



PEAK COMMUNICATION EXPERIENCES AND ITS RELATIONS WITH POSITIVE SOCIO-PSYCHOLOGICAL CONCEPTS AND COMMUNICATION COMPETENCE: A FACTOR ANALYSIS STUDY

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ABSTRACT

Based on Abraham Maslow's research on peak experiences, Gordon (1985) demonstrated that some conversations have the same characteristics as peak experiences and these conversations take on qualities of spiritual experiences. The purpose of this study was to examine Gordon's (1985) Peak Communication Experience scale (PCEs) as a potential measurement for PCEs. This study investigated the factor structures and validity evidence of this scale. Results are discussed in terms of implications for PCEs, positive socio-psychological variables, and communication competence.

Abraham Maslow (1964) argued that some experiences that occur in a person's life transcend typical events. He referred to these events as "peak experiences." Peak experiences occur when a person transcends the common reality of daily existence and are able to perceive reality in higher dimensions (Maslow, 1959, 1962, 1964, 1970, 1973). Maslow (1959) defined peak experiences as: "Some of these basic cognitive happenings in the B-love experience, the parental experience, the mystic or oceanic, or nature experience, the aesthetic perception, the creative moment, the therapeutic or intellectual insight, the orgasmic experience, certain forms of athletic fulfillment. These and other moments of highest happiness and fulfillment I shall call the peak-experiences (p. 44-45)." However, Maslow does not conceptualize peak experiences as moments of communication. The purpose of this study is to examine Gordon's (1985) Peak Communication Experience scale (PCEs) as a potential measurement for peak communication experiences. This study will examine the factor structures and validity evidence of this scale. To date, Gordon's (1985) article is the only published work to attempt to create a quantitative measurement tool to assess Maslow's conception of peak experiences as they relate to communication. However, the original article does not provide validity evidence or contain enough power to conduct a strong factor analysis. Potentially, this scale would allow researchers to further explore the concept of PCEs in a "pencil/paper format" in a variety of situations. The following sections will briefly highlight some of the research on peak experiences, discuss Gordon's (1985) scale, conduct a factor analysis, and detail validity evidence for the scale.

PEAK EXPERIENCES

For most of its history, psychology had been examining dysfunctional modes of human behavior. However in the early 1950s, Abraham Maslow led the field of psychology in examining positive human experiences as a counterforce to the dominate psychological framework of the time. This shift is often referred to as "the third force of psychology" or more commonly as humanistic psychology (Wertz, 1998). Maslow's ideas and studies of peak experiences were a move in this framework. Maslow (1962) is credited for creating a general taxonomy of spiritual experiences (peak experiences) not related to specific religious or cultural practices. Expanding on Maslow's definition of peak experiences, Leach (1962) defined peak experiences as a "highly valued experience which is characterized by such intensity of perception, depth of feeling, or sense of profound significance as to cause it to stand out, in the subjects' mind, in more or less permanent contrast to the experiences that surround it in time and space" (p. 11).

Maslow (1959) argued that self-actualizing people, "those who have come to a high level of maturation, health, and self-fulfillment" are more likely to have peak experiences (p. 43), and thought of the peak experience as a cognitive experience and not an affective experience. Maslow's findings indicated that for average people, perception in peak experiences can be ego-transcending and egoless and that it can be object-centered as opposed to ego-centered. "It is as if they were perceiving something that had independent reality of its own, and was not dependent upon the beholder" (p. 49). While, Maslow argued that self-actualized people have more peak experiences than those individuals who are not considered self-actualized, he further maintained that anyone could have peak experiences and this occurs in degrees (Maslow, 1962). As such, Maslow (1959) asserted that self-actualizing characteristics could be demonstrated by examining the after effects of a peak experience. He asserted that a peak experience will change the person's view of herself or himself in positive and healthy directions and that peak experiences will alter the perception of selves and relationships to be more encompassing of others and the wider cosmos. "The greatest attainment of identity, autonomy, or selfhood is itself simultaneously a transcending of itself, a going beyond and above selfhood. The person can then become relatively egoless" (Maslow, 1962, p. 99). In other words, a peak experience takes on characteristics of a spiritual experience.

