Measurement of Defense Against Death Anxiety: Construction and Partial Validation of an Objective Instrument

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Thesis

Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Arts in Psychology

in the School of Graduate Studies

at Lakehead University

Thunder Bay, Ontario

ISBN 0-315-39590-7

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Abstract

This study involved the construction and partial validation of two scales (Ultimate Rescuer, UR and Specialness, SP) that Yalom (1980) suggests measure the beliefs one utilizes as a defense against death anxiety. Evidence for how they relate to cognitive fear of death measures (Threat Index, TI, Templer Death Anxiety Scale, DAS; and Collett-Lester Fear of Death Scale, CL) was obtained. One hundred and twenty-nine items considered to best represent the two beliefs were counterbalanced and administered to 150 introductory psychology students. Those items with item-total correlation coefficients with a probability of .001 or better were retained. Two scales, with 15 items per scale, were constructed from these items. Each scale was found to have high internal consistency reliability, (UR, r = .89; SP, r = .82) and were cross validated on a second similar population (UR, r = 86; SP, r = .87). Factor analysis resulted in the UR items all loading on 1 factor, while the SP items loaded on 2 factors. Construct validation procedures revealed mixed results. The expected negative correlation between the defense scales and fear of death measures was only found for the SP Scale and the CL. No correlation was found for the UR Scale. T-tests for criterion groups revealed that the UR group had significantly higher UR scores and significantly lower fear of death scores. No differences were found for the SP group. In general, the results

partially establish a relationship between the Ultimate Rescuer and Specialness Scales and conscious fear of death, thus lending some support to Yalom's (1980) theory of death anxiety. The implication for future research is discussed.

One aspect of thanatological research that consistently has been controversial is that area concerned with fear of death and death anxiety. In the past, attempts to measure fear of death or death anxiety have utilized numerous approaches and have frequently met with considerable criticism. These approaches have included procedures such as questionnaires, interviews and a variety of rating scales and check lists of death attitudes. Many researchers prefer to use these methods because they have psychometric properties that are more reliable and valid than more subjective approaches. However, such procedures are bound by the theoretical assumption that an individual is conscious of his or her fear of death or death anxiety. Consequently, the findings of such studies are open to the criticism that only superficial surface-level attitudes toward death have been investigated (Fulton, 1961; Schultz, 1978).

Other methods of assessing fear of death or death anxiety which have attempted to avoid these criticisms have not fared much better. These approaches have been based on the assumption that fear of death and death anxiety cannot be measured directly, simply because such fear and anxiety is kept from consciousness by various defense mechanisms. Thus, these approaches have relied on the use of techniques which are purported to tap directly into the unconscious, bypassing the defenses, and have included the use of the Thematic Apperception Test (TAT), word

association tasks, sentence completion tests and the galvanic skin response (GSR). As would be expected, studies utilizing such procedures have come under considerable criticism because of their lack of reliability, unestablished validity, and mostly inconsistent results.

In their review of death literature Kastenbaum and Costa (1977) have pointed out many of the shortcomings of these various methods. They maintain, for example, that the GSR, pioneered for death attitude research by Alexander, Colley and Adlerstein (1957) has been used in a variety of studies (Alexander & Adlerstein, 1958, 1959; Carson, 1974; Feifel & Branscomb, 1973; Golding, Atwood & Goodman, 1966; Magni, 1972; Templer, 1971) which have consistently shown that death-related words elicit more autonomic arousal than neutral or basal words. However, autonomic arousal may or may not be accompanied by conscious awareness, and therefore cannot be used as a reliable index of unverbalized anxiety. By comparison, other researchers have utilized latency measures from word association and tachistoscopic recognition tasks (Golding, Atwood & Goodman, 1966; Lester & Lester, 1970; Lowrey, 1966) in order to make inferences about death anxiety. Researchers utilizing these procedures report statistically significant longer response latencies, in some cases as little as three tenths of a second, to death related words than to neutral words. Such increases in response latency have

have been viewed by these researchers as indicative of defensive processes and elevated levels of fear of death. Kastenbaum and Costa (1977) caution that while longer latencies may be indicative of a differentiation between death related and neutral words, it is doubtful that this is evidence of a defensive system. If in fact a defensive system exists, it would presumably offer more protection than the fraction of a second's worth as was found in this study.

Projective techniques such as the TAT also have been used in several other investigations (Kimsey, Roberts, & Logan, 1972; Lieberman & Caplan, 1970; Rhudick & Dibner, 1961; Shrut, 1958). In these studies the respondent is asked to make up a story about a series of moderately ambiguous pictures. Degree of death concern is determined by the frequency with which the respondent makes references to death. However, Kurlychek (1978) and Schulz (1978) suggest that projective techniques such as the TAT lose their strength due to difficulties in scoring, lack of reliability and validity, and their overall subjectivity.

Kastenbaum and Costa (1977) have also reported several other studies investigating unconscious death concern through indirect methods. These have included recalled dream content (Handal & Rychlak, 1971), self ratings of mood after exposure to neutral, erotic and death-related reading matter (Paris & Goodstein, 1966), semantic differential scores and word recognition tasks,

(Christ, 1961; Lester & Lester, 1970; and Martin & Wrightsman, 1965).

Death Anxiety Versus Fear of Death.

Unfortunately, much of the controversy surrounding this research has resulted from a blurring of the distinction between death anxiety and fear of death. The work of Yalom (1980) offers a theoretical framework that could provide a means of ending the controversy. As Yalom (1980) points out, a variety of terms have been used interchangeably to describe concerns about death such as: death anxiety, fear of death, mortal terror, and fear of finitude. Philosophers referred to it as the fragility of being (Jaspers, 1932), dread of non-being (Kierkegaard, 1956), the impossibility of further possibility (Heidegger, 1962), and the ontological anxiety (Tillich, 1952). Other authors have suggested that fear of death is a composite of a number of smaller discrete fears. Diggory and Rothman (1961) for example, asked a large sample of individuals drawn from the general population to rank order several consequences of death. Of these common fears several seem tangential to personal death: fear of pain, which lies on this side of death; fear regarding an afterlife, which attempts to make death a non-terminal event; and fear which centers around others, which is not a fear concerning oneself. The fear which seemed to be the center of concern was

the fear of personal extinction illustrated in statements such as "my plans and projects would come to an end" and "I could no longer have any experiences".

In a similar vein Choron (1964), after reviewing the major philosophic views about death, distinguished three types of death fear; what comes after death, the event of dying, and ceasing to be. The first two are fears related to death (Kastenbaum & Aisenberg, 1972), while the third, "ceasing to be" (obliteration, extinction, annihilation), according to Yalom (1980) is more central to the fear of death and is the focus of his theoretical approach.

According to Yalom (1980), the variety of descriptors covering concerns about death have lead to imprecise definitions of fear of death and death anxiety. In order to address this issue, he re-examined the constructs of fear of death and death anxiety and offered a distinction based on existential theory; specifically, that the basic fundamental concern in life is death. His view holds that the terror of death is ubiquitous in nature and of such magnitude that one's life energies are considerably strained defending against it. Death anxiety plays a major role in our internal experience "...it haunts as does nothing else; it rumbles continuously under the surface; it is a dark unsettling presence at the rim of consciousness" (Yalom, 1980, pp. 27). In fact, this position maintains that death

anxiety is the primal source of all anxiety and that this "primal death anxiety" is quite distinct from fear of death.

To understand this position more fully a distinction between fear and anxiety must be made. Yalom (1980) suggests that Kierkegaard (1957) was the first to offer a clear distinction between fear and anxiety. Fear is something which an individual experiences which has its source in some identifiable thing or object. Anxiety, on the other hand, is experienced by an individual but has no locatable source as the cause of the discomfort. Since anxiety has no identifiable source in the environment, the anxiety can be neither understood nor confronted. Unable to confront this anxiety, feelings of helplessness are generated in an individual leading to even further dread or anxiety. People seek to combat and protect themselves by transforming anxiety into the fear of some identifiable object which exists in their environment (Yalom, 1980). As Rollo May (1977) states "anxiety seeks to become fear" (pp. 207). Once this is accomplished this object can be avoided, allies against it can be sought out, magic rituals can be developed to placate it or a systematic campaign to detoxify it may be planned. As a result of constantly being transformed into something, primal death anxiety is rarely encountered in its original form.

Defense Against Death Anxiety

Empirical Investigations. Closely related to the transformation of anxiety to fear is the development of a system of defenses. Investigations concerned with how individuals protect themselves from death anxiety have been undertaken formally by several authors. Osarchuk and Tatz, (1973) developed an objective instrument (The Belief in Afterlife Scale), designed to measure the function a belief in afterlife might have in helping an individual deal with anxiety over death. The scale was developed to determine if the failure to find appreciable correlates with fear of death reported in the literature was the result of subjects being able to keep their death anxiety to a moderate level by means of defensive measures. They postulated that perhaps the belief in an afterlife is a commonly used device for dealing with the fear that death means a loss of things one has valued plus a confrontation with the unknown. Strong believers in an afterlife who were exposed to death threat showed an increase in scores on an alternative belief in afterlife scale while the scores of a control group and a group with a weak belief in afterlife remained unchanged. The results were interpreted as confirming the hypothesis that a strong belief in an afterlife may serve to lower death anxiety.

