



## Is it Possible to Measure Hope? Piloting a Scale to Measure Christian Hope

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### **Abstract**

Hopefulness has a long research history of being associated with decreased levels of depression. Hope is also considered essential to recovery and prevention of depressive episodes. Hope has been variously defined in the literature. It has been characterized as the ability to monitor feelings about a positive future (optimism). In other studies it is understood as a variable encompassing a profound transcendent appreciation of self, others and the world, believing that all things will work out for the good. This study differentiates between the effect of secular notions of hope and religious notions, i.e., scholars who consider that hope is related to achieving one's desired expectations, and those who understand hope as an enduring attitude related to the belief in the goodness of God, i.e., to bring good out of desperate circumstances and even save a person. This notion relies not so much on one's own strength but on the help offered by God. The current pilot presents a self-report measure identifying three conceptualizations of hopefulness according to a Christian rubric. The three constructs are related to hopefulness toward self, others and in God (or the transcendent). This pilot study demonstrates the reliability and validity of such a scale.

### **Key Words**

Hope, Christian construct, optimism, measurement, resilience

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## Introduction

Hope is considered to be an essential protective factor against depression. It has been associated with decreased levels of depression and is considered central to the recovery from and prevention of further depressive episodes (Michael, Taylor, & Cheavens 2000; Cheavens 2000; Valle, Huebner, & Suldo 2006). Definitions of hope vary from the ability to monitor feelings about a positive future (optimism) to more profound transcendent appreciations of self, others, and the world, as well as the belief that all things will work out for the good or some future eternal good (Carver & Scheier, 2002; Sethi & Seligman, 1993). Varying definitions of hope have left researchers continuing to question what the construct of hope consists in. Efforts to understand and appreciate the role of hope for individuals has evolved over time and included both secular and religious notions of hope (Simpson, 2000). These varying notions have caused scholars to question how these differences relate to one another and to mental health. This study seeks to determine whether there is a difference between secular and religious concepts of hope.

If secular and religious differences can be determined then varying forms of assessment will likely be necessary. Such assessments could aid in understanding how hope is accessed and utilized for better emotional and psychological functioning. In part this has already been suggested by studies related to adolescent and college student development. For example, Varahrami and colleagues (2010) demonstrated the importance of hope in such populations as part of healthy psychosocial development. This study indicated that college students who exhibited hope-filled thoughts had a more positive relationship to constructive psychosocial development. Multivariate analyses revealed that these students were also better able to maintain a sense of life as meaningful and worth living. That is, “the greater someone’s positive resolution of the stages of development, the more strongly they perceived their own life to have meaning and purpose (p. 1)”. Not surprisingly both of these variables are correlated to hopefulness.

Additionally, Curry et al (1997) explored the role of hope in academic and sport achievement illustrating a positive relationship between hope and GPA. According to this study being more hopeful was a significant predictor of higher GPA semester to semester for these athletes. Hope was also significantly predictive of overall GPA for all college students (athletes and non-athletes). Similarly other studies have correlated being hopeful with various markers academic achievement among non-student athletes (Snyder, Harris, et al. 1991; Snyder, Shorey, Cheavens, Pulvers et al. 2002). Taken as a whole, these studies suggest that hopefulness, understood within the secular context, is overall positively correlated to adolescent cognitive markers and wellness regardless of extracurricular activity.

As a result of such studies, over the last 20 years there has been a resurgence of interest in the effect hope has relative to other forms of individual mental resources and cognitions. For example, Snyder and colleagues (1991) in defining hope as a set of cognitive beliefs highlighted the important role it plays as a mental resource. In particular they highlighted two important components: “agency” related to goals (in particular the developmental lessons of the self as author of causal chains of events) and “pathways” to these goals (thought of as developmental lessons through which we can learn and correct future action aimed at goal attainment). Accordingly, thoughts of hope involve both pathways and personal agency relative to achieving desired goals. Pathways are further supported by motivational cognitions known as agency thinking. Together, pathways and agency, allow an individual to construct a realistic but flexible conduit to the desired goal. Still other scholars consider hope as correlated to or “subsumed under optimism”— the belief that one has or will have the means to do what is required to actualize expectations (Peterson 2000; Ai et al 2004).

