

Meaning Making Model: Inner purpose, Goals, and Religiosity/Spirituality Partially Predict Acceptance Strategies and Volunteerism Behaviours

Wong Chin Meng and Denise Dillon
James Cook University

Abstract

The present study aimed to evaluate the influence of global meaning on volunteerism behaviours and on acceptance strategies in response to unchangeable life events. The study is based on the meaning making model proposed by Park (2010). A total of 348 participants completed the survey; ages ranging from 18 to more than 70 years. Vignettes were used as an approach to evaluate the meaning-making model. The present study was a correlational survey design. The predictor variables were global meaning as measured by purpose in life, goals, and R/S experiences, beliefs and practices. The dependent variables were volunteerism behaviours and acceptance style of responses to unchangeable life situations depicted in vignettes. The questionnaire was presented as an online survey. The results supported most of the hypotheses, confirming the relevance of Park's meaning making model and the validity of the proposed measures. The present study is but a small step in understanding and finding empirical support for the meaning making model (Park, 2010). The results suggest that from a foundation of strong purpose in life, intrinsic goals, and religiosity/spirituality, one is in a better position to grow from negative life events. Together with volunteerism that encourages one to have an outward looking perspective in life, values in oneself could be developed and reinforced, further strengthening one's abilities to face negative events in life.

Unchangeable situations such as aging, illness and loss shake the core of a person and often lead one to question the meaning of life (Frankl, 2004; Park, 2010; Wong, 2012a). The "will to meaning" is an approach advocated by Viktor Frankl (2004) to find one's meaning and purpose in life, even in the deepest sufferings. The approach was validated by his survival from his sufferings in the Nazi concentration camps during World War Two. Frankl proposed that with an understanding of the "why", one would be able to find the "how." His ideas paralleled a key thought from Nietzsche: "He who has a *why* to live can bear with almost any *how*" (Frankl, 2004, p. 9).

Meaning of life is studied across multiple fields and is of interest to both scholars and the public (Wong, 2012a). Given this wide interest and the complexities inherent in any study of meaning, it is difficult to define the meaning of life (Klinger, 2012). The present study focuses on the meaning of life and meaning making processes in unchangeable life situations from the psychological perspective (e.g. Park, 2010). We first provide definitions of the key terms related to meaning of life, evaluate important theoretical background and empirical research in this area, and outline the rationale for a study based on Park's meaning-making model.

Definitions

As we seek to understand meaning of life and the meaning-making model (e.g. Park, 2010), it is necessary to understand four key terms: global meaning, situational meaning, meaning-making process and meaning made. The terms can be understood by studying the concepts of meaning and meaning making by some of the key contributors after Frankl (2004): Thompson and Janigian (1988), Janoff-Bulman (1992), and Wong (2012b).

Thompson and Janigian (1988) proposed the terms "implicit meaning" and "found meaning" along with the concept of "life scheme", all of which are relevant to meaning making models. Implicit meaning is the product of personal appraisal of negative life events. Found meaning is how events fit into the overall orderly context. A life scheme is a cognitive representation of one's life events and goals. Thompson and Janigian proposed the concept of a life scheme as a story about one's life that includes negative events that need to be overcome to achieve one's goals. When these negative events happen, a search for meaning is initiated. Found meaning is the result of accommodation of one's life scheme and/or a change of view of an event. There is a correspondence of Thompson and Janigian's terms of found meaning, implicit meaning, and life scheme with the present author's terms of global meaning, situational meaning, and meaning making.

Janoff-Bulman (1992) examined meaning that is related to traumatic events. One of Janoff-Bulman's propositions is that fundamental assumptions govern one's orientation to life. The key assumptions are "the world is benevolent", "the world is meaningful", and "the self is worthy" (Janoff-Bulman, 1992, p. 6). These assumptions are resistant to change in normal life experiences but traumatic events shatter the key assumptions. Disillusionment and the process of coping and processing of the new experiences are likely to follow after trauma. Over time and with supportive resources, the interpretation and rebuilding of new assumptions are assumed to bring recovery and a new balance in life (Janoff-Bulman, 1992). The terms fundamental assumptions, interpretation and processing, rebuilding, and new assumptions after recovery (Janoff-Bulman, 1992) correspond respectively to the terms global meaning, situational meaning, meaning making and meaning made, which are used hereafter.

Wong (2012b, 2012c) has developed a dual-system model for meaning of life which evolved from logotherapy. In Wong's dual-system model, meaning comprises purpose, understanding, responsibility and evaluative components. Purpose is posited to be the motivational driver of meaning and includes goals and values. As such, it is oriented towards achieving a preferred future. Understanding is related to the cognitive component of meaning. Responsibility is linked with behaviours that are balanced between morality and personal freedom. Meaning drawn from a sense of responsibility motivates doing what is morally right. The evaluative component includes emotional aspects of meaning. A congruent meaning of life is linked with happiness and satisfaction. Wong describes the meaning making process as the transformative process to handle negative life experiences (Wong, 2012b, 2012c).

The perspectives from Thompson and Janigian (1988), Janoff-Bulman (1992) and Wong (2012b) provide examples of the multiple variations of global meaning, situational meaning, meaning-making process and meaning made. The complexity of the terms and concepts are a challenge for an encompassing meaning making model. The next section examines one variation in the meaning making model proposed by Park (2010). While Park's model may not be fully in line with Frankl's concepts, it provides a reasonable basis for the study of meaning making.

Park's Meaning Making Model

Park (2010) proposed a meaning making model (Figure 1) to integrate some of the common features from a number of current theoretical perspectives (e.g. Janoff-Bulman, 1992; Thompson & Janigian, 1988). The objective for the model was to provide a basis for empirical testing of factors and pathways related to meaning of life in the context of stressful life situations. Park acknowledged that her model might not be all encompassing because meaning of life is a very broad field. Park (2010) suggested that global meaning forms the core of a person's motivation and interpretation of life. When faced with various situations in life, a situational meaning is determined for the specific situation. Stress could arise if there is a discrepancy between one's global meaning and situational meaning. To reduce the stress, a meaning making process is attempted. If successful, the meanings that are made facilitate adjustments to the stress. These resultant meanings could lead to modification of the global meaning. However, if unsuccessful, distress would remain and another cycle of meaning making would be attempted to reduce the stress.

Park (2010) suggested that global meaning is made up of beliefs, goals, and sense of meaningfulness or purpose. Beliefs consist of core schemas covering areas such as justice, control, predictability, and coherence (Park, 2010). Goals comprise desired end states or efforts to maintain desired states. For individuals for whom religion/spirituality is important, religiosity/spirituality is posited to be an integral part of beliefs and goals (Park, 2005, 2007; Wortmann & Park, 2009). Sense of meaningfulness or purpose is regarded by Park (2010) as the subjective sense of meaning of one's activities in life towards a desired state or goal. She also posited that global meaning is built from early life experiences and is continually modified based on personal experience.

Park's (2010) meaning making model provides a framework for empirical testing. However, as the next section explains, there are challenges in conducting research on the meaning making model.

Comparisons of Park's Meaning Making Model with other models

Given that Park's model is not all encompassing (Park, 2010), it is useful to review some other models that are considered in recent research. The following section gives a brief overview of models and perspectives by King with her colleagues (e.g. King, Hicks, Krull, & Del-Gaiso, 2006), Steger and his team (e.g. Steger, Kashdan, Sullivan, & Lorentz, 2008), and Wong (2012b, 2012c). The aim is to provide additional viewpoints that would add to future studies in this area and to foreshadow the possible limitations of the present study. Some of the ideas from the abovementioned authors have been adopted in the present study to enhance Park's model.

One of the ideas proposed by King et al. (2006) that differs from Park's approach is that positive affect may enhance the experience of meaning in life. King et al. found empirical evidence that positive mood adds to meaning in life over and above goal-pursuit factors. Daily positive mood is more likely to predict perceived meaningfulness of a day than are reports of daily meaning and goal-related measures. Furthermore, if one is primed with positive affect, one is more likely to find a day meaningful. Equally important, positive affect appears to enhance the distinction between meaningful and meaningless activities. An important conclusion made by King et al. is that meaning pursuits need not be constrained by eudaimonism, but daily pleasure and positive affect could also be present and may even enhance the pursuit of meaning in life. The idea of daily events being an integral part of the meaning making model is adopted in the present study by the evaluation of reactions to common daily events.

