2000) explains that cognitive vulnerability to depression rests on the schema concept. Persons are believed to have schemas or cognitive structures that have core beliefs. Such core beliefs are argued to be outside a person's awareness until they are triggered by an event accompanied by strong emotion. Beck's (as cited in Weishaar, 2000) notion of the cognitive triad (negative beliefs about oneself, the world and the future) explicates such a schematic model and highlights the presence of depressogenic belief systems.

In relation to suicidal behaviour, there is as yet no study that has been conducted to suggest a schematic model of suicidal behaviour. The present study hopes to overcome this drawback by suggesting the relevance of schemas to suicidal behaviour.

Notwithstanding such a drawback in contemporary suicidological discourse, research has provided evidence for the operation of several cognitive risk factors within the context of suicidal behaviour. These include, *inter alia*, the presence of dichotomous, rigid thinking; hopelessness; deficits in problem solving; distortions in autobiographical memory

retrieval; the presence of specific cognitive distortions and dysfunctional assumptions; the establishment of suicide as a desirable solution and the attributional style of suicidal persons.

2.8.2.1 Dichotomous and rigid thinking

Dichotomous thinking refers to all-or-nothing thinking, in which a person thinks in black and white terms (Beck, Rush, Shaw & Emery, 1979). Examples would be “If I don’t pass this test, I will die” or “If I lose one more time, I will kill myself”. Studies (Neuringer, 1961, 1967) have provided evidence for the existence of dichotomous thinking in suicidal individuals compared to control groups. Neuringer and Lettieri (1971) conducted a study to determine whether dichotomous thinking was a long-term or short-term factor. They recorded daily measures of dichotomous thinking in three groups (high-, medium- and low-risk persons) of suicidal behaviour over a three-week period following a suicidal crisis. The authors found that dichotomous thinking persisted over time and concluded that such a cognitive style is a long-term factor.

Dichotomous thinking has been perceived as a form of rigid thinking (Weishaar, 2000). The presence of rigid thinking has been supported by empirical research (Neuringer, 1961, 1971), in which it was found that compared to control groups, suicidal persons have significantly more rigid thinking. Because rigid thinking has implications for problem-solving ability, Neuringer (1961) conducted a study on the relationship between problem-solving ability and suicide. He found that suicidal persons had more rigid

thinking and subsequently generated fewer problem-solving strategies. Thus, the role of rigid thinking in dysfunctional problem-solving has been established.

2.8.2.2 Problem-solving

Problem-solving deficits have been empirically found to exist in suicidal ideators and attempters (Weishaar, 2000). D’Zurilla and Nezu (1990) explained that there is a need to understand which stages are affected. The following stages of problem-solving have been suggested: problem orientation, the generation of alternate solutions, decision making, solution implementation, and solution verification (D’Zurilla & Nezu, 1990).

McLeavy et al. (1987) conducted a study on suicide attempters and, a controlled sample of nonsuicidal psychiatric inpatients and nonpatients, to understand the problem-solving deficits associated with suicidal behaviour. They found that compared to the two control groups, suicide attempters were less able to focus on a goal and develop strategies to achieve the goal. In addition, they found reduced generalization of alternate solutions and a limited ability to perceive the consequences of possible solutions. In addition, Priester and Clum (1993) found that suicidal persons focused more on the negative consequences of implementing any solution. Thus, research supports the notion that suicidal persons experience difficulty in problem orientation, the generation of alternate solutions, and difficulties in solution implementation.

Suicide attempters use more passive problem-solving strategies than suicidal ideators or nonsuicidal medical patients (Linehan, Camper, Chiles, Strosahl & Shearin, 1987, as cited in Weishaar, 2000; Nezu, 1986; Orbach, Bar-Joseph & Dror, 1990). Orbach and colleagues (1990) found that suicidal persons were more dependent on others to solve problems, were less versatile and used less relevant solutions to specific problems. The reason for turning to others could be explained by the findings of Nezu's (1980) study, which attempted to establish the relationship between depressive symptoms and problem-solving in a sample of college undergraduate students. He found that students who were more depressed, were less confident in their problem solving skills and perceived themselves to be less in control of problem situations. Such a finding concurs with the results obtained by Mitchell and Madigan (1984, as cited in Williams & Pollock, 2000) who found that people experiencing experimentally induced depression, performed worse on interpersonal problem solving. Thus, evidence exists for the role of depression in problem solving.

Furthermore, the notion of perceived problem solving, as evident in recent studies attempting to understand self-appraised problem solving skills rather than actual problem-solving ability, has been given increased attention (Weishaar, 2000). Bonner and Rich (1988) found that self-appraised problem solving ability predicted hopelessness and suicidal ideation in college students, whilst Priester and Clum (1993) found a similar relationship between self-appraised problem solving ability and hopelessness, but not for suicidal ideation. In addition, Bonner and Rich (1988) argued that self-appraised problem-solving ability is more an indication of self-efficacy than problem-solving ability.

Weishaar (2000) extends this argument and explains that such self-efficacy may be compromised in persons suffering from depression. She also explains that the concept needs to be clarified since it may be related to self-efficacy or outcome expectations, and that the relationship between hopelessness, self-appraised problem-solving ability and actual problem-solving ability also needs to be more clearly defined.

Much of the research on problem-solving in suicidal persons has been limited to interpersonal relations. Even in such studies, Williams and Pollock (2000) argue that current studies have failed to show whether such interpersonal problem solving deficits are trait or state factors. In addition, the authors argue that a lack of consideration of problem-solving in regulating suicidal affect is a further limitation of problem-solving studies. This would appear pertinent, considering that the dysregulation of affect has been associated with suicidal behaviour (Shneidman, 1992). However, it is argued that because of the disparate way in which research has focused on cognition and affect, their associations may be less explicit.

2.8.2.3 Autobiographical memory

Levenson and Neuringer (1971) have suggested the importance of life experiences as a resource for problem solving. Research has found that specific memory deficits characterize the recall of information in suicidal persons. This involves the recall of generic personal memories as opposed to more specific ones (Williams, 1997). An example would be, if asked for a response to a cue word like “happy”, the potentially

suicidal person may say “when I used to go for long walks by myself” instead of a more specific memory like “when I walked through Leighton forest with my granddad last Saturday afternoon” (Williams & Pollock, 2000, p. 85). Williams (1997) explained this in terms of a “mnemonic interlock” - that such individuals are trapped in an intermediate level of memory recall - being able to access more general and less specific memories.

Studies (Evans, Williams, O’Loughlin & Howells, 1992) have tried to understand the effect of such memory recall deficit on problem solving. Using the means-end problem-solving test on a sample of patients who overdosed, they found that there was a strong correlation between problem solving deficits and the over-generality of autobiographical memory. This was also found in studies using control groups (Williams & Dritschel, 1988). However, a more recent study by Sidley, Whitaker, Calam and Wells (1997) found a lower but similar correlation. The authors explain this as possibly due to the different levels of psychopathology experienced by the subjects in the different studies.

Furthermore, Williams and Pollock (2000) argue that such a bias towards autobiographical memory recall is a trait and not a state factor. They add that such a bias would reduce access to specific cues that could aid current problem-solving by generating alternate solutions. This could create the feeling of “no escape” from the current problem, and when the possibility of future rescue is dampened, the context for hopelessness could be established (Williams & Pollock, 2000).

However, in a very recent study conducted by Startup, Heard, Swales, Jones, Williams and Jones (2001), an attempt was made to replicate such findings among “parasuicidal”¹ subjects with Borderline Personality Disorder (BPD). Using multiple regression analysis, the authors found that the number of generic memories predicted the frequency of “parasuicidal” acts, whilst the correlation between the two variables was negative. These results suggest that those with the greatest generic memory recall reported the fewest “parasuicidal” acts. The authors thus argue that over-general memory recall may protect persons with BPD from engaging in suicidal acts, by being able to reduce the recall of distressing memories. The study thus proposes an alternate understanding of the influence of generic autobiographical memory recall, compared to previous studies.

It is argued that either understanding of the role of autobiographical memory may be pertinent, depending on the case at hand. Thus, the notion that one has to be correct and another incorrect should not be adopted, since it attempts to foster the positivistic notion that a single universal rule exists, which is universally applicable. This is incongruent with the social constructionist paradigm adopted in this study.

2.8.2.4 Hopelessness

There has been a recent explosion of interest in the concept of hopelessness, defined as a negative view about the future. Earlier research emphasized that the relationship between depression and suicide was mediated by hopelessness (O’Connor &

¹ The term “parasuicidal” was used by the original authors of the study, but has been contested in contemporary suicidological discourse. The position adopted in this study, opposes the use of such a term, but in order to respect the authors of the study, it is mentioned in double inverted commas.

Sheehy, 2001). However, more recent research has established hopelessness to be a potent and consistent independent predictor of suicide intent, ideation (Berman & Jobes, 1995), repetitive suicide attempts irrespective of intent (Nekanda-Trepka, Bishop & Blackburn, 1983) and completion in adult (Beck, Steer, Kovacs & Garrison, 1985) and child (Arsarnow & Guthrie, 1989) populations. This has prompted researchers to emphasize the effect of hopelessness on suicide intent, independent of the effect of depression (Minkoff et al., 1973).

In an earlier study, Neuringer (1967) found that rigid, dichotomous thinking and problem solving deficits played a role in the development of hopelessness. More recently, McLeavey et al. (1987) found that hopelessness and problem-solving measures were independent, with small correlations between the two variables. The study by Schotte and Clum (1987) appears to support this finding. However, in a more recent study, Rudd, Rajab and Dahm (1994) found that problem-solving appraisal accounted for 37% of the variance in hopelessness and 18% of the variance in suicidal ideation. Also, Carris, Sheeber and Howe (1998) argued that problem-solving in adolescents mediated the relationship between rigidity and suicidal ideation. Rudd and colleagues (1994) further found that hopelessness mediated the relationship between problem solving deficits and suicidal ideation. Inconsistent findings may be related to methodological and sampling aspects of the studies.

Furthermore, research has provided evidence for the relationship between self-appraised problem-solving ability and hopelessness (Dixon, Heppner & Anderson, 1991; Wilson, Stelzer, Bergman, Kral, Inayatullah & Elliot, 1995).

The meaning of the concept of “hopelessness” has been subjected to scrutiny. Recently, concern has risen in suicidology as to whether hopelessness is the increased ability to think about more negative events in the future or, a decreased ability to think of positive future events (Williams & Pollock, 2000). This led to a new enterprise in attempting to understand the role of future directed thinking as a process underlying the operation of hopelessness. A controlled study conducted by MacLeod, Rose and Williams (1993) used the verbal fluency test to examine the role of future directed thinking among suicidal persons, nonsuicidal hospitalized persons and a normal control group. They found that compared to the control groups, those who overdosed recently had limited ability to think of positive events in the future. Moreover, MacLeod and Tarbuck (1994) found that the reduced ability to generate positive events in the future accounted for the suicidal subjects’ tendency to judge more negative events to occur in the future. They also found that suicidal patients found it more difficult to think of why a negative event should not happen in the future, even though there was no difference in their understanding that it may occur.

Thus, they conclude that when presented with a negative event, suicidal persons understand its occurrence in the future, but cannot think about why it should not happen, which would prevent them from generating positive events that may prevent the

occurrence of the negative event in the first place. In order to understand whether such a tendency was due to depression or not, MacLeod, Pankhania, Lee and Mitchell (1997) studied suicidal subjects who were not depressed. They reached a similar finding and concluded that suicidal people generated fewer positive future experiences than the control group. They also found that the suicidal persons did not anticipate more negative events (Williams & Pollock, 2000).

O'Connor and Sheehy (2001) emphasized that suicidal and depressed individuals think in a specific way that sustains their negative state and impairs subsequent problem-solving. Such a pattern of thinking involves blaming themselves for negative events (internal attribution), thinking that the causes will always be present (stable attribution) and that the causes will intrude upon their lives in the future (global attribution). In a study of attempted suicides and matched hospital controls, O'Connor, Connery and Cheyne (2000) found that positive future-directed thinking was not associated with depression or negative cognitive style, suggesting that negative cognitive style is unrelated to impairment of future positive thinking. The authors suggest that a possible correlate, which is currently being investigated, would be perfectionism.

These studies have a direct bearing on the ways in which hopelessness is conceptualized. It appears as if hopelessness is more the lack of expectancy of positive future-directed experiences, than the expectancy of negative experiences in the future. The difference however, may lie in the ways in which specific suicidal persons express hopelessness. It is argued that where looming vulnerability is present, there may be a

tendency to emphasize expectancies of looming negative events into the future. Also, it may be that where perfectionism is a mediator, there would be a greater focus on the lack of positive future experiences than an emphasis on the prevalence of negative events into the future. Thus, it appears as if the two possible components of hopelessness, a lack of positive future directed thinking and a negative view about the future may be appropriate in different contexts of suicide, which may create the understanding that there are numerous pathways to the development of hopelessness. Perhaps future research could establish these different and perhaps overlapping pathways to hopelessness.

2.8.2.5 Suicide as a desirable solution

Beck et al. (1979) explained that suicidal individuals perceive suicide as a desirable solution when usual strategies of coping fail. Weishaar (2000) argues that suicidal persons may be intolerant of the anxiety associated with problem solving. In line with this, Asarnow, Carlson and Guthrie (1987) found that suicidal children, compared to nonsuicidal children, lack the ability to soothe themselves when facing stressful life situations. In addition, Orbach, Rosenheim and Hary (1987) found that compared to nonsuicidal children, suicidal children showed an attraction to death when there was a reduced ability to generate alternate solutions to a problem.

Weishaar (2000) concludes that it appears as if suicide as a desirable solution exists when there is (a) a lack of ability to generate new strategies to problem-solve, (b) an intolerance of the anxiety associated with problem-solving, and (c) when there are errors in

one's logic about what death can achieve. The latter would involve Hendin's (1991) suggestions that some motives for suicide involve fantasies about reuniting with loved ones, about rebirth and the equation of sleep with death, which would enhance its appeal as a means of escape. This would also include Shneidman's (1999) postulation that the goal of suicide is the cessation of consciousness. Thus, if a person desired a cessation of consciousness and believes that death will achieve such a cessation, death through suicide may be perceived as a desirable solution to their problems. In line with expecting death to solve one's problems, or being a means to achieve other ends (such as rebirth), Linehan et al. (1987, as cited in Weishaar, 2000) argued that the higher the degree to which death by suicide is predicted to achieved such ends, the greater the level of suicide intent. This has implications for intervention and prevention issues, since understanding what death (if death is the primary intention) by suicide is expected to achieve, may assist in exposing potential errors in the perception of death. This is written with the acknowledgment that a notion of what happens after death is very relative in the first place. No one actually knows what happens after one dies, but choosing a position that promotes life contingencies may be recommended in suicide intervention and prevention, since many persons who survive suicide attempts are grateful for being alive (D.R. Wassenaar, personal communication, May 30, 2001).

2.8.3 Reflecting on the State of the Research

Much of the research on suicide and cognitive risk factors, has been conducted in isolation from the influence of affective variables that have been found to be associated

with suicidal behaviour. In addition, research in this area has been conducted exclusively within the positivistic paradigm. This involved the careful use of control samples and attempts to control possible confounding variables. Research conducted within this paradigm, has generated a wealth of data that has helped to understand the cognition involved in suicidal behaviour. Notwithstanding this, there is a need to conduct research in this area using alternate paradigms. For instance, this would involve using the personal document and narrative approach to identify more conceptually grounded cognitive risk factors. It is not argued that studies should overlook the contributions made by past research. Rather, it is argued that narrative studies may supplement current understanding by using different methods of understanding, which may in turn generate and confirm hypotheses.

2.9 Emotion and Suicidal Behaviour

Numerous emotional states have been shown to be associated with suicidal behaviour (Shneidman, 1992). These include guilt, shame, emotional pain, depression, mania, impulsivity and aggression. Shneidman (1996) argued that the key to preventing suicide is the direct study of emotions. This section will review the research conducted on the affective elements of suicidal behaviour.

2.9.1 Suicide and Aggression

The association between suicidal behaviour and aggression has been understood within the field of suicidology as a form of inward-directed aggression. This involves the

traditional Freudian tenet emphasizing the introjection of aggression (in the form of murderous impulses), originally directed at an ambivalently loved and hated significant other (Maltzberger, 1999).

The conceptualization of introjected hostility has received considerable support from psychotherapeutic records (Litman, 1996) and has influenced the understanding of the role of aggression in suicidal behaviour. It has also been supported by a wealth of empirical research, showing the association between aggressive behaviour and suicide (Engstroem, Persson & Levander, 1999; Huber, Ille & Zapotoczky, 2000; Leenaars, de Wilde, Wenckstern & Kral, 2001; Lester, 1999; Oquendo, Watemaux, Brodsky, Parsons, Haas, Malone & Mann, 2000; Stone, 2000).

Freudian thinking appeared to overemphasize the involvement of inner-directed aggression. Interpersonal violence (outward-directed aggression) and suicidal behaviour have been treated as independent behaviours by psychiatric researchers (Nock & Marzuk, 2000). Recently however, there has been a recognition that the two behaviours may comprise overlapping phenomena, notwithstanding the notion that some individuals who suicide may not have histories of violence and some with violent behaviour may not have a history of suicidal behaviour (Nock & Marzuk, 2000). In addition, there has been a shift from the Freudian perception of aggression and suicide, to an understanding of the neurochemical and neurobiological substrate involved in the association between aggression and suicidal behaviour. In relation to this, the serotonergic system has been implicated in aggressive suicide acts (Mann, Watemaux, Haas & Malone, 1999;

Träskman-Brendz & Mann, 2000; van Praag, 2000) even though literature in this regard remains inconsistent. An extensive literature posits the underlying biological mechanisms involved in aggressive and impulsive suicides. However, reviewing this literature is beyond the scope of this study.

2.9.2 Suicide and Guilt

Freudian thought has also developed an association between guilt and suicidal behaviour (Maltsberger, 1999), which has been expanded by Menninger (1938). The relationship between guilt and suicide has been supported by clinical accounts (Litman, 1996), even though the empirical research conducted on the relationship between suicide and guilt appears less intensive, compared to the research on the relationship between aggression, impulsivity and suicide. The relationship between suicide and guilt has been interpreted mainly from a psychoanalytic (Menninger's work on suicide types) and psychoanalytic-existential framework (Firestone's voice process theory).

2.9.3 Suicide and Emotional Dysregulation

The notion that emotional dysregulation is associated with suicidal behaviour has been established, especially in relation to borderline personality disorder. In line with this, Linehan (1999) argued that "the emotional picture of the suicidal individual is one of chronic, aversive emotional dysregulation" (p. 149). This involves extreme dysphoria, panic, anxiety and agitation. In addition, studies (Weissman & Klerman, 1973) have shown that suicide attempters appear to be more irritable, angry and hostile.

Linehan (1999) further argues that suicidal individuals lack the capacity to tolerate interpersonal, emotional and behavioural stressors in their lives. Such a capacity may be related to the presence of cognitive rigidity, impaired problem solving ability, deficits in episodic memory capacity and dichotomous thinking, as discussed in the section on suicide and cognition. However, the nature of the relationship between cognition and emotion remains unclear.

According to the biosocial perspective of suicide and emotions (Linehan, 1999), suicidal behaviour is understood as problem solving behaviours that attempt to deal with negative emotional distress, either directly (by ending ones' life and pain or to distract one from such pain) or indirectly (by eliciting help from the environment). Linehan (1999) postulated that the pattern of dysregulated emotion might be the result of a preliminary biological disposition and invalidating formative experiences, stemming from environmental circumstances such as abusive families, that fail to teach children how to label and regulate emotional arousal and how to tolerate emotional stress. Such environments are hypothesized to create invalidating experiences in which emotional distress is not taken seriously and is invalidated.

Thus, the biosocial understanding of the emotional aspects of suicide stresses that suicidal behaviour may represent attempts to terminate intolerable affect levels, to distract oneself from such affect or to elicit help from the environment. Furthermore, it is hypothesized that such behaviour may be the result of an initial biological predisposition combined with invalidating rearing experiences.

2.9.4 Suicide and Emotional Pain

As discussed earlier, Shneidman (1992) proposed that “psychache” was the primary stimulus in suicide. To elaborate on this conceptualization, he explained that “psychache” resulted from the frustration of needs deemed important by an individual. He distinguished between modal needs (dispositional needs that a person lives with) and vital needs (needs that arise when a person is in a distressed state and which a person is willing to die for) (Shneidman, 1999a). He further suggested that frustration of vital needs created psychache. Shneidman (1999a) used Murray’s typology of needs (1938, as cited in Shneidman, 1999) to form a cluster of five needs that he believed to be related to suicidal behaviour. These are: (1999, pp.89-90)

1. Thwarted love, acceptance & belonging - frustrated needs for succorance and affiliation.
2. Fractured control, predictability and arrangement - frustrated needs for achievement, autonomy, order and understanding.
3. Assaulted self-image and violence of shame, defeat, humiliation and disgrace - related to frustrated needs for affiliation, dependence and shame-avoidance.
4. Ruptured key relationships and attendant grief and bereftness - frustrated needs for affiliation and nurturance.
5. Excessive anger, rage, hostility - related to frustrated needs for dominance, aggression and counteraction.

Frustration of the above needs is related to perturbation (the degree to which an individual is disturbed or agitated) and forms an important component of Shneidman's (1996) cubic model of suicidal behaviour. Perturbation in turn is associated with psychache levels and intervention efforts are aimed at reducing the level of perturbation suicidal individuals experience. This would imply that such pain levels would have to be dealt with effectively. Shneidman (1999b) developed the Psychological Pain Assessment Scale (PPAS) to explore the relationship between intolerable psychache and the suicide outcome (suicide act). Recent attempts include understanding the measuring reliability and validity of the scale (Shneidman, 1999b). Moreover, Lester (2000) found that in a sample of students, intolerable psychache was associated with current depression and a history of suicidal ideation. Notwithstanding such research attempts, there is a relative paucity of research in empirically understanding the notion of psychache, despite its documented subjective experiences. It is argued that such an attempt will prove difficult, especially when the key components of psychache have not been completely operationalized. As explained by Shneidman (1993), there is a need to further understand and metricize the key psychological dimensions of psychache, so that it could be mollified during suicide intervention efforts.

The notion that psychache is the dominant emotional state in suicidal individuals has been widely adopted by researchers and clinicians, notwithstanding the lack of empirical research associated with it. As previously discussed, psychache may be psychologically reductionistic. Similarly, researchers and clinicians have adopted the term psychache uncritically and have not subjected the term to critical reflection. Such unintended

dogmatism may have closed opportunities to at least understand the *possibility* of a mixture of psychological, biological and cognitive elements.

Williams (1997) explained that suicide represents a “cry of pain”. He argued that this “cry of pain” is elicited by a set of circumstances in which a person believes that he or she is trapped and hence defeated, that there is no escape from the situation and that there is nothing that anyone can do to help the person escape. He also suggests that initially, escape potential exists and is accompanied by protest and anger, which he argues, may account for attempted suicides wherein a person attempts to re-establish escape routes. He argues that later on, once escape potential is threatened to an extent that a person feels trapped and defeated, a despair phase is reached, making highly lethal suicide attempts possible. Williams (1997) argues that this perception of suicide as a “cry of pain” elicits its reactive element, that is, the way in which it arises out of a set of circumstances, and subsequently ignores its communicative element - as perceived by others (such as the cry for help perception of suicide). However, depending on the case at hand, suicide may represent both a “cry of pain” and a communicative cry for help.

There is consensus among researchers and clinicians that there is an association between suicide and pain, even though the mechanisms underlying its formation, development and constituents may vary.

2.9.5 Suicide and Impulsivity

Impulsivity refers to engaging in behaviour without prior forethought and has come to be associated with suicidal behaviour and aggression. In addition, the two personality disorders, which are associated with suicidal behaviour - BPD and antisocial behaviour – are characterized by symptoms of impulsivity, a lack of planning, low frustration tolerance and hostility (Soloff et al., 1994). Thus, impulsivity has been excessively researched within the context of personality disorder dimensions. In addition, the notion of impulsivity and suicide has been relegated to the realm of adolescent suicide in order to explain the higher ratios between attempted suicide and suicide (King, 1997).

2.9.6 Suicide and Anxiety

The clinical interpretation of anxiety has been based on the patient's subjective experience of psychic pain (Fawcett, 1999). Fawcett (1999) explains that "it is analogous to a person being held captive and being tortured every day with no hope of escape" (p. 118). At this point, it is believed that suicide appears to be a "rational" solution to the person experiencing such an emotional state. A recent finding by the National Institute of Mental Health (as cited in Fawcett, 1999) found that severe anxiety symptoms significantly differentiated those persons who suicided within a year from those who suicided after the one year in a longitudinal follow-up study. Thus, it was concluded that severe anxiety might be more predictive of imminent suicide than standard suicide risk factors such as prior suicide attempts and suicide ideation. This would be congruent with Shneidman's (1999a) explanation of the role of perturbation in suicide.

The role of anxiety begs the attempt to understand the relationship between panic and suicide. Research has found inconsistent findings in relation to panic disorder and suicide, yet the presence of a panic disorder with comorbid psychopathology such as affective disorders or schizophrenia, is associated with an increase in the lifetime risk for suicide (Mościcki, 1999). It is argued that whilst the presence of a panic disorder may not be associated with suicide risk, the presence of panic as a component of perturbation or the pain associated with suicide may be pertinent. In addition, there is a need to distinguish the role of panic as opposed to anxiety in the emotional experience of suicide.

2.9.7 Suicide and Hopelessness

While hopelessness has been reviewed as a cognitive predictor of suicide in section 2.8.2.4, it must be mentioned that hopelessness has been extensively treated as a cognitive variable with a concomitant under-emphasis on its subjective emotional experience. Such an experience may constitute despair (Shneidman, 1999a). There is a relative lack of research combining the affective and cognitive aspects of hopelessness. However, research identifying despair as a congruent emotional state of suicide (Farber, 1990; Maltzberger, 1997; Morris, 1995; Richman, 1993; Tamsin, 1996; Wolfersdorf, 1995) exists, with particular emphasis on despair and older persons (Clark, 1993) and imprisoned persons (Toch, 1992). Despite this, more studies that integrate the cognitive and emotive aspects of hopelessness need to be conducted. Here, the well known adage applies: Whilst the studying of variables associated with suicide is easier studied in its own department, the human condition and its associated phenomena such as suicide, is not partitioned into

such compartments when subjectively experienced (Maris, 1997). Integration of aspects of human functioning (biology, cognition, and emotion) is needed to create a more holistic understanding of suicide.