The usage of the term "spiritual" is not to imply a specific religious experience but rather a humanistic understanding of spirituality (Dewey, 1934). Elkins, Hedstrom, Hughes, Leaf, and Saunders (1988) maintained that there "is a dimension of human experience-which includes certain values, attitudes, perspectives, beliefs, emotions, and so on-which can best be described as a "spiritual dimension" or "spirituality" (p. 8). We are using "spirituality" in the same way Maslow used the term. Kirkwood (1994) argued that religiosity is based on particular beliefs and rituals of specific traditions; whereas, spirituality is sense of transcendence and a connection with "ultimate ends and the means believed to aid their attainment" (p. 16).

In Maslow's research, participants described their own peak experiences in terms of spirituality similar to how Western and Eastern spiritual teachers describe their own experiences. Maslow (1970) maintained, "the great lesson from the true mystics...[is that] the sacred is in the ordinary, that it is to be found in one's daily life, in one's neighbors, friends, and family, in one's backyard" (p. x). Metaphorically, Maslow (1959) noted that peak experiences "could be likened to a visit to a personally defined Heaven from which the person then returns to earth" (p. 65). The key point here is that for Maslow and many other scholars, peak experiences take on spiritual qualities not associated with particular religions but more general qualities of a humanistic spirituality (Dewey, 1934).

Individuals who report more peak experiences have been found to be more experimental, more imaginative, less authoritarian, and more self-sufficient than those who report fewer peak experiences (McCain & Andrews, 1969). Since Maslow's time, positive relationships between self-actualization in a variety of forms and having peak experiences have been examined in the humanistic psychology literature (Alessi, 1995; Bakker, 2005; DeMares & Krycka, 1998; Hollander & Acevedo, 2000; Kimiecik & Jackson, 2002; Ravizza, 1977; Woodward, Findlay, & Moore, 2009). Since the 1950's, scholars have examined peak experiences in a variety of circumstances and the role peak experiences can play in enriching an individual's life. Notably, the examination of peak experiences in communication has been for the most part absent. One possible reason for this absence is because of a Western framework that often overlooks the idea of the spiritual in communication research (Gordon, 2007).



PEAK COMMUNICATION EXPERIENCES

Peak communication experiences (PCEs) is the “expression used here to refer to our “greatest moments” in interpersonal communication, our moments of highest mutual understanding, happiness and fulfillment deriving from the process of communicating with other human beings” (Gordon, 1985, p. 824). To date, there has only been one published empirical study examining the possibility of individuals having peak experiences in communication (Gordon, 1985).

In Gordon's (1985) study, he created a likert-type scale based on Maslow's descriptions of peak experiences to assess the degree to which individuals have peak communication experiences (PCEs). Gordon's (1985) study, involving 74 university undergraduates, demonstrated that the factor dimensions of loving acceptance, open-minded insight, spontaneity, pleasant fear, absorption, and self-detachment were indicative of peak experiences in communication. Loving acceptance refers to seeing the richness and beauty of another and of the process of communication during these moments. Open-minded insight involves being open to new insights or multiple truths. Spontaneity is playful and creative communication. Pleasant fear refers to the feeling that the communication moment was too wonderful and more than a person should experience. Absorption is the total attention in the communicative moment. Finally, self-detachment is the forgetting of self in these communication experiences. This scale potentially provides a useful tool for examining peak experiences in communication. The purpose of this study is to examine the factor structure of Gordon's (1985) PCE scale and investigate validity evidence.

METHOD

Participants

Participants were 222 students (151 females and 71 males) in a research participant pool at a larger Midwestern university. Participants' ages ranged from 18 to 42 years ($M = 19.96$ $SD = 2.61$). The majority of participants (71%) self-classified as white/Caucasian.

Factor Analysis of the Peak Communication Experience Scale (PCE Scale)

Because the development of Gordon's (1985) Peak Communication Experience Scale (PCE Scale) only used 74 participants for the original factor analysis, we conducted an exploratory factor analysis (EFA) with varimax rotation to check the factor structure. Costello and Osborne (2005) maintained that a 10:1 ratio between participants and number of items was a good rule of thumb accepted by the statistical community. Gordon (1985) used an EFA to reduce 19 potential items to the final 14 items with a participant to item ratio score of 3.89. This number is well below the accepted minimum guidelines for participant/item ratios (Gorsuch, 1983). For the current study, this participant/item ratio score was 15.86 and is acceptable for this type of analysis (Worthington & Whittaker, 2006).

