

PURPOSE, SELF-OTHER OVERLAP, AND SUBJECTIVE WELL-BEING: A CLUSTER-
ANALYSIS OF DISTINCT FEATURES OF PURPOSE

A Thesis

Presented to the Faculty of the Graduate School
of Cornell University

In Partial Fulfillment of the Requirements for the Degree of
Master of Arts

by
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May 2020

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ABSTRACT

A substantial body of research suggests possessing a purpose in life is beneficial for well-being. Yet, the diverse conceptual and methodological approaches that comprise this field vary widely in the mechanisms offered to explain these benefits. In this exploratory study, I consider three prominent approaches to the study of purpose in life that have emerged in recent decades: (1) the *psychological well-being* approach, (2) the *beyond-the-self* approach, and (3) the *self-organizing life aim* approach. Using measures designed to assess purpose uniquely within each approach, their combined association with indicators of subjective well-being are examined. A hierarchical cluster analysis conducted with a sample of adults ($N = 935$) indicated the presence of four distinct clusters: *self-focused*, *meandering*, *high purpose*, and *high purpose & self-other overlap*. Two clusters, *high purpose* and *high purpose & self-other overlap*, reported the highest levels of subject well-being overall, yet differed significantly on positive affect. Namely, *high purpose & self-other overlap* reported the highest levels of positive affect overall, suggesting that perceiving greater self-other overlap is important in optimizing the subjective well-being benefits of purpose. Overall, findings from this study motivate more person-centered analyses that integrate various approaches to purpose, and the discussion considers the promise of cross-cultural research into the various ways people feel connected to others.

Keywords: purpose, Beyond-The-Self, self-other overlap, subjective well-being, self, cluster analysis

BIOGRAPHICAL SKETCH

Christa Schmidt received her bachelor's degree in Psychology and International Studies from Bryn Mawr College, Philadelphia, PA.

ACKNOWLEDGMENTS

I would like to show my great appreciation to my advisor Dr. Anthony Burrow. Ever since the beginning he has encouraged and pushed me to write a thesis about a topic that I was really curious and interested about. He provided room for me to grow as an independent researcher, but always provided his guidance and help whenever needed. Thank you for your patience and guidance throughout this process!

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Introduction

Since the publication of Victor Frankl's renowned book, *Man's Search for Meaning* in 1959, many psychological researchers have been drawn to investigate the nature and significance of meaning and purpose in life. Over time, researchers have presented various definitions and conceptualizations of purpose and its function in people's lives. In order to better understand and integrate the current state of the field, the following literature review examines three major theoretical and methodological approaches of studying purpose that have emerged in recent decades. It is noteworthy that each approach reviewed here takes a unique perspective on purpose, representing distinct traditions within psychological inquiry as they each emerged roughly ten years apart. This review will highlight the notable contributions of these approaches and demonstrate the utility of integrating lessons learned from each in a more comprehensive investigation of purpose. The primary goal is to integrate these perspectives into a single and holistic analysis to explore its association with subjective well-being.

The first approach reviewed concerns the study of purpose as a component of well-being. A champion of this approach, Carol Ryff (1989, 1995, 2008) defines purpose in life as a fundamental component of psychological well-being and suggests that individuals who feel a greater sense of purpose should enjoy a host of positive outcomes. In support of this perspective, empirical studies have shown that having a greater sense of purpose is positively associated with mental and physical well-being across the lifespan. In young people, possessing purpose has been shown to be positively related to self-esteem (Kiang & Fuligni, 2010), hope and life-satisfaction (Burrow et al., 2010; Brock & Finch, 2010), and a clearer sense of identity (Burrow & Hill, 2011). In adults, purpose is positively associated with life satisfaction (Bundick et al., 2019), generativity (Hill, et al., 2010), greater physical health (Boyle et al., 2009; Kim et al., 2016), and even longevity (Boyle et al., 2009; Hill & Turiano,

2015). At the center of this approach is a theoretical claim that greater psychological well-being informs self-realization. This view suggests that it is important to measure the extent to which one feels like their life is purposeful in order to assess well-being.

The second approach to the study of purpose focuses less on its felt sense and more on its aspirational content. Pioneers of this perspective, William Damon and colleagues (Damon et al., 2003; Malin et al., 2013), assert that “purpose is a stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond-the-self” (Damon et al., 2003, pp. 121). Central to this definition is that purposeful individuals must aspire to contribute to others – or espouse beyond-the-self intentions. As studies of Beyond-the-Self (BTS) purpose have largely been relegated to youth populations, there is evidence that those who qualify as purposeful in this way enjoy greater life satisfaction (Bronk & Finch, 2010) and more positive youth development (Bundick et al. 2019).

The third approach views purpose as an integrative system of self-related beliefs. Namely, McKnight and Kashdan (2009) define purpose as a self-organizing life aim that guides one’s behaviors. These researchers suggest that one’s overall purpose and daily cognitive and behavioral aspects work in tandem. Through extensive understanding of the self, the individual becomes aware of their own life aims and thus are able to optimally allocate finite resources to pursue such aims. The theory postulates that sufficient alignment between overall purpose in life and daily behaviors can increase physical and mental health benefits. Although McKnight and Kashdan’s theory is based on the understanding of the purpose and capabilities of the self, the self is not explicitly defined by these theorists. Due to the varying conceptualizations of the self across people (Markus & Kitayama, 1991), this lack of operationalization leaves the role of the self in this theory unclear. To understand the importance of the self, there is a need to investigate how varying degrees of self-other

overlap interact with one's sense of purpose.

These three themes are prominent within the broader purpose literature and have influenced the methodological approaches and measures used to shape the inferences drawn about purpose. By reviewing each perspective, I aim to bring them into dialogue and attempt to describe how these three elements interact within an individual. To do so, I employ a person-centered analytic approach (i.e. cluster analysis) to explore the unique configurations of these aspects of purpose within individuals to identify subgroups. By finding clusters of individuals grouped together based on similar levels of sense of purpose, beyond-the-self, and self-other overlap, I was able to explore how these profiles of people differed on subjective well-being.

Literature Review

The following sections present three major theoretical and methodological approaches to the psychological study of purpose that have emerged in recent decades, where each approach represents a distinct thread of purpose research. The three approaches reviewed here include purpose as a component of well-being (Ryff, 1989), purpose with BTS intentions (Damon et al., 2003), and purpose as a self-organizing life aim (McKnight & Kashdan, 2009). The first aim of this literature review is to highlight the unique contributions of each approach, demonstrating their singular value to understanding the role of purpose in people's lives. After describing each approach, the further utility of synthesizing them into a holistic analysis to explore the relationship between purpose and subjective well-being is analyzed. The second objective is to examine the role of the self in purpose. The premise of the third approach is based on the necessity to have an extensive understanding of the purpose and capabilities of the self; however, the self is not defined in the theory. To understand the role of the self in purposeful aspirations, this study investigates how varying degrees of self-other overlap interact with purpose.

