

The Comprehensive Measure of Meaning: Psychological and Philosophical Foundations

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Abstract. The topic of meaning has been of interest both in philosophy and in psychology. The psychology research community has put forward a number of instruments to measure meaning. Considerable debate has taken place within philosophy as to the objective versus subjective status of meaning in life and on the global versus individual or personal aspects of meaning. Here we make use of an emerging consensus in the psychology literature concerning a tripartite structure of meaning as cognitive *coherence*, affective *significance*, and motivational *direction*. However, we enrich this understanding with important distinctions drawn from the philosophical literature to distinguish subdomains within this tripartite understanding. We use the relevant philosophical distinctions to classify existing measurement items into a seven-fold structure intended to more comprehensively assess an individual's sense of meaning. The proposed measure, with three items in each subdomain drawn from previous scales, constitutes what we put forward as the Comprehensive Measure of Meaning. We hope that this measure will enrich the empirical research on the assessment of, and on the causes and effects of, having a sense of meaning.

Introduction

Meaning is now widely recognized as essential to human well-being, and numerous studies have documented the association between perceived meaningfulness and a host of improved psychological benefits. Baumeister (1991) has argued that a meaningful life may be compatible in significant ways with being unhappy, but a happy life is impossible without meaning. How a sense of meaning supports happiness he shows at some length with considerable evidence drawn from contemporary psychological research (pp. 214-218). Similarly Steger (2009) provides a thorough catalogue of studies that have shown that “people who believe their lives have meaning or purpose appear to be better off,” including by being happier, enjoying greater overall well-being, and reporting higher life satisfaction, control over their lives, and work satisfaction. They also experience less negative affect, depression (see also Mascaro & Rosen, 2005; Chen et al., 2019; and for depression and post-traumatic stress see Owens, Steger, Whitesell, & Herrera, 2009), anxiety, workaholism, suicidal ideation (see also Heisel & Flett, 2004), substance abuse, and need for therapy. These benefits are also relatively stable and independent from other forms of well-being when tracked over the course of a year (p. 680). Finally, Heintzelman and King (2014a) canvass additional evidence that “self-reports of meaning in life are associated with higher quality of life, especially with age, superior self-reported health, and decreased mortality” (p. 561) with yet further evidence from a recent

meta-analysis that a sense of purpose in life is associated with better physical health and greater longevity (Cohen et al., 2016).

The importance of meaning in life is no longer in dispute in psychological research. As the topic has gained traction, thanks in part to the advent of positive psychology as a transformative movement within the discipline, the question of meaning in life as a matter of philosophic research and investigation has undergone a parallel revival in analytic, Anglo-American discourse after decades of neglect (Metz, 2002; Hepburn, 1966; Adams, 2002; Wiggins, 1976). That neglect is largely attributable to the dominance of logical positivism, according to which the very question of the meaning of life is incoherent, as meaning was conceived as a strictly semantic phenomenon. With the collapse of logical positivism's hegemony, the question of the meaning of life has migrated into new terrain. Most English-speaking philosophers writing on the subject today do so under the conviction that meaning is not merely a feature of sentences but a feature of the sort of value human lives can have (Thomson, 2003; Cottingham, 2003; Metz, 2002; Metz, 2013; Wolf, 2010; Wolf, 2015; Landau, 2017). This feature of value is widely agreed to be irreducible to either happiness (which is often conceived hedonically) or moral worth (which is conceived in a variety of ways that are compatible with a life also being called meaningful). Given the broad consensus shared in both psychological and philosophical discourses on the value and importance of meaning, one urgent challenge to psychological research on meaning is how to measure it.

The philosophical discussion may be able to lend yet further assistance to psychological research. Because the issue of meaning is being rediscovered in a discourse that prizes analytical precision, rigorous distinctions, and clarity of terms, philosophical categorizations can bring some valuable clarity to social science investigation. Past and persistent conceptual ambiguities and confluences of terms have already been decried in a number of important studies (Heintzelman & King, 2014a; Martela & Steger, 2016; George & Park, 2016), and in this article we draw on philosophical distinctions to resolve some of these problems, at least when it comes to measuring meaning. This volume is concerned with measuring well-being, one element of which is meaning (Ryff, 1989; Su, Tay, & Diener, 2014; VanderWeele, 2017). Our proposed measure, the Comprehensive Measure of Meaning (or CMM) is primarily intended to incorporate the results of philosophical discussion into an established framework coming to predominate the psychological literature on measuring meaning. Future work will assess the psychometric properties of the measure. The CMM principally makes use of a wide variety of items, or their adaptation, already employed in previous scales but categorizes these in ways consistent with important distinctions derived from the philosophical literature. We proceed in three parts. In the first section, we discuss shortcomings in previous measures of meaning devised by psychological methods. A reader interested only in the CMM itself could skip to the second part. In that second part we explain the emerging consensus that is forming in the psychological literature around a tripartite conception of meaning measurement, comprising coherence, significance, and direction. In the third part we explicate the CMM, showing how it uses this emerging consensus but introduces new and more discriminating distinctions within it inspired by philosophical discussions to make our instrument the most comprehensive and targeted yet devised.

1. Existing Measures of Meaning

The attempt to measure meaningfulness has its own history, to which we now turn. The earliest instruments currently regarded as relevant to measuring meaning were in fact restricted in scope to investigations of purpose, a target widely regarded in contemporary psychological literature and research as merely one component of meaningfulness as a whole. Most frequently used in empirical research among these early surveys is the Purpose in Life test (PIL) (Crumbaugh & Maholick, 1964; Bronk, 2014, p. 22). The Purpose in Life test, while widely used and critically studied (Crumbaugh, 1968; Piquart, 2002, p. 96), has also received sustained and repeated criticisms, often in the context of justifications for the implementation of new measures. Many of the items on the PIL seem to have more to do with life satisfaction or enthusiasm levels than purposefulness (e.g., “My life is: empty, filled only with despair”/“running over with exciting things;” “I am usually: bored”/“enthusiastic”). Steger, Frazier, Oishi, and Kaler (2006) point out that items like these as well as “I feel really good about my life” “could tap any number of constructs aside from meaning, such as mood” (p. 81). A comparable concern is raised by Damon, Menon, and Bronk (2003), who also question the PIL’s treatment of “meaning” and “purpose” as synonyms (p. 122), a distinction the Comprehensive Measure of Meaning (CMM), like some recent others (George & Park, 2017), seeks to uphold because purpose is now viewed as just one subconstruct belonging to meaning, purpose being more end-directed and meaning concerning an understanding of the greater context. Likewise the PIL’s inclusion of an item concerning the attractiveness of suicide seems distracting and at best tangential to the issue of purpose (Steger et al., 2006, p. 81). Yalom (1980) in particular lodged a criticism against the PIL (despite its use in over 50 PhD dissertations by that time) to this effect: “Although, for example, life satisfaction or consideration of suicide may be related to meaning in life, they are even more obviously related to other psychological states—most notably depression” (p. 456). Yalom argued that the PIL suffered from “substantial, indeed devastating” conceptual confusion, lack of methodological explanation, and ambiguity in item terminology (pp. 456-457), yet he reluctantly conceded that the instrument was (then) “the only game in town” (p. 457).

Ebersole and Quiring claimed (1989) to have confirmed a modest social desirability correlation with PIL scores alleged in a much earlier unpublished study as well as suspected by reviewers of the PIL (Domino, 1972; Yalom, 1980, p. 456), while remaining agnostic as to whether this correlation should be regarded as confounding the results of the PIL (Ebersole & Quiring, p. 306). Dyck (1987) raised a potential objection to the PIL on the grounds that it was fashioned with two sets of criteria in view—existential relevance and patient discriminability. These criteria depended, somewhat vaguely, on what Crumbaugh and Maholick called a “background in the literature of existentialism, particularly in *logotherapy*, and a guess as to what type of material would discriminate patients from nonpatients” (1964, p. 201), but their independence from one another was unknown (Dyck, 1987, p. 441). Moreover, Dyck pointed out that the PIL does not convincingly pick out a distinct pathology but rather seems to correlate significantly with absence of depression (p. 442; Frazier, Oishi & Steger, 2003, p. 257). This confusion is a particular problem for the precepts of the logotherapeutic approach relied upon by the PIL’s authors, according to which lack of purpose is a pathology in its own right