For the current study, four criteria were needed for a factor to emerge: 1) account for at least 5% of the total variance, 2) acceptable scree plotting of factors, 3) minimum Eigenvalue of 1.0, and 3) individual loading of .60 on one factor but less than .40 on a secondary factor. Bartlett's test of sphericity was significant, $\chi^2(91) = 1787.94$, $p < .001$. The Kaiser-Meyer-Olkin measure of sampling adequacy was acceptable at .93. Both tests suggested the appropriateness of factor analysis on this data set. Using the above criteria, the EFA produced a one-factor solution that accounted for a 52.67% of the variance with 14 items loading .59 or higher. The current study does not support Gordon's (1985) original factor structure of the PCE scale. Instead, the data suggested a unidimensional scale to measure the tendency of individuals to have peak communication experiences. The PCE scale achieved an acceptable reliability coefficient of .93 (Item $M = 3.91$, Item $SD = .26$). Item loadings can be obtained from the first author.

Confirmatory Factor Analysis Measurement Model Analysis

To check the results of the EFA, a confirmatory factor analysis (CFA) was utilized with a new data set. Participants for this CFA data set were 158 participants in a research participant pool at a larger Midwestern university. Participants' ages ranged from 18 to 43 years ($M = 20.35$ $SD = 3.31$). The majority of participants (69%) self-classified as white/Caucasian. The CFA operates on an *a priori* factor structure model from the EFA results. Using Kline's (2005) two-step modeling procedures, the measurement model was estimated with Maximum Likelihood Estimation using AMOS 18.0. Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), goodness-of-fit index (GFI), and the root mean square error of approximation (RMSEA) were utilized to assess model fit. All values were standardized prior to assessment of model fit. The measurement model demonstrated moderate acceptable goodness of fit, $\chi^2(N = 158, 77) = 174.23$, $p < .001$; TLI = .89; CFI = .91; GFI = .86; RMSEA = .09. Additionally, examination of the modification indices suggested no changes to the measurement model that would change or enhance model fit. The measurement model, which includes loadings for the indicators and the corresponding residuals, is provided in Figure 1.

Validity for the Peak Communication Experience Scale

With a unidimensional scale of PCE established by the EFA and CFA, validity evidence is fairly straightforward. In order to help establish validity for the PCE scale, a number of issues need to be addressed. First, the PCE scale must relate to other constructs in meaningful directions to help establish concurrent validity. To determine discriminant validity, the PCE scale must be negatively related to constructs that are theoretically opposed to positive peak communication moments. In the following sections, we will detail these constructs with predictions for validity analysis.

In order to examine concurrent validity, we selected constructs that should be theoretically related to an individual that reports tendencies to have peak communication experiences. One of the key tenants of a PCE is the recognizing of the other in communication and to accept this person for who they are. Edwards (2010) demonstrated that individuals report feeling compassion and being responsive to another person in a PCE. In the socio-communicative style literature, a responsive orientation describes an individual's capacity to recognize the needs of another person and the person's willingness to engage in empathic communication (Thompson & Klopf, 1991). Responsiveness has been associated with good listening skills, openness, and empathic characteristics of a responsive socio-communicative style (Rocca, Toale, & Martin, 1998). A positive relationship between the responsiveness and PCE scales would provide some concurrent validity evidence demonstrating the characterization of PCEs as being about the openness or “loving acceptance” of the other in conversation. Thus, we offer the following hypothesis.

H1: Peak communication experiences scores will be positively related to the responsive sub-scale of the Socio-Communicative Inventory.

Peak communication experiences should also be related to a positive self-concept and to an enlarged sense of self. Maslow (1959) and Wuthnow (1978) argued that individuals who have peak experiences are more likely to hold mentally healthy and positive self-concepts. Additionally, Maslow's (1962) noted that being “relatively ego-transcending, self-forgetful, egoless” was a hallmark of a peak experience (p. 74). Edwards (2010) demonstrated that individuals report a more encompassing self-concept during a PCE.

