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Claremont Purpose Scale: A Measure that Assesses the Three Dimensions of Purpose among Adolescents

Kendall Cotton Bronk, Brian R. Riches, and Susan A. Mangan
Claremont Graduate University

The 12-item Claremont Purpose Scale (CPS) was designed for use with adolescents, and it gauges all three dimensions of the purpose construct, including goal-directedness, personal meaning, and a beyond-the-self orientation. Repeated administration reveals promising psychometric properties. For instance, the CPS demonstrates excellent internal consistency (α = .916–.935) and convergent validity. In exploratory and confirmatory factor analyses, items fell onto the three dimensions, and the measure accounted for variance on indicators of a beyond-the-self orientation above and beyond the PIL. In addition to discussing the measure's creation and validation, suggested uses of the CPS are also addressed.

Discovering a purpose in life is a developmental process. Children generally lack the hypothetical-deductive reasoning skills required to seriously consider their purpose, but from adolescence onward, individuals can be inspired to pursue a meaningful direction in life. As Erikson (1968, 1980) first theorized and more recent research has empirically established (Hill & Burrow, 2012), healthy identity formation and the growth of purpose often coincide. Identity and purpose development are interconnected processes such that increased commitment to one dimension corresponds with increased commitment to the other (Hill & Burrow, 2012). In other words, as individuals consider who they hope to become, at least some also reflect on what they hope to accomplish in their lives (Bronk, 2011). Because purpose development is so closely related to the primary developmental task of adolescence—identity formation—researchers are particularly interested in understanding how purpose contributes to healthy development during the second and third decades of life (Damon, 2008), and yet measures designed to adequately assess purpose during this stage do not exist.

A growing body of research identifies purpose as a critical component of positive youth development. Purpose is considered a developmental asset (Benson, 2006), a key facet of thriving (Bundick, Yeagar, King, & Damon, 2010), and a central dimension of psychological well-being (French & Joseph, 1999; Hutzell & Finck, 1994; Ryff, 1989). It is also related to physical health. For instance, purpose is associated with improved cardiovascular health, better sleep, and even with longevity (Boyle, Barnes, Buchman, & Bennett, 2010; Hill &

Correspondence should be addressed to Kendall Cotton Bronk, Division of Behavioral and Organizational Sciences, Claremont Graduate University, Quality of Life Research Center, 1227 N. Dartmouth Ave., Claremont, CA 91711
E-mail: kcbronk@cgu.edu

Turiano, 2014; Ryff, Singer, & Love, 2004; Turner, Smith, & Ong, 2017). Given the psychological and physical benefits associated with leading a life with purpose, understanding how to assess this construct is increasingly of interest to developmental scientists, particularly applied developmental scientists who may want to evaluate programs that seek to foster purpose.

Purpose is a long-term, forward-looking intention to accomplish aims that are meaningful to the self and of consequence to the broader world (Damon, Menon, & Bronk, 2003). This definition includes three essential dimensions. First, purpose references an "aim." It is not a short-term objective but rather a long-term aim that provides an inspiring and enduring sense of direction. Second, a purpose in life is "personally meaningful," and this is typically evidenced by an individual's commitment of time, energy, and resources toward its pursuit. As a result of its personal significance, a purpose in life is highly motivating. In fact, purpose has been referred to as the ultimate source of motivation (Damon, 2008). Third, a purpose is a part of one's personal search for meaning, but it also has an external component. Specifically, it is inspired, at least in part, by a desire to make a difference in the "broader world." The beyond-the-self dimension is significant theoretically as well as practically. Theoretically, this dimension largely distinguishes purpose from meaning (Damon et al., 2003), and practically, individuals motivated by beyond-the-self motives differ from individuals who are more self-focused. For instance, studies find that compared to more self-focused individuals, those with a beyond-the-self orientation are more open, report higher levels of life satisfaction, and have more humanistic, political, and well-integrated personality dispositions (Bronk & Finch, 2010; Mariano & Vaillant, 2012)

Existing survey measures of purpose fail to assess this critical beyond-the-self dimension (Damon et al., 2003). Present measures only gauge the personal meaningfulness and goal-oriented aspects of purpose. For instance, the earliest survey of purpose, the Purpose in Life Test (Crumbauch & Maholick, 1969) only assesses these two aspects, with items such as, "My personal existence is" 1 (*utterly meaningless, without purpose*) to 7 (*purposeful and meaningful*) and "In life I have" 1 (*no goals or aims*) to 7 (*clear goals and aims*). Other measures only assess the personal meaningfulness or goal-orientation aspect. For instance, the Life Regard Index (Battista & Almond, 1973) assesses the personal significance of one's life with items such as "I feel like I have found a really significant meaning for leading my life" and "Living is deeply fulfilling." Similarly, the Meaning in Life questionnaire (Steger, Frazier, Oishi, & Kaler, 2006) measures the search for and identification of the personal significance of one's life. Items include "I am looking for something that makes my life feel meaningful" and "I understand my life's meaning." Another widely administered measure of purpose, the Purpose in Life subscale of the Psychological Scales of Well-Being (Ryff & Keyes, 1995) assesses the goal orientation inherent in purpose, and includes items such as "I live one day at a time and don't really think about the future" (reverse coded) and "Some people wander aimlessly through life, but I am not one of them."