Other researchers, for example Scioli et al (1997, 2003) have developed an integrative theory of hope consisting of four elements: attachment, mastery, survival and spirituality. In this conceptualization a greater sense of hope is associated with attachment understood in terms of greater trust and openness. Mastery relates to the ability to pursue higher goals incorporating a sense of self-empowerment and collaboration. Survival involves the ability to enlist coping options and to self-regulate. Spirituality integrates a faith perspective and/or a sense of cosmic or divine meaning.

Still others suggest that in real life situations, a human agent's decision depends on the comparison of his/her danger perception and indicators of hope. These researchers suggest that such indicators can be assessed as a value proportional to the probability of an event and its expected outcome/payoff/benefits (Bruhn 1994). This value proportionality can be an essential resource in the healing process though it appears it is limited by the intensity with which one approaches the expected outcome. Nevertheless, Bruhn encourages the development of practical strategies that stimulate hope such as would be the case for those benefiting from therapeutic practices.

In contrast to this, Nietzsche (1996) in his work *Human, All Too Human*, characterized hope as, "the most evil of all evils because it prolongs man's torment" by leading him to believe that things are possible of changing or even getting better despite evidence that this is not likely to happen. In fact he believed a person would end up far worse off being hope-filled than if they had not been hopeful at all. Thus, Nietzsche would say that hoping actually puts an individual in a worse position because it promises something that does not exist, i.e., an eternity where there is no more pain or sorrow. Contrasted with this Seligman suggests that hope may guide us through

difficult personal changes though it always needs to be tempered with an understanding that there are certain things beyond our control.

For the most part these theories have concentrated on what could be termed “secular” hope. Described in this way hope is associated with the belief that one has a way and the means to do what is required to realize one’s desired expectations and further that one is able to sustain movement along those selected pathways. However, more ancient understandings of hope illustrated in the Greco-Roman world view hold out hope as a virtue. It was thought of in relation to prolonged suffering and its potency was extolled relative to the individual’s ability to endure. For example in the story of Pandora hope allowed Pandora to believe that something greater might be possible even if it was accompanied by continued suffering.

By way of comparison Christians understand hope as an essential component of appreciating the transcendent. In many ways this conceptualization of hope is closer to more traditional and ancient understandings of the virtue of hope. According to the Christian rubric hope is understood as one’s desire for the afterlife, conceived variously as the kingdom of heaven or eternal bliss. Christian hope is therefore that virtue whereby one places his /her trust in Christ's promise to save (Verhack 1996; Marcel 1948, 1951, 1996; Pieper 1997). In this sense hope is an enduring attitude related to the belief in God’s goodness and power to bring good out of desperate circumstances even if these circumstances fail to demonstrably change in the here and now (Pieper 1986; Tilliette 1996; Struckelj 1996). This notion relies not so much on one’s own strength, but on the help of the grace offered by God. Accordingly, hope is the confident expectation of divine blessing and a blessed vision of God; counterintuitively it is also incorporates the fear of disappointing or offending God's love out of selfishness or lack of generosity. Whereas the secular concept of hope expects things to change and relies on the

agency of the individual to promote such changes, Christian hope relies more heavily upon maintaining a set of hopeful beliefs even when one is unlikely to achieve a desired outcome presently or in the future.

This study seeks to differentiate between secular concepts of hope and religious concepts, i.e., scholars who consider that hope is related to or “subsumed under optimism” and heavily reliant on personal agency as distinct from those who understand hope as an enduring attitude related to the belief in God and God’s goodness and the power to bring good out of desperate circumstances. This pilot study seeks to demonstrate the reliability and validity of a self-report measure that conceptualizes hope related to self, helpfulness in others and helpfulness in God or the transcendent according to three constructs, i.e., helpfulness in terms of Christian, humanistic and temporal themes.