Personality, cognitive style and the differentiation between search for meaning and presence of meaning are key ideas from Steger and colleagues (2008). Search for meaning is viewed from three perspectives: as a positive feature of mental health, a sign of dysfunction, or a combination of both positive and negative motivations. In view of the possible influence of personality, cognitive styles and motivations in search for meaning, Steger et al. (2008) pointed out the possible influence of age on presence of meaning and search for meaning. They argued that a younger group could have a greater intensity in the search for meaning because of their developmental needs. In contrast, the search for meaning in older adults could be related to failures or difficulties in life. This possible influence of age was noted for the present study and led to recruitment of participants from individuals across a wide age range so that results from the present study would provide some insight on the influence of age on meaning making.

A dual-systems model of meaning is proposed by Wong (2012b, 2012c). The model encompasses the duality of existential challenges, such as suffering and death, and notions from positive psychology wherein worthwhile life includes positive experiences and emotions. The model is elaborate including considerations for individual differences and cultural influences. Within Wong's duality model, there are three regulatory systems: approach, avoidance and mindfulness awareness. The approach system is related to "appetitive behaviours, positive affects, goal strivings, and intrinsic motivations" (Wong, 2012b, p.7). The avoidance system includes "tendency to avoid pain and overcome adversities" (Wong, 2012b, p.11). When neither the approach nor the avoidance systems are utilized, there exists a state of mindful awareness of the present moment. All three systems are used to handle positive and negative events in life.

Acceptance is central to the dual-systems model. In the approach system, acceptance is viewed as a process to consider the limitations of our abilities and resources before determining our goals. When faced with unchangeable negative events, as part of the avoidance system, acceptance is the response to the difficulties, pain and suffering. As the mindful awareness of the present moment including its negative emotions and thoughts, acceptance is the basis for reducing the suffering and activating effort in productive directions.

Wong's perspective on acceptance is similar to that applied in Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012). Acceptance is a responsive process (as in "accepting") rather than an outcome state (as in "accepted") of meaning made as described in Park's model. This key difference from Park's model is adopted in the present study where acceptance is viewed as a response to an unchangeable event rather than an outcome state. Further detail on acceptance is covered in the following sections. Lastly, it is noted that Frankl's concept of meaning of life highlights that meaning is found rather than made (Frankl, 2004). However, researchers such as Park (2010) and Hayes et al., (2012) have proposed that meaning is made. In Hayes et al., (2012), values are to be constructed rather than clarified, emphasizing the active nature of values. Differentiating the two approaches is beyond the scope of the present paper and the present author has chosen to continue with the term "meaning made" as proposed by Park and leave further exploration of this difference to future work.

A further note is that the essential decision point in Park's Meaning Making Model is the evaluation of discrepancy between global meaning and situational meaning using distress as one of the criteria. In mindfulness approaches, alleviation of distress is not essential to relate to the difficulties that one faces in life (Kabat-Zinn, 1990). Instead, mindfulness suggests a "welcoming and allowing" (Segal, William, & Teasdale, 2013) attitude towards difficult feelings, thoughts and memories. Pain is not sought after; however, struggling with pain is also not a necessity (Hayes et al., 2012). Perhaps, a more dynamic flow in the dual-systems model postulated by Wong (2012b, 2012c) is an alternative representation of the processes of meaning making especially where the mindfulness approach plays a part. With these notes and modifications in mind, the challenges in research on meaning making are examined next.

Difficulties in the Research based on the Meaning-making Model

The following section identifies four challenges for the conduct of research on the meaning making model and suggests ways to overcome the difficulties.

Operational definition of measures. One of the main difficulties encountered in studies of the meaning making model is operational definition of the measures because of the abstract and complex nature of the constructs and processes within the meaning-making model (McDonald, Wong, & Gingras, 2012; Park, 2010). The present author suggests that single factor tests (e.g., Purpose in Life scale) are preferred as the way to measure purpose in life as a clearly defined construct. This could help to identify the contribution of purpose in life in the overall construct of global meaning. The other components that may make up the construct of global meaning would be added via other measures.

Lack of consistent constructs and measures. Another difficulty is that studies based on the model have used different constructs and measures (Park, 2010). These differences make it difficult to compare and consolidate results from the different studies. Furthermore, the constructs, separate and distinct within the sub-processes, could be linked. For example, the construct of cognitive/emotional processing within the meaning making sub-process is linked with the construct of acceptance within the meaning made sub-process. These links are proposed in Gross's (2002) emotion regulation framework and Hayes's (2004) extension of acceptance to Gross's framework. Acceptance involves not attempting to change negative emotions, thoughts and situations. The negative states are acknowledged. Continued struggle with negative states would increase their intensity. Instead, energy is channelled towards pursuing positive desired outcomes. In the process of pursuing positive desired outcomes, successes could be achieved that could promote positive states. The negative states are no longer the focus and could decrease in intensity (Ciarrochi & Bailey, 2008). (A more detailed explanation of acceptance is provided in the following section). It would be useful to study the interlinked constructs to present a more holistic view and hence the present author has adopted this perspective.

Religiosity compared with spirituality. Another issue with earlier studies on meaning of life is the use of the construct of religion because religion can represent a limited viewpoint (Park, 2007). Recent research uses a wider measure which includes spirituality as well as religiosity (Kim & Esquivel, 2011; Lysne & Wachholtz, 2011; Park, 2007). Spirituality is a more universal view beyond formal religious processes and yet it has a commonality with religion in the search for transcendental meaning (Kim & Esquivel, 2011; Lysne & Wachholtz, 2011). The present author adopts a combined influence of religiosity with spirituality (hereafter referred to as R/S) in the evaluation of the meaning making model.

Time frames of assessment. There are two aspects regarding time frames that could affect studies based on the meaning making model: experimental designs and the meanings made after the occurrence of stressful situations. Because of the dynamic nature of life experiences and their development over time, it is problematic to measure the meaning of life constructs with cross-sectional research designs. A prospective, longitudinal research design is a way to measure changes over time. Another approach is the use of vignettes to determine the meaning making processes (Park, 2010). Vignettes could be created with a multi-stage format depicting a flow of hypothetical life events, making it an alternative to longitudinal experimental design (Finch, 1987). Since the present study is an initial investigation, simple one-stage vignettes were employed.

According to Park, meanings made should stabilize after several iterations of the meaning making process after the occurrence of stressful situations. A few studies have measured identity reconstruction, as a construct of meanings made in Park's meaning-making model (Park, 2010). The present author proposes that reconstructed identity includes behaviours that are developed and sustained over a period of time, with volunteerism as a specific example. Volunteerism is a type of planned helping behaviour which requires deliberation on whether to participate in the helping activity, effort to seek out opportunities to help others and a commitment to serve for a period of time (Clary, Snyder, Ridge, Copeland, Stukas, Haugen, & Miene, 1998). Three models (Garland, Myers, & Wolfer, 2008; Omoto & Snyder, 1995; Penner & Finkelstein, 1998) suggest that volunteerism is developed over time and experience with volunteer work and that volunteerism is part of identity reconstruction. In addition, the identity control theory developed by Burke (2006) provides a basis to explain the interaction between self-identities and meaning system. To maintain coherence with self-meanings, one would behave in manners consistent with one's self-identities. In the event that inconsistencies arise in self-identities, Burke (2006) posited that the discrepancies would lead to changes in one's identity. Incorporating these models of self-identities into Park's meaning making model (2010), the present author suggests volunteerism as a possible representation of identity reconstruction, a construct within meanings made.

In summary, the abovementioned difficulties in empirical studies based on the meaning making model mean that there are few studies to date that provide a satisfactory evaluation of Park's model. The present study overcomes the difficulties in the following ways. Firstly, it evaluates scales that could provide a measure of global meaning. Secondly,

this study specifically evaluates cognitive-emotional processing (Gross, 2002) along with acceptance strategies (Hayes, 2004) in the meaning making process. Vignettes are proposed to simulate the meaning making processes. Thirdly, volunteerism is proposed as a representation of identity reconstruction which is a part of meaning made. Fourthly, if the variables in the measure for global meaning could predict volunteerism and/or the cognitive-emotional processing along with acceptance strategies, such predictive validity could provide support for Park's meaning making model (2010).

A Possible Measure of Global Meaning

Global meaning has multiple factors within three key constructs: beliefs, goals, and subjective sense of meaning or purpose (Park, 2010). The following section provides the theoretical background, characteristics and limitations of scales that measure purpose, goals, and R/S, and identifies the measurements that are best suited to measure global meaning.

Purpose in Life as one of the Measures of Global Meaning

Purpose in life is part of the core schema behind one's meaning of life. Frankl's logotherapy approach is one of the approaches to finding purpose in life and its principle of the will to meaning is a reasonable theoretical basis for the core schemas of one's meaning of life. Crumbaugh and Maholick (1964) created the Purpose in Life (PIL) test based on Frankl's logotherapy. The PIL test is a widely used reliable and valid psychometric measure in the field of meaning of life (Debats, 1998; Melton & Schulenberg, 2008).