To get at the elusive beyond-the-self dimension, researchers have relied on interviews (Bronk, 2011, 2012), historical document reviews (Mariano & Vaillant, 2012), and young peoples' private journal entries (Inhelder & Piaget, 1958). These approaches reveal that purposes that feature each of these dimensions exist and are particularly adaptive; however, each of these methods has significant drawbacks. Interviews are time consuming to collect and necessitate small sample sizes, and with diary entries and historical document reviews,

researchers have to hope that discussions of purpose emerge spontaneously, again leading to smaller sample sizes.

Another shortcoming of existing measures is their target audience. Existing measures were created for use with adults, not with adolescents. Some feature questions particularly poorly suited to adolescents. For instance, the Purpose in Life test (Crumbaugh & Maholick, 1964) poses questions about retirement and death, topics unlikely to be on the radar of most teens and twenty-somethings. Given the growing recognition of the close relationship between purpose and identity development, which typically occurs during adolescence, this is a significant oversight.

To address the full purpose construct among adolescents, we designed the Claremont Purpose Scale (CPS) and tested and validated it with samples of adolescents (Damon, 2008; Erikson, 1968, 1980). Following is a discussion of the tool's construction and its psychometric properties.

CLAREMONT PURPOSE SCALE CONSTRUCTION

To create the CPS, we drew from existing measures that adequately assess each of the construct's dimensions. To assess the personal meaningfulness dimension, we adapted items from the Meaning in Life Questionnaire, Identified Purpose subscale (Steger et al., 2006) to assess the goal-orientation dimension, we adapted items from Ryff's (1989) Scales of Psychological Well-being: Purpose in Life subscale, and to assess the beyond-the-self dimension, we adapted items from Schwartz's (1992) Value Survey: Self-transcendence subscale.

The measures from which we drew contained items featuring statements. However, many positive psychological surveys that rely on statements, including many purpose surveys, yield high mean scores (e.g., happiness; Diener & Diener, 1996). Respondents presented with statements often fall victim to a phenomenon known as "acquiescence bias," or the tendency to agree strongly with survey statements regardless of their content (Fowler, 2009; Krosnick, 1999). Because answering questions feels more natural than responding to statements it has been argued that using questions in surveys can lower mean scores (Gehlbach, 2015). Accordingly, as a part of adapting items from these existing scales, we rewrote them as questions.

Content and Convergent Validity

Regarding content validity, we expected questions in the CPS would load onto three distinct factors, including goal-directedness, personal meaning, and beyond-the-self orientation. This would demonstrate the CPS was measuring the three facets of purpose. However, we would not consider our scale valid unless it was also internally consistent as a single scale.

Given research with other operalizations of purpose, and to test convergent validity, we expected CPS scores to correlate positively with life satisfaction. Empirical research suggests purpose should be related to a subjective sense of life satisfaction (Bronk, Hill, Lapsley, Talib, & Finch, 2009; Diener, Emmons, Larsen, & Griffin, 1985; Gillham et al., 2011; Peterson, Parks, & Seligman, 2005), and theoretical models of purpose among adults (Seligman, 2002) and young people (Benson, 2006) lend further support to this hypothesis.

We also expected the CPS to be inversely related to depression. Empirical studies find that *explicit meaning*, which is defined as having a philosophy or framework that provides a sense of coherence and purpose, and *implicit meaning*, which is defined as a sense of personal meaningfulness, are related to decreased levels of depression (Mascaro & Rosen, 2005). Similarly, other studies have found that purpose is inversely related to depression among typical (Bigler, Neimeyer, & Brown, 2001) and clinical samples (Debats, 1996).

Finally, to further ensure the CPS is a valid measure of purpose, we needed to see that the CPS scores correlated with scores of existing measures of purpose that assess two of its three dimensions. In particular, we expected the CPS would correlate positively with the most widely administered measure of purpose, the Purpose in Life Test (PIL; Crumbauch & Maholick, 1969; Pinquart, 2002).