Friedman (1983) maintained that as part of an overall expansive self-concept individuals should be in touch with their emotions and should be able to experience these emotions in the moment. This expanded self-concept is referred to as transpersonal awareness. Specifically, transpersonal awareness is defined as a “unitive experience sometimes amounting to a felt sense of union, with other people, with life forms, surroundings, the Divine, or the universe itself” (Kossak, 2009, p. 15). At the transpersonal level, an individual's perception of



self in the present time and space fades (Friedman, 1983; Wilber, 2000). These feelings of interconnectedness, unity, and wholeness should reflect elements of a transpersonal awareness related to the tendency to have PCEs. As such, there should be a positive relationship between PCEs and concepts of self that are associated with *personal* positive mental health and a positive relationship between PCEs and conceptions of self that are enlarged, *transpersonal*, and feature identification with a larger universe. Hence, we offer the following hypothesis.

H2: Peak communication experiences scores will be positively related to personal and transpersonal concepts of self.

In most of the literature, peak experiences take on spiritual qualities for most participants (Maslow, 1970). In these peak experiences, individuals report feeling connected to the larger environment and reaching a higher sense of spirituality. In discussing the spiritual nature of peak experiences, Maslow (1970) argued that peak experiences are perceived as (a) non-striving (unmotivated), (b) lucky, (c) ends rather than means, (d) self-validating or self-justifying, (e) ego-transcending or egoless, and (f) related to detachment/objectivity. Edwards (2010) found similar results when asking individuals to report their own PCEs. Maslow (1964) argued that these qualities should be termed "spiritual" or "soulful." As such, concurrent validity should demonstrate a significant positive relationship between the PCEs and other variables that measure a general sense of spiritual transcendence or spirituality. Thus, the following hypothesis is offered.

H3: Peak communication experiences scores will be positively related to spiritual transcendence.

Peak experiences and PCEs have been shown to be perceived as generally positive in their characteristics. Specifically in phenomenological studies, PCEs have been shown to be constructive conversations that leave each person in the interaction enlarged with feelings of appreciation for the other person (Edwards, 2010). Therefore, to demonstrate discriminate validity, PCEs should be inversely related to constructs such as verbal aggressiveness. Verbal aggressiveness is an individual's use of symbolic or physical force to assault another person's body image, self-concept, idea or position on a given topic, or behavior (Infante, 1987). In other words, verbal aggressiveness is an attack on a self-concept to deliver psychological pain (Infante & Wigley, 1986) and is considered a destructive message behavior (Infante & Rancer, 1996).

H4: Peak communication experiences scores will be negatively related to verbal aggressiveness.

Operationalization of Validity Constructs

To examine both concurrent and discriminate validity of theoretically related constructs of PCEs, the following measures were used. Participants completed a questionnaire containing six surveys. In addition to Gordon's (1985) Peak Communication Experience scale, the questionnaire included: the Socio-Communicative scale (Richmond & McCroskey, 1990), Self-Expansiveness Level Form (SELF) (Friedman, 1993), the Metapersonal Self scale (DeCicco & Stroink, 2007), the Spiritual Transcendence Scale (Piedmont, 1999), and the Verbal Aggressiveness short scale (Infante & Wigley, 1986).

Socio-Communicative Style Scale is a 20-item measure of assertiveness and responsiveness (Richmond & McCroskey, 1990). For the purposes of the current study only the responsive sub-scale was analyzed. In the present study the obtained alpha reliability was .87 for the 10-item responsiveness sub-scale (item $M = 4.15$, item $SD = .71$).

The Self-Expansiveness Level Form (SELF) is an 18-item measure examining the level of an individual's self-expansiveness using 5-point likert type responses (1 = Very unwilling to use to describe my sense of self or identity to 5 = Very willing to use to describe my self of self or identity) (Friedman, 1983). Three sub-scales make up the SELF survey: Personal, Middle, and Transpersonal. The personal scales measures how an individual identifies with a "hear-and-now" level of self-development (Friedman, 1983, p. 40) and is equivalent with positive mental health (e.g., My emotions and feelings as experienced in the present). The transpersonal sub-scale measures an individual's identification with features normally conceived beyond reality. In other words, this sub-scale measures the individual's willingness to identify with a more encompassing sense of self with the greater cosmos (e.g., Experiences of all of life forms of which I am one). The Middle sub-score was not used in the current study because of its lack of definition in the literature (this sub-score is essentially the "middle" of transpersonal and personal). In the current study, the Personal sub-scale achieved a reliability coefficient of .84 (Item $M = 4.40$, Item $SD = .095$) and the Transpersonal sub-scale achieved an acceptable reliability coefficient of .74 (Item $M = 3.15$, Item $SD = .47$).