2.9.8 Suicide and a Configuration of Emotional Experiences

In line with such a position, it is argued that the emotional state in the process of suicide involves an idiographic mixture of aggression, guilt, despair, impulsivity and pain, which may be experienced as different configurations at different points in the process of suicide. Thus, whilst anger may appear predominant at one time, at another time despair may set in with a concomitant increase in pain. Thus, emotional states may fluctuate within the process of suicide.

In addition, whilst attempts have been made to supplement the understanding of such emotions with certain aspects of social (Linehan's biosocial model) and biological functioning (in terms of serotonin functioning, aggression and impulsivity), there is presently a lack of understanding of the relationships between the cognitive and affective components of the suicide experience.

2.10 The Suicide Crisis State

Attempts to understand the suicide experience, cannot exclude the importance of the suicide crisis state, which ineluctably is crucial in the understanding of the suicide act. The

crisis state has been incorporated into the process theory of suicide. Thus, it is important to review literature on the suicide crisis state in order to create a context for later discussion.

2.10.1 An Inadequate Understanding of the Suicide Crisis State

Despite the research conducted in the area of suicide crisis intervention, there is clearly a need to understand the thoughts, feelings and behaviour of persons in crisis in order to develop more effective and holistic intervention strategies. In line with this, the Suicide Data Bank project was developed as part of the American Foundation of Suicide Prevention (Hendin, Maltzberger, Lipschitz, Pollinger-Haas & Kyle, 2001). This project is aimed at providing a forum for therapists who have lost patients to suicide, to conduct psychological autopsies of the deceased patients' behaviour, feelings and thoughts prior to killing themselves. Hendin et al. (2001) conducted the first study on this project and located three crisis markers for the cases that were studied. In any case, either one or more of these crisis markers were present.

The crisis markers were: a precipitating event, one or more intense affective states and one or more behavioural patterns including speech or behaviour suggesting increasing suicidal interest. Of the 26 cases of suicide that were studied, 21 occurred within the context of a precipitating event. It was found that in some cases the events intensified previous affective states, whilst in others, the intense affective states magnified the importance of events. Depressed moods were found in all 26 cases, with the severity of

depression varying from mild to severe. Furthermore, long-standing chronic affective states appeared to be combined with the experience of depression. This included feelings of being abandoned, rejected, loneliness and self-hatred. Anxiety and desperation (a state of anguish accompanied by an urgent need for relief) were also found to be associated affective states. Three behavioural manifestations were found to be associated with an imminent suicide crisis, (a) speech and actions indicating that the person is contemplating suicide, (b) engaging in an actual suicide attempt or escalating self-destructive behaviour, (c) radical behaviour changes such as giving up on long-standing careers, quitting jobs, loss of behavioural control, increasing substance abuse, frequent arguments and social withdrawal. The study found that 16 of the 26 patients showed all three crisis markers, whilst the rest showed at least one of the markers.

Hendin et al.'s (2001) study may assist in understanding the emotional, cognitive and behavioural components of the suicide crisis state to a better extent, so that efforts at crisis intervention could be adequately informed.

2.10.2 Catharsis

The notion of catharsis is important to set the context for understanding some of the process theory's tenets later on. In psychological discourse, the notion of catharsis (or ventilation of affect) was informed by psychoanalytic thinking that explained the concept as "decreased physical tension, psychological symptoms... caused by outward expression of some negative emotion" (Walker, Joiner & Rudd, 2001, p. 144). In suicidological

discourse, the meaning of suicidal catharsis has been an extension of the latter concept and refers to “decreased suicidal symptoms caused by the outward expression of suicidality in the form of the suicide attempt” (Walker et al., 2001, p. 144).

Empirical research has found some support for the catharsis effect of the suicide act (Davis, 1990; Bronisch, 1992; van Praag & Plutnick, 1985, as cited in Walker et al., 2001), even though findings have been inconsistent. A recent study by Walker et al. (2001) found, in a sample of suicidal ideators, single and multiple attempters, that catharsis was the effect of the gradual action of interpersonal support rather than the suicide act per se.

The notion of catharsis was an integral feature of the SP Model (Appalsamy, 2000). The author reconceptualized the notion of suicidal catharsis by arguing that it is not the suicide act per se which is the mode of catharsis, but rather activities that a potentially suicidal person engages in to ventilate the underlying suicidal affect. The postulation that no catharsis would predispose an individual towards attempting suicide, departs from the traditional view in suicidology that the suicide act is the medium of catharsis. Suicide represents the end product of a failure of catharsis. In addition, the SP model (ibid, 2000) proposes that potentially suicidal individuals engage in congruent or incongruent actions to ventilate suicidal affect. Thus, it does not ally with the narrow perception that the suicide act is cathartic in itself.

2.10.3 Suicide Crisis Intervention

Leenaars (1994) defines crisis intervention as “ a systematic process of problem resolution that occurs in a relationship” (p. 45). Two key components have informed research on suicide crisis intervention. This includes the notion that crisis intervention takes place within a “relationship”, and the overemphasis on the implementation of action-based strategies such as using no-suicide contracts, considering hospitalization and focusing on problem-solution (Rosenberg, 1999). The former resulted in a lack of focus on intravention (a person’s use of methods such as diary writing, to intervene in their own suicide crisis state) whilst the latter resulted in a lack of focus on affective-based intervention strategies involving the ventilation of affect or catharsis. In a recent attempt, Rosenberg (1999) provided strategies aimed at affect-based interventions rather than action-based interventions. These include among others, providing a cognitive appraisal of the underlying affect that a suicidal person may be experiencing. Despite this, a lack of explicit reference to the ventilation of suicidal affect continues in contemporary suicidological literature.

In Hendin et al.’s (2001) study, retrospective analysis of the cases showed that several factors impeded the recognition of a suicide crisis. In 14 of the 26 cases, the therapist did not recognize the suicide crisis. Thus, it is argued that using the presence of the crisis markers may overcome this shortcoming. In 5 cases, there was a problem in the communication between therapist and patient, in which disrupted or flawed communication prevented any mention of suicidal feelings or intentions. In some cases,

masquerading of suicidal feelings took place in the context of power struggles between the therapist and patients. The authors concluded that “Our data indicates that only a small percentage of persons who are intent on killing themselves while in treatment give the therapist little or no indication [italics added] of their crisis” (Hendin et al., 2001, p. 124). Yet, given this conclusion, the current understanding of the suicide crisis state is by no means sufficiently adequate to allow for efficient intervention in varying circumstances. Moreover, the larger focus on suicide intervention with a concomitant absence of focus on intravention prevents a more balanced effort in dealing with suicide crisis states.

It is argued that intervention and intravention should supplement each other. An exclusive focus on either one would spell a bias in relegating responsibility for the person’s suicidal crisis state. Also, more education needs to be provided to allow professional and paraprofessionals alike the opportunity to learn about suicide crisis intervention issues. Community outreach programmes need to be implemented to allow any person to learn the necessary skills of intervention. In addition, more research needs to be conducted to understand how intravention efforts could be supplemented with intravention efforts. Intravention would refer to the attempts made by suicidal persons to intervene in their suicide crisis and would include incongruent acts proposed by the SP model such as poetry and diary writing or engaging in the primal fight-off (Appalsamy, 2000).

2.11 Research Discourse in Suicidology

Most research and writing about suicide research is influenced by the positivistic paradigm, which attempts to locate general laws of human functioning. Results obtained from studies are explained as verified or refuted, with limited recognition that different samples could influence outcome. An example would be the understanding of whether hopelessness is the increased ability to think about more negative events in the future or a decreased ability to think of positive future events (Williams & Pollock, 2000). The mere usage of the word or implies that there is a quest to understand and entertain single truths to a problem rather than understanding the existence of multiple realities. The latter could have manifested itself in discourse as trying to understand the existence of both possibilities rather than refuting one possibility. It appears as if there is a competition in order to locate universal laws or truths of human functioning. Therefore, there is a greater need to understand that findings may be influenced by factors such as the nature of samples used in specific studies and that the quest to verify or refute hypotheses will ineluctably be influenced by such factors. Thus, the absence of verification may be explained by other factors than the untenability of the research finding. Such an understanding needs to be taken into consideration if the relativistic nature of research is to be acknowledged and dealt with.

CHAPTER 3

Method

3.1 Introduction

3.1.1 Paradigm Informing Methodology

Methodological inquiry is guided and informed by paradigms of understanding (Guba & Lincoln, 1994). In the introduction of this thesis, the social constructionist approach was proposed as the primary paradigm informing the present study.

Social constructionism informs the methodological aspects of a study by advocating a hermeneutical and dialectical process of acquiring knowledge (Guba & Lincoln, 1994). The hermeneutical position explains that meaning is created by the interpretations imposed by the researcher on the data, which forms the context for the dialectical transaction between researcher and subject. This interpretation forms one of many interpretations that could be created from the data and represents the effect of a specific conditional matrix. Within the genre of grounded theory, a conditional matrix refers to the ideas, ideologies, conditions and consequences that inform interpretation and has been subject to much debate (Rennie, 1998). As such, it represents an attempt to situate a study in its context. Table 2 below shows the conditional matrix influencing this study:

Table 2

The Conditional Matrix Influencing this Study

Context of Influence	Influence
Personal	Interest in suicidology and a pervasive dissatisfaction with the contemporary understanding of suicidal behaviour. Perception that the field has stagnated, and is in need of a new idea to spark movement and a paradigmatic shift, which is already showing evidence of development in recent published literature – (van Heeringen et al., 2000; Maris et al., 2000).
Situational	Living as a student in the year 2001 with suicidology in need of either integration or a new perspective of understanding old problems.
Supervision	Creative pursuits, which my supervisor valued, represented an appropriate context within which this new understanding could be created.

Thus, unlike the positivist paradigm, which explained methodological inquiry as involving attempts to separate the subjective influences of the knower from the known, the hermeneutical interpretative position informing the grounded theory methodology, stresses the impact of researcher values and perspectivism in the creation of theory. As explained by Strauss and Corbin (1990)

Researchers and theorists are not gods, but men and women living in certain societies, subject to current ideas and ideologies...in short, theories are embedded “in history” - historical epochs, eras, and moments are to be taken into account in the creation, judgement, revision and formulation of theories (pp. 279-280).

Such a position does acknowledge the importance of “doing” trustworthy and credible research, but makes explicit the role of the researcher and accompanying values and ideologies in creating theory, so that steps can be taken to deal with possible researcher bias. Acknowledging and dealing with such bias is integral to the research process, rather than denying its ineluctable impact.

The emphasis on the dialectical transaction between researcher and subject emphasises that the outcome of research is a reconstruction of a construction. That is, the unit of analysis for this study - the Arthur Inman (1985) diary - represents a construction in itself of Arthur’s lived-reality. The researcher in turn engages in this material and facilitates a reconstruction of Arthur’s construction of his experiences. Even though the product of the reconstruction should be a consensus construction based on the dialectical exchange between researcher and subject, the deceased status of the subject in this study prevented such a consensus. Nevertheless, the reflections and biodata itself serve to exemplify the lived-reality that Arthur created.

Grounded theory procedures are by no means neatly packaged methods to be employed in order to create theory. If anything, the field is ripe with controversy. The original procedures, were developed by Glaser and Strauss (1967), but emerged into two different strands of grounded theory (with some commonalties) based on the dichotomous views of Glaser and Strauss. The procedures used here represent those outlined by Strauss and Corbin (1990). It is argued that the different training and epistemologies used by the two pioneers informed the subsequent disagreement on the initial grounded theory

methods, which in turn blurred the epistemological base. More recently, Rennie (1998) proposed an alternate epistemology and ontology for grounded theory methodology. He explained that instrumentalism appears to fit the epistemology of the original grounded theory procedures, in that it recognises that perspectivism plays an inevitable role in knowledge construction. Such an epistemology could not have been adopted since instrumentalism creates an essential dualism in the representation of language. That is, it rules out reports of inner experiences through language representation and disregards the importance of the past, by arguing that past accounts are influenced by present contexts. Such contentions would have contradicted the focus on emotion words in the diary and the focus on Arthur's remembrance of his early years.

The divergence that grounded theory methods experienced resulted in some intra-paradigmatic conflicts. For instance, Rennie (1998) argued that Strauss and Corbin's (1990) emphasis on hypothesis testing related to Dewey's experimentalism, thus incorporating positivistic notions. Secondly, he explained that Glaser's emphasis on verification, reinforces his stress on induction and thus reinforces his position within the experimental method. Rennie (1998) argued for an epistemology other than instrumentalism, and proposed that methodological hermeneutics, combined with Pierces' theory of inference and the phenomenological procedure of bracketing. The hermeneutic position concurs with the approach adopted in this study, as previously explained. Pierces' theory of inference explains three modes of inference; abduction (hypothesis formation), induction (testing abductions) and deduction (demonstrating a conclusion which is present tautologically in it's premise). Abduction holds true for the procedures used in this study

since it is relevant to hypothesis formation and testing, which took place throughout the research process.

Rennie (1998) further argues that there is a symbiotic relationship between abduction and induction. Indeed, the very relationship between hypothesis formation and testing in this study may have been symbiotic, but was controlled for by bracketing preconceptions (controlling for the impact of preconceptions imposed on the data). During this study, preconceptions and premature interpretations of the data did surface. These had to be dealt with by firstly acknowledging their impact in the research process, and secondly by keeping written accounts of them (memos) which were later revisited in the research process. Thus, Rennie's (1998) postulation that grounded theory methodology adopts a hermeneutic position, combined with Pierce's theory of inference and the phenomenological procedure of bracketing, is quite relevant to the methodological procedure adopted in this study.

3.1.2 Methodological Procedures and Paradigmatic Implications

There is some debate in the field of grounded theory as to the role played by induction in theory construction. This study could be perceived as a combination of induction and deduction. The deductive aspects emerged from bringing into data analysis, a set of ideas that stemmed from the SP Model (Appalsamy, 2000). The inductive features included the emergence of a new theory with new conceptualisations that reformulated some of the tenets of the SP model. In the extant literature, studies have used existing

models within which grounded theory was derived (Bryman & Burgess, 1994). This created tension within the field in which a primarily inductive method was used to generate theory having deductive elements. Subsequent arguments, that grounded theory has been used as “an approving bumper sticker in qualitative studies...” (Richards & Richards, 1991, in Bryman & Burgess, 1994, p. 6), have arisen in contemporary literature. In relation to this, there appears to be a gradual consensus in the field that grounded theory has influenced research in two ways: (a) firstly by being a guide to the methods used to generate theory from data, and (b) secondly by bringing into awareness the desire to generate theory from data (Bryman & Burgess, 1994). It is argued that studies, which have been critiqued for using the inductive grounded theory method in other ways, should instead be perceived as studies which have adapted existing methods to the particular inquiry at hand.

Methodological aspects of research have to be tailored to suit the study so that even if a grounded theory method is perceived as resulting in inductively generated theories, aspects of the method could be selectively chosen to develop theories that have a deductive base or that use existing models or frameworks within which theory is grounded. Nevertheless, because of the divergent ways in which grounded theory has been reformulated today, there will be proponents who strictly adhere to the notion that induction is the primary method for theory construction in relation to grounded theory. Such attitudes may reflect the influence of Glaser’s appeal to induction (Rennie, 1998). In this study, the adoption of Strauss and Corbin’s (1990) grounded theory procedures is more flexible in that it does consider the possibility of deduction as when the authors argue

that, “deductive as well as inductive thinking are both very much a part of the analytic process” (p. 148).

The overarching question would be whether competing paradigms could be in operation due to the combination of deductive and inductive elements. For instance, the usage of a model as a deductive framework would appear to invalidate the social constructionist position adopted in this study by positing the usage of a positivist paradigm in which an already established reality of suicidal behaviour is imposed on the suicidal experiences of the subject. This critique could be debunked since in developing the process theory of suicidal behaviour, aspects of the model which did not fit the data, were either eliminated or modified to fit the data. Thus, the supposition that an external form of reality was imposed on the data could be nullified. An alternate strategy was to recognize that the social constructionist position does advocate that reality (though individually constructed) is indeed socially constructed as well, so that shared characteristics of the suicidal experience is possible. Thus, the suicidal experience will have socially shared elements as well as idiographic aspects. To put into practice such epistemic issues, the theory developed in the present study, has been allocated boundaries in order to establish the contexts in which it could operate and the contexts that would hinder its operation. Within the scientific rigour of grounded theory, this is known as establishing the control (Glaser & Strauss, 1967) of the theory so that attempts at generalization could be a controlled procedure informed by the boundaries of a theory.

These are the epistemic considerations that had to be grappled with whilst data collection and analysis proceeded.

3.2 Design

The purpose of this study was to contribute to knowledge and theory in the field of suicidology. Patton (1990) calls this kind of research basic research. The major research question related to whether suicidal behaviour constitutes a process or not, whilst the aim was to attempt to construct a theory that accounted for this process through understanding the suicidal experience. The idea that the suicidal experience comprises a process was elicited from the ontological assumption of the SP Model (Appalsamy, 2000). A case study approach was used, which served as an appropriate unit of analysis within which theory could be developed and grounded. The nature of the study was both inductive and deductive. The eventual product that emerged comprised a theory firmly grounded in the biodata and the relevant literature. In the process of using the model as a framework for theory generation, the researcher was open to the possibility that such a framework would not fit. Thus, the modifications made to the model would attest to the researcher's sensitivity to the experiences embedded in the biodata.

3.3 Subjects

The unit of analysis refers to the "entity on which the interpretation of the study will focus" (Boyatzis, 1998, p. 62). This study used Arthur Inman's autobiography

(Aaron, 1985) as the primary unit of analysis. The autobiography was chosen using a purposeful intensity sampling procedure involving selecting information rich cases for in depth study (Patton, 1990). The primary aim was to understand the process of suicidal behaviour and because Shneidman (1994) postulated that “(The Inman diary)...is the most thorough, candid and accessible set of 20th century autobiographical materials we have of an individual who documented his suicidal thoughts over a number of years and then committed suicide....” (p. 3), the Inman diary (Aaron, 1985) was screened relative to other suicidal cases (mostly electronically available experiences written by suicidal persons) and was purposefully selected because of the relative intensity with which it documented suicidal behaviour. The Inman diary (1985) initially comprised a 17 million-word document, but was condensed into a two-volume diary by the editor (Daniel Aaron). The two volumes further comprised six books - three of which were in each volume. Thus, the unit of analysis comprised a largely abridged version of the original 132-volume diary. The diary runs from 1895 – 1963 and comprises a longitudinal study spanning 68 years and 7 months of Arthur’s life.

Second stage data collection and sampling involved theoretical sampling (Glaser & Strauss, 1967) and refers to sampling that is conceptually informed and based on data analysis itself. This technique was adopted from the grounded theory approach to data analysis. Other forms of sampling methodology such as open sampling, relational and variational sampling and discriminate sampling were used at different stages of the research process and will be elaborated on in the next section.

3.4 Procedure

3.4.1 Initial Stage Coding of Data

The Inman diary (Aaron, 1985) was initially read to get a sense of the biodata being analysed. A second reading comprised coding the data. Coding of the data took place according to the constant comparative method advocated by Glaser and Strauss (1967). This involves comparing data and asking questions like: How do they differ? What are their similarities? The unit of coding which Boyatzis (1998) defined as the “a most basic segment or element of raw data or information that can be assessed in a meaningful way regarding the phenomenon” (p. 62), was considered to be the sentence in this study. Paragraphs were also coded, but only if the theme of the paragraph comprised sentences flowing within a specific theme. Coding took place as follows: units of coding were compared to each other in order to understand similarities and differences between them. If they were similar, based on their descriptive contents, they were accorded a similar code. Codes indexed concepts, which is basically a conceptual label indexing events or phenomena. Table 3 shows the concepts and their respective codes.

Table 3

Table Showing the Concepts and their Respective Codes

Concepts	Codes
Death	D
Father	F
Mother	M

Diary	Di (<u>table continues</u>)
Concept	Code
Physical Appearance	PhA
Fame	Fm
Solitude	Sol
Migraines	Mig
Race	R
Loose Joints	LJ
Dr.Pike	P
Evelyn	E
Diary Characters (Eddie, etc...)	DC
Noise	N
Women	Wom
Life	Lf
Pike and Arthur	P+A
Arthur and Evelyn	A+E
Presidency	Pr
War	W
American life	AL
Pike and Evelyn	P+E
Father and Arthur	F+A
Suicide	S
Suicidal Feelings	Sf
Suicidal thought	St
Suicide attempt	Sa
Other feelings	Fe

3.4.2 Inter-Rater Reliability of the Coding of Concepts

The establishment of reliability of the coding, was conducted at the early stages of the research process. Because the intention was to describe the data, and bracketing preconceptions related to interpretation, reliability was considered appropriate at this stage.

Reliability refers to the consistency of judgement, labelling or interpretation (Boyatzis, 1998). Inter-rater reliability thus refers to the consistency with which multiple observers are able to make judgements or label or interpret observations. In this study, the rater used to establish reliability levels for the coding of the biodata was a Masters level intern counselling psychology student who possessed the necessary skills to assist in the calculation of reliability ratings. To understand the inter-rater reliability, percentage agreement was used for all the codes except for the ones that related to suicidal behaviour. For the latter codes, the percentage presence scores were more important than whether the codes were absent.

The following formula was used to calculate the percentage agreement on presence:

Percentage agreement on presence =

$$\frac{2 \times (\text{no. of times both Coder A and Coder B saw it present})}{(\text{No. of times Coder A saw it present} + \text{no of times Coder B saw it present})}$$

The percentage agreement for the presence of the “suicide” theme was as follows:

$$\frac{2 \times (34)}{(36 + 34)} = 0.9714 = 97\%$$

Thus, there was a 97% agreement between both raters concerning the presence of the “suicide” theme.

The following formula was used to calculate the percentage agreement between raters for the rest of the coded data:

$$\text{Percentage Agreement} = \frac{\text{no. of times both coders agreed}}{\text{no. of times coding was possible}}$$

Initially, a 94% agreement between raters was established. Stemler (2001) reveals that at least a 95% agreement is needed if a corresponding value of 0.8 is to be established for Cohen's Kappa. Therefore, a 95% percentage agreement was taken as a criterion to be established. Thus within this context, attempts were made to re-code the data where disagreements prevailed and percentage agreement was calculated for the second time. A percentage agreement of 98% was eventually calculated. This figure reflected the percentage agreement for the entire list of codes, except of course the ones based on the suicide theme, which was calculated based on percentage agreement *on presence*.

3.4.3 Description versus Interpretation

Even though initial stage coding was reserved in order to describe the unit of coding, interpretations seeped into the research process. It is argued that this could have resulted due to the theoretical sensitivity of the researcher, established during initial stage literature review and due to the ideas and formulations brought into the research process by familiarity with the SP Model.

To deal with such issues, memos (Glaser & Strauss, 1967) were kept in order to keep a record of possible interpretations and hypotheses formed. These memos were written on (5cm x 5cm) cards and were accessed when second stage analysis began. Thus,

this facilitated the process of attempting to understand the subject's experience without attempting to impose extant interpretations on it. A total of approximately 78 memos resulted with two examples provided below:

“22 February 2001:

Do not know what's happening with the vulnerability category. How is it related to psychopathology or even suicide for that matter? And its relationship with the phases – that's even more bizarre! Surely it's not static – processional? But how? Need to get more data to understand this relationship. More theoretical sampling needed?”

And

“7 March 2001

Goodness! I'm at a loss as to what's happening with suicidolor. Arthur's experienced it... but his verbal expression is so unlike what I'm talking about. Maybe a different linguistic expression to index a similar thing? I don't know... it's driving me crazy... and the sad part is its implication for therapeutic understanding. I'll have to discuss this with thesis supervisor.”

Memoing was thus a means of dealing with and acknowledging the fact that interpretation can at times interfere with description. Such a bias could not be denied, but had to be actively accommodated and dealt with during the research process. It was also a means of documenting interpretations about categories, their concepts and properties.

3.4.4 Using Computer-aided Analysis to Code Data

A computer programme, such as NUDIST, was not chosen to code data because it was firmly believed that this would oppose the hermeneutic nature of the analysis and would contradict the principle of *Verstehen* in qualitative research. *Verstehen* refers to understanding the process that results in specific interpretations, which essentially informs the perspectivism of the research process (Schwandt, 1994). In addition, using a computer programme would have prevented the present author from gaining proximity with the data

and thereby experiencing the lived-experiences, emotions, thoughts and life as depicted in the unit of analysis. The feeling of seeing life through the lens of another person was a point in the research process that cannot be duplicated by computer analysis. Computers were designed to assist qualitative research in order to facilitate the arduous process of sorting and retrieving data (Bryman & Burgess, 1994). There is considerable debate in the field as to the positive and negative impacts of using computers to assist in qualitative research (ibid, 1994). The eventual decision has to be made by the researcher who weighs the relative trade-offs in the context of his or her research.

3.4.5 Forming Categories

After a satisfactory level of inter-rater reliability was achieved, the next step involved using the constant comparative method to form categories. Strauss and Corbin (1990) label this process as open coding, which comprises the process of conceptualising and categorising data. Categories relate to a classification of concepts and represent the grouping together of concepts based on constant comparative analysis (Corbin & Strauss, 1990). In addition, whilst most of the concepts were inductively developed from analysis of the data, the categories relating to suicide were deductively developed. This may be understandable, considering that an interest in suicide was the initial reason why the diary was chosen in the first place and an existing model (SP model) provided some tenets that were applied to the data.