Purpose as a Component of Psychological Well-being

Ryff (1989) considers purpose in life a necessary component of psychological well-being. She contends that while a substantial amount of research focuses on examining the mechanisms behind psychological dysfunction, too little is known about how positive psychological health is acquired and maintained. Her work has been primarily concerned with characterizing eudaimonia and the specific components and mechanisms that contribute to living the good life. This led to her seminal paper (1989) that integrated and synthesized several scholars' work to produce the concept of *psychological well-being*, which is composed of six core fundamental pieces: self-acceptance, positive relations with others, autonomy, environmental mastery, personal growth, and purpose in life. Notably, sense purpose in life is but one component of her broader model, yet there is evidence to suggest it is an especially important component. A vast amount of research has illustrated the positive link between purpose and physical and mental health.

Subsequent research has utilized Ryff's framework and demonstrated the positive relationship between feeling a strong sense of purpose and several indicators of well-being across the lifespan. Some research has examined the role of having 'meaning in life' in adolescents, finding that individuals high in meaning report greater long-term self-esteem, academic attitudes, adjustment, and intrinsic motivation (Kiang & Fuligni, 2010). Identity development is a key asset in the development of adolescents, yet surprisingly, Sumner et al. (2015) find that purpose is a stronger predictor of well-being than identity. Some research has examined the link between purpose and subjective well-being in young individuals, finding that greater levels of purpose was associated with hope, positive affect, and life satisfaction for young people (Burrow et al., 2010; Bronk et al., 2009). Similarly, positive relationships between meaning in life and subjective and psychological well-being has also been found in older samples (King et al., 2006; Garcia-Alandete, 2015). Compared to their non-purposeful

counterparts, purposeful older adults indicated higher levels of positive adaptation and development like life satisfaction, gratitude, and personal growth (Bundick et al., 2019). Although these studies can't claim casual impacts, among numerous other studies, they continue to find evidence in support of the relationship between purpose in life and positive indicators of subjective and psychological well-being.

The above studies show that possessing a sense of purpose is positively associated with a broad range of psychological health. Researchers have extended this research to understand how purpose in life may be associated with physical health indicators, especially in adults. Studies have shown that people with a sense of purpose have better physical health, some even indicating longer life spans (Boyle et al., 2009, Hill & Turiano, 2014). Ryff (2004) found that in a sample of older women, individuals with higher levels of purpose in life had significantly lower chronic inflammation, higher HDL cholesterol (good cholesterol), and lower daily salivary cortisol. Studies suggest that individuals who report having a greater sense of purpose are less likely to experience heart attacks (Kim et al., 2013) or strokes (Kim et al., 2013), and enjoy having lower allostatic load at 10-year follow-up (Zilioli, Slatcher, Ong & Gruenewald, 2015). Even studies using only a single item to assess purpose (e.g., do you feel that your life has a sense of purpose?) have demonstrated a significant and positive association between purpose in life and longevity (Koizumi et al. 2008; Sone et al. 2008). Other studies that use longer scales of purpose replicate these findings, with significant positive associations between purpose in life and longevity (Boyle et al., 2009; Hill & Turiano, 2014). These studies suggest that purpose can act as a protective layer of physical health, especially for older adults.

This first approach examines the relationship between purpose and mental and physical well-being. Ryff believes that purpose in life is a fundamental component of psychological well-being and suggests that individuals who feel a greater sense of purpose should

experience a variety of positive outcomes. The research reviewed here underscores Ryff's notion of the positive implications of possessing a sense of purpose for people's mental and physical well-being across the lifespan. This section highlights the essential role a sense of purpose plays in physical and mental well-being.

Purpose as Requiring *Beyond-The-Self* Intentions

The second approach to the study of purpose focuses less on how strongly individuals feel a sense of purpose, and more so on the content of such aspirations. This approach is most thoroughly exemplified in Damon et al. (2003) scoping paper, where they characterized the field of purpose as lacking cohesion, specifically missing one set definition of purpose. To attempt to resolve this problem, they provide a unique definition that emphasized the 'how' and 'why' aspects of individuals' purposeful aspirations: "purpose is a stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self" (p.121). Based on this definition, people can only be deemed purposeful if they demonstrate a determined aim that is meaningful to the self as well as greater society. This definition has high utility for researchers in this area of study because the scope is highly specific and functional by providing three criteria to determine purposeful individuals: 1) intention of accomplishment in the future, 2) engagement of actions toward this accomplishment, and 3) prosocial reasons for such accomplishment. At the time of being surveyed for these types of studies, individuals must demonstrate the pursuit of such purpose through intent, engagement, and prosocial underlying motivations.

Damon and colleagues' definition can be differentiated from others by not only placing emphasis on the content of one's aspirations, but also on the potential for youth to cultivate this virtuous sense. Prior to their initial work, research examining the development of purpose prior to adulthood was scarce (see Burrow, Hill, Ratner, & Sumner, 2018 for a review). Damon et al. point out that because adolescence is a crucial time for identity

formation, young adults need to receive more attention in the literature in order to understand the acquisition of and development of purpose across the lifespan. Thus, a majority of studies utilizing Damon et al's definition study young adults' experiences with purpose. Although this definition, does not explicitly state purposeful aspirations need to be prosocial, many scholars have inferred it in this way. With a background in studying virtue, Damon and colleagues' emphasis on "consequences to the world beyond the self" has been interpreted as supporting prosocial purposeful aspirations. The majority of research produced utilizing this definition tend to use semi-structured interviews, where the interviewer follows a predetermined list of topics to be discussed. However, the guidelines also provide flexibility for the interviewer to stray from such topics and engage further in certain areas when necessary. The interviews are then coded for and participants are placed into a category of purpose (Malin et al., 2008; Quinn, 2017, Malin et al., 2013).

This line of research tends to show that only a small proportion of people meet the requirements of having BTS purpose, where estimates are typically forecasted around 20 – 40% (Moran, 2009; Malin et al., 2013; Quinn, 2017; Bundick et al., 2019). Moran (2009) interviewed students in 6th grade, 9th grade, 12th grade, and sophomore/juniors in college, twice across two years. This study found that only 25% of participants had purpose, with the amount of non-purpose individuals' decreasing and purposeful participants increasing across the cohorts. The difference between age groups across the subcategories elicits development postulations of purpose formation in adolescents. Utilizing the same data, Malin et al. (2013) found low levels of purposeful students, with no more than 9 in each age group ($N=146$). A major takeaway from this study is that purpose is not stable across adolescence: each age group had students that lost purpose between T1 and T2 or had gained it by T2. Quinn (2017) also used the same data set and found that 56% of participants did not possess BTS purpose across two years, making it the most common pattern. The second most common pattern was

maintaining BTS, which constituted 15.8% of the sample. The least common pattern was acquiring BTS orientation, with only 12.3% of participants engaging in such behavior.