However, the PIL test does not measure the other aspects of global meaning, such as goals and spirituality (Park, 2010; Schnell, 2010). Hence, for the current study the present author elected to augment the PIL test with additional scales to measure global meaning such as those to measure goals.

Extrinsic and Intrinsic Goals as Measures of Global Meaning

Self-Determination Theory (Deci & Ryan, 1985; Ryan & Deci, 2000) advocates that intrinsic motivation drives goals such that consequent actions are inherently interesting and enjoyable. Extrinsic motivation on the other hand is related to actions that lead to a separable outcome such as approval from others and compliance with external control. Intrinsic goals are associated with one's autonomy, competence and relatedness while extrinsic goals are associated with non-autonomous actions and influenced by external rewards or punishments. Furthering the Self-Determination Theory, Emmons (2003) advocated that goals are essential aspects for life to be meaningful. Of those that are meaningful, Emmons suggested that goals in the areas of intimacy, spirituality, and generativity are positively related to well-being, and power is negatively associated with well-being.

In the context of unchangeable life events of cancer patients, Thompson and Pitts (1993) and Pinquart, Silbereisen, and Frohlich (2009) evaluated the influence of external materialistic and internal non-materialistic goals of cancer patients on their meaning of life. The results from Thompson and Pitts's (1993) study on cancer patients' ability to find meaning after a diagnosis of cancer suggested that negative life events would disrupt the meaning of life of people who have external materialistic goals. The physically draining and time-consuming impact of cancer treatment could impact the ability to pursue extrinsic goals. In contrast, those patients with internal non-materialistic goals could maintain their meaning in life when faced with negative life events. In a longitudinal study by Pinquart, Silbereisen, and Frohlich (2009) over the course of treatment of a sample of cancer patients, it was found that materialistic goals were associated with a lower purpose in life and a decline of purpose in life over time. On the other hand, non-materialistic goals were linked with a higher purpose in life that was also strengthened over time. Pinquart et al. (2009) proposed that the ability to fulfil the social and psychological aspects of intrinsic goals provides an explanation for higher purpose in life.

Religiosity/Spirituality as one of the Measures of Global Meaning

Bereavement and health issues are two major types of event that could alter one's meaning in life. A combination of R/S, through the meaning-making pathway according to Park's model, is posited to reduce the negative impact of bereavement (Wortmann & Park, 2009) and health issues (Lyse & Wachholtz, 2011; Nelson, 2009; Park, 2007). In the area of health, R/S is postulated to contribute towards global meaning components of beliefs, goals, and sense of meaning in life and also influences the meaning making process (Park, 2007). The influence of these factors and pathways varies depending on the situation. There is supporting evidence for the correlation of positive religious coping with better psychological adjustment during illness. However, there is equivocal support of R/S factors and pathways on physical health outcomes (Lysne & Wachholtz, 2011; Park, 2007). For example, there is a lack of empirical evidence on the positive influence of

prayers and meditation on physical health (Park, 2007). The valence of the beliefs about God could affect health outcomes. God could be perceived as a loving or a punishing God. Belief in a punishing God could trigger a negative meaning, with consequent reduced resilience resulting in poor outcomes (Lysne & Wahholtz, 2011). In contrast, a balance between seeking divine help and having personal self-efficacy was linked to a better health outcome (Lysne & Wahholtz, 2011). Hence measures of R/S should include items on the nature of religiousness and spirituality beliefs.

Wortmann and Park (2009) utilized the meaning-making model in their qualitative review of the influence of R/S on bereavement. The loss creates a discrepancy between the global meaning and situational meaning which leads to a resolution process. Wortmann and Park suggested that there are two possible resolution processes: assimilation and accommodation. When the appraised meaning does not violate global meaning, the appraised meaning is assimilated into one's global meaning. However, if there is a discrepancy between the appraised meaning and global meaning a religious/spiritual struggle is likely to occur. To resolve this struggle, the accommodation process involves changing both the global meanings and situational meanings. However, the effects of the accommodations may be experienced some time later, in some cases years after the event. Wortmann and Park also indicated the importance of the contributions of R/S in daily practice as well as in response to events. The foregoing evidence supports the importance of R/S in global meaning. R/S is posited to be multi-dimensional (e.g., Lyons, Deane, Caputi, & Kelly, 2011; Park, 2007). Hence a battery of measures appears to be required to measure R/S. Moving from the measure of global meaning, the following section covers volunteerism as one of the aspects of meaning made.

Volunteerism as a Representation of Meaning Made

Current behaviours in the absence of unchangeable life events could be a reflection of meaning made from previous life incidents. The following section proposes volunteerism as a current behaviour that reflects meaning made and could be classified under changed identity in Park's meaning making model (2010). Functional theory is one approach to understanding volunteerism (Clary et al., 1998). In functional theory, acts of volunteerism could serve different psychological functions in different people. From empirical studies, the six types of functions that are found in volunteers are Values, Understanding, Enhancement, Protective, Social, and Career (Clary et al., 1998). The variation amongst the profiles of the six functions is a means to differentiate volunteers from non-volunteers (Clary et al., 1998). From the study of a sample from the United States population by Independent Sector (1992), it emerged that volunteers differed from non-volunteers in that they had significantly higher levels of Values, Enhancement, Understanding and Social function than non-volunteers. The present author posits that the Values, Enhancement and Understanding functions are linked to purpose in life and hence suggests that volunteerism could be related to meaning making in Park's model. Additional supporting empirical results follow.

Law and Shek (2009) conducted a study to review the relationship between purpose in life and volunteerism beliefs, volunteering intention and voluntary behaviour. The results from a Hong Kong study of school students showed that a high level of purpose of life was associated with higher levels of volunteer intention and behaviour (Law & Shek, 2009). Piercy, Cheek and Teemant (2011) also provided supporting evidence for the relationship between volunteerism and purpose in life. They conducted a qualitative study of 38 elderly volunteers from the United States who gave intensive volunteer service that was done on a 24-hour-a-day basis at a location away from home. Participants from the study reported that serving brought new meaning to their lives.

By combining the results of Law and Shek (2009) for the younger Chinese sample and Piercy et al. (2011) for the elderly American sample, the present author speculates that current volunteer behaviours could be correlated to global meaning across all ages and cultures. Stronger global meaning would be associated with a higher rate of volunteer behaviour. The presence of such relationships would suggest that current behaviours, such as volunteerism, are useful outcome measures of the strength of a person's meanings made.

Before moving further into the facets of volunteerism, it is useful to reflect on how Frankl had chosen to serve his fellow inmates during their time in the concentration camps. Wilson, Sandoz and Kitchens (2010) highlighted that Frankl could have escaped with a small group of prisoners. However, when Frankl saw a suffering inmate, he chose to forego the chance to escape and instead remained to continue in his activity as a doctor in the camp. The motivation for Frankl's service was his values. By following his values, Frankl reported a peace that far exceeded the immediate benefits of escape. This anecdote lends support for the way Frankl, one of the key contributors to notions about meaning of life, lived a life of service to others because of his commitment to his values.

Vignettes as an Approach to Evaluate the Meaning-Making Model

Vignettes are one of the possible approaches for the evaluation of the meaning making model (Park, 2010). Finch (1987) supports the use of vignettes in the empirical study of beliefs, values, and norms. Vignettes are more suitable in these areas because typical attitude statements in surveys may not capture the context of the questions. Vignettes allow the presentation of situation-specific context. Standard and well-defined vignettes allow for presentation of the same stimulus to all the participants (Hughes & Huby, 2002). The use of combinations of vignettes can also enhance the depth and generalizability of the responses (Finch, 1987). Vignettes in survey form allow an economical collection of large amounts of data within a reasonable timeframe (Hughes & Huby, 2002). Hence, in the present study, vignettes were used to evaluate meaning making processes. The following section explains the theoretical background of acceptance strategies and an example of a study that used vignettes to measure acceptance strategies in response to unchangeable life events.

Acceptance as a Measure of Meaning Made and Meaning Making Processes

In Park's meaning-making model, acceptance is proposed as one of the outcomes of the meaning made sub-process and cognitive-emotional processing is proposed as one of the meaning making sub-processes (Park, 2010; Figure 1). The present author suggests that Gross's (2002) emotion regulation framework together with Hayes's (2004) extension of the framework with the inclusion of acceptance provides a theoretical basis to explain the combined influences of cognitive-emotional processing with acceptance. As mentioned in the earlier section, acceptance is here viewed as a responsive process rather than as an outcome of meaning made. This viewpoint is consistent with the ACT approach used by Hayes et al. (2012).