The constant comparative method (Glaser & Strauss, 1967) was used as a basis for comparisons between concepts. This included asking the following questions; “What is common between this concept and the rest?”, “Does this concept fit into the SP model’s tenets?”, “How does this relate to suicide?” During this stage, interpretation was given a primary focus and memos were accessed in order to incorporate and reflect on interpretative hypotheses formed during initial stage coding. Hypotheses concerning the relationships between concepts were formed and tested against the contents of the concepts. Because it was argued that the perceptual lens of the researcher influences interpretation, it made no sense to calculate reliability levels for the subsequent interpretations that were made. If another researcher agreed with the interpretations, there will very likely be another researcher who may disagree on the interpretations being formed. The question was not one of establishing the reliability of interpretations, but of carefully outlining the perceptual lens or conditional matrix that could have impacted on the study. Also, in this stage of data analysis, open sampling was used to group concepts together. That is, all concepts were included in order to maximise variation of the categories. The following categories, represented as Table 4 were developed from open coding:

Table 4
Table Showing the Categories and their Codes

Categories	Concept Code Composition	Category Codes
Interpersonal	P+E, A+E, P+E, F+A	Int
Self-perception	Fm, Hon, Sol	Sp (table continues)

Illness	Mig, LJ, Phot, N	Ill
Suicide	S, Sf, Sa	Sb
Life	L	L
Death	D	D
American History	AL, Pr, W	Ah
Acquaintances	Wom, DC	Ac

Table 4 shows the categories formed after concepts were grouped together. The life and the death concepts appeared to be distinct from the rest and were broad enough to be retained as categories. The “concept code composition” shows the codes of the relevant concepts that were incorporated into the categories. The “category code” shows the label given for the category.

3.4.6 Second Stage Analysis

During second stage analysis, the 8 categories were compared. This process is known axial coding and refers to “a set of procedures whereby data are put back together in new ways after open coding, by making connections between categories” (Corbin & Strauss, 1990, p. 96). The process is facilitated by using a coding paradigm which includes using criteria to understand the processual aspects of the phenomena under study. There is considerable debate in the field as to the adoption of Strauss and Corbin’s (1990) coding paradigm and numerous other coding paradigms do exist. However, Strauss and Corbin’s (1990) coding paradigm represents theoretical schemata that facilitate understanding the processual aspects of phenomena. This was quite pertinent considering the aim of the study, which was to attempt to understand suicide as a process.

The coding paradigm is made up of the following criteria that are used as a basis for axial coding: causal conditions, phenomenon, context, intervening conditions, action or interaction strategies and consequences (Strauss and Corbin, 1990). Not all the criteria from the coding paradigm were used as a basis for comparison. In addition, the SP model framework was used as a broad ontological structure within which the context was defined. Thus when the life or self categories were compared, the essential question was – “How do they fit or don’t fit within the processional tenets of the SP model?” Understanding the causal and antecedent conditions of the categories facilitated further comparisons. Comparison between categories resulted in the formation of more abstract and hence higher-order categories. Some parts of the SP model, such as the existence of phases, due to the variation in suicidal affect, cognition and structure were validated. However, those aspects that did not fit the data were eradicated. The “American History” category was not related to any of the other categories and was eradicated. This is in line with Aaron’s (1985) postulation that the diary serves many purposes and could be perceived as a chronicle of American History and as a chronicle of female sexuality as well. This was not in line with the aim of the study, which was to understand Arthur’s suicidal experiences.

Axial coding resulted in the formation of three higher-order categories that exemplified a higher degree of abstraction than the initial categories. The emergent categories and codes are presented in Table 5 below.

Table 5

Higher-order Categories Emerging from Axial Coding.

Category	Properties
Schemas	Interpersonal, life, death, self-destruction, self-concepts.
Suicide phases	Suicidal actions, thoughts, feelings.
Character	Interpretative aspects of self-perception

The categories, which the higher-order category subsumes, would be termed properties or sub-categories (Strauss & Corbin, 1990). Properties in turn have dimensions. Such dimensions represent the bipolar features of axes. The dimensions and properties of the higher-order schemas are presented in Table 6 below:

Table 6

Higher-order categories, Their Properties and Dimensions

Higher-order categories	Properties	Dimensions
Schemas	Life, death, interpersonal, self, self-destruction.	Non-suicidogenic...suicidogenic
Suicide phase	Thoughts Attempts Feelings	Frequency and intensity Frequency Frequency and intensity
Character	Interpretative self-perception	Positive... extremely self-critical

At this stage, accessing more literature on suicide increased theoretical sensitivity. Once this took place, axial coding was revisited, resulting in the reformulation of the property's dimensions. Schemas were not merely given cognitive dimensions, but were

allocated behavioural and affective components. Also, necessary changes to the SP model were being made. Whilst some of the data fitted into the ID and AD phases, suicidal thoughts and feelings were reconceptualized so that an additional phase called the Intermediate Phase (IM phase) was added to the model. These changes were made because of the evidence provided by the biodata itself. Clearly the model was insufficiently fitted to the data, thereby resulting in modifications.

The theoretical reflections contained within memos became increasingly useful. A core category (suicide process) was emerging by comparing the “schema” and “suicide phase” categories. Thus, selective coding, which Strauss and Corbin (1990) define as “the process of selecting the core category, systematically relating it to other categories, validating those relationships, and filling in categories that need further refinement and development” (p. 116) was beginning to take place. Discriminant sampling, in which further data pertaining to the categories were accessed in order to establish a storyline for the emerging theory, was conducted here. This took place in conjunction with theoretical sampling. Thus, case studies from the existing literature as well as electronically available case studies were used to validate relationships. These cases (n = 15) were accounts by suicidal individuals of their experiences. The electronically available case studies (n = 6) were written by the suicidal persons themselves, whilst the case studies accessed from academic literature (n = 9) were accounts by researchers and clinicians. Even though none of these case studies comprised a longitudinal work like the Inman diary (Aaron, 1985), the case studies assisted to confirm and disconfirm the relationships between the “schema” and “suicide phase” categories. They also provided a source for understanding negative

cases which facilitated understanding the dynamic nature of relationship of phases. During this stage, the criteria for inclusion and exclusion for the various phases were becoming clearer, based on the context, antecedent conditions and consequences criteria adopted from the coding paradigm. However, such inclusion and exclusion criteria were not explicit enough.

The results of such an endeavour yielded the creation of new suicidological concepts, which were grounded in the data in order to explain the relationships between categories and the core category (suicide process). For instance, the term suicidogenic element was introduced to classify those parts of the schemas that possessed properties relating to suicidal behaviour. Also, the term infiltration of suicidogenic elements was introduced to describe the process during which this happened. A further concept of schema status was introduced to account for the relationship between schemas and the suicidal experiences at different points in the suicidal process. The category “character” related to all three categories (the “schema”, “suicide phase” and “suicide process” categories) and upon comparing the relationships it was revealed that its relationship was based on vulnerability. That is, character informed schemas which in turn created or buffered the susceptibility to suicidal potential. Thus, a more abstract category called “vulnerability” was created which included “character” and its components. The relationship between “vulnerability” and schemas was a parallel one, whilst the relationship between “suicide” and “vulnerability” was a causal one.

Further literature was accessed according to the tentative results and hypotheses generated from comparing the categories within the process of suicidal behaviour. For instance, it became clear that the very term “suicide” was being treated differently than previously encountered in the literature. Literature relating to the suicidology nomenclature was accessed, and a new method of defining suicidal behaviour was created. The literature that was accessed was not based on a random search, but was guided by hypotheses generated by constant comparison of categories, as illustrated in the example on defining suicidal behaviour.

A theory was emerging (with its own conceptual base and nomenclature), which included reconceptualizing the phenomenon that was trying to be understood. The core category and the “schema” and “vulnerability” categories were constantly compared by understanding their individual antecedent conditions (Strauss & Corbin, 1990). Thus, certain criteria of the coding paradigm were still being used at this stage in the analysis. Data units involving each of these categories were rigorously reassessed in terms of these two categories. Further literature on vulnerability to suicide, suicidal ideation and cognition was accessed in order to enhance understanding of possible relationships between categories. What emerged was a radically new conceptualization within the SP model. The elements of certain schemas were associated with elements of the suicidal behaviour sub-categories in different ways, at different points in the process as outlined by the SP model. In relation to this, the terms active suicidal ideation and passive suicidal ideation were then developed within the context of the data and have been given different meanings relative to contemporary suicidological use. This led to a modification of the ID

phase, which was divided into a first part called the primary-ID and a second part called the secondary-ID. The changes were made to fit the data and the emerging relationships between and within categories and thus emerged from the data itself. Further comparison revealed the variable usage of the schemas in conjunction with suicidal behaviour. For instance, schemas could be debated about, become congruent with the self-destruction action or remain latent. This led to the development of the term statuses of schemas, leading to the identification of five different statuses. The five schemas themselves had been termed the suicidogenic pentagads. The SP model had been changed to accommodate the trends emerging in the data.

By submerging the model within the data, previously closed phases had been opened up to reveal their operations, new phases had been added, but most importantly the model was changing to a process theory of suicidal behaviour with a firmly grounded conceptual base. Clearly, categories were not yet sufficiently saturated (Glaser & Strauss, 1967) and further theoretical sampling took place as hypotheses were confirmed and verified. The term Physiopsychache (PPA) as advocated by the SP Model, was becoming increasingly ill suited to the data, and the present author modified the term to fit the biodata and the extant literature sources. PPA was an attempt to incorporate physiological components into Shneidman's (1999a) concept of "psychache", and analysis revealed that even PPA was reductionistic by failing to address possible cognitive components of "psychache". Further theoretical sampling on the cognitive and emotive aspects of the suicidal experience was accessed and the term "suicidolor" was created and subsequently replaced the term PPA.

Categories were beginning to be integrated and a more integrated theory was emerging. Prior theoretical sensitivity and a medical report supplied on Arthur's medical condition (included in the diary) alerted the present author to the role of psychopathology in vulnerability statuses. An extensive literature base was thus sampled. The major question was "Why should psychopathological forms such as depression as exhibited by the primary subject (Arthur) be related to suicidal behaviour?" During this process, categories continued to be compared and the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994) was the primary document used as a result of theoretical sampling. Eventually, it became clear that the "vulnerability" category had a specific relationship with the "schema" category and this relationship could answer the overarching question of the relationship between psychopathology and suicidal behaviour.

The categories were now saturated within the nexus of the biodata and the relevant literature. Theory had now emerged. But the process of theory construction is tentative and never reveals a final product (Glaser & Strauss, 1967). Gradually the present author began to realise that an element of the theory had been insufficiently incorporated because of the nature of the biodata. An integral part of the suicidal process, that is the voice process (Firestone, 1997), was not sufficiently integrated into the theory. Further theoretical sampling ensued in which more case studies were accessed to understand specific thought patterns that emerged during the suicidal process. This resulted in a greater integration of the "suicidal behaviour" and "schema" categories than was previously achieved. The emergent theory offered a new ontological framework within

which to understand the suicidal experience. Thus, traditionally used terms such as non-fatal suicidal behaviour, chronic suicidal behaviour and impulsive suicidal behaviour were given new meanings within the new theory. Intervention and assessment of suicidal behaviour were further given new lenses within which it could be understood. The process theory of suicidal behaviour had emerged from the data. Within the rubric of the grounded theory procedure, this theory will remain a tentative product (Strauss & Corbin, 1990). This is because further categories, formed from future and present research, will either expand or create new categories within the process theory's framework. Refutation may only be accomplished once categories become theoretically defunct (Strauss & Corbin, 1990).

3.5 Validity Considerations

There has been extensive debate within the field of qualitative research concerning issues of internal and external validity (Glesne, 1999). Arguments have included the consequences of adopting such terms as "validity", operating within a mainly positivistic paradigm, to using terms such as "trustworthiness" and credibility of qualitative research (Glesne, 1999). Moreover, qualitative researchers have proposed numerous sub-categories of validity ranging from interpretative validity to culture-validity. One may argue that they are merely linguistic substitutes for a similar process advocated by the positivistic paradigm. However, paradigmatic changes reflect changes in terminology. Thus, in order to adhere to the social constructionist position of doing inquiry, the notion of the trustworthiness of this research will be discussed.

Glesne (1999) argued that “The credibility of your findings and interpretations depends upon your careful attention to establishing trustworthiness”(p. 151). Many criteria have been proposed in order to assist the establishment of the trustworthiness or research validity of ones study (Glesne, 1999). This will be discussed in relation to this study:

Persistent Observation. The research process took place over an extensive period and involved persistent observation. The diaries themselves were read three times over a period of two years.

External Audit. The usage of an external rater to establish inter-rater reliability of codings and the subsequent establishment of high levels of percentage agreement was used to increase the credibility of the findings.

Triangulation. Multiple sources of data were used. Even though the autobiography was the primary unit of analysis used, second stage theoretical sampling resulted in the usage of a range of data sources such as empirically researched literature and electronically available case studies.

Negative case analysis. When theoretical sampling ensued, negative cases (Strauss & Glaser, 1967) were identified and categories within the emerging theory were refined accordingly. This was especially true for the nature of suicidolor and the incorporation of new phases to the theory.

Clarification of research bias. The use of memo cards served to draw the researcher’s attention to possible biases in the research process. In addition, supervision provided an appropriate forum in which to explain the development of theory at different points in the research process. This reduced the subjective bias of the present author by

introducing alternate ways of interpreting phase developments. A constant vigilance for possible subjective bias and a decision to address possible biases and not to deny their reality denoted the position adopted in this research enterprise.

3.6 Methodological Limitations

The use of grounded theory was considered to be appropriate for the study because of its emphasis on theory development. However, not all of the procedures as outlined by Strauss and Corbin (1990) were used. For instance, the coding paradigm was adapted to the nature of the data so that several criteria were removed, which may be perceived as a methodological limitation. The intention here was not to force the data to fit into pre-existing theoretical schemes as outlined by the grounded theorists, but to allow it to “speak for itself”. Such an intention may have been compromised by the deductive element of the study and by the inevitable influence of the researcher’s perceptual view in qualitative research. However, it is hoped that the changes made to the initial SP model and steps taken to deal with researcher bias may have overcome the latter influences.

The use of theoretical sampling in the grounded theory method could have enhanced the generalization of this study’s findings. However, care should be taken in any form of generalization, since the context of the lived-reality of Arthur Inman (whose diary formed the primary data source of this study) may differ across individuals. Also, further studies that would facilitate the understanding of the generalization of this theory’s tenets on a larger sample of subjects may assist with generalization issues.

CHAPTER 4

Results

4.1 Introduction

This section comprises two parts. The first part proposes the process theory of suicidal behaviour, whilst the second attempts to explicate those parts of the theory that were grounded in the primary data source, that is the Arthur Inman diary (1985). The latter could be conceived as an attempt to provide evidence for, and validate the process theory of suicidal behaviour.

In the first section, literature sources are included in the theory. These literature sources are the products of second stage theoretical sampling. Thus, the theory comprises a mixture of novel inductive parts and extant literature sources, found to be relevant within such a framework.

Part One

4.2 The Process Theory of Suicidal Behaviour

4.2.1 Ontological Assumptions.

The process theory of suicidal behaviour adopts a specific ontological assumption, which follows the logic of the Zubin and Steinhauer (1981) model of schizophrenia.

Contemporary psychological research is often conducted without making explicit the underlying ontological and epistemological assumptions of the research process. Even though they are implicit, these assumptions nevertheless inform the research process by adopting specific assumptions over others. Thus, the underlying ontological assumption of the process theory will be made explicit - not to assert that a specific reality constitutes the “truth” about what suicidal behaviour entails - but rather to make explicit the underlying reality that the process theory assumes in its perception of the nature of suicidal behaviour. Ultimately there is no “truth”, just different perceptions of understanding (Guba & Lincoln, 1994).

The process theory understands suicide as processional, in that the potentially suicidal individual goes through phases. It proposes that the suicide act comprises just one of the phases in the process of suicide. In addition, the process theory stipulates a non-linear progression through phases with multivariate pathways that allow suicidal persons to be dynamically situated within the entire process.

4.2.2 Basic Outline of the Phases of the Process of Suicidal Behaviour

Section 2.6.3 of the literature review contains the Suicide Processional Model (SP Model) which was used as a skeletal framework from which the present theory developed after and during review of the Inman Diary (Aaron, 1985). In this section, the entire theory is presented, and this may overlap with the initial presentation of the model. These

overlaps may be perceived as those parts of the model that survived to become part of the process theory of suicidal behaviour.

In order to enhance understanding of the suicide process, phases will be explained linearly. Even though the phases are explained in this manner, it does not mean that a person goes through the process in such a linear way. Indeed, linear progression through the phases is an exception rather than the rule. Phases are linked together in a transactional, dynamic way so that persons may go through the process skipping some phases altogether.

The basic phases of the suicidal process are outlined in Figure 4 below:

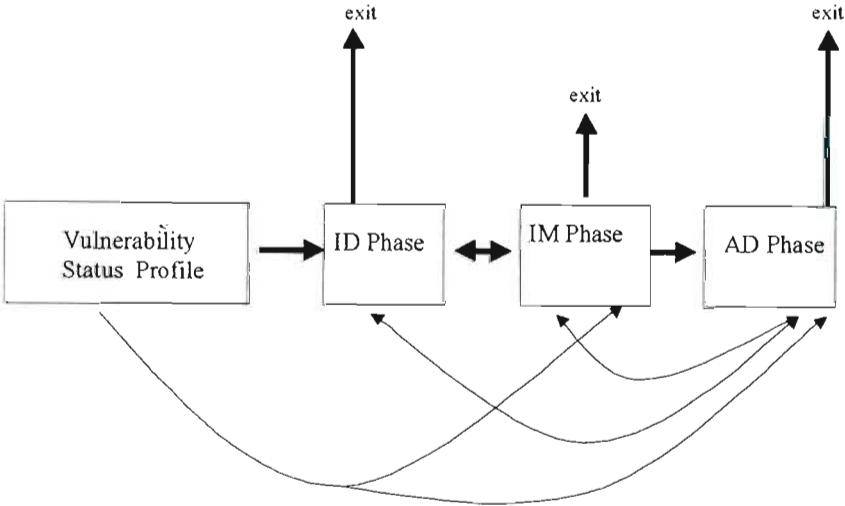


Figure 4. The basic phases of the suicide process and its dynamic nature.

The vulnerability status profile¹ includes the mediatory effects of protective factors on potential stressors, resulting in a vulnerability status. Once a threshold level is achieved, vulnerability to suicidal potential may become established. The person may then proceed to one of the parts of the Ideational Dominance phase (ID Phase). Here, suicidal thoughts are internally debated and affect is relatively absent. As suicidal ideation is rehearsed, suicidal affect may increase and cognitive constriction (Shneidman, 1999) may take place. The association of affect with suicidal ideation indicates that the person has may now have moved from the ID phase and into the Intermediate Phase (IM Phase). Once affect levels become intolerable and predominates the engagement in suicidal ideation, the person may move to an Affect Dominance Phase (AD Phase). Ventilation (catharsis) of suicidal affect may take place in this phase according to three modes of catharsis: congruent catharsis, incongruent catharsis and a lack of engagement in catharsis. This will be discussed in more detail shortly. A person could thereafter engage in Affective Reaction Formation, and may pass on to the Affective Reaction Formation Phase (ARF Phase). Any of the phases can be exited, so that a person may exit the phase and return to the same phase or different phase later. This enhances the dynamic nature of movement between phases.

4.2.3 Cognition and Emotion

Cognition and emotion are treated in a specific way by the process theory. During each of these phases; thoughts, feeling and actions concerning life, death, the self,

1. Underlined words are defined in the “glossary of terms” provided in Appendix A.

interpersonal relations and self-destruction; may reach suicidogenic proportions. The term schema is used to refer to the ideational, emotional and behavioural patterns that characterize certain aspects of human functioning. Five schemas of human functioning have been found to be associated with suicidal potential: the self, life, interpersonal, death and self-destruction schemas. These schemas were chosen after analysis of the Inman diary (Aaron, 1985) suggested their pertinence to the suicidal process. According to the process theory of suicidal behaviour, these five schemas are termed the pentagadic schemas of suicidal behaviour (basically meaning the five schemas relating to suicidal behaviour). In addition, the theory classifies suicidal affect according to a three-tier system. That is, suicidal affect comprises primary, secondary and tertiary emotions. Initially, primary emotions referred to physiopsychache (PPA), which is an extension of Shneidman's (1993) term "psychache". During construction of the theory it was noticed that such a term was misleading, since it implied biological and psychological aspects and left out other features such as cognitive features. Thus, the term suicidolor was constructed to describe suicidal pain without being psychologically or physiologically reductionistic. Within this three tier system, secondary emotions refer to the presence of fear and lack of courage in conceptualizing the suicidal act, whilst tertiary emotions refers to the presence of hopelessness regarding life and the self.

4.2.4 Sequencing of the Phases

An important assumption of the theory is that the phases are dynamically related to each other. This can be seen in Figure 4. All phases are linked to each other, thus

allowing progression through the process according to the idiographic influences of unique individual configurations of personality, biological, psycho-social, existential, cultural, needs and stressor profile factors (Zubin & Steinhauer, 1981). Once a person is in the AD phase, he or she could move back to the ID phase, the IM phase, engage in creative sublimation and leave the process altogether or progress to the ARF phase. Another person may enter the process from the vulnerability status and proceed to the IM phase, skipping the ID phase, since suicidal ideation was found to be paired with affect. Yet another person, may have gone through the process previously, and perhaps after facing a stressor years later, enters the process by moving to the crisis AD phase. In the latter cases, ideation may have been rehearsed and schemas could have reached suicidogenic proportions resulting in them being resolved. Thus, multivariate pathways exist between phases, yielding a dynamic process, which allows for persons to be situated at numerous different points within the process of suicide. This would seem appropriate, since when persons are first encountered by mental health workers as potentially suicidal, they may have proceeded through the process in the past in two forms; (a) directly - by engaging in thoughts, feelings and actions concerning suicide and death, or (b) indirectly - by allowing the self, life and interpersonal schemas to reach suicidogenic proportions without prior entertainment of suicidal ideation, that is by developing psychopathological states. Such ideation may follow the frustration of a vital need, thus resulting in the activation of the death and the self-destruction schemas.

4.2.5 Detailed Presentation of the Process of Suicidal Behaviour

In this sub-section, a detailed presentation of the theory will be proposed. As such, it will attempt to elaborate and expand on the brief tenets that have been previously outlined.

4.2.5.1 The development of the vulnerability status profile

The Vulnerability Status Profile (VSP) stage can be summarised as represented in Figure 5 below:

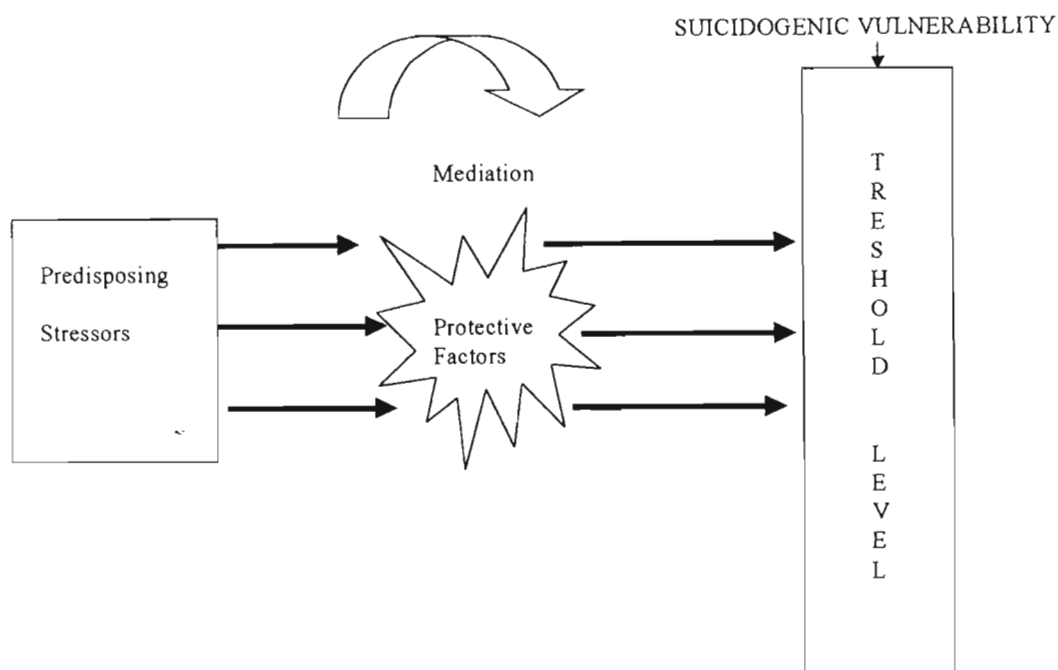


Figure 5. The Vulnerability status profile showing the mediation of stressors by protective factors and the development of a threshold level characterizing vulnerability to suicide.

The theory begins by acknowledging the contribution of predisposing stressors to the development of suicide vulnerability. Stressors are defined as any factor in a person's life experience that frustrates a need deemed important by that person (Shneidman, 1999).

They are categorized as precipitant or predisposing, with proximal or distal temporal qualifications (Mościcki, 1999). Predisposing stressors predispose the individual to suicide vulnerability and may incorporate empirically researched risk factors. Precipitant stressors could be perceived as stressors that precipitate vulnerability to suicidal potential or to a suicide crisis and would more easily be given as a reason for a suicide attempt. Proximal stressors occur recently in a person's life, whilst distal stressors are long-standing and could be situated in a person's past. It is argued that the status of stressors is dynamically related to the process of suicidal behaviour. For instance, a stressor may be defined as having a predisposing function in one case, whilst such a stressor could later be classified as precipitant if it precipitates a crisis situation. This would apply to the distal and proximal nature of stressors as well. That is, stressors could be distal and proximal, predispositional and precipitant within a continually evolving time perspective. Here, the notion of looming vulnerability as proposed by Riskind, Lang, Williams and White (2000) would be pertinent, since the nature of the stressors could evolve, intensify and subsequently change over time.

The interplay of stressors contributes to the unique vulnerability status of each individual (Zubin & Steinhauer, 1981). Stressors are divided into six broad categories (intra-personal, interpersonal, familial, cultural, psychosocial and health factors). These categories comprise applications of the approaches to suicide developed by Shneidman (1992). Examples of potential stressors, conceptualized as empirically researched risk factors, have been discussed in section 2.7. of the literature review.