Using a somewhat different approach, Handal & Rychlak

(1971) investigated the relationship between the death content of dreams and scores on Templer's Death Anxiety Scale (DAS) (Templer, 1970). Using a sample of college students Handal and Rhychlak, (1971) found a "U" shaped function when relating death content in dreams to scores on Templer's Death Anxiety Scale, (DAS) (Templer, 1970). Both high and low scorers on the DAS reported significantly more dreams about death and significantly more dreams with unpleasant content than did moderate scorers. They interpreted these results as providing validity for the DAS as a measure of death anxiety (high scores) and as a measure of repression of death anxiety (low scores).

Handal (1975) examined the relationship between the DAS and a measure of repression on the Defense Mechanism Inventory (Gleser & Ihilevich, 1969). He found a significant negative correlation between this measure of repression and the DAS. The relationship indicated that subjects who reported little or no death anxiety were associated with the use of the defense mechanisms of denial and repression.

Several other studies have investigated the relationships between death anxiety and repression using Byrne's (1963) Repression-Sensitization Scale (R-S). The R-S scale is purported to measure an individual's reaction to perceived threatening stimuli along a continuum. One end of the continuum measures repression or the strong tendency to repress, deny, or avoid

perceived threat. The other end measures sensitization characterized by strong tendencies to approach, confront and intellectualize about the perceived threat. Pollak (1979), reviewed the empirical studies involving the R-S scale and Death Anxiety. He reported that all but one study found a consistently significant relationship between the R-S scale and Death Anxiety. Studies by Tolor and Reznikoff (1968), Dickstein (1972), Handal and Rychlak (1971) and Handal (1973) have all found a relationship beteween low death anxiety and repressive defenses as well as high death anxiety and sensitization.

Noyes (1981) while examining the responses of victims of life threatening accidents reported that on a psychological level one could clearly see a defense against the threat of death. His subjects reported that during these experiences they felt like detached observers, as if the accident was not happening to them. He suggested that this serves as a buffer against the threat of injury or death. He concluded that on a psychological level a defense against the threat of death was clearly visible.

Numerous researchers have investigated potential mediating effects that religious beliefs and religiosity have toward death anxiety. Although not specifically investigating defense mechanisms per se, the implication is that one's strengthened religious belief acts as a buffer against fear of death or

death anxiety. Templer (1972) compared the scores of 267 religiously involved persons on the DAS and a specially prepared religious inventory. He found that religiously involved persons who were more religious in the traditional sense (ie. stronger religious convictions and attachment, attend religious functions more frequently, certain of life after death, and interpret the Bible more literally) have lower DAS scores. In fact he found that for both males and females scores on the DAS for those groups were lower than in any other research involving the DAS.

Leming (1980) also investigated the possibility that religion serves as a defense against death anxiety. In his study he attempted to test Homan's (1965) contention that religion can both arouse anxiety concerning death as well as alleviate death anxiety. In reviewing the literature on the relationship between death and religiosity Leming (1980) stated that of the 23 research investigations conducted, 10 demonstrated that religious factors such as religious commitment, religious orthodoxy, religious practice, religious devotionalism and beliefs in afterlife are significantly related to the reduction of death fear and/or death anxiety. Moreover, 3 of the 23 studies surveyed indicated a significant positive relationship between fear of death and religiosity, 3 demonstrated a curvilinear relationship indicating that those who

have moderate to middle of the road commitment have significantly higher intensity of death anxiety, and 7 found no significant relationship.

Leming (1980) believed that these conflicting and contradictory findings could be reinterpreted in light of Homan's (1965) contention that the nature of the relationship between fear of death and religiosity is curvilinear. To test this hypothesis he administered the Leming Death Fear Scale (1980) and a specially prepared scale of Religiosity, consisting of subsections on religious beliefs, religious ritual and religious experience, to 372 residents of Northfield, Minnesota. Correlations between religiosity scale scores and fear of death scores, controlling for age, social class and religious preference, revealed a curvilinear relationship. That is, scores that were high or low on religiosity were associated with lower death anxiety scores while moderate religiosity scores were associated with significantly higher death anxiety scores. He interpreted these findings as being supportive of Homan's (1965) contention. The non-religiously committed individual, need not fear divine judgment or afterlife. His or her fears are related to the disruptive effects of death on his or her social life. the highly committed religious individual is able to redefine his or her death as a religious victory and anticipates rewards in the afterlife. However, individuals

with moderate religious commitment fear both the afterlife as well as death effects on his or her social life.

Developmental Concepts of Death and Defence. According to Yalom (1980), primal death anxiety is first encountered by each individual early on in life. The literature is filled with studies suggesting that children enter into a relationship with death at a very early age (Anthony, 1972; Bluebond-Langer, 1977; Brant, 1972; Eissler, 1959; Freud, 1960; Furman, 1974; Kastenbaum & Aisenberg, 1972; Klein, 1948; Maurer, 1964; Piaget, 1954; Rochlin, 1965, 1967; Stern, 1951; Sully, 1914). Yalom (1980) arguing from his theoretical position, states that children's beliefs about death are terrifying and that they feel compelled to find ways to set their minds at ease. Evidence for this is found throughout the stages of children's conceptualization of death. Yalom (1980) maintains that the child is caught in a "herky jerky" process of knowing too much too early resulting in the child having to find ways to deal with the anxiety that knowledge causes until gradually the child is prepared to accept what the child originally knew. In other words children go through an orderly progression of stages in awareness of death and in the methods they use to deal with their fear of death. These methods are described as denial based, designed primarily to assist the child to grow up tolerating the straight facts about life and death

that we do not or cannot know.

Lonetto (1980), in his book on Children's Concepts of Death extensively reviewed the literature concerning the various developmental stages children pass through in their understanding of death. In his summary of the literature he reported that children from 3 to 5 years of age view death as being temporary or reversible or living on under changed circumstances. He also suggested that separation for these children is equated with death of the individual they are separated from, in particular, a separation from mother. In the next stage children from 6 through 8 years of age see death as one who is personified. Death is characterized as an external agent who can catch you and take you away. Death is viewed as the "boogie man" or the "grim reaper", or a ghost-like monsterous creature that is invisible. Children at this age feel that death usually occurs to older people or younger people who did not see death coming in time to escape. Death is no longer reversible, temporary, or continuing to live under changed circumstances. Finally, children of older ages, from 9 years through 12, are in the final phases of the process of conceptualizing death. The child then begins to use logic rather than magic to see death as the end of life, as a scary or painful event as well as in more abstract terms.

It is in these very stages that Yalom (1980) sees the

child as knowing of death then developing denial based strategies in order to cope with this knowledge. The work of Rochlin (1967) involving exploring the play activities of children ages 3 to 5 years lends support to this contention. He maintains that very young children realize that death is inevitable and build defensive play stategies to ward off the effects of this knowledge. He suggests that children do not have an adult view of death but that they do have an understanding of death and organize their play and other activities to protect themselves against the fears associated with such an understanding.

Furman (1964) suggests that very young children are capable of understanding that death is universal and inevitable. Consequently, they protect themselves from the frightening mystery by denying the power of death through their words and actions. Similarly, Lonetto (1980) argues that because the concept of death is an abstraction it is through playing and drawing the child is best able to cope with his or her fears about death. Consequently it is easier for the child to oppose death when it is shaped into a person or transformed into a horrible demon or monster. It is in this fashion that the child defends himself/herself against the knowledge of death.

Yalom (1980) suggests the 3 to 5 year old child views

death as temporary and reversible and almost suspended animation and/or sleep. Moreover, this view is reinforced by such things as television cartoons that show characters blown apart, flattened, crushed or mutilated in an endless number of ways then finally miraculously coming alive again. According to Yalom (1980) this represents the child's way of denying death.

Nagy (1948) made it clear that children even with imperfect knowledge considered death to be dreadful and frightening. A few exerpts of her interviews with children reveal that children see death as horrifying; talked of being trapped in a nailed down coffin crying for one's self, under earth lying buried for a hundred years then turning into wood, feeling the cold, turning blue and green, being unable to breathe and others. Nagy (1948) suggested that the child either considers death as temporary or denies it completely by equating it with departure or sleep. Yalom (1980) suggests that what is clear from her work is that children have considerable knowledge regarding death and suggests that there is nothing temporary or incomplete about being eaten by worms or remaining forever under the dirt and no longer feeling anything. Clearly Nagy's (1948) data indicate that children, even with imperfect knowledge, consider death dreadful and frightening. Because they are terrified, children feel compelled to find ways to set their minds at ease.