referred to as “noogenic neurosis” (Crumbaugh and Maholick, 1964; Garfield, 1973). Additional studies designed to ascertain whether depression and low purpose in life as measured by the PIL were indistinguishable from each other seemed to indicate that the two are not factorially independent (Dyck, 1986; Reker & Cousins, 1979). As early as 1972, Braun questioned the discriminant validity of the PIL, and as recently as 2004, Schulenberg (2004) found a $-.70$ correlation between PIL scores and Outcome Questionnaire Symptomatic Functioning subscale scores (OQ-45.2 SD), which are meant to assess symptomatic problems relating to anxiety, depression, and substance abuse. In sum, multiple studies finding “different, multiple factor structures” have left unclear “the underlying structure of the PIL,” which the authors never specified in the first place (Frazier et al., 2003, p. 258; see also Chamberlain & Zika, 1988; McGregor & Little, 1998; Reker & Cousins, 1979). Furthermore, while the PIL aspires to value-neutrality, qualitative research undertaken by C. A. Garfield (1973) caused him to lodge an objection against the PIL that its core concepts were perceived in radically different ways by different groups within a diverse sampling of test-takers. While it was apparent to him that the PIL measured differences in perceived purpose, the way to understand purpose was so different in different demographics that the results were not entirely reliable. “Cultural contamination,” Garfield contended, was high (p. 403), leading him to conclude that “there is reasonable doubt as to the consistency of the meanings of test items across subcultural groups” (p. 405). Finally, since the PIL uses different words or phrases for anchors across each of its different items, confusion on the part of respondents seems almost unavoidable (Bronk, 2014, p. 25; Schulenberg, 2004, p. 480). Whether the scale anchors (which vary from item to item) were truly bipolar has also been questioned. For instance, the PIL posits that “wanting to have ‘nine more lives just like this one’” is the opposite of “prefer[ring] never to have been born,” an odd dichotomy (Edwards, 2007, p. 49). Because we are convinced that purpose is a subset of meaning, and further persuaded that the PIL suffers from significant problems despite its apparently generally acceptable psychometric properties (Schulenberg, 2004, pp. 479-480; Bronk, 2014, p. 24) we largely avoided using PIL items for the CMM.

In the almost 40 years since Yalom sharply critiqued the PIL not only have his concerns been echoed, but a variety of instruments with similar aims to the PIL have been introduced. Crumbaugh himself devised a companion instrument to the PIL, the Seeking of Noetic Goals test (SONG), which was meant to assess the search for meaning or perceived absence of it rather than presence of achieved meaning. SONG scores however were not shown to be reliably inversely proportional to PIL scores (Bronk, 2014, p. 27), and the test was accused of conceptual inconsistency and compounding rather than reducing the problem of overlap between the pathological noogenic neurosis PIL was meant to diagnose versus depression (Dyck, 1987, p. 445). Finally, in the decades since the introduction of the SONG, it has become apparent on the basis of numerous studies that the relationship between perceived presence of meaning and perceived absence is considerably more complex than Crumbaugh theorized (Schulenberg, 2014, p. 695). Of particular importance here is Heintzleman and King’s conclusion that if the need for meaning is a fundamental one for human beings then it would stand to reason that searching for meaning would be compatible with perceived meaning being already present in the subject. “If meaning in life is a central human motivation,” they suggest, “then even in the presence of meaning, the desire for meaning might persist” (Heintzleman & King,

2014b, p. 570). Despite some early enthusiasm for the potential of combining the PIL and SONG in research and clinical settings (Reker & Cousins, 1979), serious objections have been raised, and the SONG test has rarely been used for research (Steger et al., 2006; p. 81); only one of its items appears in the CMM.

G. T. Reker (Reker & Peacock, 1981) claimed to have confirmed the complementary nature of the PIL and SONG (p. 264) and on the basis of the judgment that together these two instruments provided evidence for a multidimensional life attitude construct (consisting in fact of “10 interpretable independent dimensions” (p. 264)) sought to consolidate the two measures into one “single reliable and valid instrument that would measure the multidimensional nature of attitudes toward life” (p. 264). The result was the Life Attitude Profile (LAP), which originally encompassed 56 items and was later slightly abbreviated to a still arguably cumbersome 48 items (Bronk, pp. 27-28; Reker & Peacock, 1981; Erci, 2008). The LAP is therefore like the PIL and SONG in being inspired by Frankl’s conception of existential meaning (Frankl, 1984), and it aimed to consolidate rather than challenge this basic inspiration. The most serious defect in the LAP is shared by its predecessors, namely, that these instruments assess a number of constructs perhaps related to meaning but not perceived meaning as such. “The LAP would appear to have inherited these problems along with the PIL items it incorporated” (Frazier et al., 2003, p. 260). The LAP also repeats SONG items like “I feel the need for adventure and ‘new worlds to conquer’” and “I hope for something exciting in the future,” sentiments that seem more like indications of present dissatisfaction or escapist impulses rather than a search for meaning per se. As Frazier et al. (2003) point out, “a theoretical basis for incorporating death concerns was not explicated,” (p. 258) other than a breezy declaration by the instrument authors that “death concerns are a part of life” (Reker & Peacock, 1981, p. 264). The LAP also betrays a distaste for boredom, featuring reverse-coded items like “Life to me seems boring and uneventful.” Again a question could be raised here as to whether an item like this truly targets perceived meaning. Heintzelman and King (2014b) have shown for example that “natural regularity and routines and patterns” as well as “mundane habits” constitute an under-appreciated source of meaning in many people’s lives (pp. 157-158). These recent findings correct a long-standing bias in the philosophical and psychological literature toward excitement, novelty, and stimulus, as if meaning can only be found in “profound events” (p. 158) or “highly vivid” (p. 157) moments rather than ordinary ones. Many early measures of meaning share in this bias, disfavoring ordinary and routine activities, as if these were an impediment rather than an aid to meaningful living.

The Life Regard Index was created in large part to address concerns that the PIL (and by implication the LAP) is too value-loaded. The authors specify in particular the fact that “the PIL implies that the more someone sees himself as responsible and the more he perceives his life to be under his own control, the greater his degree of positive life regard” (Battista & Almond, 1973, p. 411). On the basis of this observation, they conclude that “Although these are interesting hypotheses to be tested, it is not clear *a priori* that the experience of one’s life as meaningful is related to these beliefs” (p. 411). While Battista and Almond distinguish what they call positive life regard from perceived meaningfulness, and they intend to measure the former rather than the latter, the point that the PIL is biased toward responsibility, control, and autonomy as ingredients of perceived meaning or purpose is one worth considering. Eschewing

what they called “philosophical” theories about the meaning of life, the authors tried to develop what they view as a value-free or relativistic approach, one that would allow for greater latitude in respondents’ thinking about what constitutes meaningful living. In furtherance of that end, Battista and Almond end up jettisoning the term “meaningful life” in favor of “positive life regard,” in their words “to avoid any confusion and conflicting definitions” (p. 410). The LRI then is meant to be agnostic about which systems of beliefs can serve as a potentially fulfilling framework and open to the fact that many such systems are capable of potentially providing such fulfillment (p. 414).

Debats, Drost, and Hansen (1993) confirmed that these intentions for the LRI are successfully attained in their study (p. 344), and they document other studies with positive results for clinical use of the LRI (p. 338). Chamberlain and Zika (1988), however, were more skeptical as to whether the purported structure of the LRI, which the authors intended to comprise two factors, framework and fulfillment, actually holds up under second-order analysis (p. 595). Reker and Wong (1988) also raised concerns that positive life-regard is in fact not reducible to meaning but is instead closely related to self-esteem (p. 235) (“Other people seem to feel better about their lives than I do”). This is a serious concern, given that previously devised instruments have also been repeatedly criticized for failing to target a specific construct of meaningfulness rather than positive affect or some other closely related construct of a similar sort like absence of depression. Edwards (2007) too registers a drawback to the effect that the LRI’s items are repetitive (p. 52), and no explanation was given as to their derivation or selection (p. 51). Suspicions that positive life regard has more to do with affect or self-esteem rather than meaning per se remain though. Morgan and Farsides (2009) mention that the LRI’s “multi-dimensionality at the second-order level implies that it may also tap content that is peripheral to the meaning in life construct” (p. 199). In a largely appreciative revisiting of the LRI, Debats (1998) nevertheless concluded that “several studies showed that LRI scores correlated most significantly with scores on various well-being measures,” a point that counts in favor of the clinical relevance of perceived meaning (p. 256). However, predictably, this means that the direction of causality cannot be determined without longitudinal study (p. 256). Furthermore, Debats draws attention to evidence suggesting that subjects from different cultural backgrounds score differently than predicted on the LRI, again implying a possible bias (pp. 255-256).