The theory acknowledges that the presence of stressors themselves may not lead to the development of suicide vulnerability in the individual. The impact of these stressors is necessarily mediated by protective factors as explained by Zubin and Steinhauer (1981) in their attempt to understand vulnerability to schizophrenia. These protective factors fall into the similar 6 categories of human functioning, some of which were discussed in section 2.7.3. The mediatory effects of the protective factors results in a vulnerability status, which reaches a certain threshold level. This threshold level may represent a more covert process in the mediation of risk factors by protective factors. It is characterized by the infiltration of suicidogenic elements into any of the five schemas.² Suicidogenic elements refer to cognitive, affective and behavioural patterns congruent with a suicidogenic way of thinking, feeling and acting. Passive suicidogenic elements refer to the infiltration of suicidogenic elements into the life, self and interpersonal schemas, whilst active suicidal ideation refers to infiltration of suicidogenic elements into the death and self-destruction schemas. Once this occurs, a schema is said to be activated. Activation of a schema refers to the conscious debating of the contents of a schema, *relative to the infiltration of suicidogenic elements*. An activated schema comprises just one of the statuses of a schema. Other statuses are discussed in Text Box 1 below:

2. The implication of this would be that everyone is vulnerable to suicide, but that the difference may lie in the relative degree of vulnerability.

Text Box 1

Explanation of Schema Statuses

The status of a schema refers to whether the cognition of that schema is unknown, developed, active and unresolved, or active and resolved *in terms of possessing suicidogenic elements*.

Cognition pertaining to a specific schema is:

- **unknown**, if it cannot be accessed for some reason.
- **activated**, if it possesses suicidogenic elements.
- **inactivated**, if it lacks suicidogenic elements.
- **active and unresolved**, if it possesses suicidogenic elements and its contents are being debated.
- **active and resolved**, if it possesses suicidogenic elements and lacks ambivalence thus resulting in resolution. Resolution adopts a specific meaning in terms of suicidogenic schemas. It means the stage in which a suicidal person has managed to reach a definite state and reduce the ambivalence normally associated with the activation of the relevant schema *relative to the act of suicide*. For instance, the death schema may have been activated and unresolved as the person is ambivalent about what happens after death. He or she may believe that a mysterious form of consciousness results, which is incompatible with his or her motive for self-destruction which may be the cessation of consciousness. Thus, considerable ambivalence and frustration may result as the schema become incongruent with the goal of suicide. The schema becomes resolved when the person changes his cognition to believe that death produces a cessation of consciousness. Thus, the schema is now resolved, *in terms of being congruent with the act of self-destruction*
- **latent**, if it is not consciously activated (and the person is unaware of it) but is influencing other schemas by its dormant fusion with them or by its dormant resolution

Vulnerability to suicide could take place according to two processes. The two possible vulnerability routes are the direct and indirect vulnerability routes. The process theory resists attempts to understand vulnerability solely as the presence of risk factors

mediated by the presence of protective factors. It considers this to be necessary but insufficient in understanding vulnerability to suicide. Rather, the process theory proposes that the infiltration of suicidogenic elements into any of the pentagadic schemas may offer a finer method of understanding suicide vulnerability.

Through the direct vulnerability route, a person may begin to think about death and self-destruction - termed active suicidal ideation. Through the indirect vulnerability route, the life, self and interpersonal schemas may begin to acquire suicidogenic elements – termed passive suicidal ideation. Table 7 shows the ideational suicidogenic elements that can infiltrate the schemas. The relevant suicidogenic elements were chosen after conducting analysis of the Inman diary (1985), combined with accessing current electronic databases (Depressedchild, 2000; Psyke, 2000; Rochford, 2001; Schimelpfening, 2001; Suicide and Death – Personal Stories, 2001; Suicide-Online Directory of Mental Health, 2001; Yahoogroups, 2001) and extant literature sources (Shneidman, 1992; Leenaars, 1994; Maris, Berman & Silverman, 2000) regarding the alterations of the relevant schemas in the face of suicidal behaviour.

Table 7

Suicidogenic Elements Pertaining to Specific Schemas

SCHEMA	PASSIVE SUICIDOGENIC IDEATIONS
a) Self Schema	Thoughts associated with perceived self-worth and self-esteem, such as: “I’m worthless”, “I’m a failure”, “I’m a burden”, “I wish that I’d never been born”, “I’m going to end it all”
b) Interpersonal Schema	Thoughts associated with the quality of interaction with others, whether the person considers himself or herself to be a valuable resource to others such as and whether the person believes that he or she is rejected, marginalized or accepted by others.. Thoughts include: “I’m a burden, people will be better off without me”, “I’ll get even with them”, “Nobody cares about me”, “No one cares whether I live or die.”
c) Life schema	“I have nothing to look forward to”, “Life sucks”, “Living does not matter to me anymore”
SCHEMA	ACTIVE IDEATIONAL SUICIDOGENIC ELEMENTS
d) Death Schema	Thoughts about death and its consequences. At times this may include interpersonal questioning regarding death ³ . These include: “What happens when we die?”, “Does dying hurt?”, “When we die do we sleep forever?” “I wish that I was dead” (table continues)

3. It is probably a natural part of human growth that people question the meaning of life and death, but in relation to the suicidological context this quest for understanding death is different. This difference may lie in a preoccupation with death and dying.

SCHEMA	PASSIVE SUICIDOGENIC IDEATIONS
c) Self-destruction schema	Thoughts about killing oneself. These include: “I am going to kill myself” From the <i>latter regions of the ID phase</i> onwards these thoughts expand to the method considered to be used, the consequence of the act, and a general debate about suicide.

Once active or passive suicidal ideation is established, a person may move to the ID phase.

4.2.5.2 The Ideational Dominance (ID) Phase

The ID phase comprises two parts, as represented in Figure 6 below:

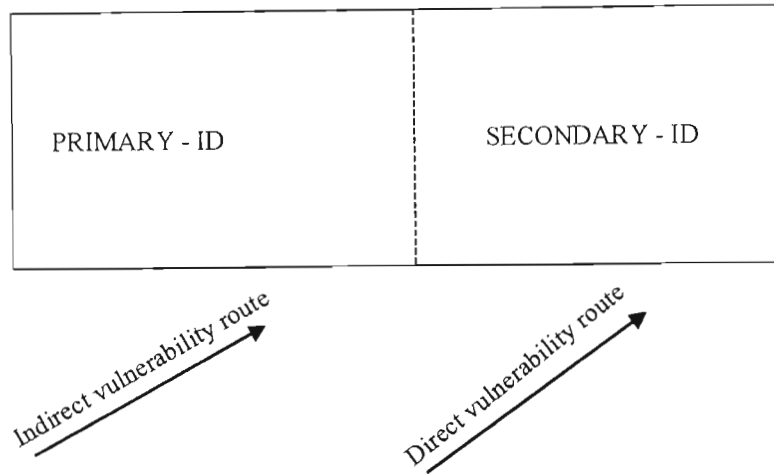


Figure 6. The ID phase, its components, and associated vulnerability routes.

The first part is called the primary-ID. A person achieving an indirect vulnerability may pass to this phase. Here, the life, self and interpersonal schemas are not only activated, but may be subjected to debate using internal and external speech. Thus, considerable ambivalence may characterize this phase. For instance, a person may say, “Hate living, but will have to wait until it is written that I will die”. In addition, the ID phase involves a relative lack of affect. Thus, if a person achieves the indirect vulnerability route and experiences affective arousal, they may skip the ID phase altogether and move to the next phase as shown in Figure 4, which comprises a combination of ideational and affective experience. Secondly, if the direct vulnerability route is achieved, the person may move to the latter part of the ID Phase, called the secondary-ID. Here the death and (or) self-destruction schemas are activated. Because

schemas have affective, ideational and action patterns and because the ID phase is primarily ideational, only the ideational components of the schemas may be activated here.

Once the self-destruction schema is activated (in the secondary-ID), thoughts about methods of killing oneself, the consequences of using different methods, whether one should kill oneself or not, may begin to be internally debated. The individual may engage in an internal dialogue, debating whether to kill themselves or not, how to go about doing so, the people who will be left behind and so forth. Also, method conceptualization, the process of thinking about methods to be used, may take occur in this phase. Hence, the stage may be characterized by considerable cognitive and discursive ambivalence concerning the suicidal act. The self-destruction schema may be linked with the death schema. Schemas may have diffuse boundaries, since they may become fused with each other and subsequently influence each other. For instance, if the self schema has negative attributes, such attributes may also come to characterize the interpersonal schema.

Further schema activation and development may take place here. When direct or indirect vulnerability to suicide potential was established, it may have been that only a few schemas were infiltrated with suicidogenic elements. From the ID phase onwards, the pentagadic schemas may undergo a rigorous course of becoming latent, activated and resolved or activated and unresolved. Thus, schemas could be categorised according to their statuses. Such a categorization could be made at varying points in the process, including the phase comprising the establishment of vulnerability to suicide.

An important caveat should be noted here. Even though the criterion for passage to the secondary-ID is conceptualized as the activation and operation of the death and self-destructive schemas, at times such activation may be rendered ambiguous by subtle factors. For instance, because a person does not write or speak about death or self-destruction does not mean that the person has not already formulated a conceptualization of these schemas. The death and (or) self-destruction schema may be latent or the person may masquerade thoughts about death and suicide. Alternatively, the death and (or) self-destruction schemas may be linked to other schemas, so that activation of the other schemas latently activates the death and (or) self-destruction schema.

Thus, when assessing any of the schemas for the presence of suicidogenic elements, it is important to probe for the development and resolution of the death and (or) self-destruction schemas even though it may appear as if they are inactivated. This would have consequences for deciding whether the person is in the primary-ID or secondary-ID parts of the ID phase. Considering the person's history in terms of progression through a suicidal process may be helpful in understanding the status (possible latency) of the death and (or) self-destructive schemas. Also, at times it may prove difficult to find a way of establishing whether a schema is latent or not, especially in relation the self-destruction schema. This may account for why some people appear "normal" to others prior to engaging in a suicide attempt. Nevertheless, prior progression along the process of suicide and the presence of passive suicidal ideation may give way to attempts used to conceal (consciously or unconsciously) suicide intent. Moreover, the pertinence of the death schema may not be universal in all cases of suicidal behaviour. That is, if death is not the

motive for engaging in a suicide act, the death schema may be inactivated, and probing for its existence may prove futile. Thus, schema activations may reflect the motivation (s) for engaging in the suicide act.

From this phase onwards, the presence of cognitive factors such as problem-solving deficits, rigid and dichotomous thinking, and the establishment of suicide as a desirable solution may become apparent.

Besides understanding the status of schemas and the presence of the above-mentioned cognitive factors in this phase, awareness of a “voice” from the early stages of the process (the ID phase) may prove important. In the past and possibly in the present as well, clinicians have not been aware of “voice attacks” that characterize much suicidal thought - especially suicidal thought that has progressed along the suicidal process (Firestone, 1997). If a clinician is aware of the influence of the voice attacks within the suicidal process, he or she could enquire as to its presence and its content. Typical answers could be: “I have voices all the time that say, ‘Nobody likes you. Everybody hates you. Why should anybody be nice to you? You aren’t nice to them. No one wants you around....’” (Firestone, 1997, p. 155). Such voices correlate with the suicidogenic elements of the pentagadic schemas. Even though the voice process may be operant in the ID phase, its lethality may become undeniable when thoughts become associated with increases in affect levels. Thus, voice attacks associated with affect become pronounced in the subsequent phases. Once affect is established, the person may move to the IM phase, which is a rather grey area between the ID and AD phases.

4.2.5.3 The Intermediate Phase (IM Phase)

Figure 7 shows the scalar nature of the IM phase.

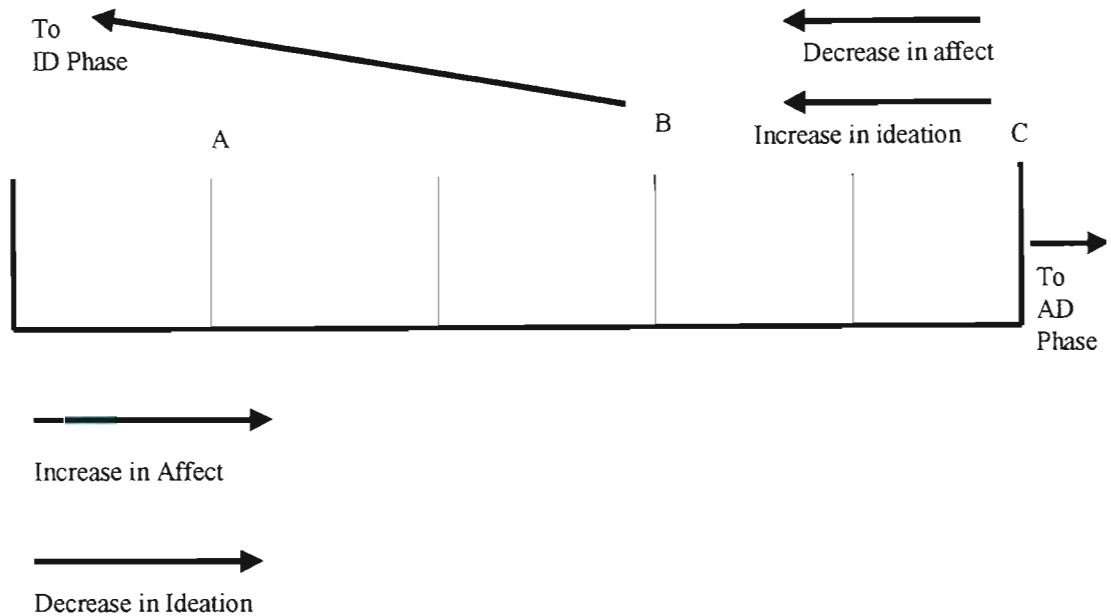


Figure 7. The IM phase, showing it's scalar nature and the relationship between affect and cognition.

The scalar nature of the phase, reflects incremental increases in affect and decreases in ideation as a person progresses through the phase. At the start, affect may be present, but engagement in suicidal ideation may occur to a lesser degree. As the person moves down the scalar continuum, affect increases whilst suicidal ideation decreases. However, there may be no linear progression to the next phase since a person can move to point A from point B or from point B back to the ID phase, or even from point B to point C

and then into the AD phase. An increase in suicidal ideation and a relative decrease in affect indexes regression through the scalar continuum. Cognitive constriction (Shneidman, 1999a) may be more apparent as the person's focus becomes narrowed in terms of suicidogenic properties. This constriction may be accompanied by a higher than usual focus on death and dying (Shneidman, 1999), that is, if the death and self-destruction schemas are activated. Schema activation, attempts at resolution and method conceptualization may take place in this phase as well. The difference between method conceptualization in this phase as opposed to the ID phase, may be that here is accompanied by affect and actions. Affective and behavioural suicidogenic elements may now characterize the pentagadic schemas. Particular emphasis should be made in terms of the absence of activation of the behavioural suicidogenic elements of the self-destruction schema in this phase, even though behavioural elements of the remaining pentagadic schemas may be activated in this phase. The behavioural elements of the self-destruction schema may be activated in the next (AD) phase. The affective and behavioural suicidogenic elements of the pentagadic schemas are presented in Table 8 below:

Table 8

Suicidogenic Elements Infiltrating the Affective and Action Components of Schemas.

SCHEMA	SUICIDOGENIC ELEMENTS	
	AFFECTIVE	BEHAVIOURAL
a) Self Schema	Worthlessness, hopelessness, helplessness, unhappiness, sadness, anxiety, stress, despair, shame, guilt, apathy, grief, anger	Crying incessantly, radical behaviour changes - unusual happiness, isolation, daydreaming, hostile and aggressive behaviour, self-mutilation, running away, lack of interest in previously enjoyed activities, disruptive, reckless and risky behaviour, neglect of physical appearance.
B) Interpersonal Schema	Disinterest and anhedonia in relation to social interaction	Withdrawal, social isolation, giving away prized possessions, rebelliousness, trouble with the law, not wanting to be touched by others
c) Life Schema	hopelessness, apathy	Withdrawing, seclusion, isolation
d) Death schema	death as a source of comfort, means of escape, revenge, solution to problems Ambivalence - creating feeling of dissonance When resolved - may lead to affective reaction formation.	Preoccupation with writing or drawing about death. Asking questions relating to death. (table continues)

SCHEMA	SUICIDOGENIC ELEMENTS	
	AFFECTIVE	BEHAVIOURAL
e) Self-destruction schema	Ambivalence - creating feeling of dissonance. When resolved - may lead to affective reaction formation.	*Behavioural suicidogenic elements may not be activated in this phase, but in the AD phase (next phase)

Because affect has now been introduced into the process, emotions will have to be categorized as well. Here, the three tier emotions will have to be allocated a status as well. Emotional states (primary, secondary and tertiary emotions) need to be categorized as undeveloped or activated. The secondary emotions need to be further classified into whether they are resolved or not. Resolution of the secondary emotions may comprise a lack of fear and increase in courage in conceptualizing the suicide act.

An important caveat, is that whilst secondary emotional resolution probably involves the resolution of fear and an increase in courage in perceiving an impending suicide act, externalized anger and aggressive tendencies could hasten the process of achieving secondary emotional resolution. This would comprise traditionally termed “impulsive suicidal acts”.

Voice attacks (Firestone, 1997) may become more pronounced and lethal as affect increases. Verbal discourse may possess more acts of feeling. The following account illustrates a typical voice attack in the IM phase:

Recently I've been feeling [italics added] more and more like giving up things. One of the biggest things I do is I stay away from my friends a lot more than I used

to. I feel [italics added] like I'm bothering my friends and I feel uncomfortable around them.

If I'm by myself or driving around, I start thinking, "You're a terrible person. People don't like you. You should stay away from them. You cause your family trouble all the time. You're not nice. You don't add anything to anybody's life. You are just making people feel bad. You should go away. You should *really* go away!" (Firestone, 1997, p. 88).

Such voice attacks may contribute to the isolation and withdrawal that suicidal persons retreat into. Once in a state of isolation, the voice attacks appear to increase in frequency. As Sharon (a client of Firestone's, 1997) said, "The voice was weak when I was around other people, so the voice got me to be alone - saying; 'Get alone. Look, don't you need some time for yourself? Get alone so you can think'" (Firestone, 1997, p. 20-21). The voice attacks appear to be quite sinister and lethal especially when the person begins to believe what is being said. It may be responsible for the isolation and withdrawal associated with suicidal behaviour. From the IM phase onwards, such voice attacks may be characterized by increasing affect levels, as indicated by the above quotation.

When the magnitude of the suicidal affect becomes intolerable enough to motivate the person to get rid of it in some way (emotional ventilation), the potentially suicidal individual may thereafter move to an Affect Dominance (AD) Phase.

4.2.5.4 The Affect Dominance (AD) Phase

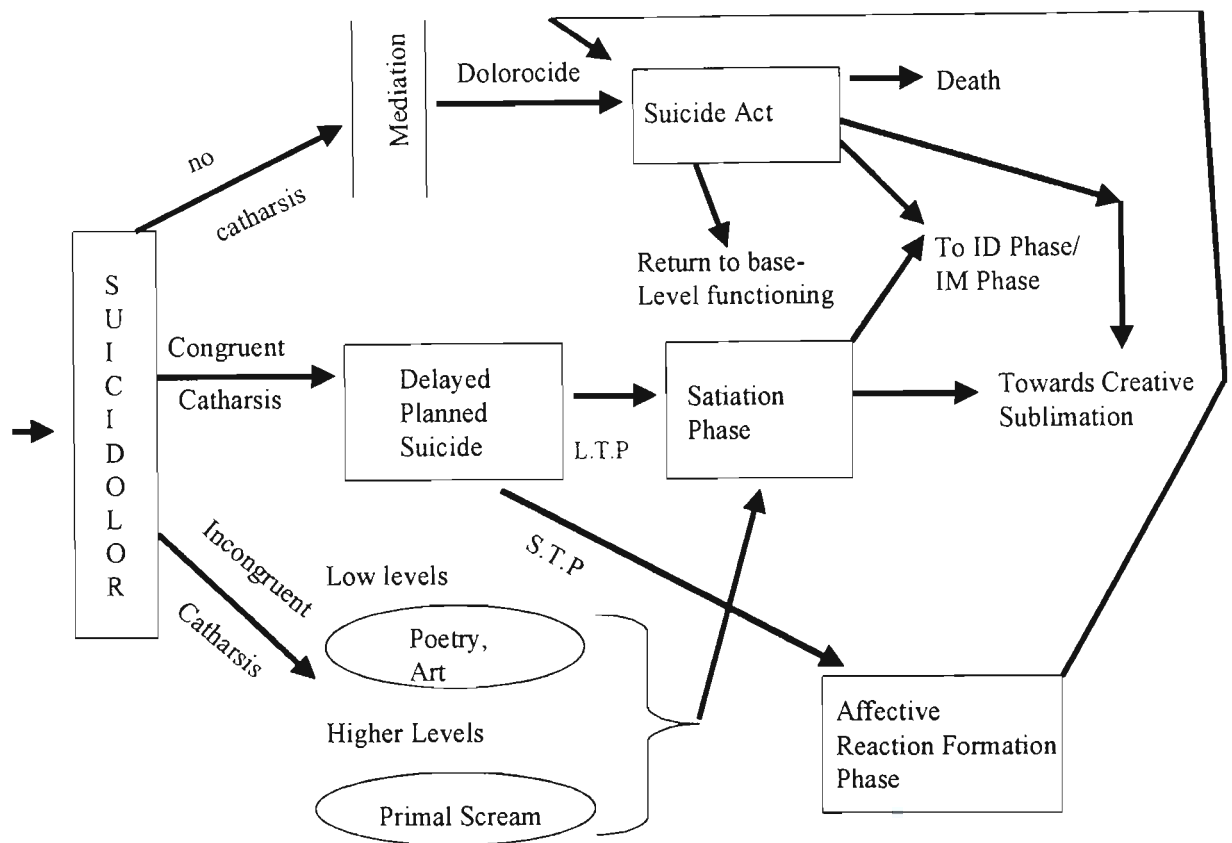


Figure 8. Cathartic pathways in the AD phase.

Figure 8 shows the various pathways which a potentially suicidal individual could move through, depending on the catharsis or ventilation of affect which the person engages in. The AD phase is characterized by a continuum of suicidolor. In addition it may be here that the behavioural suicidogenic elements of the self-destructive schema becomes activated, including actions such as locating comfort in methods of suicide (such as a firearm) and rehearsing suicidal behaviour (such as strangulating oneself in rehearsal for hanging).

Suicidolor levels may develop in the IM phase and could reach intolerable levels at the end of the phase, when the person moves into this phase. Importantly, some persons may devise means of discharging and sublimating the suicidolor levels in the IM phase and may subsequently never reach the AD phase until something happens that prevents the engagement in the sublimated activity.

Furthermore, the levels should not be perceived as objectively defined high and low levels. Rather, the levels are relative to the subjectively experienced pain. For instance, due to individual levels of pain tolerance, an individual may explain his or her suicidolor as being low, whilst another individual may categorize a similar level of suicidolor as intolerably high. Thus, the importance of understanding the individual's perception of his or her experienced pain cannot be overemphasized. The AD phase houses sub-stages, which depend on the form of ventilation of affect (catharsis) in which the individual engages (no catharsis, congruent catharsis, or incongruent catharsis). The sub-stages are similar for both low and high suicidolor levels, with the primary distinguishing feature being the form of incongruent catharsis engaged in for different suicidolor levels.

Figure 8 should be used to follow the cathartic routes mentioned here. In relation to low levels of suicidolor, a lack of catharsis will predispose an individual to engage in a low lethality suicidal act. However, this does not comprise an absolute causal relationship, since the relationship between low levels of suicidolor and low lethality acts may be mediated by factors such as motivation for engaging in the suicide act and the availability of means (Pillay, 1989). Also, the engagement in the non-fatal suicide act is influenced by

the resolution of the relevant schemas. The lack of resolution of the death schema may result in the usage of a suicide act to accomplish an act of communication rather than achieving death per se. The same applies to the relationship between high suicidal levels and high lethality suicide acts.

Secondly, the individual could engage in congruent catharsis - flowing with the suicidal affect, and not engaging in any form of sublimatory ventilation. This could result in the individual engaging in a Delayed Planned Suicide (DPS) in which the individual temporarily postpones the suicide act to get things in order, such as planning to say farewells. There could either be a short or long temporal span in engaging in the delayed planned suicide. If there is a long temporal period (LTP), the individual may move to the satiation phase. This phase is characterized by relative calm and mental clarity, emotional stability and physical exhaustion. If there is a short temporal period (STP), a person may move to the Affective Reaction Formation phase in which the person assumes an external affective state antithetical to the one subjectively experienced. For instance, he or she may be unusually happy or may appear more stable relative to previous periods of instability. Such states should not be taken to mean that the person is well, since it may be that the death or self-destruction schemas are resolved and the person finds solace using a pending suicide act as a perceived solution to their problems. The key here would be whether the death schema is resolved, thus making it more likely that the motive for the suicidal behaviour would be death rather than using suicide as an instrument to achieve other ends as outlined by Baechler's typology (1979). Peace, serenity and happiness may stem from a resolution to die and a lack of subsequent ambivalence concerning the act.

It must also be mentioned that method experimentation is a form of congruent catharsis in which a person experiments with a method in order to attain comfort in the idea of suicide or as a rudimentary preparation for the suicide act. Examples were provided in the beginning of this section, when behavioural components of the self-destruction schema were considered. The voice process operates throughout the AD phase, but may become most fixed prior to the engaging in the suicide act. Such a voice attack would be, "You'd better do it! It's the only thing you can do. You'd better do it! I hate you! I hate you!" (Firestone, 1997, p. 21). Attention should be drawn to the increase in affective levels as congruent with being in the AD phase. If there is a long temporal span between the ideation and the actions, the individual may reach the Satiation Phase (SP).

A third form of catharsis which the person could engage in relates to incongruent catharsis - in which emotional ventilation occurs by channelling the suicidal affect into sublimatory activities, such as engaging in discursive activities (writing, poetry - for low suicidolor levels) or engaging in a form of quasi-primal fight-off (for high suicidolor levels). Well known historical examples of incongruent catharsis, include poetry writing by Sylvia Plath (Maris et al., 2000), diary writing by Arthur Inman (Aaron, 1985), and Ernest Hemingway's literature writing (Maris et al., 2000).