## **Method**

### **Data Collection and Sample Participants**

Upon obtaining IRB approval participants were recruited from a variety of undergraduate classes at the author’s institution. One hundred and two participants consented to participate in this pilot. These participants were administered a four part survey including: (1) a demographic questionnaire, (2) the Trait Hope Scale, (3) the Satisfaction with Life Scale and (4) the Christian Hope Scale. The survey was designed to take approximately fifteen minutes to complete and participants were asked to complete all items. Only completed surveys were analyzed in the study. Informed Consent was obtained from each participant and instructions were printed at the beginning of each section. Participants were allowed to choose to have it administered in either electronic or paper form in order to maximize the sample size. The researchers used Qualtrics for the electronic administration of the survey. Completed forms of paper copies were entered into



Qualtrics by research staff. All data entered from paper form was checked and rechecked for accuracy.

The Demographics section of the survey included questions regarding gender, marital status, age, race, religion, current student status and employment status. In addition, importance of religion and the degree of activity in faith community were assessed. This information was determined to be an important part of a pilot that explores a Christian construct. Other studies have demonstrated the usefulness of such questions in scales that seek to measure the extent to which religious individuals employ potential religious resources (Ai et al. 2004). The majority of participants identified as Christian. Study participants were offered the opportunity to enter a random drawing for one of 10 \$25 gift cards upon completion of the survey. Procedures for the study ensured the confidentiality of all responses.

Of the initial 102 participants taking the survey, 83 participants provided valid and usable responses and remained throughout the entire process. Participants ranged in age from 18 to 30 years. In the event a participant failed to respond to an item, mean response rates were used. This was only allowed for those surveys that had three or fewer unanswered questions. The sample was comprised of slightly more males (54%) than females (46%). The largest group of respondents was between 18 and 20 years of age (48%). The vast majority of the respondents indicated that they were single (88%) with just over 3/4ths reporting they were full time students (76%). Slightly more than half of the respondents were Christian (54.2%). At the same time 37% of respondents reported not being involved in a faith group at this time.

[Insert Table I about here]

## **Measures**

*Trait Hope Scale.* Developed by Snyder the Trait Hope Scale is also known as the adult hope scale (AHS). It comprises 12 items and includes two subscales. One subscale (4 items) is directed at measuring Agency, while the other subscale (4 items) measures Pathways. Four additional filler items were included. The scale measures Snyder's cognitive model of hope involving goal-directed energy or belief in one's capacity to initiate and sustain actions (agency) and the planning of ways to achieve goals (pathways) (Snyder et al. 1991). Participants respond using an eight-point scale ranging from definitely false to definitely true. The agency and pathway subscales are derived separately and then added together for the total Trait Hope Scale score. Cronbach's alpha coefficients were acceptable (total scale range 0.74 to 0.84) and those for both the agency and pathways were above 0.63 (Carifo & Rhodes 2002). Very good reliability and validity of the scale is verified in several studies (Snyder et al. 1991; Snyder 2000; Carifo & Rhodes 2002).

*Satisfaction With Life Scale.* Developed by Diener and colleagues (1985) the purpose of the scale is to assess individual satisfaction with life as a whole. Life satisfaction refers to a judgmental process in which individuals assess the quality of their lives on the basis of their own unique set of criteria (Shin & Johnson, 1978). A comparison of one's perceived life circumstances with a self-imposed standard or set of standards is presumably made, and to the degree that conditions match these standards, the person reports high life satisfaction. Therefore, life satisfaction is a conscious cognitive judgment of one's life in which the criteria for judgment is up to the individual. The scale does not assess satisfaction with specific life domains, such as health or finances. The scale contains five items to which participants respond using a seven-point scale ranging from strongly disagree to strongly agree. The total score from the items is then added

together for the final Satisfaction with Life score—the higher the score, the more satisfied the individual. Test-retest correlations were very good (0.82 to 0.87, Saunders & Roy 2000).