In the 6 to 8 year old category denial of death according to Yalom (1980) is evident in children's personification of death and their belief that children do not die. The young child views death as occurring to older people;the very young do not die! The child's belief is frequently challenged when he or she encounters the death of another child. This is often resolved by making the distinction between dying and being killed, or as Nagy (1948) states keeping death at a reasonable distance so that they would have time for an escape. Personification of death too is a denial mechanism. Children in this age group go through a period in which they anthropomorphize death. According to Yalom (1980) death personification acts as an anxiety emollient. As long as the child believes that death is brought by some outside force or figure, he or she is safe from the really terrible truth that death is not external but "that from the beginning of life one carries within the spores of one's own death" (Yalom, 1980 p. 99). Similarly, Lonetto (1980) states:

> Personifications not only make death visible but also human like in appearance. This visibility can be for just a brief time before death carries a person off. If one acts quickly, this is just enough time to outmaneuver death. Therefore, death can assume a variety of external roles and can occur only when someone is caught by the 'death-man'. It then makes a good deal of sense, from the viewpoint of the child who personifies death, that the aged and infirmed are hardly in a good position to run away or hide from death, even if they can 'see' death. In contrast, the young and healthy can and do escape from death. (P. 93).

Children 9 through 13 years according to Lonetto (1980) are in the process of a shift in thinking resulting in accepting logical causal modes of analyzing the events of the world over the previous magical thinking. He maintains that this shift in thinking corresponds to an understanding of external time. The 9 to 12 year old begins to see death in biological and abstract terms. Therefore the child begins to see death as the end of life.

This transition period is often referred to as a period of latency. Lonetto (1980) asserts that the research of Alexander and Adlerstein (1958) tends to support the notion of benign latency. He finds that it is especially surprising that children would be so calm about death particularly since it is during this phase in their development that they have begun to accept biological types of explanations over animistic, magical ones. It would be expected that as the child begins to understand death as being inevitable, universal and final, that the child would display far more anxiety over death than he or she appears to.

Yalom (1980) suggests that it is in the presence of this overwhelming knowledge that the child searches for reassurance , ..."he or she must deal with death: he or she may panic in the face of it, deny it, personify it, scoff at it, repress it, displace it, but deal with it the

child must" (pp. 91). He belives that this period of latency does not diminish death anxiety but results from it. As a child begins to see death in biological and abstract terms, the childhood denial systems are no longer effective. The child's shift in favor of biological explanations permit him or her to face once again the inevitability and finality of death, creating anxiety and a search for an alternative mode of coping with these facts. Yalom (1980) asserts that it is during this latency or transition period that the child beings to acquire more efficient and sophisticated forms of denial, resulting in his or her explicit fear of death becoming gradually unconscious.

In summary, evidence suggests that children comprehend that life will inevitably end and apply this knowledge to themselves causing great anxiety. Yalom (1980) maintains that a major developmental task is to deal with this anxiety. He suggests that the child does so in two major ways: by creating immortality myths or, by believing the myths offered by adults, the child denies the inevitability and permanence of death; and secondly, by altering inner reality the child denies his or her own helplessness before the presence of death. Yalom (1980) states "the child believes both in his or her personal specialness, omnipotence, and invulnerability and in the existence of some external personal force or

being that will deliver him or her from the fate that awaits others" (p. 109). Rochlin (1967), recognized this process when he stated "that what is remarkable is not that children arrive at adult views of the cessation of life, but rather how tenaciously throughout life adults hold to the child's beliefs and how readily they revert to them" (p. 63). Yalom (1980) suggests in adults the defense system consists of two principal defense mechanisms: a belief in an ultimate rescuer and a belief in one's own specialness.

Ultimate Rescuer and Specialness Defenses. Yalom (1980) maintains that, while denial of death anxiety is ubiquitous, and exists in a variety of modes, ultimate rescuer and specialness represent two major bulwarks of denial. These two fundamental modes of defending against death are based in the archaic beliefs that one is personally inviolable and/or protected eternally by an ultimate rescuer (Yalom, 1980). According to Yalom (1980), these two beliefs are powerful because of the reinforcement they receive from the circumstances of early life, and from widespread culturally sanctioned myths involving immortality and the existence of a personal, observing deity. Yalom's (1980) existential point of view holds that a person who has adopted a belief in specialness, believes deeply in his or her own specialness and invulnerability. The basic boundaries of existence are known by

all, yet deep down we feel "that the rule of mortality applies to others but certainly not to ourselves" (Yalom, 1980, pp. 118). For example, one of the most common reactions of a person first learning that he or she has a terminal illness is denial. This denial reaction allows the individual to cope with the anxiety of the life threatening illness, but it is also a function of the individual's belief in his or her inviolability. In these situations where an individual is forced to come to terms with death the superficial cognitive awareness of death gives way to the stark realization that one is really going to die. This knowledge results in the dissolution of the specialness myth. One becomes aware that one is finite, one of many, and that the universe does not acknowledge one's specialness. Moreover, one learns that what one wishes or believes is unrelated to the immutable truths of existence and non-existence (Yalom, 1980). A defense or belief in personal specialness is adaptive because it enables the individual to construe a dysphoric world in favorable terms. It allows the individual to deal with the reality that in his or her existence he or she is isolated and insignificant in relation to the whole. Moreover, it offers protection from the knowledge that death lies at the edge of consciousness. The belief in specialness entails a belief that one is exempt from the natural law

that governs the external world. An individual utilizing this defense knows of death, but that it happens to others. It allows the individual to encounter danger without being overwhelmed by the threat of personal extinction. According to Yalom (1980) the courage thus generated beget what many have called the human being's "natural" striving for competence, effectance, power, and control. The extent to which one attains power, one's death fear is further assauged, effectively reinforcing and maintaining a belief in one's specialness, "Getting ahead, achieving, accumulating material wealth, leaving works behind as imperishable monuments becomes a way of life which effectively conceals the mortal questions churning below" (Yalom, 1980, pp. 121).

In addition to belief in their own specialness, human beings are protected from death anxiety by their belief in an ultimate rescuer. This defense is based on the belief that there exists a personal omnipotent force or being that eternally observes, loves and protects us. This belief has been rooted in human culture since the beginning of recorded history. No early culture has ever believed that humans were alone in an indifferent world. The rescuer does not have to be a supernatural being; some individuals find their rescuer in earthly surroundings, either in a leader or in some higher cause. As Yalom (1980) so eloquently summarizes:

> Human beings for millenniums, have conquered their fear of death in this manner and have chosen to lay down their freedom, indeed their lives, for the embrace of some higher figure or personified cause (pp. 129).

While an individual may lean towards one of these basic defenses more than the other, most individuals utilize both beliefs in an attempt to ward off death anxiety. People rationalize that because they are being eternally watched over and protected by a force or being concerned with their welfare, they must be unique and special. If they were not special this force would not be concerned with them.

The work of Noyes (1981) provides further evidence for the use of psychological defenses in relation to death threatening experiences. His findings closely resemble the beliefs of ultimate rescuer and specialness. He factor-analyzed the responses of 189 accident victims who had near death experiences. A distinction was made between this group and those individuals experiencing serious illness. He reported three dimensions associated with these experiences which included depersonalization, hyperalertness and mystical consciousness. These dimensions appeared meaningful in terms of the endangered personality's effort to cope with the threat to life. His descriptions of the experiences of these individuals corresponded closely to Yalom's (1980) specialness and ultimate

rescuer beliefs. Some individuals reported that they had a feeling of special importance or destiny and that their lives seemed to take on a sense of mission. Closely related to this was also a sense of invulnerability or an immunity to danger and a sense of mastery over the affairs of life. Yet others reported that they felt God was responsible for their survival and consequently felt closer to him or specially favored by him. Others reported a sense of continued existence either before or after death. Many others reported that near death experiences had caused an assurance of afterlife.

It is important to note that the events that interested Noyes (1981) within the experience only lasted a matter of seconds, so these were very brief experiences. He concluded that this is an apparent emergency mechanism that is available to us in time of extreme danger that might protect us until we are able to come to terms with the painful reality of what has happened. For many of the individuals these experiences served to confirm strong beliefs in inviolability and in afterlife consequently reducing their cognitive fear of death.

Yalom (1980) suggests these types of experiences may, upon subsequent reflection, temporarily weaken an individual's defenses allowing anxiety to flood into consciousness resulting in a individual having to consider, suddenly and in a way he or she never had before, the reality of his or her own personal

mortality. Clearly, the sudden recognition of one's own mortality can result in death anxiety entering into consciousness.