Incremental Validity

Although we expected the PIL to perform similarly to the CPS on measures of life satisfaction and depression, we expected it to perform differently in relation to a beyond-the-self orientation. More specifically, we expected the CPS would predict a beyond-the-self orientation above and beyond the PIL. We could not locate direct measures of a beyond-the-self orientation, and little research exists around indicators of an orientation to the world beyond-the-self; however, a handful of studies suggest that a beyond-the-self orientation is evident among individuals who report higher levels of openness (Bronk & Finch, 2010; Levenson, Jennings, Aldwin, & Shiraishi, 2005). Presumably, individuals who are particularly open to new experiences are more attuned to the broader world. Therefore, we expected the CPS to account for variance above and beyond the PIL in relation to the openness subscale of the Big Five Inventory (Costa & McCrae, 1992, 2008). Theoretical research suggests an orientation to the world beyond-the-self is also a central component of wisdom (Curnow, 1999; Gluck et al., 2013). Other research finds that despite their youth, adolescents can possess wisdom and that among young people, wisdom is associated with meaning, a construct closely related to purpose (Fry, 1998). Accordingly, we expected the CPS to account for variance on wisdom above and beyond the PIL.

Finally, the beyond-the-self dimension of purpose need not be moral in nature. People who have a personally meaningful desire to negatively influence the broader world may well be guided by a purpose in life. The individuals who crashed planes into the World Trade Center were likely guided by a strong sense of purpose. However, in spite of this, existing studies find that most examples of purpose are indeed moral in nature, and that compared to others, individuals with purpose tend to be more altruistic (Noblejas De La Flor, 1997; Shek, Ma, & Cheung, 1994). Accordingly, we predicted that the CPS would account for variance on a scale of empathic concern above and beyond the PIL.

To construct, validate, and test the CPS we conducted two studies. Study 1 featured scale construction and exploratory factor analyses (EFA). Study 2 included a confirmatory factor analysis (CFA) and tests of validity, including tests of content validity, construct validity, convergent validity, and incremental validity.

STUDY 1: EXPLORATORY FACTOR ANALYSES

Participants

Because purpose development is primarily a feature of late adolescence (Damon, 2008; Erikson, 1968, 1980; Hill & Burrow, 2012), participants between age 18 and 30 years from Amazon's online Mechanical Turk (Mturk) survey network were recruited for the EFAs. Empirical findings on Mturk data and samples from studies using multiple research methods (e.g., survey, experimental, pseudodyadic interaction) demonstrate that data obtained via Mturk are reliable and more demographically diverse than data collected from other convenience samples, such as college undergraduates (Behrend, Sharek, Meade, & Wiebe, 2011; Buhrmester, Kwang, & Gosling, 2011; Summerville & Chartier, 2013). Participants living outside the United States and those taking the survey using a mobile device were prevented from participating (the survey was not formatted for mobile devices). In addition, participants who failed attention checks ($n = 5$) were excluded from our sample. The final sample included 330 participants (62% male, 69.7% White, M age = 22, $SD = 2.52$), who were each paid $2.00 for their participation. Participants were presented each measure separately, in random order.

Measures

Claremont Purpose Scale

As discussed above, rather than creating an entirely new set of items, most of our items were adapted from existing measures. As a part of adapting items, statements were rewritten as questions and some new questions were generated. The initial CPS version included 27 questions, which were tested using an EFA to determine which items best captured the goal-directed, personal meaning, and beyond-the-self dimensions. We expected to see three distinct factors and adequate reliability as a single scale.

RESULTS & DISCUSSION

Descriptive statistics, including skew and kurtosis analyses, revealed approximately normal distributions for all items. Correlation testing revealed CPS items were significantly correlated with one another (correlations ranged from $r = .21 - .81$, $p < .01$). Following these tests of assumptions, the EFA relied on principle axes factoring with oblimin rotation. Direct oblimin rotation is an oblique rotation that allows for, and measures, the correlation between factors, which we expected to find in the purpose scale (Osborne & Costello, 2009; Rattray & Jones, 2007).

When allowed to freely rotate, three factors emerged based on the Kaiser rule and an examination of the scree plot. We removed questions loading < .40, as well as questions that did not load on the subscale for which they were intended (e.g., a meaning item that loaded on goal directedness was removed). In total, we removed 15 of 27 questions. The remaining 12 questions loaded onto three distinct factors (Kaiser-Meyer-Olkin (Kaiser-Meyer-Olkin (KMO)) = .923), including personal meaning (four items), goal-directedness (four items), and beyond-the-self orientation (four items). This factor solution accounted for 70.4% of the total variance. As expected, the factors were

correlated; meaning and goal directedness correlated at r = .73, meaning and beyond-the-self orientation at r = .50, and goal-directedness and beyond-the-self orientation at r = .56. The 12-item version of the CPS demonstrated internal consistency (α = .923) as did the individual subscales; meaning (α = .910), goal directedness (α = .916), and beyond-the-self orientation (α = .873). Table A1 includes a summary of the EFA results.

These results suggest that the scale assesses the construct's three dimensions while also functioning as a single measure of purpose. However, because a CFA can provide a more accurate and conservative test of this hypothesis, we tested the measure with a new sample of adolescents to confirm the factor structure. We also tested the measure's convergent and incremental validity.