*Christian Hope Scale.* The scale was developed by Burns, Conway-Turner, Staysniak, Malcolm, & McGonagle (2012). The scale seeks to measure conceptualizations of hopefulness according to a Christian rubric including an appreciation of the transcendent (Christian themes), delayed satisfaction (humanistic themes), eternity and meaning of suffering (temporal themes). The three constructs were all hypothesized as related to or derived from hope as a Christian virtue. The theoretical basis was derived from Christian scholars such as Marcel (1948; 1951), Tilliette (1990; 1991), Verhack (1996), Servais (1996; 2007), and Von Balthasar (1996; 1972). All themes involved hope for oneself, hopefulness in others and hopefulness in God or the transcendent. The scale originally included 49 items. However through the pilot process it was determined that two questions would be dropped for lack of clarity, a further nine were reworded for precision and three were split into two separate questions, leaving a revised scale of 50 items. This scale was determined to have internal consistency with reliability ranging from 0.89 to 0.91. The scale reported a Flesch Reading Ease of 77.4 with a Flesch-Kincaid Grade Level of 5.0 and Passive Sentences rating of 13%. Since the survey will be distributed to individuals who may vary in age and education level, the readability is acceptable.

## **Analysis**

*Exploratory factor analysis.* Latent factor structure of the 50-item CHS was analyzed utilizing exploratory factor analysis (EFA). This procedure assesses the inter-correlations between variables to create factors (Tabachnick & Fidell, 2007; Kahn, 2006). EFA often reduces the test items to produce a measure that better fits the construct. Tabachnick and Fidell (2007) outline

the steps for this procedure. The first step involves choosing an extraction process. Principal components factor analysis (PCA) was chosen in order to reduce the number of items in the test.

Next the number of factors extracted was assessed. Fabrigar, Wegener, MacCallum, and Strahan (1999) discussed the use of eigenvalues greater than 1.00 and Catell's Scree test was applied (Catell, 1966). Both procedures were applied to avoid over-extracting factors. We therefore utilized both procedures to determine the correct number of factors to extract. This process resulted in 35 items related to 3 factors.

Following this step, in order to better understand the factor loadings, orthogonal rotation was employed in order to constrain the structure to a zero-order correlation between the factors. From this the items that constituted factor structures was determined. Items that loaded highly on one factor and minimally on another were retained. For this pilot only items that load above .50 were retained. The dataset was assessed for normality and missing data prior to extraction.

### *Reliability*

Inter-item reliability was employed to determine the utility of the factors. Tabachnick and Fidell (2007) suggest that factors that produce alpha coefficients above .7 are considered to be meaningful. This was the cut-off used to estimate internal consistency.

### *Construct validity*

Evidence for construct validity was determined by assessing the practical relationship between the CHS subscales and theoretically related measures (Campbell & Fiske, 1959; Messick, 1980; Rubin & Babbie, 2008). Convergent validity evidence was gathered by utilizing in this pilot a theoretically similar measure that correlates with the CHS. It was hypothesized that the CHS subscales would correlate to some degree with Snyder's Trait Hope Measure (Snyder, 2000) and to a lesser degree with the Satisfaction with Life Scale (Diener, Emmons, Larsen &

Griffin, 1985). Divergent validity was assessed by examining the correlations between CHS and age, race and student status all of which were hypothesized to have a weaker correlations than the Trait Hope Scale or the Satisfaction with Life Scale.

## **Results**

### *Exploratory Factor Analysis*

Preliminary results revealed that three factors were generated with appropriate eigenvalues. Constraining the scale items to these methods revealed that the three factors accounted for 48% of the total variance. The results can be fitted into three constructs with minimum loadings of .50 — 23 items for Christian Themes (eigenvalue = 17.48), 8 items for Humanistic Themes (eigenvalue = 3.39), and 4 items for Temporal Themes (eigenvalue = 2.86).

### *Reliability*

Cronbach's alpha was used to estimate the reliability of this sample's scores across the three factors. Christian hope themes revealed high internal consistency ( $\alpha = .97$ ) across the 23 items. The Humanistic and Temporal factors also revealed high to moderate internal consistency ( $\alpha = .81, .61$ , respectively). These results further confirmed the latent factor structure and utility of these subscales.