In summary, the existential paradigm offered here describes two fundamental defenses against ubiquitous death anxiety. Human beings protect themselves from death by utilizing a belief in their specialness and personal inviolability, and a belief in an ultimate rescuer who will save them from the inevitable consequence of life. Occasionally, some riveting experiences may temporarily weaken an individual's defenses allowing anxiety to flood into consciousness. A near death experience, for example, can result in an individual having to consider the reality of his or her own personal mortality. This sudden recognition of one's own mortality can result in death anxiety entering into consciousness. Eventually, however, the tear in the defensive fabric is mended, and the escaping death anxiety is dealt with through defensive measures. To illustrate, consider the role of the physician who is confronted, almost daily, with issues of life and death. This constant exposure to death would be expected to put considerable strain on the physician's defensive systems and bring the reality of death more clearly into focus. Yet, as Wood and Robinson (1984) suggest, it is in the confrontation with illness that the physician is provided with the means for

strengthening his or her defenses. They maintain that the physician's role as the successful healer, apart from reinforcing a patient's belief in an ultimate rescuer, reinforces the physician's belief in his or her own specialness. Moreover, Wood and Robinson (1984) state that because "the physician often fulfills the role of the ultimate rescuer, his own belief in an ultimate rescuer is reinforced" (pp. 420). Thus, "The more the physician sees himself as being special, the more he believes in the existence of an ultimate rescuer, and the less he fears death" (pp. 420).

Measurement of Defense Against Death Anxiety. Direct Approach Rationale. Given the foregoing theoretical formulations regarding the unconscious nature of death anxiety, our defenses against it, and the research difficulties in measuring fear of death and death anxiety, it seemed reasonable to approach the problem using a somewhat different research strategy. CIearly, death anxiety, when viewed from an existential theoretical perspective, is hardly amenable to direct assessment. Yet, there exists a large body of research literature which reflects an attempt to do just that. Unfortunately, the validity and reliability of these methods are questionable and their findings refutable. Using a somewhat different approach, other studies have attempted to measure conscious fear of death and

clearly such fears can be experienced on many levels. An individual may worry about the act of dying, fear the pain that may be associated with dying, mourn the end of personal experience or, as Yalom (1980) states:

> ... consider death as rationally and dispassionately as the Epicureans who concluded simply that death holds no terror because 'where I am, death is not; where death is, I am not. Therefore death is nothing to me' (pp. 45).

However, these responses are merely conscious reflections on the phenomenon of death; a superficial cognitive "fear" that is far different from the primal anxiety one has about death. Perhaps a better understanding of death anxiety and fear of death can be obtained by bridging the gap between the two.

What is being suggested is that somewhere between primal death anxiety and conscious fear of death lies the denial based defensive beliefs that one is eternally protected by an ultimate rescuer and that one is special or personally inviolable. While it may not be possible to assess death anxiety, an examination of the defenses of ultimate rescuer (UR) and specialness (SP) may reveal how effective they are in keeping death anxiety from consciousness. Moreover, it can be argued that the more effectively anxiety is kept from consciousness the lesser will be the conscious fear of death.

It was the purpose of the present study to develop an instrument which would establish the extent to which individuals used SP and UR defenses. Such an instrument would be used in conjunction with already established measures of conscious fear of death to determine the extent to which the defenses were effective in controlling conscious fear of death.

Fear of Death Measures. Several measures of conscious fear of death have been developed but not all have enjoyed wide acceptance and use. Perhaps the most widely used and tested of these instruments have been Templer's Death Anxiety Scale (DAS) (Templer, 1970); the Collett-Lester Fear of Death Scale (CL) (Collett & Lester, 1969); and the Threat Index (TI) (Kreiger, Epting & Leitner, 1974). The DAS consists of 15 statements related to death and dying to which the respondent answers true or false as applied to him or her. The higher the score, the greater the degree of death anxiety the respondent is assumed to have. (It should be noted that death "anxiety" as measured by this scale would more fittingly correspond to fear within the context of the present argument.) The DAS has been demonstrated to have validity and reliability (Templer, 1970; Templer & Ruff, 1971; Templer, Ruff & Franks, 1971; Templer, 1972a; Templer, 1972b; Tarter, Templer & Perley, 1974; Templer, Lester & Ruff, 1974; Salter & Templer, 1979; Templer, & Salter, 1979) although its development was concerned with treating fear

of death as though it were unidimensional.

It was because of concerns with unidimensionality, that Collett and Lester attempted to develop a scale that would be multidimensional in nature. Their instrument, the Collett-Lester Fear of Death Scale (CL), requires the respondent to rate 36 items concerned with death and dying on a 6 point scale. The score on each of the 36 items is then used to provide an overall score plus scores on four sub-scales: the fear of death of self (DS), the fear of death of other (DO), the fear of dying of self (DYS), the fear of dying of other (DYO). Research with this instrument has established its reliability and validity (Durlak, 1972; Dickstein, 1977; Lester, 1974) although no factor analytic work was undertaken to determine whether or not the instrument had four factors which corresponded to the four sub-scales. Correlations between the CL and its four sub scales and the DAS are reported to be high (Dickstein, 1977).

The Threat Index (TI) is an instrument which has a sound theoretical basis. Founded on Kelly's Psychology of Personal Constructs (Kelly, 1955), the TI requires respondents to rate "self", "preferred self", and "own death" on each of the 40 bipolar dimensions. The greater the number of discrepancies between "self" and "own death" on the ratings of the bipolar dimensions, the more a respondent would fear death. Extensive

investigations into the TI have yielded positive and adequate evidence that the TI is psychometrically sound (Krieger et al, 1979; Rainey & Epting, 1977; Neimeyer & Dingemans 1980; Wood & Robinson, 1982; Epting, Rainey & Weiss, 1979). In addition, a significant relationship between the TI and the Collett-Lester Fear of Death Scale as well as Templer's Death Anxiety Scale has been established (Kreiger, et al, 1974; Neimeyer & Dingemans, 1980; Neimeyer, et al, 1977; Kreiger, 1977; Neimeyer & Chapman, 1978; Wood & Robinson, 1982).

While two of these instruments have purported to measure anxiety about death unidimensionally (DAS, TI) Durlak and Cost (1982) through factor analysis concluded that the scales all load on more than one factor indicating their multidimensional nature and factorial complexity. They caution that interpretations of results becomes difficult when these instruments are completed by different subject populations under different experimental situations.

While there are discrepencies regarding the unidimensional or multidimensional nature of these various death attitude questionnaires it is the theoretical position of this paper that death attitude questionnaires are simply measuring a cognitive fear related to death as opposed to existential death anxiety. Consequently while these scales may be in fact multidimensional it is felt that they would simply be measuring

different aspects of a conscious cognitive fear towards death. It is therefore enough to show that these scales are in fact measuring these cognitive conscious attitudes and are correlated with one another to provide support for this thesis.

Thus, it was the purpose of this study to develop an instrument which would assess the degree to which an individual utilized the SP and UR defenses and how these defenses relate to fear of death as measured by the TI, the DAS and the CL. Moreover, an attempt was made to partially validate this new instrument through the use of criterion groups who would be expected to rely heavily on either the UR or SP defense. While it is hypothesized that most individuals utilize either the UR or SP defense or some combination of both it was felt that certain groups of people, as a consequence of their life situation, would rely more heavily on one type of defense than the other. Specifically a group of Born Again Christians formed a criterion group since it was hypothesized that they would rely most heavily on the UR defense. Similarly, a group of police officers were asked to participate since it was felt that because of the dangerous nature of their profession they would, of necessity, believe strongly in their own specialness and inviolability.

Method

Respondents

A total of 264 respondents from both Lakehead University and the Thunder Bay community were recruited to participate in this study. Respondents belonged to one of four groups.

Group 1. Respondents in this group consisted of 150 students enrolled in an Introductory Psychology course at Lakehead University. The group consisted of 57 males and 93 females, ranging in age from 18 to 46 years with a mean age of 21.3 years.

Group 2. This group consisted of 59 respondents, 13 male and 46 female, enrolled in two, third year psychology courses offered in the spring semester at Lakehead University. These respondents ranged in age from 18 to 53 years, with a mean age of 27.2 years.

Group 3. Respondents in this group consisted of 20 Born Again Christians. These respondents were members of a group that conducted prayer meetings on a regular weekly basis. The group consisted of 7 males and 13 females ranging in age from 19 to 55 years with a mean age of 38.4 years.

Group 4. Respondents in this group consisted of 35 police officers from the Thunder Bay Police Force. There were 32 males and 3 females ranging in age from 23 to 58 years with a mean age of 33.3 years.

Instruments

Threat Index (TI) (see Appendix C). Based on Kelly's (1955) Theory of Personal Constructs, the TI requires the respondent to rate "self" and "own death" on each of 40 bipolar dimensions (i.e., good-bad, kind-cruel, satisfied-dissatisfied, etc.). The frequency with which the respondent rates "self" and "own death" on the same pole of each construct provides a score indicative of the degree to which "own death" is integrated in the concept of self. The higher the score, the less the respondent fears death. The highest possible score is 40.