In the end though, we agree with Battista and Almond that empirical testing should discriminate between formulae of a single, “philosophical” meaning of life and relativistic, plural conceptions. While they prefer the latter, and we agree that this is bound to be the preferred approach for social science research, they concede that “the contention of philosophical theories that there is a ‘higher’ or ‘ultimate’ meaning to life is especially challenging to the relativistic perspective,” and they call for further critical examination of the assumptions underlying both positions (p. 425). Similarly, Debats makes the crucial point that “the conceptual framework from which the LRI was derived views personal meaning as essentially a subjective, personal experience” (p. 256). This could stand in fact as a critique of all the measures canvassed so far. Continuing with Debats’s important point, “there is as yet no final resolution to the debate about the relative weight that *objective* (moral) and *subjective* (experiential) criteria should have in determining what essentially constitutes ‘personal

meaning” (p. 256). It may be objected that social scientific investigation cannot resolve this debate, and we take the point. However, the question of objective vs. subjective sources of meaning in life is one that is very much alive in contemporary philosophical discussions (Metz, 2013; Wolf, 2010, 2015), and we think it crucial to investigate at least people’s perceptions of the objective value of their endeavors as a potential source of perceived meaning. Our measure cannot provide evidence for the strength of any one philosophical theory of the meaning of life or for the genuine objective value of the sources of people’s perceived meaning in life (no measure could), but it does seek to document respondents’ perception that such philosophical theories have an influence on their lives and that their activities are objectively valuable. We will return to the impact that this view had on our shaping of the CMM in the final section of this paper.

Further refinements that the Comprehensive Measure of Meaning employs were derived from insights provided by Morgan and Farsides (2009) in their development of the Meaningful Life Measure (MLM). Speaking of the PIL, LRI, and Ryff’s Psychological Well-Being scales, they write that “an additional problem with all three scales is that they variously include items with multiple content domains or potentially confounding clauses (e.g. ‘I have some goals or aims that would personally give me a great deal of satisfaction if I could accomplish them’; ‘If I should die today, I would feel that life has been very worthwhile’; ‘I feel good when I think of what I’ve done in the past, and what I hope to do in the future’)” (p. 199) or similarly from Ryff (1989) the negatively worded item, “I live life one day at a time and don’t really think about the future.” We have sought likewise to abstain from using items with this level of potentially confusing complexity. Similarly, we follow Morgan and Farsides in their observation that many items in common use assess a sense of life’s meaning as being contingent on some other factor like acceptance of death, and so we have foregone items that seem to depend on some other factor. That being said, the MLM still largely draws on PIL and LRI for its items, and thus once more potential problems persist. Besides the reservations already surveyed, MacDonald, Wong, and Gingras (2012) point out that the MLM is too narrow to be a comprehensive measure of the meaning construct, as it is focused almost entirely on purpose. As we will soon see, purpose is indeed a vital component of the meaning construct, but it is only a component according to the emerging consensus around measuring meaningfulness. Some of the more recent scales (e.g. Krause, 2004; Steger et al., 2006; George & Park, 2017), discussed further below, arguably do accurately target meaningfulness. However, as will be argued in the third part of this chapter, none yet does so with the precision, finer distinctions, and breadth that will be possible in the Comprehensive Measure of Meaning (George & Park, 2017, p. 615).

2. *Emerging Consensus*

In the last several years, broad agreement has been achieved in the conceptualization of perceived meaning. It is now widely considered essential to capture cognitive, affective, and motivational aspects of perceived meaning. The first subconstruct, sometimes referred to as coherence (our preferred term), refers to a cognitive grasp on the sense or intelligibility of one’s existence, the intellectual perception that one’s life hangs together or expresses an intelligible pattern or narrative that makes sense of existence. The second construct, which we

call significance, refers to a felt importance or value to one's existence and/or activities and pursuits. Finally, the third subconstruct refers to the perceived interest and desirability of goals and objectives that direct choice and put plans and projects in motion. This third subconstruct is often referred to as "purpose," but for reasons we describe below we prefer "direction." These components were hammered out in their present shape at least as early as Reker and Wong's 1988 article "Aging as an Individual Process." There the authors describe first a "*cognitive component* [that] has to do with making sense of one's experiences in life;" second a "*motivational component*...[that] refers to the value system constructed by each individual [where] values are essentially guides for living, dictating what goals we pursue and how we live our lives; and third, an "*affective component*" that captures the "feelings of satisfaction and fulfillment" that accompany "the realization of personal meaning" (pp. 220-221). This threefold schema builds on an earlier definition of meaning as "cognizance of order, coherence and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment" (p. 357; Reker & Wong, 1988, p. 221).

Hicks and King (2009) note that motivational and cognitive components have been taken into account by previous psychological definitions of meaning in life. Expanding on this base and moving in the direction of a tripartite understanding of meaning, the authors offer what they call an "expansive conceptual definition: 'Lives may be experienced as meaningful when they are felt to have significance beyond the trivial or momentary, to have purpose, or to have a coherence that transcends chaos'" (p. 641). Here again we find a broad conceptual definition that seeks to account for an affective component to do with felt significance, a motivational sense of purpose, and a cognitive grasp on coherence. Concentrating on what they take to have been the least explored of these three subconstructs, affective significance, they show how perceptions of meaning are distinguishable from positive affect or happiness (p. 646), with which the affective subconstruct of meaning might otherwise be confused.

Steger (2012a) by contrast focuses attention on cognitive coherence and motivational purpose, speaking of the former as a source for generating the latter, a defensible interpretation that has some support in the literature (see Wong, 1998, p. 405, fig. 19.1). On Steger's analysis, the cognitive component of meaning grounds us in our life experiences, coalescing memories into a continuous narrative, articulating theories about how the world around us operates, and testing theories about how we are perceived by others. The cognitive component thus facilitates integrating new experiences into a web of extant associations, increasing a sense of integration and unified coherence across the self and its wide-ranging experiences. This cognitive basis provides a foundation for assigning value to desirable pursuits and aspirations, which in turn give rise to goals and plans to accomplish in service of larger aims. In this way he explains how the meaning construct differs from related phenomena. By uniting the cognitive and motivational domains, meaning controls a number of other important subsidiary processes of assigning value and shaping decision-making (p. 166). Steger's work thoroughly documents the many positive correlations between high meaning in life and various other markers of psychological and sociological well-being (pp. 167-175).

Heintzelman and King (2014b) explore in some depth the cognitive component, but they affirm the threefold distinction as comprehensive and clear as well as being increasingly employed in the literature. The three common themes they identify are "purpose (i.e., goal

direction), significance (i.e., mattering), and coherence (i.e., the presence of reliable connections)” (p. 154). Citing the earlier definition offered by Steger (2012a), they highlight with underlining and parenthetical italicized insertions the terminology he chooses as picking out the same three themes they argue form the core of an increasingly popular exhaustive understanding of meaning: “Meaning is the web of connections, understandings, and interpretations that help us comprehend our experience (*coherence*) and formulate plans directing our energies to the achievement of our desired future (*purpose*). Meaning provides us with the sense that our lives matter (*significance*), that they make sense (*coherence*), and that they are more than the sum of our seconds, days, and years (*significance*)” (p. 154, quoted from Steger, 2012a, p. 165).

Martela and Steger (2016) undertake a similar act of editorializing when they quote from King, Hicks, Krull and Del Gaiso (2006), and add numerals to pick out what they take to be the implicit tripartite structure of King et al.’s definition: “Lives may be experienced as meaningful when [1] they are felt to have significance beyond the trivial or momentary, [2] to have purpose, or [3] to have a coherence that transcends chaos” (p. 531, quoted from King et al., 2006, p. 180). The only further modification that might be desirable in this particular quote is that the word “or” before the numeral “3” might be changed to “and,” a grammatical move that would more nearly reflect the current thinking on meaning as a threefold structure. In Martela and Steger’s judgment, “We thus seem to be moving toward understanding meaning in life as having three facets: one’s life having value and significance, having a broader purpose in life, and one’s life being coherent and making sense” (p. 531).