The Metapersonal Self scale measures a self-construal of a belief in the oneness of people and is a shift "away from the me-focused or other-focused to a cosmic or universal view" (DeCicco & Stroink, 2007, p. 84). Participants rate a series of statements on a 7-point likert-type scale (1 = Strongly Disagree to 7 = Strongly Agree). This 10-item unidimensional scale has had previous reliabilities of .80 to .89 (e.g., I see myself as being extended into everything else). For the current study, the scale produced a reliability coefficient of .88 (Item $M = 4.89$, Item $SD = .53$).

The Spiritual Transcendence Scale measures aspects of an individual that are independent of models of personality and inclusive of a broad range of spirituality conceptualizations along three sub-scales on a 5-point likert-type scale: Connectedness, Universality, and Prayer Fulfillment (Piedmont, 1999). Connectedness refers to "a belief that one is part of a larger human orchestra whose contribution is indispensable in creating life's continuing harmony" (Piedmont, 1999, p. 989). This sub-scale (6 items; e.g., Although there is good and bad in people, I believe that humanity as a whole is basically good) had an acceptable reliability coefficient of .70 (Item $M = 3.66$, Item $SD = .28$). Universality refers to a general belief that all life is interconnected with shared responsibility. This sub-scale (9 items; e.g., I feel that on a higher level all of us share a common bond) had a reliability coefficient of .86 (Item $M = 3.70$, Item $SD = .29$). Prayer Fulfillment is a "feeling of joy and contentment that results from prayer" (p. 995). This sub-scale (9 items; e.g., I meditate and/or pray so that I can reach a higher spiritual plane of consciousness) had a reliability coefficient of .88 (Item $M = 3.18$, Item $SD = .51$).

The Verbal Aggressiveness Scale used in the current study is the shorter 10-item measures that ask respondents to report perceptions of their own verbally aggressive behaviors (Infante & Wigley, 1986). Responses are solicited using a five-point Likert scale ranging from *almost always true* (5) to *almost never true* (1). In this study, a coefficient alpha of .71 (item $M = 2.39$, item $SD = .42$) was obtained for the 10-item scale.

RESULTS

For each hypothesis, Pearson product-moment correlation coefficients were used to examine the relationships. Hypothesis One was supported in that there was a significant positive relationship between PCEs scores and the responsive sub-score of socio-communicative style orientation inventory ($r = .18$, $p < .01$).

Hypothesis Two examined the relationship between PCE scores and personal and transpersonal concepts of self. This hypothesis was strongly supported. Data indicated a significant positive relationship between PCE score and the personal sub-scale ($r = .15$, $p < .05$) and the transpersonal sub-scale score ($r = .16$, $p < .01$) of the SELF measure. There was also a significant positive relationship between PCE score and the Metapersonal score ($r = .24$, $p < .01$). Thus, the higher a person scored for PCEs the higher the person scored for measures that examine the expansiveness of the self-concept both on the personal and transpersonal level.

Hypothesis Three predicted that there should be a positive relationship between PCEs and notions of spirituality. Overall, this relationship was supported. The prayerful sub-scale ($r = .13$, $p < .05$) and the universality sub-scale ($r = .23$, $p < .01$) of the spiritual



transcendence measure were positively related to PCE scores. However, the connection sub-score of this measure was not related ($r = .08$, $p > .05$) to PCE scores. In other words, the data suggested that individuals that report the tendency of PCEs also report greater feelings of spiritual transcendence in both the fulfillment and joy of prayers and mediations and a general belief that all life is interconnected with a sense of shared responsibility.

In short, these supported hypotheses demonstrate that the unidimensional PCE scale is related in predictable and important ways to other theoretically associated constructs. Yet, the significant relationships are not high enough to indicate overlap in measurement. Thus, based on the concepts of spirituality, self, and the responsiveness, the PCE scale is on target with relationships to related constructs.

For the PCE scale to be used in meaningful ways, the scale needs to be inversely related to opposing constructs. Hypothesis Four's purpose was to examine discriminant validity in terms of a negative relationship between PCE scores and verbal aggression. This hypothesis was supported ($r = -.16$, $p < .01$). Pearson Product-moment correlation matrix and descriptive statistics can be obtained from the first author.