Templer Death Anxiety Scale (DAS) (see Appendix D). The DAS requires the respondent to anwer "true" or "false" to 15 statements about emotional reactions to death and dying. The higher the score (which can range from zero to 15), the more frequently the respondent will have reacted to statements that indicate he or she has anxiety about death.

Collett-Lester Fear of Death Scale (CL) (see Appendix E). This scale assesses a respondent's overall fear of death as well as fear of death of self (DS), fear of death of other (DO), fear of dying of self (DYS), and fear of dying of other (DYO). The scores for each scale were transformed to range from zero to 100, in order to give a sense of the magnitude of fear associated with each sub-scale, and a basis for comparing the scales.

Procedure

The present study consisted of several procedures. The rationale and selection of items was based on a homogenous keying method. One hundred twenty-nine statements devised on a rational basis were written and served as a pool of statements from which homogenous keying could be undertaken (see Appendix A). Items were derived from Yalom's explicit comprehensive descriptions of the ultimate rescuer and specialness defenses. Yalom's (1980) descriptions and examples of the specialness and ultimate rescuer defenses were used as anchor points for the item writing. Items were written to reflect these descriptions. His description of the specialness defense included descriptors such as beliefs in specialness, leadership, inviolability, self-sufficiency, standing out from nature, individuation, autonomy, separateness, and so on. He also included descriptions of a characterological nature that reflected specialness, such as the compulsive hero, the workaholic, the narcissist, the agressive and controlling type.

For the ultimate rescuer his descriptors included, beliefs in god, afterlife, supreme being, supernatural being and personal god. This also included a belief in a higher cause, figure or leader including a healing physician or employer. Descriptors also included striving towards fusion, joining, merging or embeddedness, search for strength outside self,

dependency, non-agression, and others.

The main themes were then expanded, when writing the items, however care was taken to ensure that each item was reflective of Yalom's (1980) descriptions.

These statements were counterbalanced to minimize response sets (Scott, 1968) and then administered to 150 psychology students at Lakehead University (Group 1). Subjects were required to respond to each statement on a 5 point Likert type scale, with 1 representing strong disagreement and 5 representing strong agreement. As a consequence of counterbalancing, a special conversion method was needed which would allow all of the items to be scored in the same direction. To accomplish this the scores of negatively keyed items were reversed by subtracting the values from 6. Thus on the Likert scale, a score of 5 on a negatively keyed item would receive a value of 1 (6 - 5 = 1). Utilizing the homogenious keying approach item total correlations were computed for the specialness and ultimate rescuer items, using the Pearson product-moment correlation coefficient. Those items with correlation coefficients significant at the level of .001 or better were chosen to represent the two scales. Each scale consisted of 15 discriminating counter-balanced items. Table 1 presents the final UR and SP scale items numbered as they appeared in the questionnaire (also see Appendix b). Cronbach's (1951) Alpha

was employed to test the internal consistency reliability of each scale. While the original subject to item ratio (150/129) raised some concern regarding variance estimates, subsequent analysis of the final version of the scales (150/15) successfully met the 3/1 ratio. Factor analytic procedures, utilizing alpha factoring and varimax rotation, were carried out to determine the factoral purity of each scale.

Cross validation procedures were undertaken which consisted of administering both scales to a second, similar population (Group 2). As with Group 1, item-total correlations were calculated.

Construct validation procedures involved comparing scores on the UR and SP scales with scores on three conscious fear of death measures, the TI, DAS, and the CL. In the first instance, Pearson product-moment correlations were computed on these scores for the general student population (Group 2). As Brown (1976) suggests, construct validity involves precisely defining a trait or construct being measured and specifying the relationship expected between test scores and other variables. In essence the UR and SP scales are assumed to be measuring defense against death anxiety. Moreover, this trait was predicted to correlate with conscious fear of death measures (TI, DAS, CL). It was argued that the more effectively anxiety is kept from consciousness (via these defenses) the lesser will

Table 1

UR and SP Scale Items

UR Scale No./Item		SP Scale No./Item	
1.	When the body dies the spirit dies with it.	2.	I am a free thinker.
3.	There exists a different, higher plain of existence.	4.	I do not have leadership qualities.
6.	There does not exist a creator.	5.	In group discussions I do not say very much.
7.	People never really die.	9.	I am not usually admired by people.
8.	One should enjoy life as much as possible because death ends all existence.	10.	I am more aggressive than most people.
12.	Religious and spiritual beliefs do not have much significance for me.	11.	I consider myself to be special.
13.	The way to truth is through science.	14.	I am a person who is powerful.
16.	Science is more important than faith.	15.	Most people see me as ordinary.
17.	At some point we will be reunited with our departed loved ones.	18.	Taking control over situations is one of the things I do best.
20.	A belief in an afterlife is important.	19.	In group discussions I do not command much attention.
22.	Out-of-body experiences are not valid.	21.	My opinion is highly regarded by others.
23.	Atheists are doomed.	25.	I am consistently advancing.
24.	We have evidence that there is an afterlife.	26.	As an individual I am special and unique in a number of ways.
29.	Man's spirit exists in some separate form.	27.	Others would not describe me as powerful.
30.	Accounts of people dying and coming back to life are phony.	28.	Others would not see me as having leadership qualities.

be the conscious fear of death. It was theorized that support for construct validity would be apparent if negative correlations were found to occur between the measures of defense (SP and UR scores) and conscious fear of death scores. Indeed, Templer has described low scores on the DAS (1972) as indicating defense against death anxiety. He also suggested that the death anxiety scale may be used as a measure of defense. A second construct validation procedure involved administering the conscious fear of death tests and the UR and SP scales to two criterion groups: a group of born again Christians representing the UR criterion group (Group 3); and a group of police officers representing the specialness criterion group (Group 4). It was predicted that each criterion group would score high on the scales they represent while at the same time score low on the fear of death tests. To determine this, t-tests between the test scores of the general student population (Group 2) and the two criterion groups (Groups 3 and 4) were calculated. A final t-test was calculated between the two criterion groups.

Results

The corrected item-total correlation coefficients and alphas for the UR and SP scales are presented in Appendix F. Internal consistency reliability measured by Cronbach's

Alpha for the SP scale was .82 with the corrected item-total correlation coefficients ranging from .32 ($p < .001$) to .61 ($p < .001$). The alpha for the UR scale was .89 with the corrected item-total correlations ranging from .34 ($p < .001$) to .76 ($p < .001$). Alphas of .82 and .89 demonstrated that each scale has high internal consistency reliability. Factor analysis was the first of four procedures used to establish the validity of the test. All thirty items were factor analyzed ($n = 150$) using alpha factoring with varimax rotation, an orthogonal factoring procedure. The 3 factor solution best met the requirements for validity, minimizing the number of interpretable factors while maximizing the loadings on those factors. The varimax rotated factor matrix, presented in Table 2, shows that the UR scale items all loaded significantly on factor 1 with no overlap on the other two factors. The SP scale items loaded significantly on both factors 2 and 3 with some overlap on three items. Factor 1 accounted for 47% of the variance and consisted entirely of the UR items. Factor 2 accounted for the greater percentage of the scale variance with 41%, while factor 3 accounted for 12% of the variance. Factor 2 appears to be related to a stereotypical charismatic leader notion of specialness, while factor 3 appears to be more related to the idea of specialness through admiration for ones

Table 2

Alpha Factoring Data: Varimax Rotated Factor Matrix

Item	Factor 1	Factor 2	Factor 3
2	-.21	.28*	.20
4	.06	.63*	.34*
5	.05	.44*	.24
9	.02	.06	.61*
10	-.11	.57*	.02
11	.11	.13	.64*
14	.12	.62*	.05
15	.02	.34*	.38*
18	-.06	.50*	.26
19	-.08	.58*	.22
21	.05	.11	.52*
25	.09	.19	.42*
26	.06	.26	.54*
27	-.06	.72*	.05
28	.02	.37*	.30*
1	.81*	-.07	.07
3	.55*	.00	.19
6	.67*	-.01	.11
7	.61*	-.01	.00
8	.71*	.05	.15
12	.71*	-.01	.05
13	.64*	-.06	-.07
16	.72*	-.05	-.04
17	.67*	-.12	.20
20	.72*	-.02	.01
22	.30*	.09	-.04
23	.36*	-.11	-.05
24	.65*	.24	-.08
29	.34*	-.10	.09
30	.39*	.09	.17

* Significant factor loadings

accomplishments.

In an attempt to cross-validate these findings, both scales were administered to another sample of university students enrolled in two, third-year psychology courses. Corrected item-total correlation coefficients were calculated for both scales the results of which are presented in Appendix G. As can be seen, the SP and UR scales had alphas of .87 and .86 respectively. The corrected item-total correlation coefficients for the SP scale ranged from .29 ($p < .05$) to .71 ($p < .001$) while the UR scale ranged from a non-significant .18 to .77 ($p < .001$). While one item dropped to .18, the remainder of the items were all significant with probabilities of less than .01. These findings are quite similar to those obtained in the first administration of the scales (Appendix F) and provide good evidence for the cross validity of the scales.