In addition to the quasi-primal fight, alternate activities, such as physically ventilating the suicidal affect by sporting activities could also be considered forms of incongruent catharsis. Physical activities such as the quasi-primal fight-off and sporting

activities may be pertinent when higher levels of suicidolor are in operation. In engaging in forms of incongruent catharsis, the individual may move to the satiation phase. It is important to acknowledge that for the individual who has managed to ventilate the suicidal affect using forms of intra-individual intervention strategies, traditional forms of inter-individual psychotherapeutic interventions may be crucial to help the individual deal with the primary stressor, which was responsible for the individual being plunged into the process of suicide. This may incorporate the new idea of understanding which phase clients are situated in and documenting the status of the pentagadic schemas and secondary emotions. If no therapeutic intervention takes place, the individual may once again go through the suicide processional cycle, starting again from the ID phase or proceeding to the IM phase if residual affect is present. However, some individuals who reach the satiation phase may not go back to the ID or IM phases and may instead lead lives devoid of suicidal behaviour. Such individuals manage to construct creatively sublimated lifestyles.

In addition, after engagement in the suicide act, several pathways exist, (a) death (b) recycling through the ID and IM phases, (c) creative sublimation, (d) return to a “normal” base level of functioning. In the “normal” state, an individual may appear to exit the suicide process for a while, and may or may not enter it again. Entrance to the process again may take place at any phase.

4.2.5.5. Inclusion and exclusion criteria for the phases

Certain inclusion and exclusion criteria for the relevant phases have been identified through grounded theory analysis. This related primarily to the affective, cognitive and behavioural features of the suicide process. Insufficient understanding of the biological factors operating throughout the suicide process, resulted in a lack of understanding of the contribution of such factors to the operation of the phases of the suicide process. Table 9 presents the inclusion and exclusion criteria for the relevant phases.

Table 9

Inclusion and Exclusion Criteria for the Phases

PHASE	INCLUSION CRITERIA	EXCLUSION CRITERIA
Primary-ID	-Activation of the life, self and (or) interpersonal schemas. -Development and attempted resolution of any or all of the above schemas	-Presence of affect Activation of the death and (or) self-destruction schemas
Secondary-ID	-Activation of the death and (or) self-destruction schemas (in addition to the schema activation in the Primary-ID).	-Presence of affect.
	-Development and attempted resolution of any or all of the above schemas.	
IM Phase	-Presence of affect which is insufficiently intolerable to warrant ventilation. -Development and attempted resolution of any or all of the above schemas	-Presence of an impulse towards ventilation of affect.
AD Phase	-Presence of intolerable suicidolor levels. -Impetus towards ventilation	-Absence of intolerable suicidolor levels.

	-Presence of evidence for affective reaction formation. -Schemas may show resolution.	-Absence of motivation to ventilate.
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4.2.5.6 Dolorocide

It is important to distinguish a form of suicidal behaviour in which the motive is to kill the experienced pain rather than killing the self. In the AD phase, such an act is termed *dolorocide* (From the Latin words “dolor” - meaning pain, and “cide” - meaning the killing of). Dolorocide is normally accomplished when catharsis is prevented, and when non-fatal methods are used within the context of a lack of resolution of schemas. Dolorocide would be considered a sub-category of the escapist form of suicide as proposed by Baechler (1979). Thus, numerous traditionally termed “parasuicidal acts” could be classified as either cries for help (Naidoo, 2000) or attempts to bring about a cessation of pain through a cessation of consciousness.

4.2.5.7 The nature of suicidolor and it’s subjective linguistic reference

Whilst suicidolor levels have been used to categorize affect levels involving a considerable amount of internalization of anger, psychological autopsies of case studies reveal that externalized anger and overtly aggressive states could also produce suicidal behaviour (Zilboorg, 1999). It is hypothesized that these states may be different from the above-mentioned discussion of suicidolor states. The difference may lie in the relative degree of expressed anger and aggression. More research needs to be done in order to establish whether suicidolor with more internalized anger, has a different subjective experience from suicidolor with more externalized anger.

In addition, an important caveat needs to be mentioned. Whilst the terms “suicidal pain” and “suicidolor” have been used to refer to the primary suicide emotion, the subjective usage of a term to describe such pain may differ from individual to individual. Analysis of the Inman diary (1985) revealed that Arthur used terms such as “frantic” and “going wild” to index his intolerable suicidolor. The usage of such words took place when he was situated in the AD phase, or in the latter parts of the IM phase. Thus, researchers and clinicians should be aware of the language that suicidal persons use in referring to intolerable suicidal pain. According to the social constructionist position informing this study, it is argued that language use would reflect the specific contexts and cultures within which an individual operates, that is, the person’s worldview. This should be taken into consideration when understanding the subjective linguistic referent of suicidal pain.

4.2.5.8 Suicide intervention and intravention

In terms of intervention, the theory proposes that intravention becomes possible by engaging in forms of incongruent catharsis. Also, implications for intervention are that crisis interventionists should possibly facilitate the process of emotional ventilation and not suppress it by calming down the potentially suicidal individual (Comstock, 1992). Prevention becomes possible by educating the public about the ways in which intolerable suicidal affect could be managed, intra-individually and inter-individually, the meaning of their suicidal pain, and the cognito-emotive features characterizing different stages of the process of suicide so that intervention and prevention becomes an informed process. In addition, the role of alien voice attacks could be brought to the attention of potentially

suicidal persons and therapists, so that they can assess and differentiate the self from manifestations of the anti-self system.

The power of the model, however, hopefully lies in its ability to structure the progress of an individual through the process of suicide. Continual monitoring (by a therapist) may be needed for an individual who is already in the process, and assessments of schema activation and emotional activation could be conducted with persons presenting with psychopathology that predispose persons to suicidal behaviour and produce passive suicidal ideation.

4.2.6. Applications of the Process Theory of Suicide

It is hoped that the process theory assists to understand traditional terms such as “impulsive behaviour” and “chronic suicidal behaviour” in a specific way. It also offers alternative ways to conceptualize the term “suicidal behaviour” and introduces a new ontological framework that aids assessment and treatment of suicidal persons. In other words, it may offer a new paradigm within which suicidal behaviour can be conceptualized.

4.2.6.1 Revisiting the conceptual impasse in suicidology

As discussed earlier, the field of suicidology has become complicated by a lack of consensus on what is meant by the term “suicide”. Attempts (O’Carroll et al., 1996;

Shneidman, 1985) have been made to produce conceptual clarity in order to facilitate the treatment of suicidal persons. O'Carroll et al.'s (1996) proposed nomenclature offers the most parsimonious and pragmatic effort to understand suicidal behaviour. Nevertheless such an attempt is argued to pertain to a specific paradigm of understanding suicidal behaviour, in which suicide is perceived synonymously as the suicide act. The proposition that suicide is a process, with the suicide act comprising just a component of this process, implies the reconceptualization of the very conceptual base of suicide behaviour. This would be pertinent, since perceiving suicide as a process would include a paradigmatic shift involving the operation of a different ontological assumption as previously discussed.

Thus, within this paradigm of understanding suicide as a process, a new terminology for suicide and related-behaviour is proposed in Table 10 below:

Table 10

Suicide Terms and Definitions

TERM	DEFINITION
Suicide	a process incorporating numerous dynamically related phases, which may or may not culminate in a suicide act.
Suicide ideation	refers to the infiltration of passive or active ideational suicidogenic elements into the pentagadic schemas.
Suicide act	a behavioural act in which a person has survived an attempt to either kill themselves or used the appearance of killing themselves to achieve other ends.
Suicidate	a suicide act resulting in death.

For suicides, as opposed to the suicide act, intentions can only be inferred due to the deceased status of the person engaging in the act. Moreover, the new terminology provided attempts to supplement definitional issues with aspects of classification so that germane concepts such as “intention” could be made more explicit.

For suicide acts, intention has to be understood and not assumed by the lethality of the act. Here, the process theory advocates that intentions should not be perceived as unitary. Instead, intentions should be seen as primary or secondary. Primary intentions refer to the basic reasons for using suicidal behaviour, whilst secondary intentions refer to using suicidal behaviour to accomplish the primary intention. In addition, whilst the primary intention varies, the secondary intention remains stable (referring to the suicide act). Such classifications of intention should be made within the context of understanding the statuses of the death and self-destruction schemas. This is due to the contention that in assessing intentions, the status of schemas could be perceived as moderating or exacerbating in effect. Such a contention is believed to be vital in the context of the process theory of suicidal behaviour. An example will be used to explain the use of this new terminology.

An individual overdoses on 10 over-the-counter paracetamol tablets and telephones someone to tell them of their attempt. No serious injury results. In some instances, especially where mental health workers associate intention with outcome, this individual would be immediately classified as having a low intent to die. However, using the process theory’s conceptual framework, and upon questioning the individual and

attempting to place this individual within the process of suicidal behaviour, a clinician finds out that the person had an intention to die (primary intention), but was prevented from doing so because of a lack of secondary emotional resolution and subsequently used the suicide attempt to achieve secondary emotional resolution. The definition of suicide-related behaviour is finely intertwined with classification aspects. According to this belief, it is argued that suicidal behaviour could be classified using four criteria: (a) type of suicidal behaviour - the definitional aspect, (b) primary intention, (c) status of schemas, and (d) status effect. In the example the following profile may be constructed:

Type of suicidal behaviour: suicide attempt

Primary intention: death

Status of schemas: unresolved death schema, resolved self-destruction schema

Status effect: Attempt to achieve secondary emotional resolution - thus exacerbating status of schema.

This terminological classification would change the entire clinical picture and risk status of that individual's suicidal behaviour, compared to if the individual was just classified as "parasuicidal" or engaging in nonfatal suicidal behaviour based on assumptions about the lethality and intentions of the behaviour. However, more research and academic debate needs to be undertaken in order to understand the status (independent or linked) of the proposed criteria. Nevertheless, what is being argued is that even in attempting to define a type of suicidal behaviour, attempts at classification are made implicitly. So the overarching question here would be: Why not explicitly supplement

definitional issues with the secondary classification of such behaviour according to the specified criteria, especially if such an attempt would make the clinical picture clearer and enhance the idiographic features of each person? The supplementing of such generic and specific issues is argued to be a necessary prerequisite in attempting to incorporate the nomothetic and idiographic aspects of individual cases, and parallels the social constructionist paradigm informing this study.

Considering another example may make this process of classification and definition more explicit. A person has attempted suicide, but has miraculously survived after ingesting a lethal overdose of pills. Upon interviewing the person, it was revealed that the person wanted to kill himself in order to “kill” the pain that he was feeling, whilst examination of the status of the schemas revealed that the death and self-destruction schemas were resolved. The behaviour would be classified as:

Type of suicidal behaviour: suicide attempt

Primary intention: to “kill” pain (dolorocide)

Status of schemas: resolved death and self-destruction schemas

Status effect: exacerbating status effect

By comparing these two hypothetical profiles, a picture emerges in which intentions and schema statuses become intricately woven into the process of defining suicidal behaviour. Thus, intentions are classified separately. Even though the very definition of “suicide attempt” incorporates some consideration of intention, it is more

flexible than previous definitions in that it takes into consideration suicidal intent and intent to achieve other ends. The supplementation of definition attempts with attempts to classify suicidal behaviour according to the proposed criteria, may be more pertinent. This is due to the notion that decisions about suicidal intention in survivors of suicide attempts may only be made once interviews are conducted to understand primary intentions, schema resolution and the status of secondary emotional resolution. For instance, even though the above two profiles are classified as suicide attempts, their intentions, schema statuses and schema effects are different, which in turn would mould and modify treatment issues. Thus, each potentially suicidal individual should be treated as an individual in a specific context. Attempts to understand intentions and motives should be reserved until a full picture is constructed concerning the person's situation in the process of suicidal behaviour. Schema resolution, emotional resolution, the presence of schema suicidogenic elements and primary intentions need to be understood, before assumptions are made concerning suicidal intention. This important tenet cannot be further emphasized.

4.2.6.2 "Impulsive" suicidal behaviour

The process theory of suicide explains that "impulsive" behaviour (spontaneous behaviour normally associated with a "lack of forethought") may be the result of two processes. Initially, it must be mentioned, that the process theory does not concur with the notion that suicidal behaviour can occur without thought. It may be that some persons remain in the ID phase for shorter periods than others and the behaviour is wrongly perceived as lacking in forethought. Indeed, people may go through the suicidal process at

different temporal rates or time frames, and the skipping of phases due to prior movement through phases may further account for a perceived lack of forethought. Thus, in addition to the varying temporal rates in which people may move through phases, impulsive suicidal behaviour may represent the culmination of processes (as advocated by the theory) rendered unconscious and or unidentified by a researcher or clinician. For instance, faced with a precipitating stressor, an individual may “appear” to skip the ID and IS phases and progress to the AD phase. However, schemas could have been activated, resolved and rehearsed throughout this individual’s life so that suicidogenic vulnerability was present but was only activated by the precipitating stressor.

The notion that an event may exacerbate already existing vulnerabilities has been documented by Hendin, Maltzberger, Lipschitz, Haas and Kyle (2001). Secondly, perhaps due to the lack of fear, secondary emotional resolution may not have taken long to be established and the act is perceived as impulsive. Hence, by focusing primarily on the suicide act, the clinician or researcher is merely attending to a segment of the process that has been taking place and labels the behaviour impulsive. This may happen when schema activation, schema conflict resolution and the varying temporal progressions have not been identified.

In addition, research has established the role of biological factors in impulsive, aggressive suicide behaviour as discussed in section 2.9.1. It is argued that such biological factors may exacerbate existing vulnerability to suicidal behaviour, influencing the temporal movement through phases, and the resolution of schemas. Clearly, if there is

already a biological predisposition to impulsive behaviour, movement through the phases may be hastened, there may be a shortened stay in the ID phase, resolution of schemas may not be engaged in, and the pairing of such impulsivity with already intolerable suicidolor levels, may hasten movement to the AD phase, possibly leading to a suicide act. Thus, biological, cognitive and affective aspects of the suicide experience may be integrated, even though there is currently a lack of clear understanding of this integration.

4.2.6.3 Chronic suicidal behaviour

The term “chronic suicides” was initially coined by Menninger to refer to suicides in which an individual, even though repelled by suicidal behaviour, deliberately chose to destroy himself or herself by using drugs, alcohol, etc. This was argued to be a way of coping with life (Evans & Farberow, 1988). Contemporary suicidological discourse refers to such behaviour as micro-suicidal behaviour (Firestone, 1997). Currently, chronic suicidal behaviour refers to repetitive engagement in non-fatal suicidal behaviour, which comprises an individual’s base level of adjustment to stressors (Motto, 1999). Within the process theory of suicidal behaviour, chronic suicidal behaviour may be perceived as a recycling through the process of suicide due to a lack of resolution of the death and self-destruction schemas. Some persons may have a genuine intent to die, but may be prevented from engaging in lethal acts due to the presence of obstructive schemas. Such persons may also be unable to achieve secondary emotional resolution and may appear to lack the courage and possess fear in conceptualizing the suicide act. In some situations, such people may engage in multiple attempts in order to establish secondary emotional

resolution. Others may cycle through the process, using suicide as a means to accomplish dolorocide. In the latter situation, mental health workers could assist in identifying more sublimated methods of reducing suicidolor. However, because there is a dearth of research on attempting to understand the very nature of suicidolor experienced by suicidal individuals, attempts to supplement dolorocide by more sublimated activities could be limited.

4.2.6.4 Revisiting the relationship between suicidal behaviour and psychopathology

Considering the approach adopted by the process theory, in terms of emotion and cognition, the reason for the relationship between suicide and psychopathology, such as depression, schizophrenia and personality disorders may be interpreted more conspicuously.

The relationship between depressive mood disorders and suicidal behaviour

Depressive disorders have been known to be the most common diagnostic correlate of suicidal behaviour, having a 15 times greater lifetime risk for suicide than the general population (The Suicide Risk Advisory Committee of the Risk Management Foundation of the Harvard Medical Institutions, 1999). The conundrum is trying to understand this relationship. The process theory offers one interpretation.

The infiltration of ideational and affective suicidogenic elements into the self, life and interpersonal schemas which is equivalent to the operation of passive suicidal ideation, is congruent with the infiltration of depressive symptoms into these schemas. For instance, the Diagnostic and Statistical Manual of Mental Disorders (DSM IV) (APA, 1994) includes the following features of a Major Depressive Episode in relation to the relevant schemas:

Table 11
Depressogenic Elements of Schemas

SCHEMA	DEPRESSOGENIC IDEATIONAL AND AFFECTIVE ELEMENTS
Self	Worthlessness, guilt, apathy, anhedonia, hopelessness, anger, irritability; and difficulty thinking.
Interpersonal	Social withdrawal, isolation, others being better off without the person experiencing depressive symptoms.
Life	Hopelessness

The above depressive elements, correspond with the suicidogenic elements comprising passive suicidal ideation. It is not surprising then that some individuals who are depressed and who subsequently activate and resolve the death and self-destruction schemas and achieve secondary emotional resolution do attempt to kill themselves. It also

takes into consideration that with the passive suicidogenic elements, the lack of resolution and activation of the death and self-destruction schemas and a lack of secondary emotional resolution may result in depressive features without attempts to kill oneself. Thus, *depression may be sufficient to induce vulnerability to suicidal behaviour, but is not necessary.*

Schizophrenia and suicidal behaviour

The DSM IV (APA, 1994) defines schizophrenia as “...a disturbance that lasts for at least six months and includes at least 1 month of active-phase symptoms (i.e., two [or more] of the following: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behaviour, negative symptoms)...” (1994, p. 273). However, schizophrenia on its own could produce suicidal behaviour. Persons with schizophrenia may have command hallucinations that command them to kill themselves. This could be analogous to the operation of the voice attacks in the suicidal process (Firestone, 1997). Secondly, suicidogenic elements may feature in schizophrenia mixed with a depressive mood disorder. This would involve the infiltration of depressogenic elements into the schemas and the possible operation of command hallucinations. Such comorbid situations would increase vulnerability to suicide potential. Contemporary research (McIntoshb, 1992) has already empirically validated the notion that comorbid psychiatric disorders increases vulnerability to suicide. Moreover, it has been documented that depressive features could surface due to the person’s inability to live a life comprising the many negative states that schizophrenia brings with it. This would involve the degree of insight the person has in relation to their perceived hazards of suffering from such a mental illness.

Such insight would further contribute to feelings of hopelessness, thereby allowing suicidogenic elements to infiltrate the pentagadic schemas.

Borderline personality disorder and suicidal behaviour

The DSM IV (APA, 1994) considers borderline personality disorder to include “a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity....” (1994, p. 650). Suicidal gestures, threat and self-mutilating behaviour are listed as diagnostic criteria for Borderline Personality Disorder (BPD). The following characteristics of BPD have been documented: (a) sensitivity to environmental changes, (b) intense fears of abandonment and inappropriate anger accompanying sudden changes, (c) unstable interpersonal relationships oscillating from idealisation to devaluation, and (d) unstable ego’s or sense of self (DSM IV, APA, 1994).

Considering this clinical picture within the process theory framework, the following emerges. It appears as if persons with BPD have unrealistic needs in relation to interpersonal relationships. These needs may become vital needs for certain individuals, requiring constant time spent with others and an intense fear of separation or abandonment. Such needs could be continually frustrated in a world that values a balance between autonomy and dependency. Suicidal behaviour is termed “impulsive” within the BPD rubric. As argued previously these behaviours may be anything but impulsive. In relation to the BPD context, needs deemed vital by the person are continually frustrated because of it’s incongruency with a world view ascribing to a balance between autonomy and dependency. This frustration may set the stage for the experience of suicidolor. In this

situation, if a person with BPD has not resolved to die and considers self-destruction within the context of intolerable suicidolor, suicidal behaviour may be used as a vehicle to, stop pain emanating from the frustration of an important need (though it may be “unrealistic” to a third party), to facilitate dyadic communication or to cry for help. The unusual frequency in experiencing suicidolor may be a precipitant to use suicidal behaviour as a momentary escape from an intolerable situation. Even within this context, schemas may have been previously infiltrated with suicidogenic elements thus allowing the act to appear impulsive.

The key issue here is that as long as individual needs are frustrated, resulting in the development of suicidolor, with this being informed by a lack of resolution of the death and self-destruction schemas, together with a lack of constructive ways to handle the subjective experience of suicidolor in individuals who already experience difficulties with affect regulation, the usage of suicidal behaviour as a vehicle for communication may continue. Considering the unstable self and interpersonal schemas and the tendency to react intensely to frustrated needs, BPD may provide suicidal persons with greater vulnerability at some stages of the suicide process. Initially, vulnerability may be informed by the frustration of vital needs, which are incongruent with the values of specific societies. This would involve tendencies towards extreme dependency and intense fears of separation (DSM IV, APA, 1994). In the IM and AD phases, the absence of affect regulation may make it more difficult for the person suffering from BPD to cope with levels of suicidolor. Here, the suicide act may be used to escape intolerable affect levels or

to cry for help within a context of extreme personal distress. Thus, BPD exacerbates vulnerability to suicidal behaviour in these ways.

In summary, the relationship between psychopathological forms and suicidal behaviour could be perceived in two ways: (a) understanding whether the cognitive and emotive features of the specific psychopathologies are congruent with the pentagadic schemas and, (b) whether psychopathologies (such as BPD) hasten the process of suicidal behaviour by hastening the experience of suicidolor due to the increased frequency of the frustration of vital needs. Thus, it is argued that it is not really whether a person presents with depression, personality disorders, mania or schizophrenia, but whether the course of experiencing these disorders (in terms of their cognitive and emotive experience) is congruent with the suicidogenic elements of the pentagadic schemas and the subsequent experience of suicidolor.

4.2.7 Boundaries of the Process Theory of Suicidal Behaviour

The process theory of suicidal behaviour does not claim to be generalizable to all contexts. By introducing the boundary of the theory (Strauss & Glaser, 1967), the generalizability of the theory could be controlled.

Firstly, the theory was constructed by using data possessing certain ontological assumptions. It assumes that pain is antithetical to lived-experiences. If people, like the Buddhists, believe that pain is a natural contingent of life, there may be no reason to

perceive pain as something bad or incongruent with the expected experience of life. Persons who experience suicidolor and who construct such a feeling as unexplained pain, may move through the suicide process as advocated. Persons who do not appraise the subjective feeling of suicidolor as such may not conceive of pain in a similar way and may not be panicked by its perceived reality.

Secondly, the data used to develop the theory may be conceived as Eurocentric or Western. Generalization of this theory across cultures needs to be conducted with caution. Also, due to the use of case study methodology, generalization within the very Western culture needs to be conducted with caution.

Finally, it may be argued that the theory does not include a sufficient level of biological theorizing. This perceived limitation, could be the result of the nature of the data used to develop and ground the theory. Even though biological factors have been considered at the level of the vulnerability to suicide, the current state of research in relation to biology and suicide, prevents the understanding of the role of biological factors throughout the process of suicide. Perhaps, in vivo studies using positron emission tomograph (PET) and magnetic resonance imagery (MRI) scans could be conducted to understand such biological influences.

Part Two

4.3 Evidence for the Process Theory of Suicidal Behaviour

4.3.1 A Brief Biographical Introduction of Arthur Crew Inman

Arthur Crew Inman was born in Atlanta in 1895. He was the only child of Henry and Roberta Inman of the wealthy Inman clan. Arthur's perception of his childhood was informed by traces of suffering induced by illness, miserable years spent in lonely boarding schools and attempts to seek isolation from mainstream society. His illness played a major role in his suicidal career and Arthur sought to explain it from its inception – seeking biological and osteopathic treatments and disqualifying the pertinence of psychological woes. He labelled himself a “semi-invalid” early in his life and sought the support from readers and acquaintances who made up his Garrison Hall establishment. In addition, he managed to locate a paternal substitute (Dr. Pike) who played a crucial role in his illness management. His spouse, Evelyn Yates Inman, was a source of much happiness and anger to him. His interpersonal relations appear to possess borderline and dependent attributes, yet at the other end reveals the operation of antisocial characteristics. Critics who have read the diary (Shneidman, 1994) have commented on his repugnant personality traits (his love for women and his host of extra-marital affairs) and his racist attitudes. Yet, despite this, Arthur's suffering was real enough for him to eventually kill himself after losing a battle with suicide for almost 48 years.

Arthur's major reason for living was his diary and poetry writing, which he managed to maintain in his darkened room. His intention to write a journal was manifold – at one time it was to document American History and at another time it was intended to offer some future psychology student a document to understand his suffering. At numerous points he wrote the diary as if a third party was listening to his words - thereby creating an imaginary future audience. Before Arthur died, he left his diary writings – a bulky 17 million word document in the hands of a Harvard University editor (Daniel Aaron) who took seven years to synthesize the original diary into a 1600 page abridged version called *The Inman Diary – A Public and Private Confession* (Aaron, 1985). The father of suicidology - Edwin Shneidman (1994) - reveals that every serious suicidologist should possess a copy of the Inman Diary (1985) due to its rare ability to offer the only longitudinal personal documentation of the suicidal career of an individual eventually dying by suicide. However, it must be noted that diary entries of suicidal experiences are interspersed with Arthur's documentation of other aspects of his life and American History. Thus, relative to other documentations, the diary material available for the analysis of suicidal experiences is quite minimal (36 direct quotations).

The rest of this chapter will provide evidence from the Inman Diary (1985) for the process theory of suicidal behaviour presented in the previous section.

4.3.2 The Vulnerability Status Profile

Two of Arthur's pentagadic schemas appear to be infiltrated with suicidogenic elements. His self schema already possesses critical parental introjects, which Arthur has

come to perceive as his own internal voice. Firestone (1997) has firmly established the role of negative parental introjects in the process of suicide and this constitutes a potentially potent predisposing factor. Arthur's need for parental approval was not met, and his subsequent interpersonal interactions reveal a person constantly seeking the approval and acceptance of others. His dependency needs stemming from his perceived invalidism created the context in which such approval and acceptance could be acquired. Oscillation between dependency needs to strong needs to control others stemmed from a fragmented ego - what Arthur termed "a shapeless" ego. Such an unstable self image and subsequent unstable interpersonal relations could only have reduced his potential to utilize his psychological resources in times of personal stress.

The possibility of possessing hereditary neurasthenia seems valid in the context of a family history of mental problems and experiences of invalidism stemming from a plethora of bone and ligament problems. Solitude, both on a psychological and social level, has been firmly established. Subsequent low self-esteem arising from his negative perceptions of his physical attributes lends further credence to his suicidogenic vulnerability status. A relative lack of perceived familial support and a tendency towards social isolation serve to reduce the mediation by protective factors. However, the usage of "readers" and "talkers" increased his protective factor status at times, thereby increasing the availability and utilization of social support networks. When needs were frustrated to a large extent and cognitive schemas were resolved; Arthur was prevented from effectively using his available pool of social support.