Studies have started to examine correlates of BTS, such as Bronk & Finch (2010) who utilized profile analysis to study their sample. They found that no-purpose orientation individuals had the lowest life satisfaction, whereas individuals who demonstrated some purpose had higher levels. They also found that these clusters significantly differed across demographic variables such as gender, religious affiliation, and ethnicity. Last, they found that individuals who indicated self and other oriented purpose had more positive development compared to only other-oriented individuals. Most studies in this area tend to focus on young people; however, recently more attention has been placed on older adults. Bundick et al. (2019), for example, surveyed older adults investigating BTS. To assess which individuals were purposeful, participants were asked to rate how personally important 10 goal statements were to them, and how committed they were to their top five. Results indicated that 31% of participants were purposeful, suggesting that obtaining purpose focused on others is not common, and only a small subset of the population may have such tendencies.

The BTS approach focuses on the content of people's purposeful aspirations. Damon and colleagues believe that truly purposeful people are individuals that aspire to contribute to others – or express beyond-the-self intentions. The research reviewed shows that only a small proportion of people meet the requirements of having BTS purpose (Moran, 2009; Malin et al., 2013; Quinn, 2017; Bundick et al., 2019). This section suggests that studying the content of purposeful pursuits provides an important facet of such research.

Purpose as a Self-Organizing Life Aim

The third approach emphasizes purpose as an overarching and health-governing life aim. Championing this view, McKnight and Kashdan (2009) define purpose as a self-organizing life aim, that provides individuals with an overall framework that motivates

optimal allocation of resources. They propose that like a compass, purpose provides a direction to strive for and reach. This underlying sense of purpose can motivate daily behavioral and cognitive decisions that may or may not be in accord with their overall framework. Related to behavioral congruence models, people can attain the greatest level of positive well-being by engaging in decisions that are in alignment with their overall purpose. One study by McKnight and Kashdan (2013), especially exemplifies the significant role of purpose as a self-organizing life aim. The researchers chose to examine how purpose plays out in individuals with Social Anxiety Disorder (SAD), because of their lack of approach motivation, tendency to avoid unwanted and unsafe outcomes, and inhibition to pursue their own aspirations. SAD and healthy participants were first asked to identify their purpose in life. Daily levels of self-esteem, meaning in life, positive and negative affect, and perceived effort and progress towards purpose were recorded. Compared to healthy individuals, SAD individuals generally had lower daily self-esteem, meaning in life, positive emotions, effort and progress towards purpose. However, on days where SAD individuals reported greater effort and progress towards pursuing their purpose, they reported higher levels of self-esteem, meaning in life, and positive affect. These significant differences were not found for healthy individuals, except for self-esteem on days with greater progress towards purpose. This study shows that for people who struggle with SAD, higher reported levels of effort and progress towards their purpose can mitigate the negative effects of this disorder. These findings emphasize the importance of the presence and active engagement with one's own self-organizing life aim.

McKnight and Kashdan (2009) explain that the relationship between a self-organizing life aim and health is due to the optimal allocation of finite resources such as time, energy, and effort. By understanding the main aspirations of the self, the individual is able to identify and distribute the necessary resources of such pursuits. To explain this process, McKnight

and Kashdan have identified a three-part mechanism that sheds light on the process between self-organizing life aim and health. The first part of their model is 'scope', which is how central an individual's purpose is, which determines how prevalent and constant their purpose is across different contexts and conditions. Strength is the second part, which is how strongly the individual's purpose shapes their actions, thoughts and emotions that are in line with their underlying purpose. The third segment of this mechanism is awareness, which refers to how cognizant the individual is of their purpose. McKnight and Kashdan suggest that when a person is unaware of their purpose but still motivated by it, this can create greater levels of cognitive load and ultimately decreasing efficient resource distribution. They believe that scope and strength interact with awareness so that a purpose that is broad and strong should be readily available and salient to the individual. Thus, having awareness of one's purpose integrates and synthesizes motivation and behavior into an overall framework, which results in decreased levels of cognitive load.

To support their theory, McKnight and Kashdan synthesize different areas of research to demonstrate the logic underlying the function of purpose. They demonstrate that across disciplines, like economics, evolution, and psychoneuroimmunology, it is crucial to understand the abilities and objectives of the self, in order to optimally allocate resources. In economics, countries allocate production of goods to different countries based on being advantageous in that area, known as comparative advantage, in order to reach optimal efficiency levels. On an individual level, managers may allocate tasks to different workers to optimize production. Regarding evolution, having a purpose may causally force efficient allocation of resources, with those being the most efficient allocators also tend to be the most adaptive and thus having the greatest longevity. In psychoneuroimmunology literature, it is suggested that chronic stress suppresses immunity. McKnight and Kashdan express that when people without a self-organizing life aim are confronted with stressful unpredictable events,

this may have detrimental impacts on their well-being.

This third approach views purpose as a self-organizing life aim that guides one's daily cognitive and behavioral processes. Through in-depth understanding of the self, the individual is aware of their purpose in life and thus are able to optimally allocate finite resources to pursue such purpose. This theory postulates that alignment between overall purpose in life and daily behaviors can increase physical and mental health benefits.

The Role of the Self in Purpose Research

A major component of McKnight and Kashdan's theory is an extensive understanding of the self; however, a definition of the self is not provided, allowing the reader to exert their own interpretation of it. McKnight and Kashdan contribute a description of the underlying process between a self-organizing life aim and health, emphasizing the role and benefits of such a life aim. However, the effectiveness of a self-organizing life aim is contingent on the individual's comprehensive understanding of the self, which facilitates the two required elements of this process. First, the individual needs to be self-aware enough to be cognizant of the most important elements of their life, leading to identifying their purpose. Second, the self needs to understand the advantages and limitations of their own capabilities in order to efficiently allocate resources to pursue their purpose.

Although this theory is fundamentally based on the extensive understanding of the self, the self is not defined in this theory. Subdisciplines like social and cultural psychology, have shown that conceptions and interpretations of the self vary across people and situations (Tajfel & Turner, 2004; Markus & Kitayama, 1991). For example, in cultural psychology, individuals from more collectivistic societies tend to include their ingroup members as part of their conceptions of the self (Wuyun, 2014; Markus & Kitayama, 1991). Thus, if such a person were asked about their purpose in life, their response may be indicative of the collective ingroup purpose, instead of them as a singular individual. Varying degrees of self-

other overlap can greatly influence the cognitive processes, allocation of resources, worldview, traits, and memories, among other facets, of the self (Aron et al., 2004). As McKnight and Kashdan's idea is based on the notion that health is the outcome of alignment of overall purpose and optimal resource allocation, understanding the parameters of the self seems crucial. Consequentially, by not including their conceptualization of the self, the implications, specifically related to health, of this self-organizing life aim are unclear.