King, Heintzelman, and Ward (2016) also recapitulate the King, Hicks, Krull, and De Gaiso definition and identify therein

three central components of meaning [that] are highlighted in this definition and throughout the literature on this topic: purpose, significance, and coherence. *Purpose* refers to having goals and direction in life. *Significance* entails the degree to which a person believes his or her life has value, worth, and importance. *Coherence*, characterized by some modicum of predictability and routine, allows life to make sense to the person living it. (p. 212)

Finally, George and Park (2016) also conclude that “recently, a tripartite view of MIL [meaning in life] as composed of three distinct subconstructs—comprehension, purpose, and mattering—has been gaining momentum” (p. 205). George and Park also account for what they take to be the advantages of this growing momentum behind a consensus view. First, they are optimistic that this agreement will furnish further much-needed conceptual clarity in research into meaning in life (p. 205), a development hailed as progress by Martela and Steger (2016) as well (p. 531). George and Park (2016) also see an advantage to the tripartite schema inasmuch as they take it this will facilitate integration of research on meaning in life into a larger body of research on meaning in general, like the work that is being done on meaning-making for instance (pp. 205, 206). Their definition of meaning in life parallels to a large extent the formulas we have already considered. For them meaning in life can be understood as “*the extent to which one’s life is experienced as making sense, as being directed and motivated by valued goals, and as mattering in the world*” (p. 206, emphasis original). At the same time as they wittingly corroborate a basic structure common to other current researchers, they call for

future work to be done on establishing the relationships between the three subconstructs and how these in turn relate to broader questions of meaning (p. 206). Martela and Steger (2016) agree that there is more work yet to be done on this front. They urge that “even though scholars have pointed toward this distinction, thus far the characteristics of and differences between these three facets of meaning have not been properly fleshed out,” (p. 531) and furthermore, “no research up to date has properly examined all three proposed facets of meaning in life simultaneously” (p. 532). George and Park (2014) hypothesize that the three domains could very well interact, such that low levels in one might be reflected in the others and high levels would likely be seen across the board (p. 214).

The philosophical literature also provides reasons to draw further relevant distinctions within the meaning construct. A leading expert like Metz (2013) clarifies at the beginning of his magnum opus that despite philosophy’s ostensible interest in “*the meaning of life*” his work is not dedicated to this topic. Some philosophers, he admits, “might also or instead be interested in considerations of whether the universe has a meaning or of whether the human species does. However, I do not address these ‘holist’ or ‘cosmic’ questions in this book” (p. 3). Instead, he pursues the “individualist construal,” according to which the philosopher is concerned only to clarify “how, if at all, the existence of individual human beings can be significant” (p. 3). On this emphasis, the title of his book, *Meaning in Life*, could just as easily have been rendered as *Meaning in a Life*. What this important example proves is that while some psychologists especially write about global coherence as if it were exclusively the province of philosophy, even significant philosophers of meaning in life disavow global coherence as a subject for research. Not all however do so. Another leading theorist, Seachris (2013), holds the view that inquiry into *the meaning of life* is rational and warranted. Seachris and Metz though agree that there is an important difference here. Again terminology varies, but the point stands. The point is that even if there is substantive divergence in interest among philosophers as to which set of questions is most interesting or important there is unanimous agreement that there is a relevant distinction here worth preserving, and the CMM seeks to do just that by distinguishing between a global and individual level of perceived meaning as coherence. Similar terminological issues of course arise in the psychology literature. Haidt (2006), for example, contrasts questions about the “purpose of life,” which he considers on a grand cosmic scale, with questions about “purpose within life,” which pertain to what one should do to have a fulfilling and meaningful life. He argues the two may be related, but one may be able to answer the latter without having answers to the former. The terminology “meaning of life” and “meaning in life” are somewhat ambiguous and so we shall proceed here with the use of the terms coherence, significance, and purpose/direction, which are more commonly employed in the writings on this tripartite consensus.

Consequent upon this growing realization that meaning is best thought of as structured around these three domains has been an immediate recognition that prior measures of meaning in life were not adequate. Martela and Steger (2016), speaking of the three domains of meaning in life, register a concern that “empirical research has thus far proceeded without differentiating them from each other” (p. 533). Without these distinctions being carefully drawn, items from measures like the Meaning in Life Questionnaire, Life Attitude Profile, Sense of Coherence Scale, and Purpose in Life test tap into coherence and purpose for example, but

these distinct subconstructs are ambiguously run together by summing scores, and some measures compound the ambiguity further by packing in additional domains to these three that do not have nearly the same credible grounds for inclusion in the construct of meaning (p. 533). In a similar spirit George and Park (2016) praise the tripartite schema for avoiding the pitfall of combining “three potentially distinct dimensions into a singular, more diffuse concept” (p. 614) while condemning previous measures for deriving a single, unidimensional score, thereby aggregating different domains and precluding examination of how each subconstruct interacts with relevant variables, yielding simplistic and distorted conclusions (pp. 614-615). In their judgment, even existing measures like the Life Regard Index, Life Attitude Profile, and Meaningful Life Measure that have subscales roughly corresponding to one or more of the three agreed-upon domains of meaning still do not specifically target a single subconstruct and often have items that conflate the subconstructs (p. 615; see also George & Park, 2016, pp. 215-216).

3. *Introducing the Comprehensive Measure of Meaning*

With increased conceptual clarity it is now possible to devise a measure that more successfully captures key aspects of meaning. As King et al. (2016) point out, although the tripartite definition, or indeed any definition “may not capture every possible nuance of meaning in life, it is an approximation that allows us to view this experience through the lens of science. It is a workable conceptual definition that permits measurement” (p. 212). So far only one measure of meaning has been devised in direct response to the tripartite schema, the Multidimensional Existential Meaning Scale (MEMS), introduced by George and Park (2017). In devising the Comprehensive Meaning Measure (CMM), we found the most common ground with George and Park’s MEMS, appreciated all the items they use, and have no serious objection to it or its use in empirical research. However, we are convinced that measures of meaning need further refinement along lines derived from philosophical argument and from hints within the existing psychological literature that have not been taken into account by any prior measure. The primary goal of designing the CMM was to incorporate yet further distinctions within the tripartite division, so we broke down each subconstruct into further subdivisions in order to capture still more nuance and specificity in the way respondents are asked to think about their experience of coherence, significance, and direction (our preferred terminology for the three major subconstructs).

Selection of Items

In devising the CMM we were strongly committed to using existing items if at all possible. We compiled a master list of items from the Purpose in Life test (Crumbaugh & Maholick, 1964), the Setting of Noetic Goals test (Crumbaugh, 1977), the Life Attitude Profile-Revised (Erci, 2008), the Life Regard Index (Debats, van der Lubbe, & Wezeman, 1993), the

Sense of Purposes Inventory-Revised (Sharma, 2015), the Satisfaction With Life Scale (Pavot & Diener, 2009), the Sense of Coherence Scale (Antonovsky, 1993), Carol Ryff's Purpose in Life Subscale (Ryff, 1989), the Meaningful Life Measure (Morgan & Farsides, 2009), the Personal Meaning Profile (MacDonald, Wong, & Gingras, 2012), Neal Krause's Meaning in Life Subscale (Krause, 2004), the Spiritual Meaning Scale (Mascaro, Rosen, & Morey, 2004), the Meaning in Life Questionnaire (Steger et al., 2006), the Multidimensional Existential Meaning Scale (George & Park, 2017), the Life Purpose Questionnaire (Hutzell, 1989), the Purpose in Life Scale (Robbins & Francis, 2000), the Logo-Test (Thege, Martos, Bachner & Kushnir, 2010), the Self-Transcendence Scale (Haugan, Rannestad, Garasen, Hammervold, & Espnes, 2011), the Life Evaluation Questionnaire (Salmon, Manzi, & Valori, 1996), the Meaning in Life Scale (Jim, Purnell, Richardson, Golden-Kreutz, & Andersen, 2006), the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (Peterman, Fitchett, Brady, Hernandez, & Cella, 2002), the Meaning in Suffering Test (Starck, 1985), the Revised Youth Purpose Survey (Bronk & Finch, 2010), and the Inventory of Positive Psychological Attitudes (Kass, Friedman, Leserman, Caudill, Zuttermeister, & Benson, 1991). Altogether almost 700 items were compiled, many of which appeared on more than one measure.

The items were then sorted by keyword, with a view to identifying what common themes were most prevalent. As expected, items referring to meaning, purpose, significance, goals, coherence, control, satisfaction, understanding, accomplishment, worthwhileness, and fulfillment accounted for a sizeable portion of the items. Idiosyncratic items or outliers ("I take initiative;" "Life has treated me fairly;" "If I could choose, I would prefer never to have been born") received less attention when it came time to select which to keep.