The onset of intolerable illness episodes and sensitivity to noise served as further predisposing *and* precipitating risk factors. The almost daily use of bromide by Arthur could have resulted in bromism (bromide intoxication) which could have explained many of his physical and psychological woes. Bromide intoxication, hereditary neurasthenia, perceived invalidism, unstable internal ego images, tendencies towards isolation, the introjection of critical parental introjects and a possible borderline personality disorder could have been the mitigating circumstances that created the germination of depression, alcohol-indulgence and subsequent suicidal potential. Clearly, Arthur was at a high risk for completing suicide. Only the fear of suicide, the creative mobilization of social resources through the acquisition of persons in his Garrison Hall establishment, his faith in his diary as a chronicle of American History and the added utilization of his diary as a means of incongruent catharsis, buffered (perhaps even delayed) the inevitable tragic end of his suicide in 1963. His desire to chronicle a documentation of American history and his faith in his diary could have comprised his major reason for living. However, when illness and noise prevented him from diary writing, it served as a potential stressor, exacerbating the distress that he already felt.

According to the available data, tentative conclusions could be drawn in relation to whether stressors were precipitant or predispositional. This is due to the absence of additional available sources of data, such as interviews, which could have supported or refuted conclusions made about the nature of the stressors and the notion of looming vulnerability. Notwithstanding this, attempts have been made to provide a stressor profile of Arthur Inman. This is represented in the Table 12 below:

Table 12

Stressor Types and their Statuses

STRESSOR	TYPE	STRESSOR STATUS
Parental introjects	Intra-personal	Distal and Predispositional
Low self-esteem, unstable internal self image, desire for solitude.		Looming vulnerability
Hereditary neurasthenia		Distal and predispositional
Possible personality disorder not otherwise specified with borderline, avoidant, passive-aggressive, dependent and depressive attributes.		Looming vulnerability
Depressive episodes as evidenced by the accompanying medical report.		Looming vulnerability
Unstable interpersonal relations, needs for interpersonal control, dependency needs	Interpersonal	Looming Vulnerability (<u>table continues</u>)

STRESSOR	TYPE	STRESSOR STATUS
Pathological family boundary functioning.	Familial	Distal
Antisocial attitudes towards life and a lack of desire to conform, dissatisfied with extant way of life	Existential	Distal
Migraines, noise sensitivity, photophobia, with a host of minor ailments. Possible bromide intoxication.	Medical (health)	Looming vulnerability Factors

Arthur's need to be free from the suffering induced by illness episodes and to be away from noise, signalled potential doom when these stressors were characterized as looming vulnerability stressors. They had already precipitated two suicide attempts and the increased frequency with which such stressors were experienced towards the end of his life, indexed a potentially high-risk situation that culminated in his inevitable suicide. In addition, it was only his oscillating protective factor status that buffered him from the effects of his desired end. When such a status was weakened, his subsequent risk was greater as evidenced by the increased activation and resolution of the pentagadic schemas.

Table 13 shows the summary for the protective factor status of Arthur Inman. It must be kept in mind that such protective factors were oscillatory in nature and an

application of Riskind et al.'s (2000) notion of looming vulnerability could result in a classification of these protective factors as looming protective factors.

Table 13

Summary of Protective Factor Status

PROTECTIVE FACTORS	TYPE
Increased social support resulting from acquisition of readers. Perceived paternal relations with Dr.Pike as a substitute.	Interpersonal
Oscillating perceived support from mother was able to provide sustaining support at times.	Familial

Considering the presence of risk factors and the mediation of protective factors, has been argued to be insufficient. The *effect* of the mediation of risk factors by protective factors is argued to be more suitable. Such effects are argued to be manifested in the infiltration of suicidogenic elements in the pentagadic schemas. That is, probing for the infiltration of suicidogenic elements in any of the pentagadic schemas is considered to represent the threshold for determining vulnerability to suicide.

4.3.3 The Presence of Passive Suicidal Ideation

Arthur's self and interpersonal schemas show the presence of suicidogenic elements. His self-schema reflects a lack of self-esteem and perceived self-worth. As an adolescent he wrote:

I had very few friends. I was small and thin and short for my age...I wasn't good-looking or rugged, which made me self-conscious. I was picked on, unable to defend myself, talked down to - wasn't sharp-tongued enough to prevent it. I had migraines. I wore glasses...I had three bands on my teeth. I had fever blisters, very large, covering my mouth most of the time. I had fallen arches. I had headaches. (1985, p. 85)

His lack of confidence induced by his perceived physical limitations was supplemented by his perceived emotional abuse at the hands of his parents when he wrote:

It must be borne in mind that I was under the thumb of a disapproving father and a dominating mother. Whenever they wished to press down on that thumb I lacked the bellicosity to rebel or contravene or disobey. Often, that thumb did press down and in no uncertain or mincing manner but peremptorily and brooking no argument. Father: "You're crazy to say that (do that, act that! You ought to be in the nut house! As long as you're under my roof...!" (1985, p. 114)

And later, he wrote about an episode with his mother:

Mother: "Come into your room" (key turned), "I want to talk to you! You are no good! You don't appreciate what we do! You don't...! You don't...! You don't...! Do so and-so or else!" On and on and on until I became to myself the worm she delineated [italics added]...." (1985, p.114)

His perceived interactions with his parents could highlight the possible introjection of critical parental voices (Firestone, 1997). Such a contention is potently supported when Arthur explains that he became to himself "the worm she delineated" (1985, p. 114). In addition, his interpersonal schema contained elements of desired isolation from people and perceived rejection from others. His desire to seek solitude related to his desire to prevent

interpersonal rejection. Thus, even though there is no mention of death and self-destruction, passive suicidal ideation was taking place due to the infiltration of suicidogenic elements into the self and interpersonal schemas. The presence of suicidogenic elements in the self and interpersonal schemas indexes the presence of vulnerability to suicide. Due to the operation of passive suicidal ideation, Arthur could be situated in the primary-ID phase.

From here onwards, evidence will be provided for the various phases of the suicide process and schematic concepts of the process theory. *At times*, the diary material is treated as present tense instead of past tense accounts, since it is believed that this would facilitate understanding the process better.

4.3.4 The Ideational Dominance (ID) Phase

On the 23 April 1925, Arthur wrote:

Exactly what is life worth to me? I hate life with a consuming and virulent hatred. I have always hated life, yet have never sought immediate and self-inflicted death for the very reason, I suspect, that to kill oneself were so vastly easy. But now I am weary. Under certain circumstances I feel that I would take my own life and end all this..." (1985, p. 272).

The activation of the death and self-destruction schemas suggests that Arthur has moved to the secondary-ID phase. The life schema is also activated as Arthur expresses his hatred for life. He considers the difficulty in engaging in a suicide act, thus expressing the unresolved status of the schema.

Remaining in this phase, Arthur establishes suicide as a desirable solution to problems when he wrote, "Someday when things become too difficult, I shall go under. I am resolved that whenever affairs force me too hard against the wall I shall kill myself. But not yet..." (1985, p. 327). 30 years later, he paraphrases a similar contention and wrote, "If the worst is as I contemplate, I can exit surely. At least that!" (1985, p. 1589). There is a qualitative shift in these two perceptions of suicide as a desirable solution. The former is based on a perception that if things became difficult, Arthur would kill himself, whilst the latter quotation is based on an already formulated perception that things would be worse and that he could kill himself. The latter may result from the pairing of an already established stressor with the future.

An example of the internal cognitive debate occurring in this phase, is provided in the following diary entry.

In simplest terms, the matter resolves to a choice between two decisions - either kill myself and get out of all the woe that is ahead for me in life, or to move... As to killing myself, I'm still debating that. I don't think I could bear to shoot myself in the head; it would have to be the heart. If I took sleeping pills, they wouldn't work. A pistol, the only way. Still dread a miscarriage of the act, resulting in injury. Still dread the superstition that consciousness may endure after death, though know that is silly. "When you die," says Mrs. Cash, "you simply rot, and that's all there is to it. I'd like to believe otherwise, but I can't. Any person who thinks is unable to believe in life after death. When you die you cease to exist. "I should not be afraid of killing myself. It is, I suppose, the crucial pulling of the trigger that disturbs every natural instinct to remain alive and functioning as much as the fear of the possibility of a continued conscious existence. No it isn't. I know it isn't. What's the pulling of a trigger? A final gesture requiring a certain nugatory bravery of the kind I know I possess. When you look at it calmly, there's no reason why I can't aim calmly and properly and pull the trigger firmly. I'm tired of evading life like a panicked rabbit. (1985, p.1043)

The above diary entry is important in terms of understanding schema resolution and will be revisited later in this chapter. Here, it suffices to understand the ways in which issues about death and self-destruction can be subjected to debate in the ID phase. In the diary entry, Arthur considers different methods to be used in the suicide act. He also attempts to resolve the death schema by trying to resolve his beliefs about death with his goal of the suicide act, which is the cessation of consciousness. In addition, he ideates about his fear of the suicide act and tries to resolve the secondary emotions by explaining to himself the need for courage in perceiving the suicide act. His previous beliefs concerning his ancestral superstition, his fear concerning the suicide act and the consequences of such an act (serious injury) may have prevented his engagement in the suicide act. Resolution of such issues, as seen in the above diary entry increased his vulnerability to suicide, since he did attempt suicide a week later.

4.3.5 The Intermediate (IM) Phase

Deciphering the presence of affect in these stages were constraining at times, especially taking into consideration the sole reliance on the diary material. Perhaps if Arthur was alive, hypotheses concerning the presence of affect could have been subjected to verification or refutation. Nevertheless, two criteria were used to establish the presence of affect (a) emotive speech acts such as emotions words (“sad”, “desperate”, “hopeless”) and (b) the presence of states of feeling (“I feel...”). Billig (1999) argued that language facilitates the construction and experience of emotion acts. Wittgenstein (1967) drew attention to the notion that language performs acts and is not a passive medium of

communication. The presence of emotive words was considered to be Arthur's attempt to act out his emotions through the mode of representation afforded to him by his linguistic repertoire. That is, through language and discourse Arthur was able to construct the reality of his emotional experiences. Such an approach would support the ways in which the presence of emotion was understood in this study. Despite this, such an approach could have been supplemented with other ways of establishing the presence of emotion, such as behavioural criteria. This limitation should be noted, but within the context of understanding the deceased status of the subject and the nature of data available in personal document analysis such as the analysis of diaries.

The following diary entry, supports Arthur's situation in the IM phase:

I certainly am miserable, dispirited, downcast. My nerves are piling up for another migraine. I see double and that with pain. I wish to God I were dead. Once upon a foolish time I confidently believed myself gifted with brains-endowed with some special talent, given to thinking unusual ideas. Now I realize sadly that I am not unusual, talented in any way, in fact a failure among failures, a nobody. (1985, pp. 414-415).

The usage of words like "misery", "dispirited" and "downcast" indexes the presence of affect. In addition, the self-schema is activated and becomes resolved when Arthur describes himself as a "failure". Thus, affect and suicidal ideation may be present, which would support Arthur's situation in this phase.

The following diary entry shows Arthur's situation in the IM phase as well:

My philosophy is changing. I feel certain that sooner or later I shall resort to death at my own hand. If so, why not at the least cause, and why not now rather than later? If horror lies ahead, I might as well meet it at once rather than to procrastinate. I cannot stop the horror, if there be such, by dwelling upon it and

enlarging its proportions and dreadfulness. I can see nothing ahead in this life save link after link in a chain of misery. So why not die quietly with resignation toward the future, whatever it may be? A little courage and less imagination is what I need... I will not be mangled and can try again. Leave life I will, I must, some day, by some means... (1985, p. 602)

The presence of emotive speech acts such as “feel”, “horror” and “misery”, in addition to the engagement in suicidal ideation is apparent. In addition, the presence of tertiary emotions (hopelessness) may be expressed when Arthur perceives “link after link” in a chain of misery regarding the future. Tertiary emotion is established elsewhere in the diary writings, as when Arthur wrote: “I frankly perceive no cure or relief ahead, only a steady diminution of physical capacity and an increasing subjectivity to the ill of the body and of mind...” (1985, p. 1197) and “There is no hope in my heart that I shall ever recover from a state of limited semi-invalidism...” (1985, p. 1226). His belief that “horror lies ahead” (1985, p.602) may indicate that he has established the status of his stressors as global – that is projecting into the future. His perception of the future as having “only a steady diminution of physical capacity and an increasing subjectivity to the ill of the body and mind...” (1985, p.602) explains his perception of the stressors as stable. In addition to this, Arthur attempts secondary emotional resolution when he explains that what he needs is “a little courage and less imagination” (1985, p. 602).

The following example offers a further example of Arthur’s situation in the IM phase.

I am practically crazy with my eyes. I cannot even see to write legibly any longer. I wake up every morning about four and lie awake trying to muster the guts to kill myself. I’ll do it yet. I must. This horror goes on and on without end. I can’t stand it. If only I possessed the courage to put a gun to my head and shoot. But it seems I am a coward. Will life never end? (1985, pp. 373-375)

The presence of emotive speech acts such as “horror” and “I can’t stand it”, in addition to the activation of the self-destructive schema, suggests Arthur’s position in the IM phase. Arthur’s contention of mustering the “guts” to kill himself and his perception of himself as a coward, who lacks the courage to put a gun to his head, illustrates the lack of secondary emotional resolution. He activates the life schema and considers its termination.

Later, in 1963, he wrote the following diary entry, which illustrates the dramatic increase in affect associated with the latter parts of the IM phase. Relative to the initial stages of the IM phase, the latter parts, which dissolve into the next phase (AD phase) suggests a significant increase in affect.

Jumping out of my skin with nervousness from the nearer and nearer demolition, motors racing, walls falling, the building shaking and creaking...I feel a medieval baron in his besieged keep, forces and weapons constricting ever tighter around his security... (1985, p. 1596)

4.3.6 The Affect Dominance (AD) Phase

Unlike the previous phases, the AD phase is characterized by affect predominance (particularly the primary emotion of suicidolor) and an impetus towards ventilation of such affect through actions. Diary writing about such states would include engagements in incongruent catharsis. Arthur himself has established the status of diary writing as a means to lessen his pain. He explains that writing is a “safety valve” (1985, p. 81) and a “means of surcharging nervous stress” (1985, p. 81). Later, he wrote that “My poetry? My work?

What do I care for them? Narcotics, are they not, to lessen pain? (1985, p. 341). Clearly the status of writing as a mode of incongruent catharsis is supported.

An important caveat should be mentioned here – the presence of suicidolor in individual cases may be difficult to assess due to the use of subjective linguistic referents. For Arthur, certain words used by him, indexed the increase in suicidolor levels to intolerable proportions. These were “frantic”, “going wild” and “frightened into desperation” which were different from the words that he used in the IM phase – such as “dispirited” and “downcast”. When suicidolor levels became highly intolerable, Arthur was prevented from using incongruent modes of catharsis (poetry and diary writing). During such times, more physically active means become necessary.

There are examples in the diary of congruent catharsis. On the 12 November 1934, he engaged in congruent catharsis and moved to the Delayed Planned Suicide sub-stage. He planned to use chloroform to kill himself and also wrote suicide notes to avow his responsibility. He put his plan into action and said “I had the door locked, the cork on the chloroform bottle extracted... cotton for the chloroform...” (1985, p. 602). However, he backslid and failed to kill himself. This could have been due to two factors, (a) the lack of resolution of the death schema and the secondary emotion, or, (b) a long time period could have been used to plan the act so that Arthur moved to the Satiation phase instead of carrying out the suicide act.

Evidence for other forms of congruent catharsis, such as method experimentation also exist in the diary. In 1941, Arthur wrote, “Guess I was frantic...I thought a lot about death. I tried strangling myself to find out how it felt until I hurt my gullet and stopped. I re-hid my pistol so that no one would abscond with it...” (1985, p. 1041). Attention should be paid to the use of the word “frantic” which has consistently indexed his movement into the AD phase. Later, in 1948, he engaged in congruent catharsis and took both pistols out “and made sure they were in firing order...” (1985, p. 1410). At numerous points in the diary, Arthur explains the comfort he found in having physical contact with the pistols, at one time even placing them on his pillow as he fell off to sleep. Such motivation to engage in an act in order to ventilate affect levels may be the distinguishing feature of the AD phase.

The following diary entry could be considered an example of writing as a form of incongruent catharsis, “This is being horrible beyond the credible. Twelve divisions of migraines. Idetic images until I am harried and frightened into desperation. Can’t see more than is necessary to get around” (1985, p. 1598). In the context of intolerable illness, Arthur explains his emotional state as “frightened into desperation”. Clearly, affect has reached intolerable levels and Arthur is desperate - a state of anguish motivated by a need to achieve urgent relief. Thus, some form of catharsis was needed to achieve that relief. Aaron (1985) the editor of the diary, explained the diary entry as “scrawled...(and) virtually indecipherable” (p. 1598). It is possible that such a forced engagement in incongruent catharsis prevented much ventilation of affect, since on the same day, Arthur shot himself and died - ending a battle with suicide which lasted for over 48 years. This

example may provide evidence for the notion that incongruent cathartic methods such as diary writing may become impossible when suicidolor levels become virtually intolerable.

4.3.7 Schema Resolution

In this section, examples will be provided to illustrate the concept of schema resolution. Three examples have been extracted from the Inman Diary (1985); the resolution of the death schema at different time periods in Arthur's life, and the resolution of the self schema. In addition, attempts will be made to propose the predictive nature of schema resolution, by assessing the status of Arthur's pentagadic schemas prior to his 3 suicide attempts.

4.3.7.1 Resolution of the death schema prior to the first suicide attempt

Initially, Arthur's death schema was unresolved. Once, when situated in the ID phase, he tried to understand why he feared dying. Accordingly, he wrote:

Why, I inquired of myself, am I afraid of dying? First, I dread the moment of dying, the lowering of consciousness, the deliberate, conscious rendering up of the mystery of life. I should not dread it, reason assures me it only amounts to going to sleep never to wake. Nevertheless I do dread it, even as I dread taking ether, becoming unconscious through fainting. Second, I have an unholy dread of bungling the act of self-destruction. I might recover consciousness later, maimed, injured, in agony worse than that I was striving to leave. It would be my luck to bungle. Third, I acutely fear that I discover the state of death one in which consciousness remained... (1985, p. 473).

Clearly, Arthur's death schema serves to prevent him from engaging in the suicide act. His philosophy about what happens when he dies is incongruent with his wish to

perceive death as a long sleep when he wrote, "Why can't death be like the continuation of a nightmare, on and on, forever, without end? Are we not to all intents dead when we are asleep?" (1985, p. 700). The resolution of such a schema may indicate imminent suicide potential. This resolution came on the 21 November 1941 when he had having a conversation with one of his acquaintances (Mrs. Cash). He did not just resolve the death schema but he achieved secondary emotional resolution as well and acquired the courage in perceiving the suicide act. Accordingly, he wrote:

Still dread the superstition that consciousness may endure after death, though know that is silly. "When you die," says Mrs. Cash "you simply rot, and that's all there is to it. I'd like to believe otherwise but I can't....When you die, you cease to exist." "I should not be afraid of killing myself. It is I suppose, the crucial pulling of the trigger that disturbs every natural instinct to remain alive and functioning as much as the fear of the possibility of a continued conscious existence. No it isn't. I know it isn't. What's the pulling of a trigger? A final gesture requiring a certain nugatory bravery of the kind I know I possess. When you look at it calmly, there's no reason why I can't aim calmly and properly and pull the trigger firmly. I'm tired of evading life like a panicked rabbit. (1985, p. 1043)

One would predict that the resolution of the schema and the secondary emotion, which previously prevented Arthur from engaging in the suicide act, would exacerbate Arthur's vulnerability to suicide. This proved to be true, since a week later, after writing this, Arthur attempted suicide.

4.3.7.2 Resolution of the death schema prior to second suicide attempt

Arthur went through a period in his life when he wanted to die a natural death, instead of engaging in self-destruction. Thus he wrote, "I am bitter and disillusioned with

existence and wait for it to end” (1985, p. 1226), and “I shall die when it is written on my forehead I shall die and not before” (1985, p. 1519). However, later on he attempts to resolve this ambivalence between natural death and self-destruction and wrote:

I am man. I am animal. I am no more, no less, despite my mind, animal. If I am no more than animal, then as animal dies and amounts to manure for other forms of life, so do I. Is such be the case, what difference I die a natural or perish by my own desperate hand (1985, p. 1587).

The above diary entry serves an important function - it has enabled Arthur to resolve the death schema, thus increasing his vulnerability in engaging in a suicide act.

4.3.7.3 Resolution of the self schema

Arthur was ambivalent in relation to his self. The self schema contained traces of hostile parental introjects as well as his perceptions of his brilliant and unusual ways of writing poetry. Resolution of the self schema took place when Arthur believed that he was a “failure” - a theme which recurred in the diary when he experiences bouts of depression and when the self schema became resolved. Accordingly he wrote,

Once upon a foolish time, I confidently believed myself gifted with brains-endowed with some special talent, given to thinking unusual ideas. Now I realise sadly that I am not unusual, talented in any way, in fact a failure among failures, a nobody [italics added] (1985, pp. 414-415).

The degradation of the self that occurs, appears to be closely associated with the suicide act, in terms of temporal spans. Aaron (1985) revealed that, early in December 1963 (he killed himself on the 5 December 1963) “he confessed himself a failure and doubted that his work would survive - it would have been better for himself and everyone connected with him if he had died in 1941” (1985, P. 1598). The latter statement does not

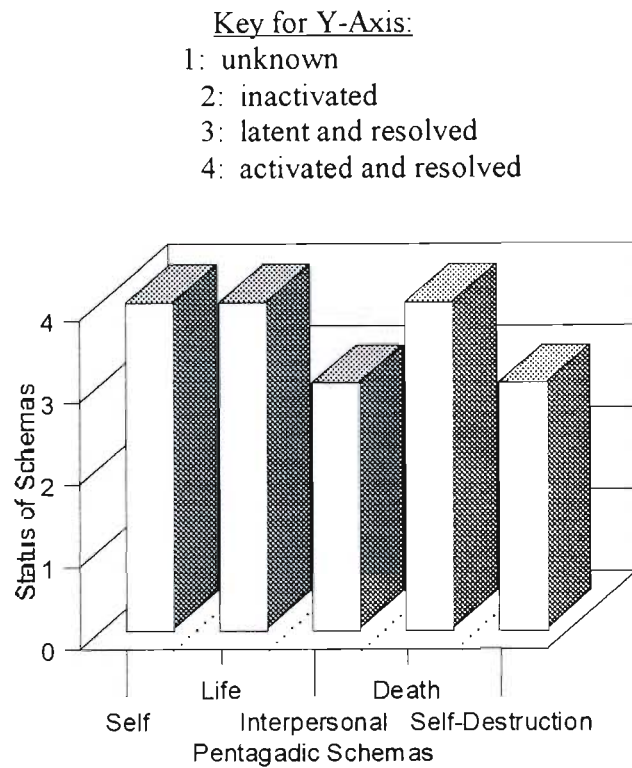
only point to a resolution of the self schema, but a resolution of the interpersonal schema as well - since he considered people to be better off without him. Thus, the self and interpersonal schemas appear to be infiltrated with suicidogenic elements.

4.3.7.4 The Predictive nature of schema resolution

Schema resolution may have predictive properties. This section will attempt to provide a graphical analysis of Arthur's schema statuses prior to his suicide attempts in order to highlight the predictive nature of schema resolution. Norms cannot be provided at this stage due to the original proposition of suicide prediction in this manner. Graph A shows the status of his schemas prior to his first suicide attempt:

Graph A

Schema Statuses prior to the First Suicide Attempt



The life, self and death schemas appear to be resolved, whilst the self-destruction and interpersonal schemas are latent. The latent schemas were resolved and became latently influential when Arthur established suicide as a desirable solution and when his desire for solitude from others was established early in his life.

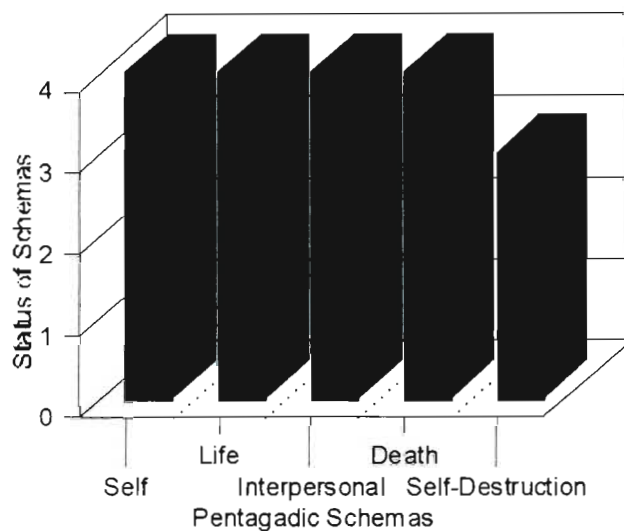
Graphical analysis prior to his second attempt revealed the following schema statuses, as represented in Graph B:

Graph B

Schema Statuses prior to the Second Suicide Attempt.

Key of Y-Axis:

- 1: unknown
- 2: inactivated
- 3: latent and resolved
- 4: activated and resolved



All of the pentagadic schemas are resolved, with the self-destruction schema being latently influential.

Graphical analysis of the status of schemas prior to Arthur's death produced Graph C:

Graph C

Schema Statuses prior to the Suicidate

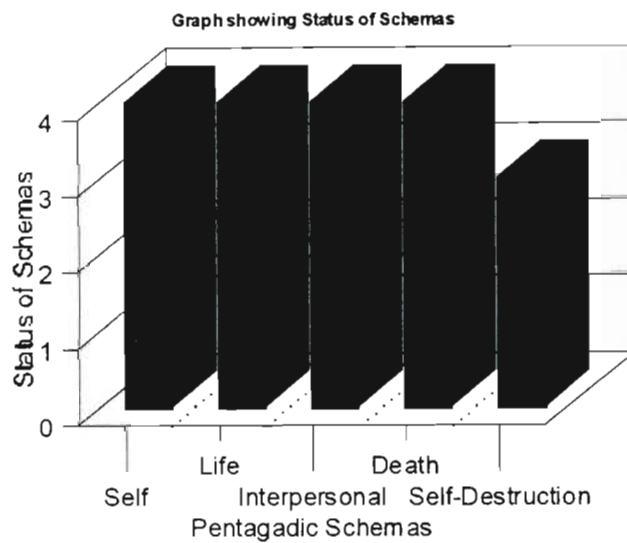
Key for Y-Axis:

1: Unknown

2: Inactivated

3: Latent and resolved

4: Activated and resolved



All schemas appear to be resolved, with the self-destruction schema being latently influential. Despite this, schema resolution on its own was insufficient to understand and predict an impending suicide act. Secondary emotional resolution also appeared to be relevant.