This lack of understanding of the role of the self in the relationship between purpose and subjective well-being, motivated the study for this thesis. To do so, the highly utilized self-other measure: Inclusion of Other in the Self (IOS) Scale (Aron & Aron, 1992) was employed. This measure uses a single item pictorial measure with seven venn-diagrams with increasing degree of overlap between the 'self' and 'other' circles. Aron and Aron (1992) introduced their IOS scale because they wanted to address some of the limitations in other measures, like the Relationship Closeness Inventory. More specifically, they believed that a single item pictorial scale would be of great use for relationship research, especially studies that varied in age, language, and cultural groups. The objective of this measure was to gauge individuals' sense of interconnectedness with others. Aron & Aron's (1992) series of 10 studies investigated the validity of this measure, especially of concern for this thesis was that they found that the IOS scale had high concurrent validity with other closeness scales but was also empirically distinct. Moreover, they reported that participants interpreted the measure to be concerned of the interconnectedness of the self and other(s).

Many subsequent studies have utilized this scale and demonstrated its robustness across a variety of topics such as mimicry (Bourgeois & Hess, 2008), culture (Li, 2002), and discrimination (Craig & Richeson, 2012). One such study found that IOS clearly measured closeness with a partner and ingroup members (Smith et al., 1999). The researchers explained that their study did not just show that IOS was able to demonstrate the result of varying

degrees of self-other overlap, but also quantified the underlying cognitive processes of such outcomes. A study examining three levels of categorization: the self, ingroup, and outgroup found that the IOS scale was intercorrelated with two other explicit measures of self-other relations (Coats et al., 2000). The general findings of this study suggested that people maintain varying degrees of conceptualizations of the self and ingroups, which can shape cognitive and behavioral processes. Based on the IOS scale, Schubert & Otten (2002) created two additional items (scales for the self, ingroup, and outgroup) and demonstrated that this type of self-other pictorial measure had convergent validity with pre-existing self-other scales. Moreover, they showed that this pictorial measure acts as a ‘sensitive barometer’ in examining intergroup relations.

The Current Study

The current study was designed to explore and integrate these three prominent approaches to the study of purpose reviewed here, with a critical eye for the conceptualization of the self. This study was unique in two main ways. First, it operationalized the three theoretical approaches illustrated in the literature review within a single study. These three approaches represent major categories of purpose literature and provide a unique facet to understand the concept. This study employed a person-centered analytic approach to understand how these three approaches interact within a person by analyzing subjective well-being levels. Second, this study investigated the role of the self in purpose. McKnight and Kashdan’s theory situate self-organization as central for overall health and well-being. However, because conceptualizations of the self vary across people, the absence of their definition make the role of the self unclear in this theory. Thus, this study examines the role of the self, specifically how the degree of self-other overlap may interact with sense and content of purposeful aspirations.

Method

Participants and procedure. I recruited a sample of 1,015 participants through Amazon MTurk. After discarding 80 nonsense responses, the final data analysis included 935 individuals. Participants' age ranged from 18 to 78 ($M = 38.02$, $SD = 12.03$), and gender was split evenly with 50% being female. The sample consisted of 74.2% white individuals, with the remaining 25.8% indicating other backgrounds. The education level of participants was fairly high with 59.4% of participants holding a bachelor's degree or a more advanced degree. Each participant was paid \$1.50 USD through MTurk.

Independent Variable Measures

This study had three independent variables: sense of purpose, beyond-the-self purpose, and self-other overlap.

Sense of Purpose. The 6-item Life Engagement Test (Scheier et al., 2006) was used to measure individuals' sense of purpose in life. Participants were asked to rate how much they agree with each item (Sample items: To me, the things I do are all worthwhile; There is not enough purpose in my life (reverse scored)); on a 1 (strongly disagree) to 5 (strongly agree) scale; $\alpha = .890$.

Purpose Statement. To gauge the content of participants' purposeful aspirations, they were asked to write about their purpose in response to the following prompt: "Please tell us about your sense of purpose. What is it that you most want to accomplish or contribute? Even if you do not feel that you have a specific purpose at this time, consider who you are, what you value the most, and what you might want to work toward in the future". To measure participants' purposeful aspirations, RA's coded their purpose statements. Although the motivation for this component of the study was Damon and colleagues' BTS definition, their methodological approach was not used. Thus, the following results and discussion sections separate the terminology of BTS and beyond-the-self. BTS refers to Damon and colleagues'

definition of such individuals; whereas beyond-the-self is the label used to describe people who mention others in their purpose statements for this study.

In attempting to gauge participants level of beyond-the-self intentions, three criteria were applied using a coding scheme developed for the aims of this study. The first criteria examined if participants mentioned others (0: no mention of others, 1: mentioned others). In order to meet this criteria, people had to mention an entity outside of the self, including friends, family, community, society. The second criteria examined whether participants pursued their purposes with others (scored 1) or individualistically (scored 0). The third criteria examined if the motivations for engaging in their purpose was to benefit others (no benefit to others: 0; benefit to others: 1).

Before coding all participant data, four coders first coded 106 statements, where high levels of interrater reliability were found for criteria 1 ($\alpha = .954$) and criteria 3 ($\alpha = .919$). Criteria 2 received the lowest level of agreement ($\alpha = .587$), and thus was excluded from the main analyses, and so only criteria 1 and 3 were included. Because these two criteria were highly correlated ($r = .76, p < .001$), they were averaged and made into a single variable.

Self-Other Overlap. To evaluate participants' conceptualizations of the relationship between self and others, Aron & Aron (1992) self-other overlap single item pictorial measure was used. This measure presents participants with seven venn-diagrams, ranging from no overlap between the self-circle and other-circle (1) to a venn diagram portraying two circles that are almost entirely overlapping (7). Participants were asked: "Using the image above, how much do you consider other people as part of who you are?"

Dependent variable measures

This study has three dependent measures: positive affect, negative affect, and life satisfaction.

Positive and Negative Affect. To assess participants' general levels of affect, the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used. Participants are prompted with 10 positive (e.g. enthusiastic, proud, interested) and 10 negative (e.g. jittery, scared, distressed) emotion words and asked how much they generally feel each emotion based on a scale ranging from 1 (not at all) to 5 (extremely; $\alpha = .843$).

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener et al., 1985) consists of 5 items and asks participants to rate how much they agree with each item (Sample item: In most ways my life is close to my ideal). Each item is assessed on a scale ranging from 1 (strongly disagree) to 5 (strongly agree; $\alpha = .914$).