STUDY 2: CONFIRMATORY FACTOR ANALYSIS AND VALIDATION

The following analyses were conducted to determine if the CPS provided valid data about an adolescent's level of purpose in life. First, we conducted a CFA to ensure we were analyzing three distinct dimensions of purpose. We used structural equation modeling (SEM) to determine if our measure included three first-order latent factors, including personal meaning (four items), goal-directedness (four items), and a beyond-the-self orientation (four items), which make up a single second-order latent factor, purpose. Data were prepared for SEM analysis in SPSS version 19, and we tested for model fit using AMOS Version 24. Second, we conducted correlational analyses to see if the measure related as expected to the PIL, life satisfaction, and depression measures. Third, we conducted a hierarchical regression to determine if the CPS assessed the beyond-the-self dimension of purpose better than the PIL. We compared the CPS and PIL with regards to the level of variance each accounted for on empathic concern, openness, and wisdom.

Participants

For this study, we again recruited 18- to 30 year-old participants from Mturk. As in our previous analysis, participants from outside the United States and those using a mobile device were prevented from participating, and we removed participants (n = 7) who failed attention checks (N = 241; 57.1% male, 72.1% White, M age = 24, SD = 3.239). Participants were presented each measure below, separately and in random order. All measures were adapted to use the same 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), unless otherwise indicated.

Measures

CPS

Based on the results of the EFA, the CPS measure, which includes 12 questions and corresponding anchors, is included in Table A2 and was administered to participants. There was excellent internal consistency for this sample (α = .94 overall, .92 for meaning component, .92 for beyond-the-self component, and .86 for goal-directedness component).

Purpose in Life

Purpose in life was measured using the PIL (Crumbauch & Maholick, 1969), the most widely administered measure of purpose (Pinquart, 2002). The scale includes 20 items (e.g., "Facing my daily tasks is") and varied response options (e.g., "a painful and boring task," or "a source of pleasure and satisfaction") on a 7-point scale. This scale has been found to have coefficient alphas ranging from .86 to .88 (Guttman, 1996; Sink, Van Keppel, & Purcell, 1998). Consistent with previous research, this study had very good internal consistency ($\alpha = .95$).

Life Satisfaction

Life satisfaction was measured using the Satisfaction with Life Scale (Diener et al., 1985) comprised of five items including, "The conditions of my life are excellent" and "I am satisfied with life." This scale had good internal consistency in an earlier study ($\alpha = .87$; Bronk et al., 2009) and excellent reliability in the present analysis ($\alpha = .93$).

Depression

Depression was measured using the Patient Health Questionnaire, Depression Items (PHQ-9; Kroenke, Spitzer, & Williams, 2001). This 9-item scale asks participants to rate how often they have been bothered by any of the following problems, including, "feeling down, depressed, or hopeless" and "little interest or pleasure in doing things." Participants responded on a four-point scale including, *not at all, several days, more than half the days*, and *nearly every day.* This scale had excellent reliability in its initial validation study ($\alpha = .89$; Kroenke et al., 2001) and in this study ($\alpha = .90$).

Openness

Openness was measured using The Big 5 Personality Inventory, Openness subscale (Costa & McCrae, 1992, 2008). The Openness sub-scale contains 10 items including "I am someone who; Is curious about many different things" and "I am someone who; Is original, comes up with new ideas." The openness dimension of the Big 5 Inventory was found to be internally consistent in its initial validation ($\alpha = .79$; Costa & McCrae, 1992, 2008) and with this sample ($\alpha = .84$).

Wisdom

The Adult Self-Transcendence Inventory (ASTI; Levenson et al., 2005) measures the degree to which individuals move beyond self-boundaries and experience a sense of connection with the world. This conception of self-transcendence represents a critical dimension of wisdom (Levenson et al., 2005), and items include "I feel that my individual life is a part of a greater whole" and "Material things mean less to me." In earlier tests, the ASTI was found to be internally consistent ($\alpha = .75$; Levenson et al., 2005), and in this test, the internal consistency was very good ($\alpha = .85$).

Empathic Concern

Empathic concern was assessed using the 7-item Empathic Concern subscale of the Davis Empathy Scale (Davis, 1983), which assesses the degree to which people feel concern for others. The scale includes questions such as "I often have tender, concerned feelings for people less fortunate than me," and "I am often quite touched by things that I see happen." This scale was found to be internally consistent in other studies (α = .68 – .73; Davis, 1983) and in the present study (α = .90).