To examine the relationship of the defense scales to the fear of death measures, Pearson product-moment correlation coefficients were calculated between the UR and SP scales and the CL, DAS and TI scores of group 2 The findings indicated a significant correlation between the SP scale and the total scores for the CL ($r = -.34$, $P < .009$) and two of the CL subscales for group 2 (Table 3).

Table 3

Pearson Correlations Between UR and SP Scale Scores and Fear of Death Measures

FOD Measures	UR	SP
INT	.12	-.04
DAS	.03	-.20
CLT	.09	-.34*
DS	-.11	-.17
DO	.15	-.36*
DYS	-.01	-.37*
DYO	-.04	-.12

*P < .01.

These findings demonstrate a relationship between higher specialness defense, and lower fear of death as measured by the overall score of the CL. On the subscales of the CL, it was found that the SP scale correlated significantly with the DO scale ($r = -.36$, $p < .006$) and the DYS scale ($r = -.37$, $p < .004$). These findings suggest that increasing specialness defense is significantly and negatively related to the fear an individual has about the death of others (friends, loved ones) and the fear of the dying of self (pain, suffering). The UR scale failed to correlate with any of the conscious fear of death tests. An interesting, although unexpected finding was uncovered concerning the fear of death tests used in the study. While the DAS and CL correlated highly, ($r = .64$, $p < .001$) the TI, reported in the literature to correlate with the other fear of death scales, failed to correlate with the other measures (see Table 4).

In an attempt to establish the construct validity of both scales, comparisons were made between Group 2 (university students) and Group 3 (born again Christians) and between Group 2 and Group 4 (police men and women). These comparisons were based on t-tests calculated between each group on each of the dependent measures. The results of the first comparison, presented in Table 5, indicated signifi-

Table 4

Intercorrelations of the Fear of Death Scales

Scale	INT	DAS	CLT	(DS)	(DO)	(DYS)	(DYO)
INT		-.19	-.24	-.28*	-.21	-.26*	0.13
DAS			.65**	.57**	.49**	.46**	.42**
CLT							
(DS)							
(DO)							
(DYS)							
(DYO)							

* P. < .05. ** P. < .001.

Table 5

T-Tests: Group Comparisons

Comparisons	Variable	Means		T-Ratio	Probability (2 Tailed Test)
Group 2	TI	22.37	32.60	-3.82	< .001
(General	DAS	8.00	4.15	4.89	< .001
Student Pop)	CL	52.89	34.20	5.16	< .001
vs.	DS	56.98	26.80	5.35	< .001
Group 3	DO	58.67	43.10	3.87	< .001
(Born Again)	DYS	56.91	41.90	2.80	< .01
Christians)	DYO	37.03	25.10	3.07	< .01
	UR	52.98	67.00	-5.97	< .001
	SP	51.98	51.30	.28	ns
Group 2	TI	22.37	20.00	.97	ns
(General	DAS	8.00	7.23	1.16	ns
Student Pop)	CL	52.89	50.57	.87	ns
vs.	DS	56.98	53.77	.70	ns
Group 4	DO	58.68	51.40	2.25	< .03
Police Men	DYS	56.91	60.89	-.94	ns
and Women)	DYO	37.03	36.31	.22	ns
	UR	52.98	49.40	1.69	ns
	SP	51.98	52.83	-.43	ns
Group 3	TI	32.60	20.00	-4.65	< .001
(Born Again	DAS	4.15	7.23	-3.69	< .001
Christians	CL	34.20	50.57	4.18	< .001
vs.	DS	26.80	53.77	4.68	< .001
Group 4	DO	43.10	51.40	2.22	< .03
(Police Men	DYS	41.90	60.89	3.13	< .003
and Women)	DYO	25.10	36.31	2.48	< .016
	UR	67.00	49.90	-7.93	< .001
	SP	51.30	52.83	.74	ns

cant differences between groups on the UR scale (t = -5.97, p < .001), and the scores on the TI (t = -3.82, p < .001), the DAS (t = 4.89, p < .001), the CL (t = 5.16, p < .001) and each of its sub-scales. Thus, Group 3 was found to have significantly higher UR scores as well as significantly lower fear of death scores on each of the conscious fear of death measures. No differences between groups were observed on the SP scores.

A similar analysis was undertaken between Group 2 and Group 4. The results of this analysis, presented in Table 5, reveal only one significant difference between the groups on the DO subscales of the CL. In this instance, the police officers were significantly less afraid of the death of others than were the university students.

A final analysis was undertaken to compare Group 3 with Group 4 on all of the dependent variables. The results of the t-tests (Table 5) revealed significant differences between groups on the TI (t = -4.65, p < .001), the DAS (t= 3.69, p < .001), the CL (t = 4.18, p < .001) and each of its sub-scales and the UR (t = -7.93, p < .001). These findings suggest that for individuals in the born again Christians group "own death" was integrated into their concept of "self" far more than it was for the police officers. Moreover, they demonstrated a signifi-

cantly lower fear of death than the police officers as measured by the DAS, the CL and each of its subscales. In addition, their overall defense against conscious fear of death was higher than that of the police because of their high utilization of the UR defense. No differences between the groups were found on the SP scale.

Discussion

The purpose of this study was to develop a psychometrically reliable and valid instrument that measures the beliefs one utilizes as a defense against death anxiety. By doing so it will enable us to establish how these defenses relate to cognitive fear of death. The results are encouraging regarding the establishment of a new psychometric instrument, that will enable researchers to investigate death anxiety from a new perspective.

The results show that belief in an ultimate rescuer and personal specialness can be reliably measured as well as providing some support for the validity of these scales. The data suggest that a relationship exists between increasing UR and SP defenses, and lower fear of death as measured by the various fear of death instruments. The implication of this relationship is that the current fear of death measures are in fact tapping a superficial cognitive fear as suggested by the proponents of the indirect approach of assessing death

anxiety.

Analysis of each scale reveals encouraging findings. Both the SP and UR scales have good reliability, are factorally sound and are cross valid. Although some support was established, the results are somewhat discouraging with respect to construct validity. The expected negative correlation was not found for the UR scale when correlated with fear of death test measures obtained from Group 2 (university students). The SP scale, however, did negatively correlate with at least one of the conscious fear of death measures, the CL ($p < .009$), indicating that use of the SP defense was associated with significantly lower fear of death.

Conversely, when the scale scores of criterion groups representing each scale were compared to the test scores of the general student population, the Born Again Christians group had significantly higher UR scores and significantly lower fear of death scores than the general student population (Table 5), while the Police Officers group was not significantly different from the general student population (Table 5). These findings indicate that the UR group of Born Again Christians, endorsed the UR defense more frequently than the other groups and this was associated with a lower fear of death.

One possible explanation for the former finding centers on the fact that the CL is a multidimensional instrument.

It is interesting that the SP scale correlated with two of the CL subscales (Death of Other and Dying of Self) suggesting that this scale may tap into attitudes related to the death of friends, family and loved ones as well as attitudes related to the pain and suffering involved in the process of dying oneself. The possibility exists that the structure of the SP scale is such that it taps into very specific dimensions that do not appear in unidimensional scales such as the DAS. The fact that the DAS correlated with the CL, however,provides evidence that both instruments share elements in common.

One unexpected finding was the failure of the TI to correlate with any of the other fear of death instruments. Earlier research has demonstrated a significant relationship between the TI, the CL and the DAS (Kreiger, et al, 1974; Kreiger, 1977; Neimeyer & Chapman, 1978; Wood & Robinson, 1982) but in this study these findings failed to emerge. Unfortunately, no explanation for these results are apparent at this time.

Contrary to predictions, the SP scale failed to discriminate between either of the criterion groups. One possible explanation of this finding could be that the police men and women of the Thunder Bay Police Force may not be that different from the general population in how they view themselves and their occupation. It could be that in a small

community such as Thunder Bay the dangers inherent in being a police officer are considerably less than that of larger urban centers. As a consequence the perception of danger associated with the job could be so slight as to result in little reliance on the SP defense. A comparison between Group 3 (Born Again Christians) and Group 4 (Police Officers) presented in Table 5 support this explanation. If the police officers were embracing the SP defense as predicted, their scores on the fear of death measures would not have been significantly different from the born again Christians' scores. Moreover, the SP scores of both groups were not significantly different suggesting that the police officers used the SP defense in a similar fashion to the born again Christian group.

It is much more difficult to identify criterion groups for the SP defense relative to the UR defense. The main reason is that a belief in an ultimate rescuer is a belief in some external source such as God, religion, greater power, etc. Consequently, it is easier to find individuals who have these beliefs in common. A belief in specialness is an internal, personal belief about one's self. Because it is internal it is difficult to identify individuals or groups who have this common belief about themselves. Indeed, it may have been more appropriate to use fire department personnel as the criterion group since that occupation involves far greater risk than

that of police officers. In fact, attempts were made to do just that but the fire department failed to respond to a request for their personnel to be included in the study.