Results

Descriptive Statistics

Intercorrelations, means, and standard deviations for all study variables are presented in Table 1. Results indicated that sense of purpose and self-other overlap ($r = .22$), self-other overlap and beyond-the-self ($r = .12$), and beyond-the-self and sense of purpose ($r = .16$) were all positively and significantly interrelated (all p -values $< .001$). In addition, sense of purpose was significantly positively related to positive affect ($r = .53$) and life satisfaction ($r = .55$), and negatively associated with negative affect ($r = -.51$). Self-other overlap was significantly positively associated with positive affect ($r = .43$) and life satisfaction ($r = .36$). Beyond-the-self was negatively correlated with negative affect ($r = -.12$). The average level of self-reported sense of purpose was relatively high, $M = 4.05$, $SD = .90$ (Table 2). Similarly, for self-other overlap, participants scored above the midpoint ($M = 4.82$, $SD = 1.74$) (Table 2). With respect to beyond-the-self-dimensions derived from the open-ended responses, 77.9% of the sample mentioned other people in their statements and 68.7% indicated having a purpose that was beneficial to others (Table 3).

Cluster Analysis: Ward's Method

A hierarchical cluster analysis using Ward's Method was conducted using transformed z-scores for the three independent variables. Though a range of cluster solutions with varying numbers of clusters (2-5) was considered, the conglomeration matrix was examined for large jumps in the convergence schedule. Such jumps have been used to indicate where ideal cluster numbers may be evident (Hair and Black, 2000). Based on this schedule, as well as other indices of a sound solution identification (e.g., reasonable sample sizes across clusters being theoretically justifiable, and empirical parsimony), a four-part clustering solution seemed ideal.

Each of the four clusters was assigned a label based on the patterning of the three independent variables of sense of purpose, beyond-the-self, and self-other overlap. The four clusters were labelled as follows: 1) *self-focused* ($n = 213$, 23%), 2) *meandering* ($n = 252$, 27%), 3) *high purpose* ($n = 301$, 32.5%), and 4) *high purpose & self-other overlap* ($n = 161$, 17.4%). Results displayed in Table 4 and Figure 1 show that *self-focused* participants had average sense of purpose ($M = .181$, $SD = .80$) and self-other overlap ($M = .01$, $SD = 1.01$) but low beyond-the-self ($M = -1.51$, $SD = .50$). *Meandering* participants were characterized by very low sense of purpose ($M = 1.176$, $SD = .86$), low self-other overlap ($M = -.52$, $SD = .899$), and average beyond-the-self ($M = .08$, $SD = .89$). Both *high purpose* and *high purpose and self-other overlap* participants had very similar moderately elevated sense of purpose and beyond-the-self ($M = .59$, $SD = .46$; $M = .49$, $SD = .51$, respectively). However, those who were in the *high purpose* cluster had somewhat lower self-other overlap ($M = -.24$, $SD = .66$), whereas those who were *high purpose & self-other overlap* had the highest levels of all groups ($M = 1.267$, $SD = .426$).

Cluster Analysis: K-means

To validate these findings produced by Ward's method, a K-means cluster analysis was conducted by imposing a four-group structure on the data. Similar levels for each group as found in Ward's method, emerged in the K-means analysis (Table 5). Importantly, considerable agreement between these two methods of cluster analysis found insofar that 64.6% of participants were grouped into a similar patterned cluster across both models. Table 6 shows the results of a one-way ANOVA for the K-means analysis, which indicates that each group is also statistically different across these three variables.

A one-way ANOVA demonstrated that these clusters significantly differed across the three clustering variables (Table 7). To better understand how each group differs across these variables, a post hoc Bonferroni comparisons was conducted. For the beyond-the-self variable, the *self-focused* cluster's mean was significantly lower than *meandering* ($M = -1.583, p < .001$), *high purpose* ($M = -2.154, p < .001$), and *high purpose & self-other overlap* ($M = -2.154, p < .001$) (Figure 1). The *meandering* cluster mean was higher than *self-focused* ($M = 1.583, p < .001$), but lower for *high purpose* ($M = -.572, p < .001$) and *high purpose & self-other overlap* ($M = -.572, p < .001$). The *high purpose* cluster mean was higher than *self-focused* ($M = 2.154, p < .001$) and *meandering* ($M = .572, p < .001$), but no difference was detected with high purpose and self-other overlap ($M = .000, p = 1.000$). The *high purpose & self-other overlap* cluster mean was higher than *self-focused* ($M = 2.154, p < .001$) and *meandering* ($M = .572, p < .001$), but no difference was detected with *high purpose* ($M = .000, p = 1.000$).

For the self-other overlap independent variable, *self-focused* cluster's mean was higher than *meandering* ($M = .523, p < .001$) and *high purpose* ($M = .243, p = .004$), but lower than *high purpose & self-other overlap* ($M = -1.261, p < .001$). *Meandering* cluster mean was lower than *self-focused* ($M = -.523, p < .001$), *high purpose* ($M = -.280, p < .001$),

and *high purpose & self-other overlap* ($M = -1.784, p < .001$). The *high purpose* cluster mean was higher than *meandering* ($M = .280, p < .001$) and lower than *self-focused* ($M = -.243, p = .004$) and *high purpose & self-other overlap* ($M = -1.504, p < .001$). The *high purpose & self-other overlap* cluster mean was higher than *self-focused* ($M = 1.26, p < .001$), *meandering* ($M = 1.784, p < .001$) and *high purpose* ($M = 1.504, p < .001$).

Regarding sense of purpose, *self-focused* cluster had a higher mean than *meandering* ($M = 1.357, p < .001$), but lower than *high purpose* ($M = -.410, p < .001$) and *high purpose & self-other overlap* ($M = -.313, p < .001$). The *meandering* cluster mean was lower than *self-focused* ($M = -1.357, p < .001$), *high purpose* ($M = -1.766, p < .001$) and *high purpose & self-other overlap* ($M = -1.670, p < .001$). *High purpose* cluster mean was higher than *self-focused* ($M = .410, p < .001$), *meandering* ($M = 1.766, p < .001$), and *high purpose & self-other overlap* ($M = .097, p < .875$). *High purpose & self-other overlap* had a higher mean than *self-focused* ($M = .313, p < .001$) and *meandering* ($M = 1.670, p < .001$), but lower than *high purpose* ($M = -.097, p < .875$).