RESULTS & DISCUSSION

Results of the CFA revealed a good fit, and can be seen in Figure A1, $\chi^2(51, N = 241) = 90.37$, $p < .001$; root mean square error of approximation (RMSEA) = .057 (90% confidence interval [CI] [.037, .076]); Comparative Fit Index (CFI) = .981; Tucker-Lewis Index (TLI) = .976; Incremental Fit Index [IFI] = .981. Although we had a significant chi-squared, our RMSEA, and our comparative fit indices CFI, TLI, and IFI all indicated a good fit. The four meaning items loaded onto the meaning factor ($p < .001$) with scores ranging from .837 to .919, the four goal-directedness items loaded onto the goal-directedness factor ($p < .001$) with scores ranging from .670 and .830, and the four beyond-the-self items loaded onto the beyond-the-self factor ($p < .001$) with scores ranging from .793 to .894. These three latent factors loaded onto the second-order latent factor, which we called purpose (meaning .728, $p < .001$; goal-directedness .898, $p < .001$; and beyond-the-self orientation .679, $p < .001$). Results of this CFA provide evidence of the CPS's content validity.

We tested alternative factor structures to determine if this one offered the best fit. Because other surveys have conceived of purpose as unidimensional (e.g., goal-directedness or personal meaning), we tested a single factor structure, where all 12 items loaded onto a single purpose factor. We evaluated fit indices based on the recommendations by Hu and Bentler (1995, 1998)). Results of this CFA revealed a poor fit $\chi^2(54, N = 241) = 816.09$, $p < .001$; RMSEA = .242, CI [.228, .257]; CFI = .636; TLI = .556; IFI = .638. This makes sense because theory suggests purpose is composed of three dimensions.

Next, we tested a three-factor model where items fell onto three uncorrelated factors (personal meaning, goal-directedness, and beyond-the-self orientation). CFA results for this three-factor model, also resulted in a poor fit, although it was a better fit than the one-factor model $\chi^2(54, N = 241) = 286.89$, $p < .001$; RMSEA = .134, CI [.119, .150]; CFI = .889; TLI = .864; IFI = .890. Modification indices recommended correlating the three separate factors to achieve a better model fit. Correlating these factors serves the same purpose as including a higher order factor, in this case purpose, further suggesting our original model offers the most accurate description of the data.

Before running correlation and regression analyses, scatterplots were examined and tests of independence were conducted. We computed the Durbin–Watson statistic to test independence. Scores ranged between 1.957 and 2.022 for all regression tests suggesting the assumption of independence was met. We also found that tolerances were greater than .10 (.356–.994), and the variance inflation factors were less than three (1.006–2.81) suggesting that multicollinearity was not an issue. Following these checks of assumptions, the CPS was found to be internally

consistent (α = .917), as were the others scales administered, including the PIL (α = .945), Life Satisfaction (α = .926), Depression (α = .904), Openness (α = .835), Self-Transcendence (α = .851), and Empathic Concern (α = .901). We examined the extent to which each scale correlated with the CPS. In adition, the scales assessing convergent and incremental validity were examined in relation to the PIL for comparison with the CPS.

Results supported our hypotheses. As expected, the CPS correlated positively with the PIL, $r = .799$, $p < .001$, and life satisfaction, $r = .646$, $p < .001$, and negatively with depression, $r = –.339$, $p < .001$. These findings provide evidence of the CPS's construct and convergent validity.

Next, we tested the CPS's incremental validity. As can be seen in Tables A4, A5, and A6, the CPS accounted for variance on all beyond-the-self orientation scales above and beyond the PIL. In addition, the CPS had lower skewness (CPS = –.30, PIL = –.49) and kurtosis (CPS = –.09, PIL = .229) scores than the PIL; however, both PIL scores were within acceptable limits for a normal distribution. There are two weaknesses in the tests of incremental validity. The first is that the PIL remains a significant predictor of wisdom even after the CPS is introduced, and the second is that though the CPS does predict empathy, openness, and wisdom above and beyond the PIL, the effect is smaller than expected. This is likely due to the lack of a clear measure of beyond-the-self orientation. Empathy, openness, and wisdom are good approximations of a beyond-the-self orientation, but they are not perfect measures of it. In addition, empathy, openness and wisdom are highly correlated with meaning, which the PIL assesses. This may explain why the PIL is related to these outcome measures. On the other hand, although the effect is small, as hypothesized, the CPS does increase the prediction of these indicators of a beyond-the-self orientation above and beyond the PIL, thereby demonstrating the incremental validity of the CPS.

Taken together, results of our analyses suggest the CPS is a valid tool for assessing purpose among adolescents. As expected, the four meaning items loaded exclusively onto the meaning factor ($M = 3.32$, $SD = 1.01$), the four goal-directedness items loaded exclusively onto the goal-directedness factor ($M = 3.50$, $SD = .81$), and the four beyond-the-self orientation items loaded exclusively onto the beyond-the-self orientation factor ($M = 3.68$, $SD = .96$). These three factors fall on one factor, which we call purpose ($M = 3.50$, $SD = .77$).