In general, some evidence for the construct validity of at least the UR scale has been provided. Further research with the SP scale is needed, perhaps through the use of different criterion groups, before any definitive statements about the scale can be made. As a consequence of these scales, a new method of investigation has been established that bridges the theoretical and methodological gap between the constructs of fear of death and death anxiety.

The present study has shown that thebeliefs in an ultimate rescuer and specialness can be reliably measured and has established some support pertaining to their role as defenses against death anxiety, as suggested by Yalom (1980). To assert that the results obtained using these scales verify that actual defense mechanisms are in operation is somewhat premature. The extent to which, if at all, these beliefs serve as significant defenses against death anxiety must be better substantiated before any conclusive statements can be made. Further research involving new criterion groups, new sample populations and convergent/divergent validation procedures may add to the understanding of these scales and help clarify their relationship with primal death anxiety.

While the relationship between the UR and SP scales and conscious fear of death measures was not as stable as predicted, the results partially support Yalom's (1980) hypothesis that an individual's conscious fear of death is determined by the extent to which the individual utilizes the UR and SP defense to protect himself or herself from death anxiety.

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Appendix A

Original UR and SP Items

This appendix contains the original 129 UR and SP items presented in the questionnaire format, that was administered to the 150 introductory psychology students at Lakehead University. The final UR and SP scales were derived from these items.

Questionnaire

This questionnaire involves a series of statements to which you are being asked to indicate your agreement or disagreement. In front of each item is a space in which you can record your opinion in accordance with the following scale:

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

The extent of your agreement or disagreement should reflect your first impression of the item. Please respond to every statement.

1. ___ When confronted with a dilemma I am more likely work it out alone than to ask someone else's opinion.

2. ___ We are all predestined.

3. ___ I often make my own time limits and deadlines.

4. ___ It is possible that people who have died and were revived have met the creator.

5. ___ Most people would not admire me.

6. ___ You can always find help somewhere.

7. ___ Others would not describe me as powerful.

8. ___ There exists a different, higher plain of existence.

9. ___ There is a benevolent God in heaven.

10. ___ Reincarnatin is not possible.

11. ___ Religious and spiritual beliefs do not have much significance for me.

12. ___ Other people are the most important thing in my life.

13. ___ Man's spirit exists in some separate form.

14. ___ People are rarely aware of the fact that I am disappointed or angry with them.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

15. ___ The thought of blending into a crowd is undesirable to me.

16. ___ It does not bother me when people are late or when events do not begin on time.

17. ___ Death is not necessarily a negative thing.

18. ___ Taking control over situations is one of the things I do best.

19. ___ I appreciate and depend on the help and advice of others.

20. ___ Taking risks is something I rarely enjoy doing.

21. ___ Doing things for others is extremely satisfying.

22. ___ I am not really independent.

23. ___ In group discussions I do not say very much.

24. ___ I usually make a good first impression.

25. ___ I do not have leadership qualities.

26. ___ If dying, my will to live will not pull me through.

27. ___ One of the most important functions of a friend is that he be available when needed.

28. ___ A belief in an afterlife is important.

29. ___ We are rewarded for living a good life.

30. ___ Atheists are doomed.

31. ___ I am very disappointed when someone I counted on lets me down.

32. ___ There exists an afterlife.

33. ___ Man is no more than a highly evolved animal.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

34. ___ There exists a supreme being.

35. ___ There is something better after life.

36. ___ I need people very much.

37. ___ I have a special purpose in life.

38. ___ There does not exist a creator.

39. ___ My life's projects will work toward the benefit of man.

40. ___ I stand out from nature rather than merging with it.

41. ___ Death is a tragic waste.

42. ___ I often need help from other people.

43. ___ My opinion is highly regarded by others.

44. ___ I feel I have something of value to teach others about life.

45. ___ I find it almost impossible to get ahead.

46. ___ One should never depend on others.

47. ___ One should enjoy life as much as possible because death ends all existence.

48. ___ Religion is not important.

49. ___ I am not considered important by others.

50. ___ I hope to achieve a great deal in my life.

51. ___ I am often upset or depressed by other people's problems.

52. ___ I can predict at what age I will die.

53. ___ Science is more important than faith.

54. ___ I consider myself to be special.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

55. ___ My birth sign accurately reflects my personality.

56. ___ I am a free thinker.

57. ___ I believe that depending on others is important.

58. ___ I fear rejection a great deal.

59. ___ I do not find dangerous situations exciting.

60. ___ In group situations I tend to be a leader.

61. ___ I am a workaholic.

62. ___ I will not get cancer.

63. ___ I will live long enough to complete my life goals.

64. ___ I do not believe in an afterlife.

65. ___ When the body dies the spirit dies with it.

66. ___ I have no interest in having my fortune read.

67. ___ I do not mind criticism.

68. ___ I often do things I do not wish to.

69. ___ I will live until I am very old.

70. ___ I am usually not admired by people.

71. ___ Winning is very important to me.

72. ___ Most people see me as ordinary.

73. ___ People who have died and were medically revived often report feelings of peace, tranquility and describe a dark, narrow tunnel with a bright light at the end. These phenomenon are proof of life after death.

74. ___ I do not like other people's opinions.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

75. ___ Man is really powerless in this existence.

76. ___ People are seldom interested in what I have to say.

77. ___ People never really die.

78. ___ Accounts of people dying and coming back to life are phony.

79. ___ Others would describe me as a workaholic.

80. ___ Man really has no choice.

81. ___ I have a special purpose in life.

82. ___ Some day science will prolong life indefinitely.

83. ___ As an individual I am special and unique in a number of ways.

84. ___ Man does not create his own experience.

85. ___ I believe that immortality is achieved through the transmission of one's genes to one's children.

86. ___ I am consistently advancing.

87. ___ I can carry a tremendous amount of responsibility.

88. ___ I am very self-sufficient.

89. ___ If I someday have a serious disease my will to live will take over and pull me through.

90. ___ Most people do not see me as being special.

91. ___ Fate plays no role in man's life.

92. ___ God is important to me.

93. ___ There is no one as important as me.

94. ___ I fear nothing.

95. ___ I am more aggressive than most people.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

96. ___ I will not live any longer than my friends will.

97. ___ Those who claim to have died and were subsequently revived really didn't die.

98. ___ Outdoing myself gives me great satisfaction.

99. ___ I believe it is possible to make others happy simply by being happy myself.

100. ___ Others would not see me as having leadership qualities.

101. ___ I expect that I would survive a nuclear war.

102. ___ We have evidence that there is an afterlife.

103. ___ I am considered an overachiever by my peers.

104. ___ I will live longer than most people.

105. ___ I will be a success at whatever I try.

106. ___ I do not seek the opinions of others.

107. ___ I never have to look back.

108. ___ Immortality can be achieved through one's special qualities.

109. ___ At some point we will be reunited with our departed loved ones.

110. ___ In group discussion I do not command much attention.

111. ___ Out-of-body experiences are not valid.

112. ___ I find having a great deal of responsibility unpleasant.

113. ___ We become external by joining the swirling life forces of nature.

114. ___ Others see me as being very aggressive.

115. ___ I am a person who is powerful.

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

116. ___ The soul lives on after death.

117. ___ There is an external force or being that loves and protects us.

118. ___ How you live in this life effects what will happen to you in the afterlife.

119. ___ I often retreat from situations.

120. ___ I have no sense of personal freedom.

121. ___ It makes me feel uncomfortable to receive the undivided attention of others.

122. ___ One cannot achieve immortality through one's work.

123. ___ Communication with someone who has died might someday be possible.

124. ___ I need others more than they need me.

125. ___ I will die from natural causes.

126. ___ The way to truth is through science.

127. ___ There is more than enough time in the day.

128. ___ When help is offered I almost always accept it.

129. ___ I can face threatening situations with little fear.

Appendix B

Specialness and Ultimate Rescuer Scales (SP and UR)

This appendix contains the final SP and UR items presented in the questionnaire format that was used in this study.

Age: _____

Sex: Female _____ Male _____

Marital Status: Single _____ Married _____ Separated _____

Divorced _____ Widowed _____

Religion: _____

Agnostic _____

Atheist _____

Questionnaire

This questionnaire involves a series of statements to which you are being asked to indicate your agreement or disagreement. In front of each item is a space in which you can record your opinion in accordance with the following scale:

1 strong disagreement
2 disagreement
3 undecided
4 agreement
5 strong agreement

The extent of your agreement or disagreement should reflect your first impression of the item. Please respond to every statement.