We began to exclude items that we judged irrelevant to meaning per se or its three constitutive subconstructs. As outlined in our criticisms of previous measures in the first section of this paper above, we discounted items that had to do with confidence in the face of death, aversion to suicide, or willingness to hypothetically live the same life over again. Similarly we excluded items that appealed to mood or positive affect, many of which privileged exuberance, enthusiasm, or passion, all feelings that seem to us distinct from the construct of meaning. For similar reasons and again in light of recent evidence alluded to above, we did not use items that privileged novelty, difference, variety, or excitement and those that downgraded boredom, routine, or habit. Many items prized responsibility, consistency, stability, and control, and many also emphasized the importance of altruism; all such items were set aside as again being off the subject. We agree with Morgan and Farsides (2009) that "certain items appear to measure specific beliefs and value-outlooks such as a sense of responsibility, control, and productivity" (p. 199) and that this is reason enough to reject them. We also judged items that place a high priority on autonomy or being in strict control as culturally contextual and not immediately relevant. The same was the case for items that stressed an orientation toward the future and those that called for respondents to reject perceived maltreatment at the hands of others, perceived subjection to fate or bad fortune, or perceived unfairness, aimlessness, flightiness, restlessness, indifference, or unrealized potential. These items may test positive and healthy attitudes, and those attitudes may be conducive to meaning, but they are not intrinsically related to meaningfulness per se.

Avowedly religious content or items asking respondents to reflect on sectarian theological ideas or principles were discarded as being too particular and culturally bound. Negatively coded items we also did not employ on procedural grounds as they can give rise to errors in responses, and moreover the positive interpretation of the negation of these negatively worded items is often ambiguous (Weijters & Baumgartner, 2012; Baumgartner, Weijters, & Pieters, 2018).

Further Distinctions from the Philosophical Literature

Of those that remained, items were then chosen for their fitness in capturing the nuanced domains of meaning we sought to assess, shaped by distinctions in the philosophical literature that we outline below. Within the cognitive coherence subconstruct (1.), we make a distinction between global (1.A.) and individual (1.B.) coherence. The former (1.A.) is *having a comprehensive theory or account of the meaning of life as a whole, at a universal scale, and pertaining to humankind in general*. We would expect persons to score high here if they have an expansive theoretical view (more or less worked out in detail) as to the meaning of human existence as such. The latter (1.B.) involves *having an understanding of who one is, what one values, and how this relates to one's understanding of the world*. In the philosophical literature, this distinction is sometimes referred to as “meaning of life” (1.A.), which maps on to what we are calling global coherence, versus “meaning of my life” (1.B.), or what we are calling individual coherence.

For example, Seachris separates questions directed toward “the *cosmic or global* dimension of the question of life’s meaning, whereby some sort of explanation (perhaps even *narrative* explanation) is sought that will render the universe and our lives within it intelligible” and “the *individualist or local* dimension of the meaning-of-life question” (p. 4). With regard to the content of the coherence construct, we do agree with Martela and Steger (2016, p. 532) and Debats et al. (1995, p. 359) in affirming that a definitive answer to the meaning of life is out of the reach of scientific methodology. No measure can adjudicate an answer as to *the* meaning of life, but what we are assessing is whether respondents have such an answer in their own minds (global coherence) and also whether there is a more personal-level conviction that their own lives have meaning (individual coherence). In this respect the CMM is somewhat more ambitious than other measures. The Personal Meaning Profile for example constrains itself only to questions about meaning *in* life, by design, though its authors recognize that there is a distinction here: “the Personal Meaning Profile (PMP) represents a comprehensive assessment of one’s meaning in life rather than a global subjective assessment of life as meaningful” (MacDonald et al., 2012, p. 359). The CMM differs from the PMP therefore in including a three-item gauge of whether respondents do in fact have “a global subjective assessment of life as meaningful” as well as a three-item gauge of perceived meaningfulness at the individual (or what the PMP calls “personal”) level.

In this respect the CMM aims to accomplish a purpose similar to that envisioned by the creators of the Spiritual Meaning Scale (Mascaro et al., 2004). They sought to complement existing measures like the Life Regard Index and the Personal Meaning Profile with a measure that would target what they call spiritual meaning as opposed to personal and implicit meaning

(p. 846). “Positive life regard,” as they rightly note, “involves viewing one’s individual life, but not necessarily life itself, as having meaning” (p. 847). The former, meaning in life, or what Yalom called “terrestrial meaning” is distinct from what he called “cosmic” meaning or the meaning of life, and the CMM looks to uphold this distinction. The creators of the Spiritual Meaning Scale also urge preservation of this distinction. They write, “We conceive of spiritual meaning as a capital ‘M’ Meaning around which one can form a small ‘m,’ personal meaning” (p. 847). This expresses well the distinction we are making between global and individual coherence. This aspect of the CMM’s design is directly responsive to a challenge for future research laid out by King et al. (2016) who observe that while “relations among and potential distinctiveness of these three facets of meaning remain an important area for research, psychometric studies have suggested that these facets of meaning in life may occupy a lower level in a hierarchy, with ‘global meaning’ at the top” (p. 212).

As to the subconstruct concerned with significance (2.), the CMM distinguishes between subjective significance (2.A.) and objective significance (2.B.). This distinction reflects a major debate in the philosophical literature, one to which we hope empirical research with the CMM will contribute. A taxonomy proposed and developed by Metz (2002) has become widely accepted. According to this classification, theories of meaning in life can be grouped by whether they are subjectivist or objectivist in orientation. Subjectivist theories are those that contend that what makes a life meaningful depends largely on the subject of that life and the favorable attitude they bear toward their life and its perceived value or desirability. On the most extreme subjectivist understanding, someone who collected matchboxes and intrinsically found this meaningful could not be contradicted if the person genuinely felt it were a meaningful activity. A range of possible attitudes are appealed to by different subjectivists, but what is essential to the position is that it suffices for a life to be meaningful that the one living that life bear an approving disposition toward it (Metz, 2002, pp. 792-793).

Objectivists, by contrast, insist that a life being meaningful depends essentially on some positive quality of that life, independently of what a person living such a life might or might not think or believe or feel about it. Under the most extreme objectivist understanding, a pediatrician providing care for children who engaged in the work only for money and found no intrinsic interest or value in it would still be doing meaningful work, independent of their attitude toward the work. Again a range of possible forms of objective value are referred to by different objectivists as being the essential characteristics that a meaningful life must bear, but objectivist positions are united by their requirement that objective features of a life are what makes that life meaningful and no life is meaningful merely in virtue of any positive mental orientation that a person might have toward it (p. 796; see also Seachris, 2013, pp. 11-13). Items then in the significance subconstruct are designed to test respondents’ reliance on either subjective or objective bases for the perceived meaningfulness of their lives. Whereas subjective significance (2.A.) corresponds to *subjectively finding one’s activities worthwhile*, objective significance (2.B.) corresponds to *having achievements, contributions, or activities that are objectively valuable* or (depending on one’s theory of value) perhaps at least perceived as valuable by the consensus of others in a relevant community of judges (Brogaard and Smith, 2005; Darwall, 1983). Similar to the discussion of global coherence, self-report of objective significance of course does not, and cannot, establish the existence of objective values. Rather

the items capture the extent to which the individual responding has the perception that there is objective significance in their activities and contributions.

Some theories of meaning in life, called “hybrid” by some (Evers & van Smeden, 2016), though we prefer the term “integrated,” maintain that meaning in life depends on a suitable concatenation of subjective attitudes with objective values. The most important spokesperson for such a view is Wolf (2010, 2015), who in one of her pithier formulations of her influential view writes, “A meaningful life must satisfy two criteria, suitably linked. First, there must be active engagement, and second, it must be engagement in (or with) projects of worth. A life is meaningless if it lacks active engagement with anything. A person who is bored or alienated from most of what she spends her life doing is one whose life can be said to lack meaning. Note that she may in fact be performing functions of worth... At the same time, someone who *is* actively engaged may also live a meaningless life, if the objects of her involvement are utterly worthless” (Wolf, 2015, pp. 111-112). According to integrated theories, part of what makes meaningfulness a distinctive form of value is that it depends on an appropriate linking of both subjective and objective aspects of life (Wolf, 2010). This theory, while intuitively appealing and theoretically promising, poses a dilemma for empirical assessment. It is challenging to identify existing items that specifically tap into perceptions of meaningfulness that require a relationship of subjective approval corresponding to objective value. Several candidate items from existing scales that most closely correspond to this hybrid or integrated approach are proposed in the Appendix. The CMM keeps the objective and subjective items separate. This allows the possibility of assessing the extent of alignment between subjective and objective bases of perceived meaning. It also allows for assessing correlation with the proposed hybrid/integrated items to assess, to some extent, whether there are reasons for believing that at least some respondents who score high on both subjective and objective significance may think of their lives as meaningful because they take it that suitably linked subjective and objective reasons are both available to them.