Results of the correlational analyses and hierarchical regression suggest the CPS is a more reliable and valid measure of the three dimensions of purpose than the leading survey; correlations can be found in Table A3. The correlation between the PIL and the CPS, as well as other measures of convergent validity (e.g., life satisfaction and depression), suggest that both scales tap a similar construct, but results of the regression analysis suggest the CPS does a better job than the PIL of assessing the beyond-the-self dimension. In addition, findings reveal that the CPS is not as strongly correlated to life satisfaction or depression as the PIL, which has been a frequent criticism of that measure (Damon et al., 2003; Dyck, 1987).

GENERAL DISCUSSION

A purpose in life represents a long-term, forward-looking intention to accomplish aims that are meaningful to the self and of consequence to the broader world (Damon et al., 2003). In spite of the health benefits associated with leading a life of purpose, study of this important construct

has been hampered by the lack of a comprehensive and sensitive assessment tool that assesses all three dimensions of the construct. In particular, existing surveys fail to assess the beyond-the-self dimension. In addition, existing measures of purpose were designed for adults, but a growing body of research identifies purpose as a key component of positive youth development and healthy identity formation (Benson, 2006; Hill & Burrow, 2012). Consequently, researchers are increasingly interested in assessing this construct among individuals in the second and third decades of life (Damon, 2008).

The 12-item CPS draws from existing measures to assess the goal-directedness, personal meaningfulness, and beyond-the-self dimensions of purpose among adolescents. Taken together, results suggest the CPS represents a promising new measure of adolescent purpose. The first two studies, conducted with different samples, concluded that the measure is internally consistent (α = .917–.945). EFAs and CFAs provide evidence for the measure's content validity, as items loaded onto three distinct factors, including personal meaning, goal-directedness, and a beyond-the-self orientation. Providing evidence of the CPS's construct and convergent validity, the measure was positively related to the most-widely administered measure of purpose (PIL, $r = .799$, $p < .001$) and life satisfaction ($r = .646$, $p < .001$) and inversely related to depression ($r = –.339$, $p < .001$; Pinquart, 2002). Using hierarchical regression, we tested the CPS's incremental validity and found that the measure accounted for variance above and beyond the PIL on measures of beyond-the-self orientation, including openness, empathic concern, and wisdom.

Based on these results, we believe the CPS represents a useful new tool for developmental scientists interested in studying purpose. In particular, for at least two reasons, we believe this measure will be useful for researchers and practitioners interested in tracking changes in purpose and its components over time and as a result of purpose-fostering interventions. First, unlike some other surveys of positive psychological constructs (e.g., happiness; Diener & Diener, 1996), this tool features mean scores low enough to detect changes in the construct over time. Second, and related to the first point, this measure provides a snapshot of levels of purpose and its components. That means developmental scientists administering purpose-fostering interventions will be able to quickly and easily identify in which of the purpose components an intervention has had an effect, and because most adolescents are in the process of discovering and committing to a purpose in life (Damon, 2008), they will also be able to identify in which of the three components youth need further support to develop a clear purpose in life.

In using this measure, researchers and practitioners alike need to be thoughtful about what participant scores indicate. High scores mean participants meet all or most of the criteria for purpose, midrange scores mean they meet some of the criteria, and low scores mean participants meet few, if any criteria for purpose. Studies using this measure should take care to report results this way. Individuals scoring in the midrange lack all or some of one or more of the critical dimensions of purpose. Accordingly, they do not have "some purpose" but instead "meet some of the criteria for purpose."

Although we believe the CPS stands to advance the study of youth purpose, this measure is not without its shortcomings. For instance, though the CPS demonstrates strong content, convergent, and incremental validity, it would be useful to test the measure against interviews, widely recognized as the "gold standard" in purpose measurement (Bronk, 2013), to ensure the briefer survey is as valid a measure of youth purpose as are lengthier interviews. This work is currently underway. Second, the development of this measure relied on the use of Mturk samples. Researchers cannot be sure that online participants give the task at hand the appropriate attention.

However, we included attention checks, which should have minimized this potential problem, and of course, this is a problem with any online survey data collection effort, even when known individuals comprise the sample. A final shortcoming is that the measure features varied response options for each item. Rather than using a standard 7-point Likert-type scale, each item has a different response option, and this is likely to slow participants down as it requires more attention. However, moving through the survey more slowly also ensures more accurate responses, and because the scale includes only 12 items, the slower completion time may actually be a benefit.

These relatively minor limitations notwithstanding, we believe that by measuring all three dimensions of purpose, the CPS stands to make an important contribution to the study and assessment of purpose among adolescents.