1. ___ When the body dies the spirit dies with it.
2. ___ I am a free thinker.
3. ___ There exists a different, higher plain of existence.
4. ___ I do not have leadership qualities.
5. ___ In group discussions I do not say very much.
6. ___ There does not exist a creator.
7. ___ People never really die.
8. ___ One should enjoy life as much as possible because death ends all existence.
9. ___ I am not usually admired by people.
10. ___ I am more aggressive than most people.
11. ___ I consider myself to be special.
12. ___ Religious and spiritual beliefs do not have much significance for me.
13. ___ The way to truth is through science.
14. ___ I am a person who is powerful.
15. ___ Most people see me as ordinary.
16. ___ Science is more important than faith.

17. ___ At some point we will be reunited with our departed loved ones.

18. ___ Taking control over situations is one of the things I do best.

19. ___ In group discussions I do not command much attention.

20. ___ A belief in an afterlife is important.

21. ___ My opinion is highly regarded by others.

22. ___ Out-of-body experiences are not valid.

23. ___ Atheists are doomed.

24. ___ We have evidence that there is an afterlife.

25. ___ I am consistently advancing.

26. ___ As an individual I am special and unique in a number of ways.

27. ___ Others would not describe me as powerful.

28. ___ Others would not see me as having leadership qualities.

29. ___ Man's spirit exists in some separate form.

30. ___ Accounts of people dying and coming back to life are phony.

Appendix C

Threat Index (TI)

1 Self

Below is a list of dimensions, each of which is made up of a pair of opposites. For each dimension, please CIRCLE the side with which you see yourself or your present life more closely associated. In some cases, you may feel as if both sides describe you to some degree, but please circle only one side of each dimension: the one that describes you better. For example, do you see yourself as more predictable or random?

predictable ---------- random

empty ---------- meaningful

lack of control ---------- control

satisfied ---------- dissatisfied

relating to others ---------- not relating to others

pleasure ---------- pain

feels bad ---------- feels good

objective ---------- subjective

alive ---------- dead

helping others ---------- being selfish

specific ---------- general

kind ---------- cruel

incompetent ---------- competent

insecure ---------- secure

static ---------- changing

unnatural ---------- natural

sad ---------- happy

personal ---------- impersonal

1 Self

purposeful ---------- not purposeful

responsible ---------- not responsible

bad ---------- good

not caring ---------- caring

crazy ---------- healthy

conforming ---------- not conforming

animate ---------- inanimate

weak ---------- strong

useful ---------- useless

closed ---------- open

peaceful ---------- violent

freedom ---------- restriction

nonexistence ---------- existence

understanding ---------- not understanding

calm ---------- anxious

easy ---------- hard

productive ---------- unproductive

learning ---------- not learning

sick ---------- healthy

stagnation ---------- growth

abstract ---------- concrete

hope ---------- no hope

2 Preferred Self

For each of the dimensions below, please CIRCLE the side with which you more closely associate your Ideal Self or the way you would PREFER to be living. For example, would you prefer to be more predictable or random?

predictable ---------- random

empty ---------- meaningful

lack of control ---------- control

satisfied ---------- dissatisfied

relating to others ---------- not relating to others

pleasure ---------- pain

feels bad ---------- feels good

objective ---------- subjective

alive ---------- dead

helping others ---------- being selfish

specific ---------- general

kind ---------- cruel

incompetent ---------- competent

insecure ---------- secure

static ---------- changing

unnatural ---------- natural

sad ---------- happy

personal ---------- impersonal

purposeful ---------- not purposeful

2 Preferred Self

responsible ---------- not responsible

bad ---------- good

not caring ---------- caring

crazy ---------- healthy

conforming ---------- not conforming

animate ---------- inanimate

weak ---------- strong

useful ---------- useless

closed ---------- open

peaceful ---------- violent

freedom ---------- restriction

nonexistence ---------- existence

understanding ---------- not understanding

calm ---------- anxious

easy ---------- hard

productive ---------- unproductive

learning ---------- not learning

sick ---------- healthy

stagnation ---------- growth

abstract ---------- concrete

hope ---------- no hope

3 Death

For each of the dimensions below, please CIRCLE the side with which you more closely associate Your Own Death, thinking of your own death as if it were to occur at this time in your life.

predictable ---------- random

empty ---------- meaningful

lack of control ---------- control

satisfied ---------- dissatisfied

relating to others ---------- not relating to others

pleasure ---------- pain

feels bad ---------- feels good

objective ---------- subjective

alive ---------- dead

helping others ---------- being selfish

specific ---------- general

kind ---------- cruel

incompetent ---------- competent

insecure ---------- secure

static ---------- changing

unnatural ---------- natural

sad ---------- happy

personal ---------- impersonal

purposeful ---------- not purposeful

responsible ---------- not responsible

3 Death

bad ---------- good

not caring ---------- caring

crazy ---------- healthy

conforming ---------- not conforming

animate ---------- inanimate

weak ---------- strong

useful ---------- useless

closed ---------- open

peaceful ---------- violent

freedom ---------- restriction

nonexistence ---------- existence

understanding ---------- not understanding

calm ---------- anxious

easy ---------- hard

productive ---------- unproductive

learning ---------- not learning

sick ---------- healthy

stagnation ---------- growth

abstract ---------- concrete

hope ---------- no hope

Appendix D

Templer Death Anxiety Scale (DAS)

Death Questionnaire

The following questionnaire is being used to measure people's attitudes towards death and dying. Do NOT write your name on the questionnaire. Answer each item by circling either true (T) or false (F), and try to respond as honestly as you can. Thanks for your help.

		Please Circle Answer	
1.	I am very much afraid to die.	T	F
2.	The thought of death seldom enters my mind.	T	F
3.	It does not make me nervous when people talk about death.	T	F
4.	I dread to think about having to have an operation.	T	F
5.	I am not at all afraid to die.	T	F
6.	I am not particularly afraid of getting cancer.	T	F
7.	The thought of death never bothers me.	T	F
8.	I am often distressed by the way time flies so very rapidly.	T	F
9.	I fear dying a painful death.	T	F
10.	The subject of life after death troubles me.	T	F
11.	I am really scared of having a heart attack.	T	F
12.	I often think about how short life really is.	T	F
13.	I shudder when I hear people talking about World War III.	T	F
14.	The sight of a dead body is horrifying to me.	T	F
15.	I feel that the future holds nothing for me to fear.	T	F

Appendix E

Collett-Lester Fear of Death Scale (CL)

Questionnaire

Here is a series of general statements. You are to indicate how much you agree or disagree with them. Record your opinion in the blank space in front of each item according to the following scale:

1	slight agreement	-1	slight disagreement
2	moderate agreement	-2	moderate disagreement
3	strong agreement	-3	strong disagreement

Read each item and decide quickly how you feel about it; then record the extent of your agreement or disagreement. Put down your first impressions. Please answer every one.

___ 1. I would avoid death at all costs.

___ 2. I would experience a great loss if someone close to me died.

___ 3. I would not feel anxious in the presence of someone I knew was dying.

___ 4. The total isolation of death frightens me.

___ 5. I am disturbed by the physical degeneration involved in a slow death.

___ 6. I would not mind dying young.

___ 7. I accept the death of others as the end of their life on earth.

___ 8. I would not mind visiting a senile friend.

___ 9. I would easily adjust after the death of someone close to me.

___10. If I had a choice as to whether or not a friend should be informed he/she is dying, I would tell him/her.

___11. I would avoid a friend who was dying.

___12. Dying might be an interesting experience.

___13. I would like to be able to communicate with the spirit of a friend who has died.

___14. I view death as a release from earthly suffering.

___15. The pain involved in dying frightens me.

___16. I would want to know if a friend were dying.

Appendix F

Internal Consistency Reliability Data:

Corrected Item-Total Correlation Coefficients

Scale			
Specialness (SP)		Ultimate Rescuer (UR)	
Item	r	Item	r
2	.32	1	.76
4	.61	3	.52
5	.45	6	.65
9	.34	7	.59
10	.38	8	.68
11	.40	12	.66
14	.42	13	.60
15	.48	16	.67
18	.50	17	.64
19	.52	20	.69
21	.34	22	.34
25	.36	23	.38
26	.45	34	.57
27	.47	29	.35
28	.47	30	.40
Alpha	.82		.89

Note. All correlations significant at $p < .001$.

Appendix G

Cross Validation Data:

Corrected Item-Total Correlation Coefficients

Scale			
Specialness (SP)		Ultimate Rescuer (UR)	
Item	r	Item	r
2	.70***	1	.69***
4	.59***	3	.55***
5	.52***	6	.70***
9	.36**	7	.77***
10	.35**	8	.33**
11	.58***	12	.73***
14	.71***	13	.43***
15	.68***	16	.41***
18	.68***	17	.34**
19	.64***	20	.55***
21	.50***	22	.40***
25	.45***	23	.66***
26	.48***	24	18ns
27	.31*	29	.51***
28	.29*	30	.35**
Alpha	.87		.86

* $p < .05$.
** $p < .01$.
*** $p < .001$.