4.3.7.5 Secondary Emotional Resolution

The resolution of schemas appeared to be necessary though insufficient in predicting a suicide act. The resolution of secondary emotions also appeared to be relevant. Secondary emotional resolution (SER) appeared to be established prior to the first suicide attempt.

Evidence for this was presented in section 4.3.7.1. There was insufficient evidence to form a conclusion about SER in the second suicide attempt. For the final suicide attempt resulting in death, Arthur explained that his death will be achieved once he acquires the courage to do so, but there appeared to be no explicit reference to the acquisition of courage in perceiving the suicide act. It could be that the desperate nature of his emotional state prior to the suicide act created a situation in which secondary emotional resolution was achieved. It appears as if the evidence presented in the diary is insufficient to form a single conclusion about secondary emotional resolution prior to Arthur's death. Such insufficient evidence appeared to be further confounded by the absence of diary entries by Arthur Inman and the presence of editorial commentary.

4.3.8 The Dynamic Nature of the Phases

The documentation of Arthur's progression through the phases of the suicide process resulted in an initial 40 page chronological documentation through phases. A selected part of this will be presented here to illustrate the dynamic nature of movement through the phases.

In 1962, Arthur contemplates the Prudential Tower and toll-road construction. This involved the construction of a shopping centre and was a source of much frustration for Arthur due to his sensitivity to noise. The building of the Prudential Tower and associated activities such as toll-road constructions could be considered an exacerbation of the looming vulnerability stressor of sensitivity to noise.

Arthur wrote:

My world, because of the toll-road activities, not to mention the Prudential ones, may be destined to fall to pieces in comparatively short order. Why, my common sense admonishes me, let the future make life (due to my maunderings) gray for those around me? That would be the epitome of selfishness. Keep up the semblance of spirits, I may tell myself that all this furor of change may lead me to suicide, but it should be no part of mine to moan and groan and make the days miserable for those around me (1985, p. 1589).

Arthur acknowledges that the Prudential Tower construction may signal his eventual doom. He activates the interpersonal schema and considers the impact of his impending misery on others, and resolves to “keep up the semblance of spirits” for the sake of those around him. The self-destruction schema is also activated and he considers the role played by these constructions in his decision to suicide. There appears to be a form of complacency in contemplating suicide, perhaps a form of acceptance of the inevitable outcome of his sensitivity to noise. The consideration of the impact of his misery on others is hypothesised to constitute one of the variables eventually involved in the perception of the self as a burden to others – the latter representing a resolution of the interpersonal schema. Based on the above diary entry, Arthur could be situated in the secondary-ID phase.

Later he wrote:

I become more nervous at this noise in the jaw with each day that passes, and each day that passes makes the jaw creak... The more nervous I become, the worse the noise becomes and the more conscious of it I become. I go into a very trance of telling myself I will have to live with it and therefore reconcile myself to it, which makes me all the more nervous... This can drive me frantic beyond my handling of it... Here's a dilemma I perceive no way out of (1985, p. 1589).

The presence of emotive speech acts such as “nervous” and “frantic beyond handling” indicates that Arthur may be situated in the IM phase. Even though “frantic”

indexed Arthur's movement to the AD phase and subsequent increases in suicidal levels, here, he merely states that this intolerable state *can* be reached. Arthur is not in such a frantic state now, as evidenced by the above quotation. Thus, his situation in the IM phase appears to be valid. His previous complacency in understanding the role of the constructs in his impending doom is supplanted by his attempt to make himself believe that he will have to live with it. This very pairing of the future with an intolerable stressor may represent an overt process involved in the development of eventual hopelessness. His postulation that "Here's a dilemma I perceive no way out of" (1985, p. 1589) represents a lack of escape from an intolerable situation and may create the context for cognitive constriction.

Subsequent to this, Arthur wrote, "I still have no intention of moving. I'd rather kill myself than undergo moving and resettlement. I've lived much too long anyway... and these thoughts I put down in calmness and no particular agitation of the moment" (1985, p. 1592). Here, Arthur moves out of the IM phase in which he was previously situated and enters the secondary-ID phase. The self-destruction schema is activated and he considers killing himself rather than resettling somewhere else. Dichotomous and rigid thinking is evident in Arthur's attempt to problem solve. That is, the solutions include either killing himself or relocating to another residence. He has already eradicated the possibility of moving and hence considers the option to suicide. This also highlights his reduced generalization of alternate solutions in problem solving. However a caveat needs to be mentioned here, since Arthur did attempt to generate alternate solutions. His wife and readers tried to bribe and persuade officials to reduce the noise by using more soundproof

materials. When such efforts failed, Arthur's generation of alternate solutions was reduced to the dichotomous perception of suicide or relocation.

Arthur moves out of the ID phase and enters the IM phase when he wrote the following diary entry:

Jumping out of my skin with nervousness from the nearer and nearer demolition, motors racing, walls falling, the building shaking and creaking... I feel a medieval baron in his besieged keep, forces and weapons constricting ever tighter around his security. (1985, p. 1596).

The presence of emotive speech acts indicates that Arthur may be situated in the IM phase. His notion of "constricting ever tighter around his security" points to the status of his protective factors. His Garrison Hall establishment, containing a host of readers who provided him with social support, no longer offers him solace and refuge against the looming stressors of noise and illness.

Due to the introduction of editorial commentary, the diary readers have no understanding of Arthur's movement through the process of suicide. From the previous diary entries, several aspects are worth taking note of. Arthur's situation in the latter parts of the IM phase and the reduced effectiveness of his protective factors is apparent. If direct entries were made available in the data, Arthur's movement through phases could have been followed through. However, the editor merely reveals that

Arthur's "final weapons" failed after the "muting walls" of neighbouring buildings went down and the investment of his bastions, the crashing sounds of pile-drivers, and the floods of unwelcome light became intolerable. He took about 15 sleeping pills and woke up in the Massachusetts General Hospital (1985, p. 1596).

Arthur's movement to the AD phase and the cathartic routes he engaged in, can only be speculated due to the absence of available biodata.

After the suicide attempt, Arthur moved to Pelham Hall in Brookline. Aaron (1985) revealed that Arthur tried to adjust to his surroundings but failed. Noise levels continued to plague him and he explained that it induced "the most violent and persistent pain" (1985, p. 1597). Aaron (1985) stated that Arthur reached the point of feeling "half-demented" (1985, p. 1597) due to intolerable noise levels. Migraine attacks began to synchronise with his "phobia against noise" (1985, p. 1597). Such a synchronisation of looming vulnerability factors could have only spelled doom for Arthur, especially within the context of his constricted operation of protective factors. Unfortunately, the lack of direct diary entries here, prevent the classification of phases of the suicide process in which Arthur could be situated.

Aaron (1985) wrote:

Full of pain, bored, irritable, nothing could distract him for long: not sex or reading or cuddling little girls. "I feel a harried ninety years old", he wrote, "with gathering pressures closing in about. I have lived too long. I have written too much." Early in December 1963, he promised not to fool around with pills again and took comfort in the pistol stowed under his bed. He confessed himself a failure and doubted that his work would survive – it would have been better for himself and everyone connected with him if he had died in (1985, p. 1598).

The above information is crucial in understanding Arthur's situation within the process of suicide. Clearly affect has become predominant, but there is a lack of evidence suggesting a propensity to ventilate through action. In terms of schema resolution, the reader already knows that the death schema has been resolved. This took place earlier on, prior to his second suicide attempt – when Arthur resolved his desire to die a natural death

versus seeking self-destruction. From the above quotation, the self schema may also be resolved when Arthur declares himself a failure. The interpersonal schema could also be resolved when Arthur asserted that people would be better off without him. Based on the resolution of schemas and knowledge of Arthur's previous movement through the phases, Arthur could be classified as having high risk for completing suicide. Four of the pentagadic schemas are resolved, and the present author had at this stage a gut feeling that only the lack of secondary emotional resolution was keeping Arthur alive.

On the 5 December 1963, Arthur scrawled, "This is being horrible beyond the credible. Twelve divisions of migraines. Idetic images until I am harried and frightened in desperation. Can't see more than is adequate to get around" (1985, p. 1598). There is no question to Arthur's situation in the AD phase due to stress on the desperate nature of the situation. The situation could be considered highly risky due to the exacerbation of a looming vulnerability factor that has already precipitated a suicide attempt. It is possible that Arthur achieved secondary emotional resolution on this day, since he wrote that, "Some day it is my hope that this record will suddenly come and brusquely break off. By that token you will know that I have come into the courage necessary to make an end [italics added] of the magnificent jest" (1985, p. 598). This end came early in December. Clearly, high levels of suicidolor prevented Arthur from engaging in any form of catharsis. Kathy Konnor (one of Arthur's female acquaintances) visited Arthur this day when he shot himself and Aaron (1985) wrote the following account of her visit:

He told her of horrid shapes with deformed hands stretching out to seize him, creatures with tongues protruding from their ears, eyes glaring out of foreheads, bursts of intensely colored fire. When she touched him he screamed with pain and asked her to leave. She did so reluctantly (p. 1598).

There appears to be some features of visual hallucinations comprising a brief psychotic episode. It is also highly possible that such hallucinations were brought on by an extremely intense migraine, or could even comprise the effects of excessive bromide intake, which Arthur engaged in to locate some form of relief. Despite this, affect is very prominent, and there does not appear to be attempts to ventilate such affect. Within this context; with schemas largely resolved, the presence of intolerable suicidolor levels, and the attainment of secondary emotional resolution, Arthur shot himself and subsequently died.

The movement through phases presented here has been extracted from a previous initial chronological analysis that spanned his entire suicidal career. The purpose of selecting only a part of this analysis was to illustrate the dynamic nature of the phases. The reiteration of this point is important to understand that Arthur's suicidal career spanned over 48 years and that the dynamism presented here, comprises just one extraction from an initial chronological analysis of movement through the phases of the suicide process.

4.3.9 Difficulties in Phase Classifications

Even though inclusion criteria have been proposed for the relevant phases, at times difficulties were experienced in terms of understanding whether Arthur was in the IM or AD phases. This was due to several factors such as (a) the lack of the possibility of supplementing the understanding of the presence of affect in narrative accounts such as

diary writing, with other ways of understanding the presence of affect (such as behavioural and physiological markers), and (b) the difficulty in understanding whether a particular affect level is motivated by a need for relief or ventilation, without having the possibility to clarify this with the subject, which could have assisted to understand whether Arthur should be placed in the AD phase or not

Considering some examples may illustrate the notion of how neatly packaged phases of the process represents a mere ideal in a world where variation and individual dynamics evade the *exclusive* focus on general, universally applicable laws. Such laws may be pertinent, but they exist within a context of individual variation and subjectivity, which is further influenced by the usage of words from existent linguistic repertoires in order to construct emotional experiences. Thus, even though the phases of the suicide process have been supported by evidence from the Inman diary, there have been difficulties in classifying some diary entries for the above-mentioned reasons.

Consider the following example:

Less than three hours sleep last night....The light is abominable, hard, so that my eyes had let me die. I don't know. I don't know. I wish the doctors had let me die. There's nothing to life or living that equals the woe of carrying on. ...It would be good to vanish from all consciousness forever. I wish I were dead. After taking the first two pills, the rest was easy, the will to live drowsy and the heart gradually lessening its staccato of fear. The whole affair, save for the hospital part, was no worse than a bad illness. I shouldn't be afraid to try again one day, should? (1985, p. 1047).

Suicidal ideation is taking place and the death and self-destruction schemas are activated. The criteria used to index affect (namely, the presence of emotive speech acts)

are not present. But, the tone of the diary entry - "I don't know. I don't know. I wish the doctors had let me die" suggests some form of anguish, which clearly cannot be verified or refuted due to the absence of more data which could have been made available if the subject had been alive. The difficulty in classifying this diary entry as belonging to the ID or IM phases is apparent, due to the difficulty in determining the presence of affect. The presence of affect is after all a criterion for movement to the IM phase.

To provide an example of how a difficult decision was made in relation to phase categorisation, and the debates taking place in such a decision, the following diary entry will be used:

I am practically crazy with my eyes. I cannot even see to write legibly any longer. I wake up every morning about four and lie awake trying to muster the guts to kill myself. I'll do it yet. I must. This horror goes on and on without end. I can't stand it. If only I possessed the courage to put a gun to my head and shoot. But it seems I am a coward. Will life never end? (1985, pp. 373-375)

Suicidal ideation is taking place since the self-destruction schema is activated. The presence of affect is also apparent as supported by the presence of emotive speech acts such as "horror" and "I can't stand it". The presence of "I can't stand it" would point to the presence of intolerable suicidolor levels, which is a criterion for movement to the AD phase. Thus, a basic conundrum exists, in which, based on the above diary entry, Arthur could be situated in the AD or IM phases. The next statement "If only I possessed the courage to put a gun to my head and shoot. But it seems I am a coward..." offers some additional information. If an impetus to action to ventilate affect levels is a criterion for movement to the AD phase, this statement could offer some support to this effect. But this is not so. Putting a gun to his head is a possibility and not an action that Arthur intends to

engage in immediately. The postulation of “But I am a coward” offers a potent resistance to his contemplation of the possibility of placing a gun to his head as indicated by the word “but” and Arthur’s belief that he is a coward. By perceiving himself as a coward, Arthur is expressing a lack of secondary emotional resolution (presence of fear in perceiving the suicide act), which may prevent him from engaging in any form of self-destructive action. Thus, the decision that Arthur is in the IM phase – most probably the latter parts of the IM phase – is a contention most supported by the contents of the above diary entry. The possibility of him belonging to the AD phase has been refuted.

The above two examples illustrate some of the difficulties experienced in placing suicidal persons in the relevant phases. This related to, (a) the limited availability of additional data which could support or refute hypotheses formed about the presence of affect, and (b) the intricacy of analysis of the contents of language as a source from which decisions about phase relevance and affective experience is made. In both cases, the difficulties are not insurmountable, but reflect in the first instance a need for additional qualitatively different data to be used in conjunction with discourse, and in the second instance, the need to understand the rhetoric of language and the acts, which it attempts to accomplish. Furthermore, the entire analysis was not included here because it did not concur with the aim of the study, which was to develop and provide evidence for a process theory of suicide and not to provide an exhaustive analysis of Arthur Inman’s suicidal career.

CHAPTER 5

Discussion

In this chapter, attempts will be made to discuss the results presented in the previous section within the nexus of the reviewed literature presented in Chapter 2.

5.1 Defining Suicidal Behaviour

The process theory proposes a new framework for defining “suicide” and related terms. The definitions provided by Shneidman (1985), O’Carroll et al. (1996), and Windt (1980, as cited in Shneidman, 1985) would comprise attempts to define the suicide act and not “suicide” per se. The new paradigm for understanding suicide, proposed by the process theory, would oppose these attempts to synonymously refer to suicide as the suicide act since the suicide act is just one phase of the suicide process. In addition, definitions provided in the literature of suicidal ideation (Hintikka, 1999; O’Carroll et al., 1996) are considered to be too narrow and restrictive. For instance, whilst Hintikka (1999) does make some attempt to define the term in relation to views of life, death and self-destruction, which expands on the very narrow definition adopted by researchers such as O’Carroll et al. (1996), it is considered to be insufficient. The definition proposed by the process theory, referring to suicidal ideation as the infiltration of passive or active ideational suicidogenic elements into the pentagadic schemas, represents an expansion of the definition of the term in contemporary suicidological literature. Furthermore, the very definition of active and passive suicidal ideation as presented in the literature (Jacobson,

1999) has been reformulated within the tenets of the process theory. That is, passive suicidal ideation refers to the infiltration of suicidogenic elements in the life, self, and interpersonal schemas, whilst active suicidal ideation refers to the infiltration of suicidogenic elements into the death and self-destruction schemas. This departs from the traditional way of perceiving passive suicidal ideation as wishing for death and active suicidal ideation as being the agent of self-destruction (Jacobson, 1999).

The definition of the suicide act would comprise the definitions and debate available in contemporary literature. The notion of “parasuicide” (Kreitman, Philip, Green & Bagley, 1969) is contested, since even though it attempts to avoid issues of suicide intent, it implies that suicidal intent can be separated from other forms of intent. This opposes the notion of multiple intent that the process theory proposes. The definition provided by the process theory is similar to the one advocated by O’Carroll et al. (1996), but attempts to incorporate the notion of multiple intent. The key to the definition is argued to be the recognition that an act may comprise an intention to die, an intention to use the appearance of suicide to achieve other ends, or a combination of both. To accommodate for this, it argues for a combination of definition and classification. The criteria proposed for such an endeavour - defining the suicidal behaviour, making explicit the primary intention (remembering that secondary intention is static), the status of schemas, and the status effects, represents an attempt to overcome the common limitation of not recognizing the presence of multiple intentions in a suicidal case. Hendin’s (1991) proposed types of suicide and Baechler’s (1979) typology could be understood as the possible range of primary intentions. This may include escapist, aggressive and oblique

intentions (Baechler, 1979) and using death as a means of rebirth and reunion (Hendin, 1991). Menninger's types (1938), Shneidman's (1985) proposed types and Durkheim's (1952) types of suicide could be considered more generic categories of Baechler's (1979) and Hendin's (1991) types of suicide that explain the process underlying the escapist and aggressive suicides.

The term "suicidate" has been proposed by the process theory in order to overcome the value-ladenness of the usage of the term "completed suicide" and the notion of *committing* suicide. Thus, if a death results from suicide, saying that a person has suicidated appears more value-free. In addition, the term recognizes that death by the suicide act may not have been the intention of the victim, and that attempts to use available evidence to understand this contingency may be restrictive, due to the deceased status of the person.

Hence, the process theory reconceptualizes "suicide" and related terms, due to the adoption of a new paradigm of understanding suicidal behaviour. More academic debate and research needs to be conducted to accept, reject or reformulate the proposed definitions.

5.2 Theories of Suicidal Behaviour

A broad theoretical base was reviewed in order to facilitate comparisons with the process theory. The theories forming the conceptual base of suicidology have arisen from

particular perspectives of understanding the human condition or from specific paradigms. Durkheim's (1952) theory of social integration, Shneidman's (1992) psychological theory, Freud's (1934) psychoanalytic theory, Beck's (1976) cognitive theory, Baumeister's (1990) escape theory, the range of biological theories and economic theories attempt to explain how the suicide act takes place, whilst the evolutionary theory explains why suicide occurs. The theories themselves have spawned empirical research within their relevant perspectives of understanding human behaviour.

It is argued that whilst these theories offer different understandings of how the suicide act occurs, integration is only possible at the level of the empirical research that they generate. The only exception may be the common conceptual base that different theories share such as Baumeister's escape theory (1990) and Williams' (1997) theory of escapist suicidal behaviour. For both Williams (1997) and Baumeister (1990), the concept of "escape" was crucial in understanding the suicide act. According to Williams, the gradual restriction of escape potential and the subsequent buildup of despair and hopelessness were the key variables, whilst Baumeister (1990) perceived the suicide act as an attempt to escape from the affective, motivational and cognitive consequences of unacceptable experiences.

The comparison between theories researched in the field and that of the process theory is comparable at the level of its conceptual base. In addition, like other theories, it attempts to explain how the suicide act takes place. On a more microscopic level, it uses and builds on concepts from other theories, thus facilitating comparison. For instance,

Shneidman's (1999a) notion of cognitive constriction is used to explain the process of constricted thinking taking place from the ID phase, through the IM phase and to the AD phase. In addition, his notion of ambivalence is incorporated into the notion of the status of schemas. The notion that a schema could be activated and resolved as opposed to being activated and unresolved, explicates how ambivalence relating to suicidality could be resolved. Aspects of cognitive theories could be compared to the cognition explained in the process theory. For instance, Beck's (1976) notion of depressogenic beliefs of the self, others and the world corresponds to the notion of suicidogenic elements in the self, interpersonal and life schemas respectively.

Shneidman's (1999a) notion of "psychache" and perturbation is relevant to the process theory. Even though the term "psychache" was adopted by the SP model, and reformulated to PPA, the process theory has in turn reformulated the notion of PPA and created the term "suicidolor". Its meaning incorporates Shneidman's (1999a) meaning of the term psychache, in addition to allowing for the possibility of cognitive and physiological elements. Perturbation appears relevant in the AD phase of the process of suicide, where ventilation of such affect is proposed. Whilst Shneidman (1999a) advocates that perturbation must be reduced to reduce lethality, the process theory advocates that the catharsis of the primary suicidal affect informing perturbation levels appears relevant. The presence of an Affect Reaction Formation Phase in the suicide process opposes Shneidman's (1999a) notion that no one suicides without having high perturbation. That is, the presence of such a phase would explain why some people appear calm and happy (not perturbed) before killing themselves. It is argued that Shneidman's (1999a)

proposition of the suicidal state - high perturbation, lethality and press- would comprise just one pathway to suicide, and appears to be the pathway involved in a suicide act devoid of cathartic attempts. In addition, his proposed commonalities of suicide relating to the goal of suicide (cessation of consciousness), the stimulus of suicide (intolerable suicidolor), the emotion of suicide (hopelessness) and the action of suicide (egression) has been supported by analysis of the Inman diary.

Economic theories of suicide have been largely ignored by mainstream suicidology. Yet, a proposed cost-benefit analysis (Lester, 1990) is argued to represent an underlying process of suicidal ideation. In section 4.3.7.1, Arthur engages in debates concerning death in order to resolve his ambivalence about what happens after death. He explains that he fears serious injury (a cost) in contemplating suicide, a continuation of consciousness (a cost), even though he would like to suicide in order to sleep forever (a benefit). Clearly, cost-benefit analysis may feature in some phases of the process of suicide more than others, but more research is needed to clearly establish this. The cost-benefit analysis is similar to Shneidman's (1992) explanation of the relevance of ambivalence to suicidal ideation, in that it may provide an explanation of the underlying dynamics involved in such ambivalence. In relation to the process theory, it may explicate the process involved in resolving schemas.

Evolutionary theory (de Catanzaro, 1986) has also been marginalized by mainstream suicidology. Yet it may offer some explanation for the common suicidogenic element of the interpersonal schema, that is, being a burden to significant others. Arthur

Inman did go through a period in which, despite the exacerbation of his looming stressors, he vowed to keep up his spirits in order to keep people close to him free from the misery that he could cause them. Perceived benefit to kin or burden to kin is explained by evolutionary theory as being a variable influencing suicide. When Arthur started to perceive himself as a failure and his interactions with others subsequently dwindled due to his perception of himself as a burden to others, his interpersonal schema became resolved and he was at a higher risk for engaging in the suicide act. Thus, evolutionary theory may explain the pertinence of this variable to suicidal behaviour. It could also explain the reason for this, by positing the lack of inclusive fitness of the person and a reduction of reproductive potential.

Maris' (1997) biopsychosocial model could fit into the vulnerability status phase of the process theory. He appears to advocate a detailed outline of the types and examples of risk factors and protective factors associated with suicide potential. Yet, as previously discussed, there is a need to understand the dynamic relationship of such risk and protective factors. van Heeringen et al.'s (2000) pathways to suicide represent an advance over previous attempts, in that it does attempt to integrate biological, social and psychological aspects of the suicide experience, hence providing an impetus towards integration in the field. In addition, their hypothesis, that phases comprising the process of suicide may be explicable may be consistent with the explicit outlining of phases of the suicide process, as proposed by the process theory developed in this study.

Durkheim's (1952) theory of the social influences of suicide informed the understanding of the role of imitation in suicide. It is argued that whilst the imitation of the suicide act may be one form of imitation, another form (interpreted within the process theory) may be possible. Imitation (perhaps more appropriately termed assimilation) of suicidogenic elements and views of death may represent another form of imitation. The example of schema resolution of the death schema, as presented in section 4.3.7.1 explains how Arthur managed to resolve the death schema by adopting Mrs. Cash's view of death. Whilst this may not be imitation per se (as defined by contemporary psychological discourse), it may represent imitation at the linguistic cognitive level and perhaps is more congruent with the notion of assimilation of information.

In some situations, theories cannot be compared due to the differential use of their conceptual base. For instance, Freud's notion of the introjection of anger resulting in the suicidal behaviour has no comparative base with the process theory, except for understanding how anger would feature in the nature of suicidolor. Theories that propose notions of the relationship between affect and suicidal behaviour will be discussed later on in the section dealing with suicide and affect. In addition, theories that have sparked empirical research that fits elsewhere into the process theory, such as in the vulnerability status phase of the process, will be discussed in the relevant sections.

5.3 Vulnerability to Suicide

The definition of a “stressor” as proposed by Shneidman (1999a) and adopted by the process theory, appears to be consistent with Arthur’s suicidal career. That is, Shneidman’s (1999a) proposed five clusters of needs that could be frustrated appear to be relevant. Arthur’s intolerable illness episodes related to fractured control of his life and an assaulted self-image and defeat (Shneidman, 1999a), which are associated with frustrated needs for affiliation and autonomy. His ruptured key relationships (Shneidman, 1999) starting from parental rejection to oscillatory perceived rejection at the hands of his wife, readers and acquaintances and his paternal surrogate (Dr.Pike) resulted from frustrated needs for affiliation and nurturance. Such needs could have resulted from his perceived authoritarian parenting. This appears to be consistent with Lai and McBride-Chang’s (2001) study, which established a relationship between suicidal behaviour and perceived authoritarian parenting, low parental warmth and a negative family climate.

Vulnerability to suicide as explained by the process theory, reconceptualizes the very understanding of vulnerability as reviewed in Chapter 2. The process theory argues that risk factors mediated by protective factors do not appear to index a threshold level to suicide potential. Rather, the effects that they may have on the pentagadic schemas appear to be more relevant. For instance, Arthur’s vulnerability to suicide was not based on the presence of risk factors, even though this was considered to be an adjunct in the understanding of the status of schemas.