Cluster Analysis: Dependent variables

Based on having determined a meaningful number of clusters, further analysis examined whether there were between-cluster differences in positive affect, negative affect, and life satisfaction (Table 8). A one-way ANOVA, Bonferonni corrected for the number of tests, indicated that the groups differed significantly on all three dependent variables (Table 9, Figure 2). Results indicated that the *meandering* cluster had the lowest subjective well-being, with the lowest positive affect ($M = 2.833$ SD = .807) and life satisfaction ($M = 2.577$, SD = 1.06), and highest negative affect ($M = 2.070$, SD = .868) than any other cluster. Compared to the *meandering* group, the *self-focused* cluster had higher levels of positive affect ($M = 3.610$, SD = .775), lower negative affect ($M = 1.689$, SD = .929) and higher life satisfaction ($M = 3.511$, SD = .921). *High purpose* and *high purpose & self-other overlap*

groups fared the best, with marginal differences. *High purpose and high purpose & self-other overlap* had comparable levels of positive affect ($M = 3.601$, $SD = .688$; $M = 3.922$, $SD = .641$), negative affect ($M = 1.419$, $SD = .579$; $M = 1.407$, $SD = .612$), and life satisfaction ($M = 3.604$, $SD = .846$; $M = 3.803$, $SD = .739$). Although both clusters' have very comparable positive affect, negative affect, and life satisfaction, the *high purpose & self-other overlap* cluster has stronger results across all three measures. Although the *high purpose & self-other overlap* group did better across all three variables, the only statistically significant difference found was positive affect ($p < .001$). Moreover, because the two clusters only significantly differed on self-other overlap ($p < .001$), this may be able to explain the stronger positive affect found.

Discussion

The current study was exploratory in nature, probing the relationship between various configurations of purpose within individuals and subjective well-being. This study sought to add to the current literature in two ways 1) by synthesizing three main approaches of studying purpose by using cluster analysis and 2) by investigating the role of the self in purposeful aspirations. Three main findings of this study are worth highlighting and thus are discussed more elaborately below. First, a cluster analysis demonstrated meaningful within-sample heterogeneity in the patterning of the three measures of purpose included in this study. Second, cluster membership was associated with differing levels of subjective well-being. Third, self-other overlap was shown to play a critical role in who, despite other levels of self-reported purpose, tended to experience the highest levels of subjective well-being.

First, the hierarchical cluster analysis employed in this study produced four distinguishable clusters: *self-focused*, *meandering*, *high purpose*, and *high purpose & self-other overlap*. The cluster with the lowest membership was *high purpose & self-other overlap* and the most populated cluster was *high purpose*. This may suggest the uniqueness

and rarity of the *high purpose & self-other overlap* cluster and the benefits experienced by its members. Participants in the *self-focused* cluster were characterized with comparatively low beyond-the-self, and average levels of sense of purpose and self-other overlap. The *meandering* cluster is dominated by relatively low sense of purpose and self-other overlap, and average beyond-the-self. Compared to the *self-focused* and *meandering* clusters, *high purpose* had high sense of purpose and beyond-the-self, but lower self-other overlap. *High purpose & self-other overlap* had high levels of sense of purpose and beyond-the-self, and the highest level of self-other overlap. The detection of these four clusters suggest that there is meaningful variability in the way people experience purpose as represented by the distinct approaches common across this literature. Specifically, these clusters demonstrate that the interaction between the different measures of purpose create unique experiences that is likely not captured in traditional assessments using singular measures. Future purpose research should utilize a person-centered approach to gauge a more comprehensive understanding of individuals (Bronk & Finch, 2010; Burrow et al., 2010).

Second, these four clusters revealed different patterns of subjective well-being. The results of this study found that the clusters possessing the lowest to highest levels of subjective well-being were: *meandering*, *self-focused*, *high purpose*, and *high purpose & self-other overlap*. Examining the differences between the *meandering* and *high purpose & self-other overlap* clusters, members of *meandering* experienced comparatively low levels of positive affect and life satisfaction, with high negative affect. This could be explained by the relatively low reported levels of sense of purpose and self-other overlap, and average beyond-the-self experienced by people in the *meandering* cluster. Whereas, the *high purpose & self-other overlap* cluster reported high levels of sense of purpose, beyond-the-self, and self-other overlap. The difference in subjective well-being found between *meandering* and *high purpose & self-other overlap* clusters is in line with past evidence that people with a high

sense of purpose experience more positive mental health (Kiang & Fuligni, 2010; Burrow et al., 2010). Similarly, high levels of beyond-the-self in the *high purpose* and *high purpose & self-other overlap* clusters supports the positive relationship between BTS and psychological well-being reported in BTS studies' (Bronk et al., 2009, Bronk & Finch, 2010). As noted, several studies have demonstrated the positive relationship between sense of purpose and physical health (Ryff, 2004; Kim et al, 2013; Koizumi et al., 2008; Boyle et al., 2009); however, research seems to be limited on this topic concerning BTS purpose (Moran, 2009; Malin et al, 2013; Quinn, 2017). This area of research could be broadened then to explore the relationship between beyond-the-self intentions and physical health. The variation across these clusters demonstrates that the unique configurations of these variables within a person is greatly related to the subjective well-being they are likely to experience. These findings lend support to future research to more fully examine the interaction between sense and content of purposeful aspirations and how together they are related to mental and physical health.

Third, the two clusters scoring the highest in subjective well-being were *high purpose* and *high purpose & self-other overlap*. The observable difference between these two clusters was in the extent they endorsed self-other overlap. *High purpose & self-other overlap* cluster had significantly higher levels of self-other overlap and positive affect than *high purpose*. As the only significant difference found between these two clusters is self-other overlap, it could be postulated that the significant higher levels of subjective well-being experienced by *high purpose & self-other overlap* members may be related to increased levels of self-other overlap. This finding demonstrates that perception of the self may be a crucial piece in understanding the relationship between purpose and subjective well-being. To my knowledge, there is no research examining the role of self-other overlap in the narrative of purpose. As this study has demonstrated that self-other overlap is crucial in examining self-

other overlap in the relationship between purpose and subjective well-being, future studies should continue to explore this association and other aspects of mental and physical well-being. It is noteworthy that even though this study was conducted on the US MTurk and had a majority of white participants, self-other overlap still demonstrated to be an important piece to examine. Thus, this study also motivates the analysis of the role of the self and purpose in people across cultures that may vary in perceptions of self-other overlap (Mariano, 2014).

Broader implications of the current findings for the field of purpose research

This study contributes to purpose literature in two main ways. First, this study showed that a person-centered approach can shed light on how distinct measures of purpose conspire within individuals, providing a more comprehensive and dynamic understanding of purpose. By only examining the direct relationship between purpose and a singular variable, like sense of purpose, may only capture a limited view of a person's experience (Bronk & Finch, 2010; Burrow et al., 2010). Moreover, if the interactions between these three variables were not examined, a more comprehensive understanding of subjective well-being may not have been found. Future research should continue to include holistic analysis of people's experiences of purpose in life. Second, this study revealed the importance of examining how participants understand the distance between the self and others. If this study only examined sense of purpose and beyond-the-self intentions in individuals, there would likely have been no apparent difference between *high purpose* and *high purpose & self-other overlap*. Instead, the inclusion of the self in this study shows that self-other overlap may be a crucial aspect to include in the narrative of purpose and subjective well-being. Although this study provides evidence of the importance to study self-other overlap with purpose, more research is essential to deeply understand the role of the self in this area.