Finally, in the third motivational subconstruct having to do with purpose or direction (3.) we distinguish between three possible levels of goal-direction: mission (3.A.), purposes (3.B.), and goals (3.C.). Whereas goals (3.C.) are generally understood as essentially *anything one desires to accomplish*, purposes (3.B.), in contrast, are *larger life aims that generate and organize goals* (McKnight & Kashdan, 2009). The highest level of the hierarchy, mission (3.A.), is effectively *a unified understanding of what one’s life should be that generates and guides all of one’s activities, goals, and purposes and adjudicates between them when they come into conflict*. Because, under this conceptual scheme, “purposes” is itself the middle level of the hierarchy, we prefer to refer to this entire broader domain as “direction.”

There is wide agreement now in the literature that purpose should be distinguished from meaning (the two were previously conflated) (Martela & Steger, 2016, pp. 531, 534; George & Park, 2013, p. 365; Steger, 2012b, p. 382) and that the former is actually best conceived as a component of the latter. Yet the CMM goes farther that this in distinguishing between the scope of our various purposes, which range from daily and small objectives to potentially one unifying vision of what one’s life as a whole should be or accomplish, a calling or vocation or mission. Conceiving of human action as a set of nested, purposive goals is at least as old as Aristotle. Theological perspectives often focus on the highest level of this hierarchy—

vocation, calling, or mission (Wingren, 1957; John Paul II, 1981)—and distinguish it from goals and purposes. Current social science research also supports this basic outlook. McKnight and Kashdan (2009) argue for a distinction between goals as precise and proximate, while “purpose provides a broader motivational component that stimulates goals and influences behavior” (p. 243). They also recognize that a person may have multiple purposes in different areas of life (p. 244), a reality that CMM accommodates in the purposes (3.B.) items. At the same time, the CMM also acknowledges the possibility that people think of their lives as meaningful to the extent that they are even more fully integrated around one single sense of personal mission or calling, a sense that would unify and synthesize all their major projects and the daily tasks undertaken in the furtherance thereof (Emmons, 1999; Rudd, 2012).

Even some theorists who are skeptical of there being a single unifying story of any particular individual’s life admit that the way identity generally tends is toward “a more or less unifying and purpose-giving whole” (McAdams, p. 116). McAdams insists “it would certainly be wrong to maintain that such integration in identity is fully and unproblematically captured in one large story for each life” (pp. 116-117), but again we are interested not in the reality of the self’s situation but in people’s perception of the meaningfulness of their lives. The CMM therefore assesses the extent to which respondents’ sense of meaning is bound up with the impression that they are called to a major unifying life goal. So Steger (2012a) for one recognizes “the value of finding an overarching goal or mission to which one’s life can be dedicated” (p. 166) such that it merits inclusion in empirical measures like the CMM. In his work with Martela, Steger reaffirms the intelligibility of distinguishing a “short-term and perhaps even mundane” sense of purpose and “a more broad and over-arching level” (Martela & Steger, 2016, p. 534). Similarly, Mascaro et al. (2004) show that spiritual meaning of the global sort can link to a sense of “calling, or of feeling called by Life (or Tao, God, Being, or whatever Force it is in which one believes oneself to be a participant) to proceed in a certain direction” (p. 847). Finally, George and Park (2016) muster a wealth of evidence in support of a hierarchical view of goals according to which “abstract high-level goals give rise to more concrete goals below them, which give rise to even more concrete goals below them” (p. 211). The higher-level goals are the ones that lie closest to the heart of our identity and generate the mundane activities that we undertake in pursuit of our highest priorities. To use their example, “the abstract goal of being a good parent gives rise to the goal of providing the child a good education, which in turn gives rise to the more concrete goal of driving the child to school” (p. 211). This threefold hierarchy is precisely what the CMM tries to capture.

The Comprehensive Measure of Meaning

The CMM includes three items in each of the seven subdomains described above. In selecting three items within each subdomain, an attempt was made to select items that had some breadth and were distinct from one another so as to attempt to at least crudely capture the conceptualization of each subdomain laid out above. As noted above, existing items were used whenever possible as many of these had already been subjected to various degrees of cognitive testing. Occasionally, when necessary, modifications to existing items were made

when there were ambiguities in the items or when suitable items for the specific subdomains were not found.

The proposed 21 items across the 7 subdomains are as follows. References to the articles and scales from which the items were drawn are given in the footnotes along with an indication of the modification of any item, when applicable.

1. Coherence

A. Global

- i. I have a clear understanding of the ultimate meaning of life.ⁱ
- ii. The meaning of life in the world around us is evident to me [modified].ⁱⁱ
- iii. I have a framework that allows me to understand or make sense of human life [modified].ⁱⁱⁱ

B. Individual

- i. I understand my life's meaning.^{iv}
- ii. I can make sense of the things that happen in my life.^v
- iii. I have a philosophy of life that helps me understand who I am.^{vi}

2. Significance

A. Subjective

- i. I am living the kind of meaningful life I want to live [modified].^{vii}
- ii. Living is deeply fulfilling.^{viii}
- iii. I feel like I have found a really significant meaning in my life.^{ix}

B. Objective

- i. The things I do are important to other people [modified].^x
- ii. I have accomplished much in life as a whole [modified].^{xi}
- iii. I make a significant contribution to society.^{xii}

3. Direction

A. Mission

- i. I have been aware of an all-encompassing and consuming purpose toward which my life has been directed [modified].^{xiii}
- ii. I have a sense of mission or calling.^{xiv}
- iii. I have a mission in life that gives me a sense of direction.^{xv}

B. Purposes

- i. I have a sense of direction and purpose in life.^{xvi}
- ii. I can describe my life's purposes [modified].^{xvii}
- iii. My current aims match with my future aspirations.^{xviii}

C. Goals

- i. In my life I have very clear goals and aims.^{xix}
- ii. I have goals in life that are very important to me.^{xx}
- iii. I have definite ideas of things I want to do.^{xxi}

The three items in the global coherence subdomain assess a sense of the world generally, of human life specifically, and of the ultimate meaning of life. The three items in the individual coherence domain assess the meaning of one's own life, the capacity to understand the meaning of life events, and a philosophy that helps one understand one's identity. The three items in the subjective significance subdomain express a perceived subjective sense of significance of one's life as a whole, the process of living, and the kind of life one has. The three items in the objective significance subdomain assess the things that one does, one's life as a whole, and one's contributions as being important or significant, either in what the actions are in and of themselves or to society. The three items of the mission subdomain express having a mission or calling, an awareness of that mission, and that mission giving one direction in life. The three items in the purposes subdomain express having a sense of direction or purpose, one's awareness of one's purposes, and one's more immediate goals being aligned with those purposes. Finally, the three items in the goals subdomain express having goals, the importance of those goals, and an awareness of those goals.

Certainly each of the subdomains could be supplemented with additional items. However, for a brief 21-item measure with coverage across the 7 subdomains, constrained principally by the availability of existing items, these are the items we would suggest and that form the CMM.

In some cases, it was difficult to distinguish the subdomain of a specific item and in the case of certain existing items, ambiguities were often present. Some principles used to categorize various items when the distinctions across subdomains were less clear are as follows. In distinguishing between global versus individual coherence, reference to "my life" rather than "life" in general or "human life" or "the universe" indicated individual coherence whereas the latter expressions were generally categorized as relating to global coherence. In distinguishing coherence from objective significance, if some aspect of value was found in the action or activity or in accomplishing something, these items were classified as objective significance whereas if value was derived simply from one's being, then these were classified as concerning coherence. However, as noted above, with many such coherence items, the items themselves often entailed particularist philosophical or religious views and so were not specifically considered for CMM. In distinguishing individual coherence from the various levels of the direction domain, items that indicated "having" goals or an "awareness" of goals and purposes were placed in the direction domain, whereas those that related to "understanding" or purposes being derived from a "philosophy" were placed in the individual coherence subdomain. In distinguishing individual coherence from subjective significance, items that made reference to "values" or "systems of belief" were placed in the individual coherence subdomain, whereas items that could be affirmed without a philosophy were placed in the subjective significance subdomain. In distinguishing objective and subjective significance,

reference to “accomplishments” and “achievements” were often placed in the objective significance subdomain, but when reference was made to one’s feelings toward these, then this was taken as the more important consideration and the items were placed in the subjective significance domain; whether the item could be affirmed with respect to a trivial activity like “counting pieces of string” or “collecting matchboxes” was often a useful test case. In distinguishing the mission, purpose, and goals subdomains, the use of the singular “a calling” or even “a life purpose” was often taken as an indication of the mission subdomain; items that made reference to “purpose” or “purposes” or “life aim” were generally placed in the purposes subdomain, especially when the item indicated or allowed for a plurality of such purposes; items that made reference to goals or tasks or daily activities were generally placed in the goals subdomain. In some cases, language was ambiguous such as the use of “life goal,” which makes use of the “goal” terminology, but being prefaced by “life” in fact suggests a purpose. Whether the item would be affirmed by simply aiming to pass an exam was often a useful test case to distinguish goals from purposes. The principles above are not intended to be comprehensive but merely to indicate some of the considerations that went into the selection of the items and might be used in the further distinguishing of items if the seven-fold structure of CMM is also eventually used in other contexts.