His risk factor status, prior to any engagement in suicidal ideation, possessed a psychiatric risk factor (depression), a health risk factor (intense migraine attacks,

photophobia, ligament and bone problems), the possible presence of a borderline personality disorder and a developmental risk factor (evidence for the introjection of critical parental introjects). The association between depression and suicide in Arthur's life, is consistent with the empirical studies of Angst, Angst and Stassen (1999), Aoki and Turk (1997), Cattell and Jolley (1995), Haliburn (2000), Hendriksson et al. (1995), and Takahashi et al. (1995). In addition, the presence of BPD characteristics in Arthur Inman's personality profile, appears to be consistent with the findings by Soloff et al. (1994). The presence of depression, which increases the lifetime risk for suicidal behaviour by 15 times (The Suicide Risk Advisory Committee of the Risk Management Foundation of the Harvard Medical Institutions, 1999) may point to some form of initial suicide risk. This was supported by the infiltration of depressogenic elements into the self and interpersonal schemas, which already created the context for suicide vulnerability by instigating passive suicidal ideation. In addition, the dearth of available protective factors would exacerbate his vulnerability status. The suicidal career of Arthur Inman appears to be consistent with Riskind et al's (2000) notion of looming vulnerability and the conception that stressors can evolve and intensify over time. This was true for the illness and noise stressors. After all, it was the intolerable increase in the intensity of noise and illness that precipitated his final suicide attempt. Moreover, Mościcki's (1999) notion of distal and proximal suicide risk appeared pertinent in understanding the risk factor profile of Arthur Inman.

Despite the existence of these risk factors, these contingencies were not taken as a basis for understanding Arthur's risk for suicide. Rather, understanding the *effects* of such factors on the pentagadic schemas was proposed. Thus, the process theory of suicide

hopefully offers a new perspective for understanding vulnerability to suicide. Risk factors may create the context for suicide, but the effects of such risk factors on the cognitive and affective components of the pentagadic schemas are considered more important. This may explain why some people who are categorized as high risk for suicide, due to the presence of many short-term risk factors, may actually turn out to be a false positive. Understanding the status of schemas may offer a new way of predicting suicide.

In relation to Arthur Inman, analysis of the schemas revealed the operation of passive suicidal ideation as defined by the process theory. Because the criterion for defining vulnerability was the infiltration of suicidogenic elements into any of the pentagadic schemas, and since the self and interpersonal schemas were activated, Arthur's vulnerability to suicide was already established prior to any evidence of active suicidal ideation.

The process theory of suicidal behaviour proposes a schematic approach to understanding suicide vulnerability. Clearly, more research needs to be conducted to support, refute or even expand on this way of understanding suicide vulnerability.

5.4 Predicting Suicide

Based on this schematic way of understanding suicide, the process theory may offer an alternate understanding of the prediction of the suicide act, which may overcome the limitations at prediction discussed by Goldney (2000). Findings of the present study

revealed that the resolution of schemas and the secondary emotion, predicted two suicide acts in Arthur's suicidal career. For the first suicide act, resolution of all schemas (with the self-destruction and interpersonal schemas being latent) and the secondary emotion was evident. For the second suicide act, schemas were once again resolved (with the self-destruction schema being latent). However, there were insufficient diary entries to come to a sufficient conclusion of secondary emotional resolution. For the third suicide act, which resulted in Arthur's death, resolution of the pentagadic schemas appeared to be achieved based on Aaron's (1985) commentary, whilst secondary emotional resolution was once again indecipherable. Findings have also revealed that the resolution of the interpersonal, self and death schemas appeared to be more imminently associated with suicide potential (in terms of temporal association with the suicide act) than resolution of the life and self-destruction schemas. Such findings and possible generalizations, may be interpreted with the understanding that they were produced by analysis of a single case study.

5.5 Emotion and Suicidal Behaviour

The psychoanalytic theory of suicidal behaviour explicates the role of introjected aggression in suicidal behaviour. The process theory explicates the possibility that such aggression may hasten the process of suicide, and possibly change the nature of the primary suicidal emotion (suicidolor). The process theory fits well with the notion that hopelessness and despair feature as affective states of the suicidal experience. Evidence for this was even provided from Arthur Inman's suicidal career. In addition, the theory has reconceptualized the understanding of impulsive suicidal behaviour.

The process theory argues that the emotional composition of suicidolor may vary. For instance, for Arthur, it may comprise more despair than guilt. This nature of suicidolor changed during the process of suicide so that anguish and distress became more prominent as the AD phase was entered. Thus, the emotional composition of the suicide experience may not be static, but may change over the course of the process of suicide. Fear could give way to courage as secondary emotional resolution takes place as documented in Arthur's suicidal career. Thus, the configuration of emotional experiences may vary between individuals and within individuals (as they move through the process of suicide).

Furthermore, the concept of "pain" - be it suicidolor (process theory), "psychache" (Shneidman, 1999a) or "cry of pain" (Williams, 1997) - has been a well recognized component of the suicide experience. However, as explained by the process theory, there is a need to understand the possible cognitive and physiological components of the experience of such pain. Perhaps future research could establish this. Williams's (1997) notion of the relevance of a lack of escape potential in the suicide experience appears to be consistent with Arthur asserting, "...I'd rather be dead than anything in the world, certainly than be half-demented from noise I can't escape" (1985, p. 1409). Thus, suicide as a means of escape from adverse situations appears to be well established. The role of anxiety as a predictor of imminent suicide (NIMH, as cited in Fawcett, 1999), is related to the emotional experience of the AD phase where emotional ventilation may be warranted. Yet, the difference between anxiety states and panic states needs to be made more explicit.

The understanding of the role of the relationship between emotions and cognition in the suicidal experience has not been made explicit in the literature. The process theory offers some perspective for integration by proposing the affect and cognitive suicidogenic elements of schemas. However, such an integration is insufficient since the nature of the relationship between affect and cognition is not made explicit.

5.6 Suicide and Cognition

5.6.1 Suicidal Ideation

As previously discussed, the process theory has attempted to reformulate the notion of “suicidal ideation”. It has incorporated some features of the contents of suicidal ideation into its tenets. The notion of suicidal intention (Jacobs et al., 1999) is relevant to definitional and classification parts of the theory. That is, the concepts of primary and secondary intention reveal the operation of suicidal intention. The existence of suicidal plans (Jacobs et al., 1999) has been treated in a different way by the process theory. Whilst it does acknowledge that planning of the suicidal act is a feature of suicidal ideation and occurs from the ID phase onwards, it recognizes that such planning may further comprise a specific part of the AD phase - the delayed planned suicide act. Support for this has been provided by analysis of the Inman diary when Arthur planned to use chloroform to kill himself on the 12 November 1934. The process theory labels such planning as the engagement in congruent catharsis.

In section 4.3.3., references were made to Arthur’s perceived emotional abuse at the hands of his parents. In line with this, there is evidence for Firestone’s (1997) theory

of the introjection of critical parental introjects. In addition, Arthur's life possessed some elements of the inward lifestyle proposed by Firestone (1997). These included social withdrawal, nonadaptability and addictive personal habits such as having extra-marital affairs. Nonadaptability may be similar to Duberstein's (1995) concept of low openness to experience. Arthur showed signs of this when he refused to move to another location even though his present residence was infiltrated with intolerable noise.

The notion that suicidal ideation predicts suicide completion (Lynch et al., 1999) may be supported by this study. However, it is argued that the nature of the prediction needs to be more clearly explained. The process theory advocates that resolution of a schema's ideational suicidogenic elements may be predictable of imminent suicide. Nevertheless, this in itself may not allow for prediction since secondary emotional resolution also needs to be taken into consideration. Thus, indicating that suicidal ideation predicts engagement in the suicide act would appear too broad and in need of clarification since not everyone who has suicidal ideation suicides. The understanding whether schema resolution would provide an alternate means to facilitate such prediction, needs to be further researched. Nevertheless, it does attempt to address the conundrum in contemporary suicidological discourse, that suicidal ideation may precede the suicide act in some cases but not in others. According to the process theory, it is argued that the *nature* of the suicidal ideation, as explicated by the status of schemas is the issue, and not whether suicidal ideation is present or not. More research needs to be conducted to support, refute or expand such an understanding of suicidal ideation.

5.6.2 Suicide and Cognitive Risk Factors

Cognitive factors associated with suicidal behaviour are considered to be part of the cognition of suicidal individuals as movement through the phases takes place. Even though such factors have been termed cognitive risk factors in suicidology, they appear to be a component of suicidal ideation at varying phases of the suicide process. The existence of hopelessness (Asarnow & Guthrie, 1989; Beck, Steer, Kovacs & Garrison, 1985; Berman & Jobes, 1995; Minkoff et al., 1973; Nekanda-Trepka et al., 1983), the perception of suicide as a desirable solution (Beck, Rush, Shaw & Emery, 1979; Orbach et al., 1987) dichotomous and rigid thinking (Neuringer, 1961, 1967; Neuringer and Lettieri, 1971) and problem solving difficulties (McLeavy et al., 1987; Priester & Clum, 1993) were documented in Arthur's suicidal ideation.

As previously argued, many pathways to hopelessness may exist and such pathways should be considered without attempting to locate a single universal pathway. Analysis of the Arthur Inman diary revealed that both interpretations of hopelessness as advocated by Williams and Pollock (2000) were appropriate. Arthur did generate fewer positive expectancies of the future and he did anticipate negative events in the future as explained in the previous chapter. Those negative events that were extended into the future were the looming vulnerability factors of illness and noise. O'Connor and Sheehy's (2001) explanation of the negative cognitive style depicted in suicidal persons has also been supported by analysis of the Inman diary. Arthur perceived the illness and noise

stressors to extend into the future (global perception of event) and to always be present (stable perception of an event).

Arthur's problem solving appeared to possess a lack of generation of alternate solutions which supported McLeavy et al.'s (1987) study. However, clarification may be warranted here. It is argued that problem-solving may have a different nature depending on the phases of the process that a person is located in. For instance, Arthur did go through a period in which he tried to locate solutions to the noise stressor problem. When such efforts failed to materialize, dichotomous thinking became evident (to relocate or suicide). Because of his low openness to experience, relocation was not an option for him. Within such a context, suicide appeared to be the only solution. It is thus argued that problem-solving deficits may be a symptomatic process in itself, encompassing the operation of numerous cognitive factors found to be associated with suicidal behaviour. Also, a reduced generation of alternate solutions to a problem may represent a failed attempt to implement previously perceived solutions to the problem at hand. This may set the stage for suicide as a desirable solution. Moreover, Arthur's dependency on others to solve his problems, supports Orbach et al.'s (1990) notion that suicidal persons tend to depend on others to solve problems. Thus, the cognitive factors may be dynamically linked in the process of suicide and may change in nature and interaction during movement through the phases.

Arthur's detailed recollection of his childhood (comprising book one of the diary), appears to be inconsistent with the findings of the relationship between generic

autobiographical (Evans et al.,1992; Williams, 1997; Williams & Pollock, 2000) recall and suicidal behaviour. This could be due to the notion that such a deficiency in memory recall may be a trait and not a state factor (Williams & Pollock, 2000). It could also be that there may be an inverse relationship between generic memory recall and the number of suicide acts a person engages in (Startup et al.,2001). Arthur attempted suicide twice before finally suiciding and this occurred within a time span of about 48 years.

5.7 The Suicide Crisis State

The process theory has proposed routes which a suicidal person in crisis (situated in the AD phase) may move through. In addition, evidence from the Arthur Inman diary has supported the existence of such routes. The notion of catharsis of affect departs from the notion of catharsis traditionally associated with suicide, in that it does not stipulate that the suicide act is cathartic, but rather that catharsis is a function of congruent and incongruent cathartic acts, whilst an absence of catharsis may lead to a suicide act. This may be inconsistent with the findings of Davis (1990) and Bronisch (1992). The process theory's understanding may be more consistent with Walker et al.'s (2001) caution in perceiving the suicide act as cathartic, but it may not concur with their interpersonal view of the cathartic effect. The latter may be due to different perspectives of understanding, since the process theory does place a greater emphasis on intravention than on intervention. However, the present authors recent attempt to situate Rosenberg's (1999) affective-based intervention strategies as a form of congruent catharsis within the process theory, may appear to offer some consistency with Walker et al's (2001) notion of interpersonal

catharsis. Despite this, the theory's emphasis on intravention, could supplement the greater focus on intervention, which has dominated suicide crisis intervention. In addition, its development of the terms "congruent" and "incongruent" catharsis may serve to refine the understanding of the ventilation of affect that has been proposed in suicidological and psychoanalytic discourse.

The AD phase detailing numerous cathartic routes represents an original attempt to understand many pathways leading to the suicide act. The existence of numerous possibilities supports the dynamic nature of the process of suicide. In addition, the presence of the Affective Reaction Formation phase allows for the understanding that even though affect predominance may characterize the AD Phase, persons may appear calm, "normal" or even unusually happy prior to killing themselves. The latter has been documented in persons recovering from depressive disorders. The proposition of ventilation of affect as an affect-based strategy represents a supplementation of the exclusive focus on action-based intervention strategies (Rosenberg, 1999), which has dominated suicidological crisis intervention discourse. A combination of intravention and intervention efforts appears crucial. The process theory is still in its infancy and the present author hopes to be able to create new categories and incorporate intervention issues into the AD phase. Future attempts to expand the theory's boundaries may be able to accomplish more incorporation of suicide crisis intervention of an interpersonal nature.

Furthermore, findings appear to be consistent with Hendin et al.'s (2001) study. Precipitating events (illness and noise) and intense affective states, appeared to mark the

onset of a crisis episode. Yet such “markers” are considered to be more overt markers of what is happening at the level of the pentagadic schemas and the tertiary emotions. The latter may provide more covert signs of an impending crisis state.

5.8 The Suicide Process

5.8.1 Understanding “Process”

The process theory has perceived the process of suicide in a specific way - by proposing the existence of dynamically related phases. This may move beyond the understanding of “process” as understood within the stress-coping paradigm (Bonner, 1992) since in this study, vulnerability is perceived as just another phase in the suicide process. The process theory’s explicit proposition of phases may supplement van Heeringen et al.’s (2000) hypothesis of the existence of phases. Despite this, the definition of process does not concur with two aspects of van Heeringen et al.’s (2000) definition of the process of suicide. Firstly, the dynamic nature of the process as evidenced by Arthur’s movement through phases would oppose van Heeringen et al.’s (2000) claim of a linear movement from thoughts of suicide, to plans and then to suicide acts. Secondly, the definition of process adopted by the process theory would not fit van Heeringen et al.’s (2000) definition of the process of suicide as an “intra-individual process in reaction to a person’s environment...” (p. 230). It is argued that this reactionist notion may comprise just one facet of the complex experience of suicidal process. Thus, caution needs to be adhered to when understanding the varied usage of the term “process” in conjunction with suicide. It is in this light that explicit reference has been made to the understanding of

process, as adopted by the process theory, and its comparison with the notions of “process of suicide” adopted by suicidologists in contemporary literature.

5.8.2 Phases of the Suicide Process

The explicit proposition of phases of the suicide process is an original contribution to suicidology. Even though the existence of such phases have been supported by evidence from the Inman diary (1985), more research needs to be done on larger samples to facilitate the generalization of findings presented here. Furthermore, there is a need to conduct more qualitative and quantitative research to understand whether other pathways to the suicide act exist.

5.8.3 A Schematic Understanding of Suicide

The results of this study provide a schematic understanding of suicidal behaviour by proposing the relevance of the pentagadic schemas. This is an original contribution to suicidology. Even though Beck (1976) recognized the pertinence of schemas in clinical depression, there are no studies to date that attempt to provide a schematic understanding of suicide. Beck’s (1976) notion of the cognitive triad bears a resemblance to the pentagadic schemas developed as part of the process theory of suicidal behaviour, in that the self and life schemas are similar. Yet, this study goes beyond Beck’s (1976) understanding of schemas by advocating the status of schemas. It also proposes affective and behavioural components of schemas. Thus, the results of this appear to provide the finer detail of the understanding of

schemas, which could further the understanding of suicide and depression. Future research could establish this.

CHAPTER 6

Conclusion

6.1 Summary of Findings

The primary hypothesis of the study has been supported. An integrated process theory of suicidal behaviour has been developed and has been grounded in the Inman Diary (1985). In addition, phases of the suicide process have been spelled out and a schematic understanding of suicidal behaviour has been proposed. The notion of a process of suicide appears to be consistent with the clinical and research impressions of suicidologists who proposed a process understanding of suicide (Heikkinen, Aro & Loennqvist, 1994; Leenaars, 1991; Wasserman, 1993) and those who hypothesized the presence of phases of the suicide process (van Heeringen et al., 2000), but who could not clearly articulate such phases. In addition, the proposition of the dynamic nature of the phases of the suicide process appears to contradict the perception that such phases are linearly related (van Heeringen et al., 2000).

In proposing a schematic framework for understanding suicidal behaviour, the pertinence of several schemas (pentagadic schemas) to the suicide process is emphasized. The process theory has introduced numerous new concepts to facilitate understanding suicide as a process, has reconceptualized the definition of suicide and related terms, has attempted to combine definitional and classification issues in suicidology, has reconceptualized the understanding of vulnerability to suicide and has provided a new lens within which to understand psychopathology and suicidal behaviour.

The more salient aim of instigating a paradigm shift can only be determined by the direction of future research.

6.2 Limitations of this Study

Even though attempts have been made to conduct research in as rigorous a manner as possible, certain unavoidable limitations could be made explicit.

Firstly, the use of the Inman Diary (1985) may highlight limitations of the generalization of this study. Some consolation may be offered by the grounded theory methodology that facilitates generalization through theoretical sampling. However, even this theoretical sampling together with the primary unit of analysis related to a Eurocentric understanding of suicidal behaviour. This may have implications for understanding the process of suicide within other cultural domains. Perhaps this limitation could be overcome by conducting research within other cultural climates so that comparisons could be facilitated. Furthermore, the use of a personal document in this study (the Inman diary) may not only restrict generalization across cultures, but may even restrict generalization within the cultural milieu in which it was created. That is, even though other case studies from the literature and electronic databases were accessed during theoretical sampling, the nature of the case studies was different from the Arthur Inman Diary (1985). The Inman diary (1985) was a longitudinal documentation of a suicidal career, which was different from the cross-sectional nature of the rest of the case studies. Thus, whilst the latter case studies were able to facilitate understanding of the individual phases of the suicide process, it was not able to provide an

understanding of the movement through phases as the Inman diary (1985) did. Thus, generalization of findings within the cultural milieu in which it was created may be compromised, and should be taken into account when the suicide process is being understood.

Secondly, the primary grounding of the theory in a single case study (despite the inclusion of more cross-sectional case studies through theoretical sampling) may have specific constraints on generalization. The idiographic features of the suicidal career of Arthur Inman may draw attention to the ways in which schema activation and resolution could have different features in different cases. Arthur's motivation for engaging in the suicide acts was to seek death and a subsequent cessation of consciousness. Thus, the status of his death schema was relevant for assessing his vulnerability to suicide, since a resolution of the death schema preceded a suicide attempt on two occasions. In the suicidal career of another person who attempts suicide to cry for help, death may not be the aim of suicide, so that schema activation and resolution may have a different nature, that is, the death schema may not be activated to a similar extent. This may be the situation in which the suicide act is used to achieve other ends than death. This is written with the acknowledgement that multiple intentions may exist and a person's desire to seek death may be more a matter of degree than a matter of being present or not. In such a case, assessing the status of the death schema may seem pertinent. Perhaps future research into such suicidal careers may provide some insight into how schema activations and resolutions reflect the secondary intention of the suicidal person.

Thirdly, the nature of the data that was analyzed, prevented the understanding of how certain features of human functioning (such as biology) influenced the process of suicide.

Biological factors appeared to be relevant at the vulnerability status phase, but its influence could not be clearly examined due to the nature of the biodata and the current state of biological research in suicidology as well, which lacks *in vivo* biological studies that would aid such an understanding.

Fourthly, the deceased status of Arthur Inman may have restricted hypothesis testing during the analytic procedure. For instance, using emotive speech acts to understand the presence of emotion in the diary, was restrictive at times, as previously indicated, and prevented using other means to establish the presence of emotion (such as behavioural cues). Moreover, the deceased status of the subject prevented adopting the transactional methodological proposition of the social constructionist way of doing inquiry. Furthermore, if the subject was alive, more corroboration could have been undertaken and hypotheses formed about aspects, such as the presence of emotive speech acts, could have been supported or modified accordingly.

Finally, conducting this study within a limited time period for purposes of acquiring a degree may be perceived as a limitation for this study. That is, theory development is tentative and the very theory itself changes as more research is conducted to expand and modify categories comprising a theory. The theory that was developed from grounded theory analysis of the Inman diary (1985) may change as future attempts are made by the present author to access more data. It may also change due to further empirical studies conducted within the theory's perspective. This change may take place even though the basic tenets of the theory may remain relevant (Glaser & Strauss, 1967). This needs to be borne in mind, since the

understanding that theories comprise final products is unacceptable within the nexus of grounded theory methodology (Glaser & Strauss, 1967). Contradictory data accessed at any point in time, will not refute this theory, but will allow for the modification and creation of new categories within the theory's perspective. Only time and more research will tell whether it would become theoretically defunct – a criterion for disposing of a theory (Glaser & Strauss, 1967).

6.3 Suggestions for Future Research

It is argued that future research could include the following:

1. Attempts to establish the generalizability of this study's findings on different clinical populations.
2. Trying to understand the cognitive and physiological components of suicidolor.
3. Using more quantitative research designs to understand whether relevance of the pentagadic schemas, their statuses and the status of the secondary emotions could aid the construction of psychometric tests aimed at risk assessment.
4. Engaging in the refinement of the theory's proposed terms and criteria for classification.
5. Researching the weaknesses and strengths of establishing vulnerability based on the criteria proposed by the process theory.

6.4 Prevention of the Suicide Act

The process theory advocates that the prevention of the suicide act may entail understanding the ways in which suicidogenic elements are developed and come to form part of the pentagadic schemas. Firestone's (1997) theory offers a potent description of the introjection of parental introjects at the early stages of life. Perhaps, education about the role of excessive parental critical attacks on a child's sense of self may prove worthy in this regard. Thus, evidence for the infiltration of suicidogenic elements into the pentagadic schemas may be crucial in preventing movement through phases. It is argued that the development of healthy pentagadic schemas may serve to prevent movement through phases and delay resolution. Taking into consideration the fit between the suicidogenic elements and extreme elements of the anti-self system (Firestone, 1997), and the notion that the development of such a system is a component of human growth, understanding when the anti-self system reaches suicidogenic proportions may prove a worthy enterprise. This may assist with preventing the anti-self system from reaching such a suicidogenic threshold in the first place.

Moreover, research needs to be conducted to understand biological factors involved in the movement through phases, so that the prevention of the suicide act could be established by counteracting such biological changes.

Prevention may also be possible by creating more vigorous intervention strategies at the ID phase level. That is, much of suicide intervention has focused on intervention in the AD phase. Perhaps strategies could be developed to prevent movement from the ID phase and thereby prevent subsequent movement to the AD phase.

Notwithstanding these suggestions, it is hoped that the perspective offered by the theory will inform more empirical research into domains of suicidological discourse such as intervention and prevention. This may prove exciting, due to the adoption of a new paradigm, which the process theory of suicidal behaviour proposes.

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APPENDIX A

Glossary of Terms

Activate suicidal ideation:	Refers to the infiltration of suicidogenic elements into the death schema and the activation of the self-destruction schema.
Affect Dominance Stage:	Normally conceptualized as the suicide crisis state in which intolerable affect and an impetus towards action prompts the ventilation of such affect through catharsis.
Affective Reaction Formation:	Refers to the process in which a person adopts an expressed emotional state, which is antithetical to the one being subjectively experienced.
Affective Reaction Formation Phase:	The phase in which affective reaction formation takes place.
Activation:	See status of schema
Congruent catharsis:	Refers to flowing with the suicidal affect and engaging in suicidogenic activities such as planning the suicide act and method experimentation such as locating comfort in a gun.

Ideational Dominance Phase:	The phase in which a person begins to activate and develop the pentagadic schemas
Primary- ID phase:	The phase in which the self, interpersonal and life schemas are activated
Secondary-ID Phase:	The phase in which the death and self-destruction schemas are activated.
Incongruent catharsis:	Refers to the channelling of suicidal affect into sublimated activities such as poetry writing and sports.
Infiltration of suicidogenic elements:	Refers to the process in which suicidogenic elements come to be associated with the pentagadic schemas.
Intermediate Phase (IM Phase):	The grey area between the ID and AD phase in which affect gradually increases as engagement in suicidal ideations decreases, and where schema resolution may most apparent.
Passive suicidal ideation:	The infiltration of suicidogenic elements into the self, interpersonal and life schemas.
Pentagadic schemas:	Refers to the five schemas related to suicidal behaviour.
Protective factors:	Intrapersonal, interpersonal, existential, familial, medical and socio-cultural resources that buffer an individual from developing vulnerability in the face of frustration of important needs.
Satiation Phase:	Phase, which occurs once incongruent or congruent catharsis has been achieved, in which there is a relative calm and mental clarity.
Schemas:	Refers to the lenses through which life, the self, interpersonal relations, death and self-destruction is viewed and entails cognitive, affective and behaviour components.

Life schema:	A persons view about life
Self schema:	A persons view about the self.
Death schema:	A persons view about death
Interpersonal schema:	A persons view about his involvements in interpersonal interactions
Self-destruction schema:	A persons view about suicide.
Secondary emotional resolution:	Refers to the acquisition of courage and a subsequent resolution of the fear involved in engaging in a suicide act.
Status of schemas:	Refer to Textbox 1 on page 156.
Stressors:	Factors that frustrate vital needs.
Suicidogenic elements:	Refers to elements in the pentagadic schemas that are congruent with a state of suicidality
Suicidolor:	Refers to the primary emotion in the suicide affective state and comprises a mixture of psychache, anxiety, panic, cognitive and physiological experiences.
Vulnerability Status Profile:	Refers to the development of vulnerability to suicide potential once stressors have been mediated by protective factors. It is typified bythe presence of suicidogenic elements in any of the pentagadic schemas.