The positive outcomes of this study concerning *high purpose* and *high purpose & self-other overlap* clusters, can also aid the development of purpose interventions. The

clusters that reported the highest subjective well-being were the *high purpose* and *high purpose & self-other overlap* clusters, wherein both had high levels of sense of purpose and beyond-the-self. Interventions could focus on cultivating both a strong sense of purpose and purpose that has beyond-the-self intentions in young and older adults (Ryff, 2004; Bronk & Finch, 2010). Burrow & Hill (2013) show that simply writing about purpose can act as a buffer in stressful settings. Interventions could utilize a similar paradigm by asking participants to write about their purpose but target sense and content of purpose. In such an intervention, participants could be prompted to discuss how strongly they feel purposeful and their beyond-the-self intentions. As the *high purpose & self-other overlap* cluster maintained the highest levels of subjective well-being, purpose interventions could also try to increase self-other overlap in participants. Interventions could try to enhance a sense of self-other overlap by increasing cognitive and behavioral overlap between the self and others. After providing participants with a distressing story, Myers et al. (2014) found that participants asked to imagine themselves – as opposed to imagining others or a control topic – had increased levels of perceived self-other overlap. Following suit, interventions could pose situations to participants and ask them to write about how it would feel to imagine themselves as the main character in the story.

Limitations and Future Directions

The novel insights gleaned in this study should be considered in light of some limitations. The current study utilized the MTurk platform to collect self-reported cross-sectional data. Recent studies show that the data collected from MTurk may be negatively impacting the quality of psychological research (Chmielewski & Kucker, 2020; Peer et al., 2017). The responses received from the MTurk participants in this study also speak to this limitation, as 80 non-sense responses had to be excluded from data analysis. To enhance future research, studies could pursue other ways in collecting such data, such as longitudinal,

experimental, or observational-behavioral methodologies, that are not solely based on self-report. It should be noted that the MTurk platform was useful for initiating this line of research because it allowed me to gauge participants' sense of purpose and self-other overlap, and evaluate their beyond-the-self intentions through short responses.

Future research attempting to replicate the overall pattern of findings of this study could benefit from more dynamic methodologies, such as longitudinal and experimental in person studies. As this study was based on cross-sectional data collected once, the extension and interpretation of the results is limited. Future research could examine how sense of purpose, self-other overlap, and beyond-the-self notions relate to long-term subjective well-being. This longitudinal work could be extended past self-report measures, by including experimental data. Self-reported levels on variables like sense of purpose and subjective well-being may not completely describe an individuals' experiences. Thus, future research in this area could use an experimental paradigm to deepen understanding of the relationship between purpose and subjective well-being, like manipulating sense of purpose. Combining longitudinal and experimental paradigms, short and long-term effects of manipulated purpose could be examined by levels of mental and physical well-being.

Last, the three criteria that guided the coding of the short responses of participants could be improved upon. Criteria 1 and 3 demonstrated high inter-rater reliability; however, criteria 2 had very low levels. This demonstrates that there may be a conceptual problem in this construct and thus if studied in the future, it would need to be greatly improved. Furthermore, compared to the low levels of BTS typically reported in Damon et al.'s studies, this study showed that a majority of the sample had beyond-the-self intentions. Typically, Damon and colleagues use in-depth interviews to determine a participant's level of purpose. Thus, the short responses received and simple criteria utilized, may not be fully capturing the

notions behind Damon et al.'s idea of BTS. Future research could consider deeper methods to examine beyond-the-self intentions, like essays or interviews.

Conclusion

This exploratory study found evidence of unique configurations of purpose within individuals and linked those configurations with differences in subjective well-being. The theoretical and methodological foundation of this study was based on three prominent approaches to the study of purpose, where each have provided the field an invaluable way to study the construct and immensely deepened our understanding. While these unique approaches have largely been considered separately in past work, this study synthesized these three into a single integrative analysis. This study also contributed a unique perspective by highlighting the crucial role of self-other overlap when investigating the relationship between purpose and subjective well-being. I hope this study is helpful for our endeavors in studying purpose and that future research can further the findings of this study.

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Appendix

Table 1. *Intercorrelations, means, and standard deviations for all study variables*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------------------------|--------|--------|--------|-------|--------|--------|--------|--------|
| 1. Age | – | .03 | -.03 | .08* | -.004 | .09** | .02 | .08* |
| 2. Gender | .03 | – | -.16** | .02 | -.09** | -.02 | .00 | -.05 |
| 3. Beyond-the-self | -.03 | -.16** | – | .12** | .16** | .06 | -.12* | .06 |
| 4. Self-Other Overlap | .08* | .02 | .12** | – | .22** | .43** | -.01 | .36** |
| 5. Sense of Purpose (LET) | -.00 | -.09** | .16** | .22** | – | .53** | -.51** | .55** |
| 6. Positive Affect | .09** | -.02 | .06 | .43** | .53** | – | -.17** | .57** |
| 7. Negative Affect | .02 | .00 | -.12** | -.01 | -.51** | -.17** | – | -.26** |
| 8. Life Satisfaction | .08* | -.05 | .058 | .36** | .55** | .57** | -.26** | – |
| <i>M</i> | 45.21 | 1.53 | .73 | 4.82 | 4.1 | 3.44 | 1.66 | 3.33 |
| <i>SD</i> | 112.37 | .62 | .41 | 1.74 | .90 | .84 | .81 | 1.02 |

* $p < 0.05$

** $p < 0.01$

Table 2.
Mean and Standard Deviations for Independent Variables

| | Mean | SD |
|------------------------|------|------|
| Sense of Purpose (LET) | 4.05 | .896 |
| Self-Other Overlap | 4.82 | 1.74 |

Table 3.
Beyond-the-self Percentages

| BTS | % of people that satisfied criteria |
|--------------------------------|-------------------------------------|
| Criteria 1: Mention others | 77.9% |
| Criteria 2: Collective pursuit | 2.4% |
| Criteria 3: Purpose for others | 68.7% |

Table 4
Standardized cluster analysis scores (Ward's Method)

| | Self-focused M (SD) | Meandering M (SD) | High Purpose M (SD) | High Purpose & Self-Other Overlap M (SD) |
|-------------------------|------------------------|----------------------|------------------------|---|
| Average beyond-the-self | -1.51 (.50) | .08 (.89) | .647 (.000) | .647 (.000) |
| Sense of Purpose (LET) | .18 (.80) | 1.18 (.86) | .59 (.46) | .49 (.51) |
| Self-Other Overlap | .01 (1.01) | -.52 (.90) | -.24 (.66) | 1.27 (.43) |

Table 5
Standardized cluster analysis scores (K-means)

| | Self-focused M (SD) | Meandering M (SD) | High Purpose M (SD) | High Purpose & Self-Other Overlap M (SD) |
|-------------------------|------------------------|----------------------|------------------------|---|
| Average beyond-the-self | -1.68 (.33) | .07 (.90) | .51 (.38) | .55 (.33) |
| Sense of Purpose (LET) | -.04 (.85) | -1.73 (.70) | .40 (.53) | .38 (.69) |
| Self-Other Overlap | -.08 (.88) | -.79 (.76) | -.90 (.45) | .815 (.60) |