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ORCID

Kendall Cotton Bronk http://orcid.org/0000-0002-2619-8073

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APPENDICES

TABLE A1
Summary of Exploratory Factor Analysis Results for Claremont Purpose Scale Using Principle Axes Factoring and Oblimin Rotation

	Factor Loadings from Pattern Matrix		
Item	*Meaning*	*Self-Transcendence*	*Goal Orientation*
How well do you understand what gives your life meaning?	.881[a]	−.028	−.046
How clear is your sense of purpose in your life?	.876[a]	−.016	.023
How confident are you that you have discovered a satisfying purpose for your life?	.764[a]	−.025	.112
How clearly do you understand what it is that makes your life feel worthwhile?	.763[a]	.124	−.010
How important is it for you to make the world a better place in some way?	.017	.894[a]	−.060
How often do you hope to leave the world better than you found it?	−.038	.865[a]	−.010
How often do you find yourself hoping that you will make a meaningful contribution to the broader world?	.032	.789[a]	.004
How often do you hope that the work that you do positively influences others?	.017	.703[a]	.106
How engaged are you in carrying out the plans that you set for yourself?	−.001	−.050	.843[a]
How hard are you working to make your long-term aims a reality?	−.073	.025	.817[a]
How much effort are you putting into making your goals a reality?	.060	.132	.693[a]
What portion of your daily activities move you closer to your long-term aims?	.221	−.035	.612[a]
Eigenvalues before rotation	5.85	2.12	1.06
% of variance explained after rotation	46.04	15.09	6.08

Note. a. Factor loadings over .40.

TABLE A2
The Claremont Purpose Scale Complete List of Items

Meaningfulness (α = .924)					
1	How clear is your sense of purpose in your life?				
	Not at all clear	*A little bit clear*	*Somewhat clear*	*Quite clear*	*Extremely clear*
2	How well do you understand what gives your life meaning?				
	Do not understand at all	*Understand a little bit*	*Understand somewhat*	*Understand quite well*	*Understand extremely well*
3	How confident are you that you have discovered a satisfying purpose for your life?				
	Not at all confident	*Slightly confident*	*Somewhat confident*	*Quite confident*	*Extremely confident*
4	How clearly do you understand what it is that makes your life feel worthwhile?				
	Not at all clearly	*A little bit clearly*	*Somewhat clearly*	*Quite clearly*	*Extremely clearly*
Goal orientation (α = .862)					
5	How hard are you working to make your long-term aims a reality?				
	Not at all hard	*Slightly hard*	*Somewhat hard*	*Quite hard*	*Extremely hard*
6	How much effort are you putting into making your goals a reality?				
	Almost no effort	*A little bit of effort*	*Some effort*	*Quite a bit of effort*	*A tremendous amount of effort*
7	How engaged are you in carrying out the plans that you set for yourself?				
	Not at all engaged	*Slightly engaged*	*Somewhat engaged*	*Quite engaged*	*Extremely engaged*
8	What portion of your daily activities move you closer to your long-term aims?				
	None of my daily activities	*A few of my daily activities*	*Some of my daily activities*	*Most of my daily activities*	*All of my daily activities*
Beyond-the-self dimension (α = .917)					
9	*How often do you hope to leave the world better than you found it?*				
	Almost never	*Once in a while*	*Sometimes*	*Frequently*	*Almost all the time*
10	How often do you find yourself hoping that you will make a meaningful contribution to the broader world?				
	Almost never	*Once in a while*	*Sometimes*	*Frequently*	*Almost all the time*
11	How important is it for you to make the world a better place in some way?				
	Not at all important	*Slightly important*	*Somewhat important*	*Quite important*	*Extremely important*
12	How often do you hope that the work that you do positively influences others?				
	Almost never	*Once in a while*	*Sometimes*	*Frequently*	*Almost all the time*

TABLE A3
Zero-order Correlations between the CPS and All Measure Indicators Used in Study 2

	Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1	CPS	—								
2	PIL	.81**	—							
3	Openness	.52*	.44*	—						
4	Empathic concern	.50**	.46**	.38**	—					
5	Satisfaction w/life	.65**	.75**	.27**	.32**	—				
6	Depressive symptoms	−.34**	−.53**	−.29*	−.29*	−.39**	—			
7	Wisdom	.62**	.62**	.51**	.45**	.57**	−.52**	—		
8	Age	.03	.11	.01	.02	.08	.05	.02	—	
9	Female	.05	.01	.05	.17**	.04	.01	.01	−.01	—

Note. CPS = Claremont Purpose Scale; PIL = Purpose in Life Scale.
$N = 241$.
*$p < .05$ (2-tailed); **$p < .01$ (2-tailed).

TABLE A4
Hierarchical Regression Demonstrating Variance in Empathy Accounted for by the CPS Above and Beyond the PIL

				Unstandardized		*Standardized*
Step	*Variable*	R	R^2 *Change*	b	SE(b)	*β*
1	Demographics	.182	.033			
	Age			−.019	.026	−.041
	Female			.391*	.147	.151*
	Ethnicity			.032	.050	.036
2	PIL	.489**	.206**	.200	.177	.163
3	CPS	.534**	.046**	.617**	.162	.363**
(Constant)	Empathy			1.626	.773	

Note. CPS = Claremont Purpose Scale; PIL = Purpose in Life Scale.
$N = 241$. Cumulative $R^2 = .285$; adjusted $R^2 = .269$
*$p < .01$, **$p < .001$.