When one encounters challenges and opportunities, emotions arise (Gross, 2002). Under these circumstances, emotion regulation refers to the processes that determine the types of emotions to be experienced, when these emotions are experienced, and how the emotions are experienced and expressed (Gross, 2002). There are two key strategies for emotion regulation: antecedent-focused and response-focused regulation. Cognitive reappraisal is antecedent focused and expressive suppression is response focused.

Gross's (2002) emotion regulation framework was expanded by the inclusion of acceptance (Hayes, 2004; Wolgast, Lundh, & Viborg, 2011). Acceptance increases the options of emotion regulation by influencing both antecedent-focused and response-focused strategies. In the response stage, acceptance allows the experience of emotions without attempting to alter or suppress emotions (Wolgast et al., 2011). During the antecedent stage, acceptance reduces the impact of negative emotions and enables better recovery (Wolgast et al., 2011). Acceptance is posited to have a more direct effect than cognitive reappraisal on behavioural avoidance. Acceptance strategies are more adaptive than cognitive reappraisal in enabling the tolerance of more aversive emotional experience. Hence, acceptance approaches are negatively associated with avoidance (Wolgast et al., 2011).

The measurement of avoidance employed by Wolgast et al. (2011) may not be representative of overt behavioural response. More specifically, the situations presented in their study may not be representative of everyday life because they used film clips from movies. They also did not attempt to determine the factors that influence the use of different acceptance strategies. A measure developed by Nakamura and Orth (2005) could provide a better alternative to measure acceptance strategies.

Nakamura and Orth (2005) reviewed empirical studies and found that the influence of acceptance on physical and mental health is equivocal. Hence, they proposed a differentiation of the types of acceptance. Nakamura and Orth (2005) proposed that, when faced with unchangeable situations, a person could respond with active acceptance, resigning acceptance, or non-acceptance. Their proposal follows from the notion that acceptance has emotional, cognitive, and behavioural components (Wright & Kirby, 1999). Active acceptance at the cognitive and emotional levels leads to adaptive behaviours, as posited by cognitive theory (Wright & Kirby, 1999). On the other hand, resigning acceptance leads to passive behaviours, resigning thoughts with a poorer view of the future, and emotions that centre around denial, resignation, and hopelessness (Nakamura & Orth, 2005). Non-acceptance of unchangeable situations involves reactions that seek to regain control, refusal to admit the unchangeable nature of the situation, and emotions of anger or blame (Wortman & Brehm as cited in Nakamura & Orth, 2005).

Nakamura and Orth (2005) designed a study using vignettes to evaluate acceptance reactions to unchangeable situations. The results from their study showed that active acceptance was adaptive to unchangeable situations whilst resigning acceptance and non-acceptance could lead to problematic reactions. Active acceptance was positively related to

better mental health and behaviour control. In contrast, resigning acceptance was correlated with denial. While Nakamura and Orth (2005) provided a structure to measure acceptance strategies, they did not include a measure of self-concept such as global meaning. Hence, for the purposes of the current study it was deemed useful to utilize their design concept to evaluate the association of global meaning with acceptance reactions using the vignettes from their study.

Consistency of Coping Processes Across All Ages

This last section of the review examines the sampling requirements for the proposed study. Sampling is an important part of research design. It is necessary to understand if there are factors that could affect the study besides those factors that are included in the design, and age is one of the factors that could affect the present study. The following section explains the influence of age on coping.

From the development perspective, a linear progression model of life stages suggests there are differences in developmental milestones according to age (Jacobs, 2010). One develops linearly from one stage to the next with different developmental activities at each stage. However, there is no consistency in the linear models in the number of stages (e.g., eight stages in Erikson, 1965; three stages in Jacobs, 2010; nine stages in Levinson, 1986). The division of stages appears arbitrary. Instead of a linear model, Jacobs (2010) recommended a representation that is analogous with a spiral staircase. A complete turn of the spiral staircase occurs repeatedly as one progresses through each life stage. Key issues such as identity, generativity, and integrity are repeatedly explored at all ages. According to this model, the present author speculates that meaning in life would not be dependent on age but instead the issues are repeatedly explored as one progresses through life. Hence, the present author suggests that age is not an influential factor in the meaning of life although the focus for the search for meaning could differ at each stage (Steger, Kashdan, Sullivan & Lorentz, 2008). Recruitment of participants for the present study targeted all ages to validate the present author's proposition.

Aims and Hypotheses

The aim of the present study was to evaluate the relationships of global meaning with volunteerism and acceptance strategies at the point of occurrence of unchangeable day-to-day difficulties. Consistency of these relationships across age groups was also evaluated in the present study. Global meaning is operationalized by measures of the meaning of life, goals, and R/S. Volunteerism is proposed to be a measure of current behaviours based on one's meanings made. Acceptance strategies at the point of the unchangeable life situations were solicited through the use of vignettes. In accordance with the study aim, three hypotheses were proposed. Firstly, greater emphasis on purpose in life, intrinsic goals, and R/S would predict a higher commitment to volunteerism. Secondly, greater emphasis on purpose in life, intrinsic goals, and R/S would predict greater use of active acceptance and less use of resigning acceptance and reactance in the vignettes. Finally, the influence of higher purpose in life, intrinsic goals, and greater R/S is consistent across all ages.

Method

Participants

In all, 348 participants completed the survey. The participants' ages ranged from 18 to more than 70 years. Fifty two percent of the participants were not students, 37% were students at James Cook University Singapore, 6% were students at James Cook University Australia, and 5% were students from universities other than James Cook University. The participants from the purposive recruitment source were predominantly older than the participants from the JCU student recruitment source. While the gender distribution for the purposive recruitment source is approximately equal, the female:male ratio for the JCU students is approximately 4:1. Singapore and Malaysia-born participants formed 71% and 12% respectively of the total sample.

Materials and Measures

The present study was a correlational survey design. The predictor variables were global meaning as measured by purpose in life, goals, and R/S experiences, beliefs and practices. The dependent variables were volunteerism behaviours and acceptance style of responses to unchangeable life situations depicted in vignettes.

The questionnaire was presented as an online survey. The questionnaire started with an information page and a consent page. The survey had 59 items in four sections that took approximately 20 minutes to complete. The first section consisted of four questions about participant demographics information.

Global Meaning scales. Three groups of scales were used to measure the Global Meaning construct. The first was the Purpose in Life test (Crumbaugh & Maholick, 1964). The scale comprises 20 items, with each item measured on a 7-point Likert scale. Alpha coefficients reported in the literature range from .86 to .97 and split-half reliabilities range from .77 to .85 (Melton & Schulenberg, 2008).

The second scale was Thompson and Pitts's (1993) unnamed 13-item measure to evaluate intrinsic and extrinsic goals. Participants are requested to rate the extent to which each goal is one of their goals on a four-point scale ranging from 1 (*Not at all*) to 4 (*Very much*). The reported Cronbach's alphas for the measures of goals range from .62 to .78 (Thompson & Pitts, 1993).

The third aspect of Global Meaning on R/S was measured using a battery of scales: the Daily Spiritual Experiences Scale (Underwood, 2011), the Spiritual Belief Scale (Schaler, 1996), and the Religious Background and Behaviour Questionnaire (Connors, Tonigan, & Miller, 1996). The Daily Spiritual Experience Scale has 15 items rating religious and spiritual experiences. The responses are rated on a 6-point scale ranging from *many times a day, every day, most days, some days, once in a while, and never or almost never*. Underwood (2011) reported a Cronbach's alpha of .85 for this scale.

The Spiritual Belief Scale measures spiritual thinking in the areas of release, gratitude, humility and tolerance (Schaler, 1996). Each of these areas is measured with two items giving a total of eight items that are rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Schaler (1996) reported a Cronbach's alpha of .92 for this scale.

The Religious Background and Behaviour Questionnaire have three sections. The first section reports the religious/spirituality background ranging from *atheist, agnostic, unsure, spiritual, and religious*. Participants are instructed to respond by selecting only the one category that best describes their own background. The second section comprising 6 items covers the frequency of religious/spiritual behaviours in the past year (e.g. "thought about God") that were rated on an 8-point scale ranging from 1 (*never*), (2-7 = (*rarely*), (*once a month*), (*twice a month*), (*once a week*), (*twice a week*), (*almost daily*)) to 8 = (*more than once a day*). The last section with 6 items covers the lifetime occurrences of religious/spiritual behaviours (e.g. "believed in God") on a 3-point ordinal scale ranging from 0 (*never*), 1 (*yes, in the past but not now*), and 2 (*yes, and I still do*). Cronbach's alpha for this measure has been reported as .85 and test-retest reliability as .97 (Connors et al., 1996).