DISCUSSION

The purpose of this study was to examine the factor structure of Gordon's (1985) Peak Communication Experience scale and validity evidence. The EFA demonstrated that the best model for the PCE scale is unidimensional. While Gordon's (1985) factors help contextualize the variable of peak communication experiences, the current study indicated that future researchers would be well served to treat PCE as a unidimensional scale. Additionally, this scale should be consistently reliable with the simple summation of 14 items. Of course, future research should continue to examine the factor structure of the PCE with confirmatory factor analysis.

To examine the evidence for concurrent validity, we hypothesized that PCE scores would be positively related to responsiveness, personal and transpersonal self-concepts, and notions of a higher spiritual transcendence. All relationships were supported. Collectively, these results demonstrate that the PCE scale measures elements that are part of the overall theoretical understandings of peak experiences. People who are high in PCEs are more likely to utilize the responsive socio-communication orientation. That is to say, individuals high in PCEs tend to be more empathic and open and can better recognize the needs of another person in communication (Thompson & Klopff, 1991). Previous research had found that individuals in peak communication moments report greater awareness of the other person (Edwards, 2010). People who have had peak experiences report a greater sense of caring and responsiveness (Woodward, Findlay, & Moore, 2009). The current study further confirms this overall finding.

Additionally, people who scored higher on the PCE scale tended to report enlarged self-concepts. First, there was a positive relationship between PCEs and a personal conception of self, a concept that measures a person's concept of the present self. The personal conception of self has previously been associated with positive mental health (DeCicco & Stroink, 2007). Peak experiences have been shown to provide the same positive mental health outlook (Maslow, 1959). As such, we expected that individuals who were high in PCEs would also score higher on a personal self-concept. This relationship was confirmed.

More importantly, we needed to show a positive relationship between PCE scores and enlarged transpersonal senses of self for concurrent validity evidence. Remember that transpersonal awareness occurs when the self as a self-contained entity is, at least momentarily, transcended. Many scholars have labeled this phenomenon as a spiritual (James, 1902; Jung, 1964; Rowan, 1993). In most of the peak experience literature, transpersonal awareness occurs in a solitary experience such as nature, sports, art, or music (Logan, 1985). However, at higher forms of transpersonal awareness, the self can recognize interdependence and interrelatedness of all experiences. The self becomes nonjudgmental in these moments (Maslow, 1959). The concepts of transpersonal awareness (transpersonal self-concept and metapersonal self) embrace the idea of a self-concept that is more encompassing and more cosmically focused (DeCicco & Stroink, 2007; Hill, 2006; Vaughan, 1985). The current study's data suggested strong concurrent validity evidence through the positive relationship between a transpersonal awareness and the tendency to have PCEs.

The findings also suggested a strong relationship between PCEs and feelings of spiritual transcendence. People who scored higher on the PCE scale also scored higher on finding joy and pleasure from prayer/mediation fulfillment and a greater connection to the larger web of life. These same types of relationships have been found in the literature on peak experiences (Panzarella, 1980). The PCE scale seems to be related in theoretically important ways to measures of spirituality. The current finding is consistent with Maslow's research indicating that peak experiences take on humanistic spiritual qualities. Additionally, this finding supports Edwards (2010) claim that individuals talk about their own PCEs using a "spiritual language." Piedmont (1999) argued that a spiritual transcendence is the "capacity of individuals to stand outside of their immediate sense of time and place to view life from a larger, more objective perspective" (p. 988). The current study lends support to the idea that individuals who have the tendency to have PCEs also tend to have a greater awareness of a larger place in their environment.

To examine discriminant validity, we examined the relationship between PCE scores and verbal aggression. There was an inverse relationship between these two variables; thus, indicating that aggressive and destructive communication was not associated with "the greatest moments in interpersonal communication, our moments of highest mutual understanding, happiness and fulfillment deriving from the process of communicating with other human beings" (Gordon, 1985, p. 824). Future researchers should examine other constructs that should be theoretically inversely related to PCEs such as communication apprehension or expressive message design logics.