TABLE A5
Hierarchical Regression Demonstrating Variance in Openness Accounted for by the CPS Above and Beyond the PIL

				Unstandardized		*Standardized*
Step	*Variable*	R	R^2 *Change*	b	SE(b)	*β*
1	Demographics	.110	.012			
	Age			.014	.020	.039
	Female			.051	.111	.025
	Ethnicity			−.069	.038	−.102
2	PIL	.471**>	.209**	.063	.088	.068
3	CPS	.552**	.083**	.633**	.122	.486**
(Constant)	Openness			2.265**>	.583	

Note. CPS = Claremont Purpose Scale; PIL = Purpose in Life Scale.
$N = 241$. Cumulative $R^2 = .305$; adjusted $R^2 = .289$.
**$p < .001$.

TABLE A6
Hierarchical Regression Demonstrating Variance in Wisdom Accounted for by the CPS Above and Beyond the PIL

				Unstandardized		*Standardized*
Step	*Variable*	R	R^2 *change*	b	SE(b)	*β*
1	Demographics	.018	.000			
	Age			−.006	.017	−.017
	Female			−.041	.069	−.022
	Ethnicity			−.030	.033	−.047
2	PIL	.625**	.391**	.300**	.076	.333**
3	CPS	.662**	.047**	.456**	.105	.365**
(Constant)	Wisdom			2.091**	.503	

Note. CPS = Claremont Purpose Scale; PIL = Purpose in Life Scale.
$N = 241$. Cumulative $R^2 = .438$; adjusted $R^2 = .425$
*$p < .01$; **$p < .001$.

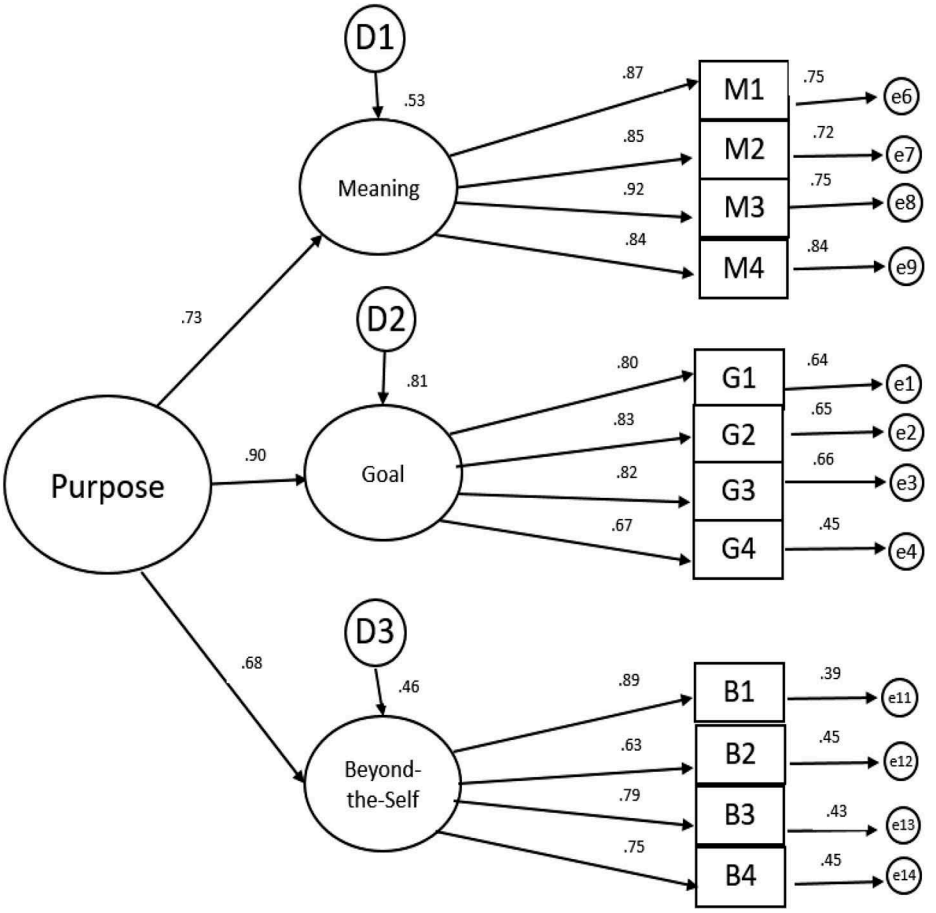

FIGURE A1 Final confirmatory factor analysis model with standardized regression weights.
Note. All paths are significant at < .001.
M1, M2, M3, M4 = Meaning survey items #1–4; G1, G2, G3, G4 = Goal-directednes survey items #1–4; B1, B2, B3, B4 = Beyond the-self survey items #1–4.
The "D"s refer to standard error terms in structural equation modeling.