Measure on volunteerism. The items used to measure volunteerism asked participants if they had participated in volunteer work in the past twelve months.

Vignettes and Acceptance/Reactance measure. Nine vignettes of unchangeable life situations developed by Nakamura and Orth (2005) were used to solicit the acceptance/reactance responses of the participants. The vignettes cover day-to-day events of various severities. The scenarios include malfunction of the television, breaking of a leg, failing the driving test, partner ending a relationship, missing a social event because of illness, a hairdresser ruins one's hair, loss of an important personal belonging, isolation at new work place, and friend discloses one's secret. The cognitive responses ("What do you think in such a situation?") and emotional responses ("How do you feel in such a situation?") for active acceptance, resigning acceptance, and reactance styles are rated on 4-point Likert scale: 1 (*Very unlikely*), 2 (*Unlikely*), 3 (*Likely*), or 4 (*Very likely*). Examples of cognitive responses are: *It is all right; I will not watch the television today* (active acceptance), *This evening is spoiled for me anyway – I will go to sleep* (resigning acceptance), and *I am going to complain at the store where I bought the television* (reactance). Examples of emotional responses are: *I am relaxed and do not take it too seriously* (active acceptance), *I am frustrated* (resigning acceptance), and *I am angry* (reactance). Cronbach's alphas reportedly range from .75 to .85 for this measure (Nakamura & Orth, 2005).

Procedure

The survey was administered as an online questionnaire that was developed using an Internet web survey tool, SurveyGizmo (SurveyGizmo, 2011). The web link for the survey was presented to the participants via email or the James Cook University online research management system. Two methods were used to recruit participants for the study. Purposive recruitment was used to recruit participants from amongst the principal researcher's acquaintances. Convenience sample was used to recruit university student participants.

Results

The data were processed and analyzed using IBM SPSS Statistics Version 20.0 with alpha set to .05 for all analyses. The analyses evaluated the statistical significance of the variables purpose in life, extrinsic and intrinsic goals, and R/S as predictors for volunteerism and acceptance/reactance strategies to unchangeable life events. Consistency of these influences across ages was also evaluated.

A total of 419 participants accessed the online survey. Of the total access, 348 surveys were fully completed (83%) and 71 only partially completed. Only the 348 fully completed surveys are included in the study.

Reliabilities

Cronbach's coefficient alpha was used to evaluate the reliabilities of the measures. The reliabilities of all measures except for the intrinsic goals subset of Thompson and Pitts' measure exceeded the recommended minimum of .7 (Table 1). In previous literature, reported reliabilities for the intrinsic goals measure range from .62 to .71 (Thompson & Pitts, 1993). Since the present reported reliability is within the range, no change was made to the items in the intrinsic goals measure in the present study.

Table 1

Means, Standard Deviations, and Reliabilities of Measures

Measures	Possible Min/Max Scores	Mean	SD	Cronbach's alpha
Purpose in Life Scale	20/140	105.56	16.17	.91
Extrinsic Goals	1/4	2.96	.44	.78
Intrinsic Goals	1/4	3.46	.35	.67
Daily Spiritual Experiences Scale	16/94	57.08	20.10	.96
Spiritual Beliefs Scale	8/40	29.03	9.33	.94
Religious Background and Behaviours Scale	0/58	28.50	17.18	.93
Active Acceptance	18/72	50.20	8.10	.89
Resigning Acceptance	18/72	42.47	6.83	.82
Reactance	18/72	40.86	8.78	.88

Preliminary Data Checks

With the exception of the Spiritual Beliefs and Religious Background and Behaviours scores, all scores conformed to the normality guidelines and are eligible for parametric tests.

Multi-collinearity of the three R/S measures was a concern because the Pearson correlations between the measures were > .7 (Table 2) (Pallant, 2007). This indicated a strong likelihood of redundant variables assessing spirituality, which necessitated the selection of one of the three scales as a measure of R/S. The Daily Spiritual Experiences scale is the more commonly used measure (Underwood, 2011), has psychometric validity in multiple languages, and was normally distributed. Hence, the Daily Spiritual Experiences scale was preferred over the other two scales as the predictor measure in the following analyses.

Table 2

Correlations between Three Religiosity/Spirituality Measures

Variable	Daily Spiritual Experiences	Spiritual Beliefs Scale
Daily Spiritual Experiences	-	
Spiritual Beliefs Scale	.813**	-
Religious Background and Behaviours	.861**	.812**

** Pearson correlation is significant at the .01 level (2-tailed)

Data Treatment

There were few participants in the older age group of 60 years and above (2.3%) and the youngest age group of 18 to 19 years (8.0%). Thus, the number of age groups was consolidated from seven to four groups.

Order of variables in the regression analysis

Hypothesis 1 (H1) proposes that greater emphasis on purpose in life, intrinsic goals and R/S and a lower focus on extrinsic goals would predict a higher commitment to volunteerism. Volunteerism of the participants was differentiated by whether or not they participated in volunteer work in the past 12 months.

Hypothesis 2 (H2) proposes that the same predictors would be associated with greater use of active acceptance and less application of resigning acceptance and reactance.

Hypothesis 3 (H3) proposes that the influences of the predictor variables purpose in life, extrinsic and intrinsic goals, and R/S on volunteerism and acceptance strategies are consistent across all ages.

In the analyses for H1 and H2, the purpose in life, intrinsic goals, extrinsic goals, and R/S variables were entered together in one block of the regression analysis to evaluate the significance of the predictors. A logistic regression method was used for the analysis on volunteerism (H1) because the volunteerism variable was categorical. Multiple regressions were used for the analysis on acceptance strategies (H2) because the acceptance variables were continuous.

Prior to the entry of the predictor variables, the regression analyses included two controlled variables in the first step. Scores for one key measure, Purpose in Life, varied significantly with gender ($t(346) = 1.99, p < .05, 95\% \text{ CI: } .04 \text{ to } 7.2$). Hence, the gender variable was entered in the first step of the regression analyses to allow for the effect of gender to be controlled for before analyzing the influence of the predictors: purpose in life, extrinsic and intrinsic goals, and R/S.

The age variable was also included in the first step of the regression analyses to determine support for Hypothesis 3 (H3), which proposed that the effects of the predictor variables of purpose in life, extrinsic and intrinsic goals, and R/S on volunteerism and acceptance strategies are consistent across all ages.

The following sections present the results of both steps of the regression analyses for each of the hypotheses.

H1: Volunteerism participation in the past 12 months

Likelihood of volunteer participation in the past 12 months. After Step 2, the model containing all the predictors was still statistically significant, $\chi^2(6, N = 348) = 43.39, p < .001$, indicating the model was able to distinguish between participants who reported to be volunteers and non-volunteers. The model as a whole improved, and explained between 11.7% (Cox and Snell R square) and 15.7% (Nagelkerke R squared) of the variance of volunteer behaviour, and correctly predicted 63.8% of cases. As shown in Table 3, four variables made a unique statistically significant contribution to the model (age, extrinsic goals, intrinsic goals, and daily spiritual experiences). The strongest predictor was intrinsic goals, recording odds of 3.00. This means that participants with stronger intrinsic goals were 3 times more likely to volunteer than those who are less motivated by intrinsic goals. Furthermore, older participants and those with higher frequencies of daily spiritual experiences were associated with higher odds of volunteering. The odds ratio of .55 for extrinsic goals was less than 1, indicating that those who are motivated by extrinsic goals were less likely to volunteer than those for whom extrinsic goals are not a strong motivation.

Table 3

Logistic Regression Predicting Likelihood of Volunteer Participation in the Past 12 months

	B	S.E.	Odds Ratio
Step 1			
Gender	0.29	0.25	1.33
Age	0.45	0.10	1.57**
Constant	-1.45	0.42	0.23
Step 2			
Gender	0.19	0.26	1.21
Age	0.40	0.12	1.50**
Purpose in Life	0.01	0.01	1.01
Extrinsic Goals	-0.60	0.30	0.55*
Intrinsic Goals	1.10	0.39	3.00**
Daily Spiritual Experiences	0.02	0.01	1.02*
Constant	-4.64	1.47	0.01

** $p < .01$; * $p < .05$

In summary, H1 was partially supported. Extrinsic goals, intrinsic goals and daily spiritual experiences were statistically significant predictors of volunteer participation in the past 12 months.