### *Construct Validity*

Convergent validity was established by measuring the correlation between two theoretically related measures and the CHS, while discriminant validity was established by correlating three theoretically unrelated measures (Rubin & Babbie, 2008). Bonferrini's correction was utilized to correct for experiment-wise error rate. Cohen's cutoff scores were utilized to determine strength of relationships, i.e., -.10 to .10 weak correlation, -.3 to .3 moderate correlation, -.5 to .5 strong correlation.

The results revealed convergent validity evidence for the subscales. First, Christian Themes were correlated with the Trait Hope Scale and Satisfaction with Life Scale. The Trait Hope Agency subscale revealed a moderate positive correlation ( $r = .35, p < .01$ ) with Christian Themes and a smaller yet positive relationship with the Trait Hope total score ( $r = .25, p < .05$ ). Likewise the Satisfaction with Life Scale revealed a moderate correlation with Christian Themes ( $r = .34, p < .01$ ).

Next, similar to the correlations with Christian Themes, Humanistic Themes and Temporal Emphasis were correlated with the Trait Hope Scale and Satisfaction with Life Scale. Humanistic Themes demonstrated moderate correlations with Trait Hope Total Score ( $r = .25, p < .01$ ) and Trait Hope Agency subscale ( $r = .23, p < .01$ ) and the Satisfaction with Life Scale ( $r = .32, p < .05$ ). Temporal Emphasis had an inverse correlation with the Trait Hope Scale and Satisfaction with Life Scale. The Trait Hope Agency subscale ( $r = -.23, p < .01$ ), Trait Hope Pathways subscale ( $r = -.32, p < .05$ ), Trait Hope Total Score ( $r = -.32, p < .05$ ) and Satisfaction with Life Scale score ( $r = -.30, p < .05$ ) all had moderate negative correlations with Temporal Emphasis while Trait Hope Negative' subscale and a strong negative correlation ( $r = -.47, p < .05$ ).

[Insert Table 2 about here]

Discriminant validity was established by correlating the CHS subscales with theoretically unrelated measures. It was hypothesized that age, race, and student status would be unrelated to the measures. This was found to be the case for all three factors when correlated to these three items.

[Insert Table 3 about here]

## **Discussion and Conclusion**

This study validated the CHS as a reliable measure of a psychologically less well understood construction of hope. This construct was conceptualized by the authors as reflecting a distinct understating of hope compared to previous measures of hope and optimism. It suggests that for religiously affiliated individuals a more sensitive measure of hope can be useful. The original CHS measure consisted of 50 items that were categorized into 3 components. The latent factor structure of the CHS was examined using EFA, more specifically the PCF analysis. The PCF analysis revealed a three factor structure that comprised 35 items. As expected, Christian and Humanistic Themes along with Temporal Emphasis, were found to be the three main factors. The 35 item CHS was found to have high reliability and construct validity.

Understanding that hope can be assessed utilizing a Christian rubric is a less conventional approach in the literature on psychological well-being. This newly validated CHS can be understood as a helpful additional element filling the gap by accounting for another essential aspect of hope. Assessing Christian hope in religiously involved individuals will provide an additional resource that may help therapists and other counselors working with a host of issues related to individual wellbeing and satisfaction with life both of which play an important role in mental health and resiliency (Pattyn & Van Liedekerke, 2005).

A limitation of the current study is the size of the sample as well as the nature of it as a pilot. Further, confirmatory factor analysis (CFA) would likely strengthen the use of CHS by confirming the hypothesized latent factor structure. Future research plans include procedures to validate and confirm the latent factor structure. Confirmation of the proposed latent factor structure will allow researchers to utilize the measure in conjunction with studies on mental health and wellness. It will also add a resource for therapists to use when working with a diverse array of individuals who increasingly present with spiritual concerns along with their mental

health issues. It is likely that understanding hope and particularly Christian hope as a resource for appropriate clients to access and therapists to utilize will offer an additional intervention strategy possibly reducing or mitigating the impact of serious mental illness symptoms.



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