Importantly, the CMM is intended to assess the presence of meaning in one’s life. It is not intended to assess related but also important constructs such as seeking to find meaning or the quest for meaning (Steger et al., 2006; Crumbaugh, 1968) or striving for, making progress toward, or achieving goals and purposes. These things can certainly be causes of meaning but are arguably conceptually distinct from meaning itself. Achieving a goal may be a source of meaning, but it may also lead to loss of meaning if, for example, its attainment results in there being nothing further for which one is striving.

Conclusion

The main contribution once again that we seek to make with the CMM is to clarify the different ways that meaning can be perceived as part of a human life. As crucial as meaning is to well-being, it is a welcome development in the current state of scholarship that a promising means of measuring meaning is becoming more clear and well-supported. There is now solid agreement that meaning is multidimensional and that it can be measured by focusing on three subconstructs tapping cognitive coherence, affective significance, and motivational direction. Within these subconstructs though it has become apparent from philosophical reflection (which so far has been happening largely in tandem with, but not in conversation with, psychological analysis) that yet finer distinctions can be made. The CMM intends to clarify and codify these distinctions, delineating refinements concerning global and individual “levels” of felt coherence, subjective and objective bases for perceived significance, and varying scopes of felt direction across a range of activities from quotidian to all-encompassing.

We would hope that research applications of the CMM will provide yet greater conceptual clarity around meaning and what it entails as well as further insight into how the subdomains relate to one another. Understanding how these three domains relate, whether

there are predictable correlations among them, and to what extent each domain targets a distinct psychological reality are tasks for immediate future research.

With the further distinctions or subdomains within the CMM, the work of understanding their relations becomes yet more complex. However, we believe that these distinctions may be of importance both in psychology and in potentially using data to inform philosophical discussions and to more adequately assess potential relations between coherence, significance, and direction. Without the further distinctions of the CMM it may be the case that specific measures, even those employing the tripartite structure, may unwittingly only encompass specific subdomains of meaning. To illustrate this, in the Table we examine several recent measures of meaning (Ryff, 1989; Krause, 2004; Steger et al., 2006; George & Park, 2017) including one that explicitly employs the tripartite model (George & Park, 2017) to evaluate which of seven subdomains of the CMM these measures evaluate.

Table. A Mapping of Several Existing Meaning Measures to the Subdomains of CMM

	Global Coherence	Individual Coherence	Subjective Significance	Objective Significance	Mission	Purposes	Goals
Ryff (1989)				X			X
Krause (2004)			X	X		X	X
Steger (2006)			X			X	
George and Park (2017)			X		X		X

None of these other measures captures all seven subdomains. Each measure tends to favor either objective or subjective significance without inclusion of items related to the other. When examining coherence, each has, at best, individual coherence and neglects global coherence. Each contains items related to the purposes subdomain but generally only has either the goals or the mission subdomain but not the other, with only the Krause (2004) measure arguably having items corresponding to each of the three levels of the hierarchy of the direction domain. Even the George and Park (2017) measure, which employs the tripartite model, and does, of course, indeed have items related to coherence, significance, and direction, focuses for each of the subconstructs only on one or another of the subdomains that the CMM delineates; it has individual but not global significance, objective but not subjective significance, and goals and purposes but nothing on mission or calling. We believe the CMM thus helps better fill out the various domains of the construct of meaning.

Of course, it may turn out that some of these subdomains are more important than others in their effects on various outcomes or that further empirical work suggests that for certain uses, assessing only a subset of subdomains is adequate. However, on conceptual grounds we think that these distinctions are important, and it will be of interest to see whether that bears out in empirical work. Further work of course remains to be done on assessing the psychometric properties of the CMM, work which we likewise plan to undertake in the years ahead, with data collection already currently underway.

We conclude then with some preliminary hypotheses about what we might expect the CMM to reveal in actual use among diverse populations.

We recognize that global coherence (1.A.) and individual coherence (1.B.) are independent of each other, such that a person might quite consistently believe that their own life makes sense for any number of reasons while being agnostic about whether life as such is coherent or even perhaps denying that it is. By the same token, though we would hypothesize that this would be the more unusual scenario, a person could be convinced that life in general is coherent but regard their own lives as being deficient in coherence. In such cases, which again we would assume would be comparatively rare, it is imagined that an individual would feel themselves to be in the situation of having a strong theoretical view of how human life *should* attain its intended meaning while sensing that their own personal existence was failing to achieve this standard or ideal of what it ought to be, or that one's life seemed difficult to understand within the broader global context. Which scenario will prove more commonplace, the extent to which the two subdomains are correlated, and which scores of the two subdomains are higher, are all open questions.

Recall that with respect to significance, the philosophical literature has divided along two different camps: the subjectivist accounts of meaning in life and the objectivist. In view of this distinction, which admits of course of a spectrum of possible variations, we separate subjective significance (2.A.) and objective significance (2.B.). The items in the former category are meant to assess the degree to which a person's own self-appraisal or estimation of the worth of their life comes from inward subjective judgment, while the items in the latter category are meant to assess the degree to which a person's judgment about the worth of their life rests on what they take to be the objective value of their projects, activities, or achievements, either in an absolute sense or at least considered important by the consensus of a broader community. A third sort of philosophical theory about meaning in life insists that meaning requires a connection between objectively valuable activities or contributions and a subjective endorsement of those activities or contributions. For measuring purposes we found it difficult to identify items that clearly targeted both elements in concert in the way that such theories demand. Nevertheless, we have included in a supplemental appendix three items that we feel at least implicitly assess the degree to which a person might sense that their life is meaningful on grounds simultaneously subjective and objective (Appendix 1.). We are interested therefore in the first place to discover to what extent scores on the subjective significance (2.A.) items and objective significance items (2.B.) tend to correlate, and also how often scores in one of the two subdomains are relatively high and in the other relatively low. Should one or the other of the subdomains be consistently higher, that would not necessarily lend greater credibility or explanatory power to one philosophical theory or another, but it would certainly provide information on how people experience the meaning of their lives, whether they feel that it is bound up more with a subjective sense of fulfillment or with the objective quality of their activities or contributions. Should the three "hybrid/integrated" items in the Appendix be used, it would be of further interest to discover the extent to which high scores on these items correlate or not with high scores on the subjective significance (2.A.) or objective significance (2.B.) items or both. In this last case, this would again provide at least

some additional evidence to help inform the third, hybrid or integrated, theory of meaning in life circulating in the philosophical debate.

Finally, with respect to direction, we again acknowledge that the three “levels” of scope, ranging from mission (3.A.), to purposes (3.B.), to goals (3.C.) are in principle independent. A person we hypothesize could score high on purposes while not being necessarily directed by a strong sense of mission; alternately, a person might score high on purposes while feeling that their daily goals were not well aligned at present with those purposes. We presume that a person who scores high on mission (3.A.) will generally also score high on purposes (3.B.) and goals (3.C.), but we also can see how this might not necessarily be the case. In such an instance, we would imagine that such a person has a strong and clear overall plan for their life but feels that at the present time their daily activities do not contribute to such a plan. Perhaps someone biding their time through a period of unemployment and awaiting an opportunity to pursue their true calling in the future would fit such a profile. Alternately, we would imagine it could be quite commonplace for a person to score high on purposes (3.B.) and goals (3.C.) while not necessarily feeling themselves to be guided by any great overarching ambition that they would be willing to describe as a mission or calling (3.A.). Again the relations here should prove interesting to answering future research questions.

It would also be of interest to see how the three domains or subconstructs relate to one another, both cross-sectionally or descriptively, and also over time in an attempt to assess causal relations. There is broad agreement that purpose is essential to meaning, but how important is it for that sense of purpose to be all-encompassing in scope? Is it sufficient for people to have a sense of purpose in our more narrow definition (“purposes,” 3.B.) for individuals to score high in meaning, or alternatively, is having a more singular sense of mission important? If data were available on these measures over time, might it be possible to provide evidence for the relative causal effects of each of these subconstructs on the others? Might it be the case that coherence most profoundly shapes direction, and that direction itself most powerfully affects a subsequent sense of significance? All of these questions would require at least two waves of data collection with the CMM, along with rich data on potentially confounding variables.