H2a: Predictors of Active Acceptance

To test for the second hypothesis concerning predictors of acceptance, preliminary analyses confirmed that there were no violations of the assumptions of normality, linearity, multi-collinearity and homoscedasticity. Separate analyses were conducted for each of the three types of acceptance: active acceptance, resigning acceptance, and reactance.

After entry of the predictors in Step 2, the total variance explained by the model as a whole increased to 18.9%, $F(6, 341)=13.21, p < .001$. The model after Step 2 accounted for an additional 13.5% over Step 1, $F_{change}(4,341) = 14.19, p < .001$. The only statistically significant predictor is the purpose in life variable (beta = .34, $p < .001$). This implies that participants who have higher Purpose in Life scores were more likely to adopt an active acceptance strategy to unchangeable life events.

Table 4

Multiple Regression Predicting Active Acceptance

	B	SE B	β
Step 1			
Constant	48.22	2.31	
Gender	-1.30	0.95	-.08
Age	1.31	0.39	.19**
Step 2			
Constant	28.04	5.28	
Gender	-1.39	0.90	-.08
Age	0.55	0.40	.08
Purpose in Life	0.17	0.03	.34**
Extrinsic goals	-1.30	1.02	-.07
Intrinsic goals	2.34	1.33	.10
Daily Spiritual Experiences	0.01	0.02	.03

** $p < .01$

H2b: Predictors of Resigning Acceptance

After entry of the predictors in Step 2, the total variance explained by the model as a whole increased to 30.8%, $F(6, 341) = 25.27, p < .001$. The predictors account for an additional 19.9% of the total variance, F change (4,341) = 24.54, $p < .001$. There were three statistically significant predictors: gender (beta = .19, $p < .001$), purpose in life (beta = -.50, $p < .001$), and extrinsic goals (beta = .11, $p < .05$). Participants who were female, with lower purpose in life scores, and greater emphasis on extrinsic goals were more likely to adopt resigning acceptance strategies to unchangeable life events.

Table 5
Multiple Regression Predicting Resigning Acceptance

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	42.00	1.89	
Gender	2.65	0.78	.19**
Age	-1.24	0.31	-.22**
Step 2			
Constant	52.20	4.11	
Gender	2.77	0.70	.19**
Age	-0.15	0.31	-.03
Purpose in Life	-0.21	0.02	-.50**
Extrinsic goals	1.72	0.80	.11*
Intrinsic goals	0.67	1.04	.03
Daily Spiritual Experiences	0.02	0.02	.06

** $p < .01$, * $p < .05$

H2c: Predictors of Reactance

After entry of the predictors in Step 2, the total variance explained by the model as a whole increased to 22.8%, $F(6, 341) = 16.78, p < .001$. The predictors account for an additional 18.9% of the total variance, F change (4,341) = 20.82, $p < .001$. There were two statistically significant predictors: purpose in life (beta = -.42, $p < .001$), and extrinsic goals (beta = .29, $p < .001$). Participants who had a lower purpose in life score and greater emphasis on extrinsic goals were more likely to adopt a reactance strategy to unchangeable life events.

Table 6
Multiple Regression Predicting Reactance

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	42.51	2.53	
Gender	1.29	1.04	.07
Age	-1.20	0.41	-.16**
Step 2			
Constant	46.90	5.58	
Gender	1.74	0.95	.09
Age	0.32	0.42	.04
Purpose in Life	-0.23	0.03	-.42**
Extrinsic goals	5.67	1.08	.29**
Intrinsic goals	-1.20	1.40	-.05
Daily Spiritual Experiences	0.02	0.02	.05

** $p < .01$

In summary, H2 was partially supported. The greater emphasis on purpose in life was associated with greater use of active acceptance and less application of resigning acceptance and reactance. Lower focus on extrinsic goals was associated with less application of resigning acceptance and reactance but was not related to more application of active acceptance. There was no significant prediction from intrinsic goals or daily spiritual experiences.

H3: Influence of Age on Volunteerism, Active Acceptance, Resigning Acceptance, and Reactance

Age was included in Step 1 in the logistic regression analyses of volunteerism behaviours and the hierarchical multiple regressions of active acceptance, resigning acceptance and reactance strategies. This was to examine the validity of Hypothesis 3 which proposed that age would not be a factor in the fore-mentioned variables, given that age is not expected to be influential in the development of meaning of life and thus acceptance strategies should be consistent across all ages. After Step 2, the age variable was a statistically significant variable only in regression models for volunteerism (volunteerism in last 12 months) and not for the acceptance strategies.

The results partially support H3. The influences of the predictor variables purpose in life, extrinsic and intrinsic goals, and R/S on volunteerism were not consistent across ages. There were differences in volunteerism across ages; volunteerism in the past 12 months was associated with older participants. However, the influences of the predictors on acceptance strategies were consistent across all ages.

Discussion

The present study aimed to evaluate the influence of global meaning on volunteerism behaviours and on acceptance strategies in response to unchangeable life events. The study is based on the meaning making model proposed by Park (2010). Global meaning is operationalized with the measures of purpose in life, extrinsic and intrinsic goals, and R/S. Volunteerism is proposed to be a measure of meaning made. Acceptance strategies, proposed as a representation of meaning-making processes and meaning made, were measured for unchangeable life events as simulated through vignettes. The results supported most of the hypotheses, confirming the relevance of Park's meaning making model and the validity of the proposed measures. A summary of the results follows.

H1 Volunteerism

Volunteerism behaviours in the past 12 months. The present results support the proposition by Garland et al. (2008) of a dynamic transactional relationship between religious faith and service to the community, in that R/S was related to volunteerism behaviours in the past 12 months.

Age was a significant predictor for the variable on volunteerism participation. The older participants were more likely to provide volunteer service in the past 12 months. This was consistent with results from previous studies (e.g., Clary, Synder & Stukas, 1996). Further discussion is made in the later section on the influence of age on the meaning making model.

In addition to providing supporting evidence for previous studies, the present study augmented the previous studies by showing the association of life goals with volunteerism behaviours in the past 12 months. This finding indicates that meaning making models could contribute to studies of volunteerism.

H2 Active Acceptance, Resigning Acceptance, and Reactance Strategies

Hypothesis 2 covers a proposition that global meaning could be represented by purpose in life, extrinsic and intrinsic goals, and R/S. H2 also posited that the meaning making process could be represented by acceptance strategies. These propositions were evaluated by the predictive relationships of global meaning with acceptance strategies using vignettes to depict unchangeable life situations. Consistent with Frankl (2004), purpose in life was a significant predictor of acceptance strategies. This lends support for purpose in life as a significant component of global meaning and contributes to the use of acceptance strategies in the meaning making process.

However, only extrinsic goals were predictive of two types of acceptance strategies; intrinsic goals were not associated with any of the acceptance strategies. This was not in line with the expectations from theoretical considerations (Deci & Ryan, 1985; Emmons, 2003; Pinquart et al., 2009; Thompson & Pitts, 1993). One of the possible explanations for the lack of predictive associations of intrinsic goals is the nature of the vignettes used in the present study. The unchangeable life situations were not associated with intense distress such as being diagnosed with cancer or death.

R/S was not predictive of acceptance strategies. Wortmann and Park (2009) proposed that the assimilation and accommodation processes based on R/S influences resolve the discrepancies between global meaning and situational meaning. Acceptance of losses is part of the assimilation process. The accommodation process involves repetitive meaning making iterations that could spread over years. As such, from the theoretical perspective, R/S is likely to be related to acceptance strategies. The lack of a significant prediction by R/S from the present results could be explained as follows. For intense life situations, the accommodation process is posited to be repetitive in nature and takes time to take effect

(Wortmann & Park, 2009). However, since most of the unchangeable life situations proposed in the present study was not intense and the responses were solicited in a relatively brief survey, it is not likely that accommodation processes were activated.

Active Acceptance. Participants who have a higher purpose in life score appear more likely to adopt an active acceptance strategy to unchangeable life events. The influence of gender and age were removed after the introduction of the purpose in life influence as a predictor. This suggests that the association of purpose in life with acceptance strategies is independent of gender and age.

Resigning Acceptance. Participants who are female, with lower purpose in life scores and greater emphasis on extrinsic goals appear more likely to adopt resigning acceptance strategies to unchangeable life events. More than 80% of the participants were from Singapore and Malaysia, pointing to a possibility of a cultural influence on the association of gender with resigning acceptance.