The PCE scale could provide future researchers the ability to quantitatively measure an individual's tendency to have peak communication experiences. The current study provided evidence that the PCE scale is related to measures that it should be theoretically related to. Future research should examine PCE in relation to known groups of individuals who are considered to be high in characteristics of humanistic spirituality (e.g., clergy, meditation practitioners, etc.). This kind of study would provide evidence for known-group validity. Additionally, future research should expand to examine other communication constructs that might serve as potential precursors to PCEs. Perhaps a general willingness to talk with others might be related to enlarged sense of self and the ability to have PCEs. At any rate the study of PCEs as a lens to better understand the nature and spirit in/of communication is an important area of research. Finally, the current study demonstrates the importance of investigating the spiritual element of communication. There has been a lot of research in the areas of mystical experiences, consciousness, self-concept, and transpersonal studies. The discipline of communication could further inform research in these types of humanistic spiritual experiences.

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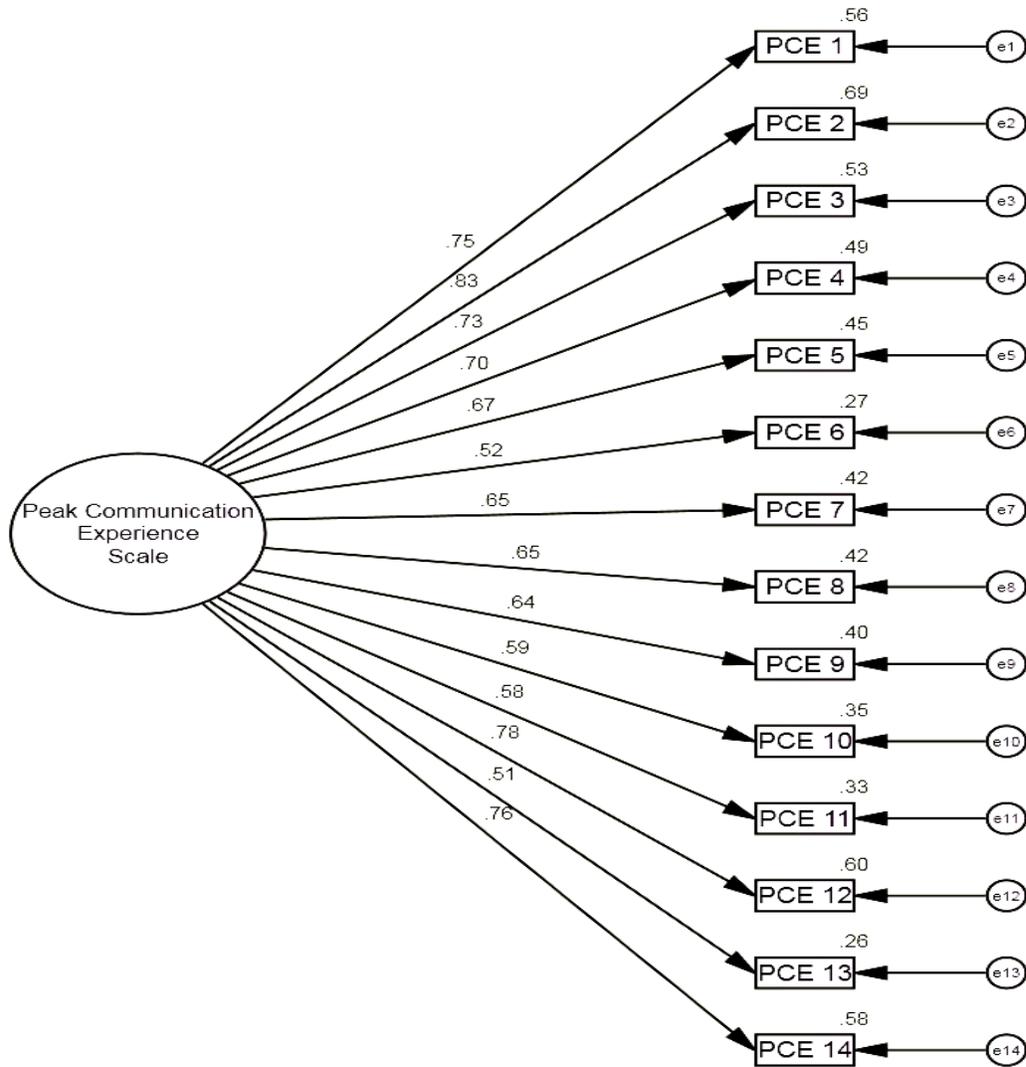


Figure 1: Final measurement model. All parameters are standardized and significant at $p < .01$.