One final way of further attempting to understand what for many constitutes “meaning” is our inclusion of a final four items that we are calling “general” in tone (Appendix 2.). These items ask for respondents to gauge their overall impression of how meaningful their life is. Should these items be included, it would be possible to assess correlations between scores in the subdomains with overall assessments of the general meaningfulness that people perceive in their lives. This too we would hope could provide further insight into any strong associations between one domain, or even subdomain, and an overall sense of meaningfulness, which in turn might indicate which of the subconstructs is more influential on an overall assessment of meaningfulness.

We welcome the use of the CMM in varied settings and hope it will prove useful for empirical research to facilitate a deeper understanding on the relations between the different domains and subdomains, and provide useful information for how people actually experience meaning in life and with what frequency they do so across these subdomains. We also recognize that the Comprehensive Measure of Meaning builds on other recently proposed

measures that also are based on the tripartite model; it is thus our hope that mapping existing measures, identifying what they include or not, and where they overlap or not will be an easier task given the greater specificity of the subdomains deployed here and the selectivity used in assembling the 21 items that constitute the CMM.

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Appendix

Appendix 1. Integrated Significance Items:

- i. I find it satisfying to think about what I have accomplished in life.^{xxii}
- ii. When I think about what I have done with my life I feel worthwhile.^{xxiii}
- iii. I find fulfillment in the work I am engaged in or for which I am preparing myself.^{xxiv}

Appendix 2. General Meaning Items:

- i. My life is meaningful.^{xxv}
- ii. My purpose in life is clear.^{xxvi}
- iii. Overall, to what extent do you feel that the things you do in your life are worthwhile?^{xxvii}
- iv. I feel my life has a sense of meaning.^{xxviii}

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- ⁱ Item #38 on the Life Attitude Profile-Revised Scale. Erci, B. (2008). Meaning in life for patients with cancer: Validation of the Life Attitude Profile-Revised Scale. *Journal of Advanced Nursing*, 62(6), 704-711. See also "I think about the ultimate meaning of life," Item #1 on the Seeking of Noetic Goals Test. Reker, G. T., & Cousins, J. B. (1979). Factor structure, construct validity and reliability of the Seeking of Noetic Goals (SONG) and Purpose in Life (PIL) tests. *Journal of Clinical Psychology*, 35(1), 85-91. See also "I believe that life has an ultimate purpose and meaning," Item #5 on the Personal Meaning Profile. Wong, P. T. P. (1998). Implicit theories of a meaningful life and the development of the Personal Meaning Profile. In Wong, P. T. P., & Fry, P. S. (Eds.) *The Human Quest for Meaning: A Handbook of Psychological Research and Clinical Applications*. Mahwah, NJ: Lawrence Erlbaum.
- ⁱⁱ Item #7 on the Life Attitude Profile-Revised Scale, originally phrased as "The meaning of life is evident in the world around us." Erci, 2008.
- ⁱⁱⁱ Item #29 on the Life Attitude Profile-Revised Scale, originally phrased as "I have a framework that allows me to understand or make sense of my life." Erci, 2008. See also "I have a system or framework that allows me to truly understand my being alive," Item #11 on the Meaningful Life Measure. Morgan, J., & Farsides, T. (2009). Measuring meaning in life. *Journal of Happiness Studies*, 10, 197-214. Item appears verbatim as Item #28 on the Life Regard Index. Debats, D. L., van der Lubbe, P. M., & Wezeman, F. R. A. (1993). On the psychometric properties of the Life Regard Index (LRI): A measure of meaningful life. *Personality and Individual Differences*, 14(2), 337-345.
- ^{iv} Item #1 on the Meaning in Life Questionnaire. Steger, M., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80-93.
- ^v Item #8 on the Multidimensional Existential Meaning Scale. George, L. S. & Park, C. L. (2017). The Multidimensional Existential Meaning Scale: A tripartite approach to measuring meaning in life. *The Journal of Positive Psychology*, 126, 613-627.
- ^{vi} Item #4A2. Krause, N. (2004). Stressors arising in highly valued roles, meaning in life, and the physical health status of older adults. *Journal of Gerontology Series B: Psychological Sciences and Social Sciences*, 59(5), S287-S297.
- ^{vii} Item #18 on the Life Attitude Profile-Revised Scale, originally phrased as "Basically, I am living the kind of life I want to live." Erci, 2008.
- ^{viii} Item #2 on the Life Regard Index. Debats et al., 1993.
- ^{ix} Item #3B on Krause, 2004.
- ^x Item #3 under "Self-Worth" on the Comprehensive Inventory of Thriving, originally phrased as "The work I do is important for other people." Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving (CIT) and the Brief Inventory of Thriving (BIT). *Applied Psychology: Health and Well-Being*, 6(3), 251-279.

^{xi} Item #9 on the Meaningful Life Measure, originally reverse coded as “I have failed to accomplish much in life.” Morgan & Farsides, 2009.

^{xii} Item #49 on the Personal Meaning Profile. Wong, 1998. See also “The things I do contribute to society,” Item #2 under “Self-Worth” on the Comprehensive Inventory of Thriving. Su et al., 2014.

^{xiii} Item #18 on the Seeking of Noetic Goals Test, originally phrased as “I have been aware of an all-powerful and consuming purpose toward which my life has been directed.” Reker & Cousins, 1979.

^{xiv} Item #19 on the Personal Meaning Profile. Wong, 1998.

^{xv} Item #37 on the Life Attitude Profile-Revised. Erci, 2008.

^{xvi} Item #4 on the Purpose in Life Subscale. Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. Item appears verbatim as Item #4C2. Krause, 2004.

^{xvii} Item #28 on the Sense of Purpose Inventory, originally phrased as “I can describe my life’s purpose.” Sharma, G. (2015). *Sense of Purpose Inventory: Development, psychometric examination, and construct validation*. (Doctoral dissertation). Retrieved from Proquest Dissertations Publishing (3715563). The Pennsylvania State University, State Park, PA.

^{xviii} Item #12 on the Sense of Purpose Inventory. Sharma, 2015.

^{xix} Item #2 on the Life Attitude Profile-Revised Scale. Erci, 2008. Item is repeated verbatim as #16 on the Meaningful Life Measure. Morgan & Farsides, 2009. See also “In life, I have: (7) clear goals and aims,” Item #3 on the Purpose in Life Test. 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(2), 200-207.

^{xx} Item #9 from the Multidimensional Existential Meaning Scale. George & Park, 2017.

^{xxi} Item #3 on the Life Purpose Questionnaire. Hutzell, R. R. (1989). Institute of Logotherapy Press. In Jeffries, L. L. (1995) *Adolescence and meaning in life*. (Doctoral dissertation). Retrieved from Proquest Dissertations Publishing (9542604). University of Houston, Houston, TX.

^{xxii} Item #6 on the Meaningful Life Measure. Morgan & Farsides, 2009. Item appears verbatim as #13 on the Purpose in Life Subscale. Ryff, 1989. Item appears verbatim as Item #4D2. Krause, 2004.

^{xxiii} Item #11 on the Inventory of Positive Psychological Attitudes. Kass, J. D., Friedman, R., Leserman, J., Caudill, M., Zuttermeister, P. C., & Benson, H. (1991). An Inventory of Positive Psychological Attitudes with potential relevance to health outcomes: Validation and preliminary testing. *Behavioral Medicine*, 17(3), 121-129.

^{xxiv} Item #3 on the Logo-Test Revised. Thege, B. K., Martos, T., Bachner, Y. G., & Kushnir, T. (2010). Development and psychometric evaluation of a revised measure of meaning in life: The Logo-Test-R. *Studia Psychologica*, *52*, 133-145.

^{xxv} Item #7 on the Spiritual Meaning Scale. Mascaro, N., Rosen, D. H., & Morey, L. C. (2004). The development, construct validity, and clinical utility of the Spiritual Meaning Scale. *Personality and Individual Differences*, *37*, 845-860.

^{xxvi} Item #1 on the Sense of Purpose Inventory. Sharma, 2015.

^{xxvii} Item #2 on the UK's Annual Population Survey's Four-Question Survey of Subjective Wellbeing. Allin, P., & Hand, D. J. (2017). New statistics for old?—Measuring the wellbeing of the UK. *Journal of the Royal Statistical Society Series A: Statistics in Society*, *180*(1), 3-43.

^{xxviii} Item #2 on the Purpose in Life Scale. Robbins, M., & Francis, L. J. (2000). Religion, personality, and well-being: The relationship between church attendance and purpose in life. *Journal of Research on Christian Education*, *9*(2), 223-238.