Reactance Strategies. Participants who have a lower purpose in life score and greater emphasis on extrinsic goals appear more likely to adopt a reactance strategy to unchangeable life events. The influence of age was removed after the introduction of the predictor variables of purpose in life and extrinsic goals.

In summary, the consistency of purpose in life as a predictor of acceptance strategies provides support for the relationship of global meaning and meaning making processes in the meaning making model. The extrinsic goals variable added to the predictive value for resigning acceptance and reactance strategies.

H3 Age

Age was a significant predictor of volunteerism in the past twelve months. It thus appears that the influence of the various predictor variables on volunteerism could be moderated by age. In contrast, age was not a significant predictor of acceptance strategies. This supports the proposition by the present author that the influence of global meaning on meaning making processes is not dependent on age. Specifically, age was no longer a significant predictor for active acceptance once purpose in life was introduced as a predictor variable. Similarly for resigning acceptance and reactance, age was also not a significant predictor when purpose in life and extrinsic goals were introduced as predictors.

The presence of age as a moderating variable for volunteerism and not acceptance strategies suggests a few possibilities. Firstly, global meaning as a construct could include variables that represent the influence of age. Beliefs are not measured in the present study although Park (2010) suggested that they form one of the components of global meaning. In this context, beliefs include one's self-views of justice and benevolence (Janoff-Bulman, 1989). In the functional theory of volunteerism (Clary et al., 1998), the function of one's volunteer work varies for oneself. The values function is a measure of one's altruism and humanitarian motives for volunteer work and was found to be one of the differentiators of volunteers and non-volunteers (Clary et al., 1996). Perhaps the inclusion of a measure of beliefs in global meaning could contribute to the measure of the values function in volunteerism and reduce the moderating effect of age. Secondly, volunteerism may not be a proxy for meaning made and age might therefore be a moderator of the effects of the representations for global meaning. Thirdly, this characteristic is specific for the sample used in the present research. Fourthly, the survey items measuring volunteerism may not represent the construct of volunteerism sufficiently. For example, volunteer work may have been made compulsory instead of being freely chosen during the secondary school and junior college years of the younger participants. Stukas, Snyder and Clary (1999) reported that students who had a lower intention to volunteer but were required to volunteer by institutionalized programs had lower future intention to volunteer. Since older participants are more likely to be given the freedom to choose their volunteer work compared with younger students, it could account for the differences in volunteer behaviour by age. The nature of volunteer work could also differ substantially (Piercy et al., 2011). For example, volunteering for fund raising activities compared with activities at a home for the elderly could require a substantive difference in motivation for the volunteer work. More demanding volunteer work may be needed to activate the influence of purpose in life, goals and R/S.

The present author speculates that the inclusion of measures of beliefs as a component of global meaning together with additional details on volunteerism could account for the influence of age on volunteerism.

Implications for Clinical Research and Practice

The present study provides empirical support for possible measures of the constructs in the meaning making model (Park, 2010). Specific profiles of purpose of life, goals, and R/S predicted volunteerism behaviours and acceptance strategies providing empirical support for the validity of the predictors to represent the global meaning construct.

The results from the present study suggest that extrinsic and intrinsic goals and R/S could be important influences of volunteer behaviour. Together with the information on the influence of age and gender, the profile of extrinsic and intrinsic goals and R/S could be used to improve recruitment of suitable candidates for volunteer work.

The results also support the use of vignettes as a viable research vehicle. The present research used simple, single-stage vignettes. Future studies could use multi-stage vignettes (Finch, 1987) to simulate the various stages of hypothetical events.

The predictability of the acceptance strategies applied in unchangeable life events by global meaning could be of value to the psychotherapy of clients. Purpose in life predicted acceptance strategies. In addition, extrinsic goals are also a significant predictor of resigning acceptance and reactance strategies. Hence, the predictor measures of purpose in life and extrinsic goals may help in the case formulation, prognosis, and tracking of progress of therapeutic changes. Inventories of the predictors could be used at intake assessments to determine the likely acceptance styles of the clients. This information could be used to help in the analysis of the difficulties faced by the clients. Interventions could be designed to focus on the deficits in meaning of life and goal setting to improve acceptance strategies and reduce maladaptive strategies. The same inventories could be used to track progress of the interventions. Furthermore, as a preventive initiative, public education on the meaning making model could help the community become better prepared and equipped to handle possible unchangeable life events. The consistency of the acceptance strategies across all ages suggests that it is never too early to share these concepts. Meaning of life need not be a concept only for older people but is also applicable to adolescents.

Limitations

Past studies involved participants from Western cultures (e.g. Park, 2008; Schnell, 2010). In contrast, the participants for the present study were mainly of Chinese ethnicity, from Singapore and Malaysia. Cultural differences could arise from participants in other countries with predominantly Western-oriented cultures but the findings detailed important information about this Asian sample.

Despite attempts to recruit a reasonably representative sample, the gender distribution of the participants does not represent the general population. The significance of gender as a predictor of the outcome measures could be influenced by the uneven gender distribution in the sample.

While the specific results of the present study may be questioned because of the limitations in the present design, the objective of the study as an initial step in the study of the meaning making model and to guide future research in this area is met.

Future studies could consider alternative scales that are not collinear with the Daily Spiritual Experiences Scales to improve the measure of R/S. For example, future studies should also collect information on valence of beliefs and prayers and evaluate its impact (Lysne & Wahholtz, 2011). The 35-item Aspiration Index (Kasser & Ryan, 1993) could improve the measure of goals in future studies. The trade-off between the brevity of the scale used in the present study compared with the more detailed items in the Aspiration Index should be evaluated.

In the present study, volunteerism was used as a proxy for meaning made. However, this may not be a comprehensive view. Future studies should include other measures for the construct of meaning made. For example, either perceptions of growth or positive life changes (Park, 2010) could be a good measure of meaning made. This is in line with theories on posttraumatic growth (Janoff-Bulman 2004). Alternatively, a more comprehensive perspective of volunteerism could be gathered by gathering information about the specific functions of volunteerism (Clary et al., 1998).

The results from the analysis of volunteerism also suggest the benefits of the inclusion of a measure of beliefs as a component of global meaning, in line with Park's model. A possible scale for the measure of beliefs is the World Assumptions Scale (Janoff-Bulman, 1989).

In the present study, the vignettes depicted scenarios that were not overly distressing. Future studies could evaluate the use of more drastic events. In addition, the sequence of vignettes could be used to evaluate the meaning making process. To further the investigation of acceptance approaches, scales that are more central to ACT, such as the Acceptance and Action Questionnaire (Hayes et al., 2004) could be used. These scales could overcome the possible weakness in the use of the acceptance strategies in Nakamura and Orth (2005).

Conclusion

The present study is but a small step in understanding and finding empirical support for the meaning making model (Park, 2010). The results from the study suggest that from a foundation of strong purpose in life, intrinsic goals, and R/S,

one is in a better position to grow from negative life events. Together with volunteerism that encourages one to have an outward looking perspective in life, values in oneself could be developed and reinforced, further strengthening one's abilities to face negative events in life. In short, knowing the why would help one to find ways to the how, even in the face of suffering. Frankl's gems of wisdom for living a meaningful life remain a constant guide (Frankl, 2004).