Table 6
One-Way ANOVA Independent Variables (K-means)
One-Way ANOVA

| | Sum of squares | df | Mean Square | F | Sig |
|-------------------------|----------------|----|-------------|----------|------|
| Average beyond-the-self | 733.558 | 3 | 244.519 | 1147.967 | .000 |
| Sense of Purpose (LET) | 478.698 | 3 | 159.566 | 328.871 | .000 |
| Self-Other Overlap | 511.051 | 3 | 170.350 | 384.185 | .000 |

Table 7
One-Way ANOVA Independent Variables (Ward's method)
One-Way ANOVA

| | Sum of squares | df | Mean Square | F | Sig |
|-------------------------|----------------|----|-------------|---------|------|
| Average beyond-the-self | 678.827 | 3 | 226.276 | 830.983 | .000 |
| Sense of Purpose (LET) | 499.575 | 3 | 166.525 | 182.496 | .000 |
| Self-Other Overlap | 342.649 | 3 | 114.216 | 359.996 | .000 |

Table 8
Clusters measured on Dependent Variables: Means and Standard Deviation

| | Self focused <i>M</i> (SD) | Meandering <i>M</i> (SD) | High Purpose <i>M</i> (SD) | High Purpose & Self-Other Overlap <i>M</i> (SD) |
|-------------------|-------------------------------|-----------------------------|-------------------------------|--|
| Positive Affect | 3.610 (.78) | 2.83 (.81) | 3.60 (.69) | 3.92 (.64) |
| Negative Affect | 1.69 (.93) | 2.07 (.87) | 1.42 (.58) | 1.41 (.61) |
| Life Satisfaction | 3.51 (.92) | 2.58 (1.06) | 3.60 (.85) | 3.80 (.74) |

Table 9
One-Way ANOVA Dependent Variables

| One-Way ANOVA | | | | | |
|-------------------|----------------|----|-------------|--------|------|
| | Sum of squares | df | Mean Square | F | Sig |
| Positive Affect | 140.549 | 3 | 46.850 | 86.676 | .000 |
| Negative Affect | 69.034 | 3 | 23.011 | 39.952 | .000 |
| Life Satisfaction | 207.731 | 3 | 69.244 | 83.488 | .000 |

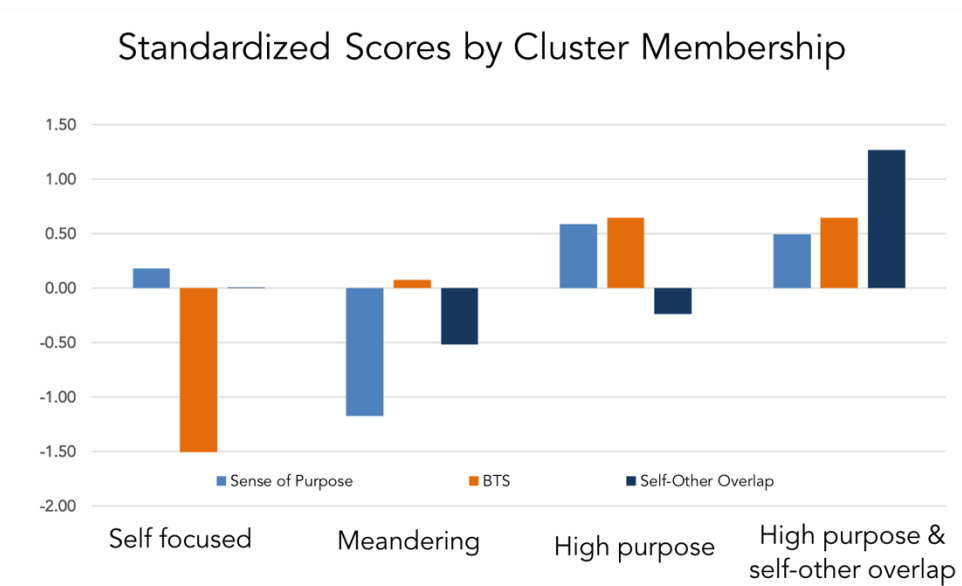


Figure 1. Standardized scores by cluster membership.

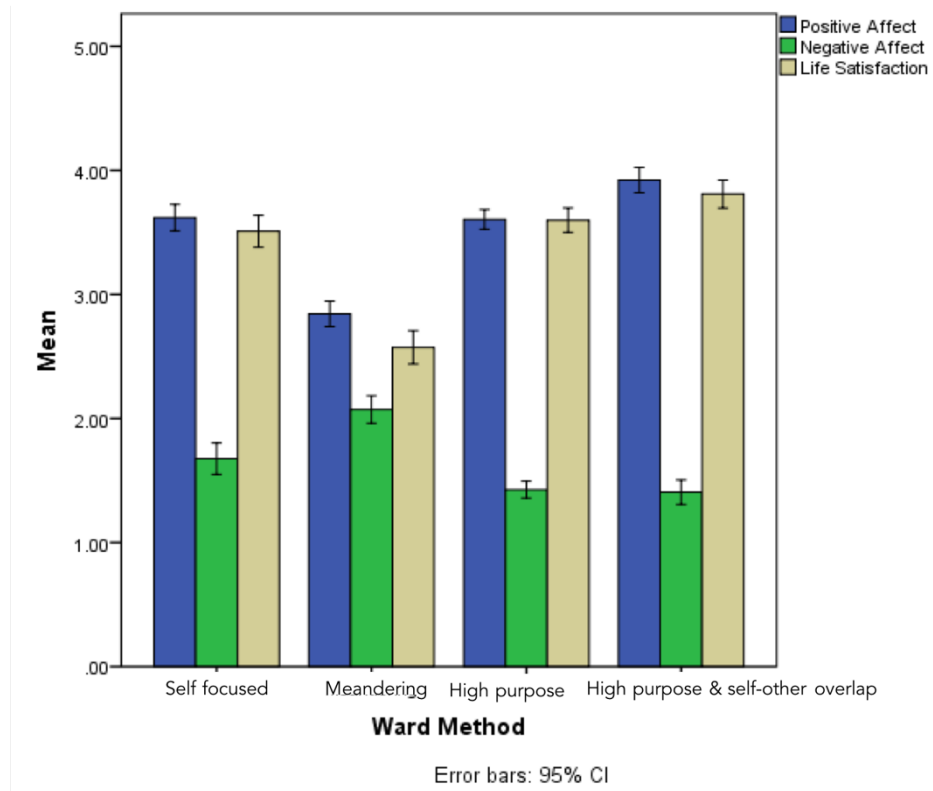


Figure 2. Clusters measured by dependent variables.