References

- Ciarrochi, J. V., & Bailey, A. (2008). *A CBT practitioner's guide to ACT*. Oakland, CA: New Harbinger.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, *74*, 1516-1530.
- Clary, E. G., Snyder, M., & Stukas, A. A. (1996). Volunteers' motivations: findings from a national survey. *Nonprofit and Voluntary Sector Quarterly*, *25*(4), 485-505. doi: 10.1177/0899764096254006
- Connors, G. J., Tonigan, J. S., & Miller, W. R. (1996). A measure of religious background and behaviour for use in behaviour change research. *Psychology of Addictive Behaviours*, *10*(2), 90-96. doi: 10.1037/0893-164X.10.2.90
- Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology*, *20*, 200-207. doi: 10.1002/1097-4679(196404)20:2<200
- Debats, D. L. (1998). Measurement of personal meaning. In P. T. P., Wong, & P. S., Fry (Eds.). *The Human Quest for Meaning: A Handbook of Psychological Research and Clinical Applications* (pp. 237 - 260). New York: Taylor & Francis.
- Deci, E.L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Emmons, R. A. (2003). Personal goals, life meaning, and virtue: Wellsprings of a positive life. In C.L.M. Keyes (Ed.), *Flourishing: The positive person and the good life* (pp. 105-128). Washington, DC: American Psychological Association.
- Erikson, E. (1965). *Childhood and society*. London: Penguin.
- Finch, J. (1987). The vignette technique in survey research. *Sociology*, *21*(1), 105-114. doi: 10.1177/0038038587021001008
- Frankl, V. E. (2004). *Man's search for meaning*. United Kingdom: Ebury Publishing.
- Garland, D. R., Myers, D. M., & Wolfer, T. A. (2008). Social work with religious volunteers: activating and sustaining community involvement. *Social Work*, *53*(3), 255-265.
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, *39*, 281-291. doi: 10.1017/S0048577201393198
- Jacobs, M. (2010). *The Presenting Past (Third Edition)*. New York: Open University Press
- Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, *7*(2), 113-136.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.
- Janoff-Bulman, R. (2004). Posttraumatic growth: Three explanatory models. *Psychological Inquiry*, *15*(1), 30-34.
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioural and cognitive therapies. *Behaviour Therapy*, *35*(4), 639-665. doi: 10.1016/S0005-7894(04)80013-3
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2nd Ed.). (2012). *Acceptance and Commitment Therapy*. New York: Guilford Press.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., ... McCurry, S. M. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, *54*, 553-578.
- Hughes, R., & Huby, M. (2002). The application of vignettes in social and nursing research. *Journal of Advanced Nursing*, *37*(4), 382-386. doi: 10.1046/j.1365-2648.2002.02100.x
- Independent Sector. (1992). *Giving and volunteering in the United States: Findings from a national survey, 1992*. Washington, DC: Author.
- Kabat-Zinn, J. (1990). *Full castrastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Dell.
- Kasser, T. & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*, 410-422. doi: 10.1037/0022-3514.65.2.410
- Kim, S., & Esquivel, G. B. (2011). Adolescent spirituality and resilience: Theory, research, and educational practices.

- Psychology in the Schools*, 48(7), 755-765. doi: 10.1002/pits.20582
- King, L. A., Hicks, J. A., Krull, J. L., & Del-Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90(1), 179-196. doi: 10.1037/0022-3514.90.1.179
- Klinger, E. (2012). The search for meaning in evolutionary goal-theory perspective and its clinical implications. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd Edition) (pp. 23-56). New York: Routledge.
- Law, B. M. F., & Shek, D. T. L. (2009). Beliefs about volunteerism, volunteering intention, volunteering behaviour, and purpose in life among Chinese adolescents in Hong Kong. *The Scientific World Journal*, 9, 855-865. doi 10.1100/tsw.2009.32
- Levinson, D. J. (1986). A conception of adult development. *American Psychologist*, 4(1), 3-13. doi: 10.1037/0003-066X.41.1.3
- Lyons, G. C. B., Deane, F. P., Caputi, P., & Kelly, P. J. (2011). Spirituality and the treatment of substance use disorders: an exploration of forgiveness, resentment and purpose in life. *Addiction Research and Theory*, 19(5), 459-469. doi:10.3109/16066359.2011.555022
- Lysne, C. J., & Wachholtz, A. B. (2011). Pain, spirituality, and meaning making: What can we learn from the literature. *Religions*, 2, 1-16. doi: 10.3390/rel2010001
- McDonald, M. J., Wong, P. T. P., & Gingras, D. T. (2012). Meaning-in-life measures and development of a brief version of the Personal Meaning Profile. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd Edition) (pp. 357-382). New York: Routledge.
- Melton, A. M., & Schulenberg, S. E. (2008). On the measurement of meaning: Logotherapy's empirical contributions to humanistic psychology. *The Humanistic Psychologist*, 36, 31-44. doi: 10.1080/08873260701828870
- Nakamura, Y. M., & Orth, U. (2005). Acceptance as a coping reaction: Adaptive or not? *Swiss Journal of Psychology*, 64(4), 281-292. doi:10.1024/1421-0185.64.4.281
- Nelson, J. M. (2009). Fundamentals of human development, religion, and spirituality. In J. M. Nelson (Ed.), *Psychology, Religion, and Spirituality* (pp. 211-243). New York, NY: Springer.
- Omoto, A. M., & Snyder, M. (1995). Sustained helping without obligation: Motivation, longevity of service, and perceived attitude change among AIDS volunteers. *Journal of Personality and Social Psychology*, 68(4), 671-686.
- Pallant, J. (2007). *SPSS survival manual*. Sydney, Australia: Ligare Book.
- Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues*, 61(4), 707-729. doi: 10.1111/j.1540-4560.2005.00428.x
- Park, C. L. (2007). Religiousness/Spirituality and Health: A meaning systems perspective. *Journal of Behavioural Medicine*, 30, 319-328. doi: 10.1007/s10865-007-9111-x
- Park, C. L. (2008). Testing the meaning making model of coping with loss. *Journal of Social and Clinical Psychology*, 27(9), 970-994.
- Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136(2), 257-301. doi: 10.1037/a0018301
- Penner, L. A., & Finkelstein, M. A. (1998). Dispositional and structural determinants of volunteerism. *Journal of Personality and Social Psychology*, 74(2), 525-537. doi: 10.1037/0022-3514.74.2.525.
- Piercy, K. W., Cheek, C., & Teemant, B. (2011). Challenges and psychosocial growth for older volunteers giving intensive humanitarian service. *The Gerontologist*, 51(4), 550-560. doi: 10.1093/geront/gnr013
- Pinquart, M., Silbereisen, R. K., & Frohlich, C. (2009). Life goals and purpose in life in cancer patients. *Support Care Cancer*, 17, 253-259. doi:10.1007/s00520-008-0450-0
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67. doi: 10.1006 / ceps.1999.1020
- Schaler, J. A. (1996). Spiritual thinking in addiction-treatment providers: The spiritual belief scale (SBS). *Alcoholism Treatment Quarterly*, 14(3), 7-33. doi: 10.1300/J020V14N03_03
- Schnell, T. (2010). Existential indifference: Another quality of meaning in life. *Journal of Humanistic Psychology*, 50(3), 351-373. doi: 10.1177/0022167809360259
- Segal, Z. V., Williams, J. M., & Teasdale, J. D. (2nd Ed.). (2013). *Mindfulness-Based Cognitive Therapy for Depression*. New York: Guilford Press.
- Steger, M. F., Kashdan, T. B., Sullivan, B. A. & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality*,

- 76(2), 199-226. doi: 10.1111/j.1467-6494.2007.00484.x
- Stukas, A. A., Snyder, M., & Clary, E. G. (1999). The effects of "mandatory volunteerism" on intentions to volunteer. *Psychological Science, 10*(1), 59-64.
- SurveyGizmo. (2011). SurveyGizmo. Retrieved from <http://www.surveygizmo.com>
- Thompson, S. C., & Janigian, A. S. (1988). Life schemes: A framework for understanding the search for meaning. *Journal of Social and Clinical Psychology, 7*, 260-280. doi: 10.1521/jscp.1988.7.2-3.260
- Thompson, S. C., & Pitts, J. (1993). Factors relating to a person's ability to find meaning after a diagnosis of cancer. *Journal of Psychosocial Oncology, 11*(3), 1-21. doi: 10.1300/J077V11N03_01
- Underwood, L. G. (2011). Ordinary spiritual experience: Qualitative research, interpretive guidelines, and population distribution for the Daily Spiritual Experience Scale. *Archive for the Psychology of Religion, 28*(1), 181-218.
- Wilson, K. G., Sandoz, E. K., & Kitchens, J. (2010). The valued living questionnaire: Defining and measuring valued action within a behavioural framework. *The Psychological Record, 60*, 249-272.
- Wolgast, M., Lundh, L.-G., & Viborg, G. (2011). Cognitive reappraisal and acceptance: An experimental comparison of two emotion regulation strategies. *Behaviour Research and Therapy, 49*, 858-866. doi:10.1016/j.brat.2011.09.011
- Wong, P. T. P. (2012a). Introduction: A roadmap for meaning research and applications. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd Edition) (pp. xxix-xlvi). New York: Routledge.
- Wong, P. T. P. (2012b). Toward a dual-systems model of what makes life worth living. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd Edition) (pp. 3-22). New York: Routledge.
- Wong, P. T. P. (2012c). From logotherapy to meaning-centered counseling and therapy. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd Edition) (pp. 619-647). New York: Routledge.
- Wortmann, J. H., & Park, C. L. (2009). Religion/Spirituality and change in meaning after bereavement: Qualitative evidence for the meaning making model. *Journal of Loss and Trauma, 14*, 17-34. doi: 10.1080/15325020802173876
- Wright, S. J. & Kirby, A. (1999). Deconstructing conceptualizations of 'adjustment' to chronic illness. *Journal of Health Psychology, 4*(2), 259-272. doi: 10.1177/135910539900400219