2019

Sexual Ecstasy Scale: Conceptualizations and Measurement

John Elfers
Reid Offringa
Sexual Ecstasy Scale: Conceptualizations and Measurement

John Elfers
Sofia University
Palo Alto, CA, USA

Reid Offringa
Independent Research Consultant
Brooklyn, NY, USA

This article describes the development of the Sexual Ecstasy Scale, an instrument designed to measure the specific features that emerge when sexual arousal is the trigger for an ecstatic experience. Drawing from descriptions of features of sexual ecstasy in the phenomenological literature, the authors generated an initial survey of 31 items. In Study 1, the survey was completed by a wide demographic sample (N = 331). Exploratory factor analysis revealed a 4-factor solution that was replicated in Study 2 using confirmatory factor analysis with an independent sample (N = 331) that showed strong fit indices. Internal consistency for the overall scale and subscales was high with a Cronbach’s alpha of 0.873. Positive correlations with measures of emotional, sexual, and spiritual intimacy, and a measure of self-transcendence were used to establish convergent validity. The absence of correlations with measures of personal esteem and life satisfaction was used to distinguish the continuum of sexual ecstasy from other personality factors. The results show that ecstatic sexual experience is consistent with other measures of peak experience and heightened emotion while demonstrating the ability to measure the specific features of the construct. Conclusions are drawn regarding the importance of the ecstatic features of sexuality to transpersonal psychology.

Keywords: sexuality, transpersonal, ecstasy, scale, spirituality

Some “ordinary” sexual experiences can be extraordinary. Even the adjective ordinary is problematic, since sexual experiences tend to occur, if only for a brief moment, outside the boundaries of more typical, everyday states of awareness. Sexual arousal, when combined with a high level of sensuality and a strong emotional connection, has the potential to be a peak experience (Woodward, Findlay, & Moore, 2009). When ordinary sex becomes extraordinary, physical intimacy becomes an embodied, soulful connection; pleasure becomes ecstasy; and the intimate relationship itself becomes a gateway to the holy and sacred (Elfers, 2009). As Maslow (1971) asserted, “There are many paths to heaven, and sex is one of them” (p. 169).

Such experiences have been variously defined in the literature as ecstatic, optimal, peak, mystical, or transcendent (Kleinplatz & Menard, 2007; Wade, 2004; Woodward et al., 2009). Categorical designations of these sexual experiences also include mystical, sacred, and spiritual sex (Feuerstein, 1998; Sokol, 1989). Spiritual practices such as Tantra, Qodoshka, and Carezza (Trull, 2006) that involve sexual techniques or cultivate sexual energy contribute additional terms to the lexicon that describes extraordinary sexual experiences. Increasingly the spiritual nature of sexuality—or the sexual nature of spirituality—is being recognized, bringing more focus to this relationship (Kleinplatz & Krippner, 2005).

Many of the features of these categories and constructs overlap, creating some confusion among terminology and the ability to discuss extraordinary sexual experiences with any degree of precision. Most of the current understanding of states of sexual ecstasy comes from phenomenological and other qualitative studies that frequently identify specific features or qualities of subjective experience. This investigation explores the experience of states of ecstasy that result from sexual arousal with the goal
of identifying the features of sexual ecstasy with more clarity and measuring those features in the general population. For the purpose of this study, the term peak sexual experience is used as a categorical term to include the various descriptions of altered states that result from sexual arousal (i.e. mystical, optimal, transcendent), while the term ecstasy is used to describe the phenomenal experience associated with those states of arousal.

**Sexual Ecstasy as a Construct**

The etymology of the word ecstasy points to the inherent features of the construct. The prefix ec or ex refers to something outside, whereas stasis refers to standing, or an equilibration of forces. Thus, the term ecstasy describes a state of standing outside the normal flow of awareness. Additional meanings of ecstasy suggest an intensification of emotion that results in a trance-like dissociation from all but a narrow range of dramatic sensations and feelings. The extraordinary nature of ecstatic states makes them difficult to describe, but they are not likely to be missed.

In Plato’s Dialogue *Phaedrus* (1995), ecstasy is characterized as *divine madness* or *divine possession*, and is considered to be a gift to humanity from the gods. Plato’s protagonist Socrates makes a clear distinction between madness in the pursuit of hedonic pleasure that is common and prosaic, and the divine madness that pursues what is truly good and beautiful. Socrates recommends that rather than channeling our erotic energies into reproduction, erotic energies should be devoted to the cultivation and contemplation of divine beauty. While the overpowering emotions related to ecstasy are most closely associated with feelings of bliss, exaltation, or delight, the original use of the word also included feelings of terror, rage, or grief. The divine possession or madness referred to by Socrates may be a disruptive experience. This perspective points to the ancient association of states of ecstasy with spiritual intoxication. These additional associations account for the discovery that ecstasy in the sexual arena can produce a range of disturbing feelings, as well as feelings of elation (Elfers, 2009; Wade, 2004).

In a phenomenological study of ecstatic experiences among a secular audience, Laski (1961) found that 43% of the 63 participants claimed that sex was a trigger for their ecstatic experience. Other triggers for ecstatic experiences included music, dance, exercise, and communion with nature. Laski’s seminal study found the experience of ecstasy to be rather brief, lasting from a few minutes to up to an hour. Sensations that survived beyond this time were categorized as the afterglow of ecstatic experience. Though brief and transitory in duration, these states of peak awareness were distinguished by an unmistakable intensity. “It is certain that the people who claimed ecstasy from sexual intercourse did not confuse ecstasy with the pleasures of sexual orgasm” (Laski, 1961, p. 145).

The ecstatic nature of profound states of sexual arousal is not reducible to erotic perceptions but to the existential meaning of the situation in which the person is involved (Aanstoos, 2001). A spiritual cosmology can supply a framework within which meaning from ecstatic sexual experiences can be shaped, which may explain why profoundly ecstatic experiences are often described in terms of mystical union or connection with nature or divinity.

Sex therapists Kleinplatz and Menard (2007) conducted 50 hours of interviews with adults from wide-ranging backgrounds to determine their experiences of “great sex,” or what these two therapist-authors refer to as *optimal sexuality*. The major themes emerging from participant experiences in their study included being present, authenticity, intense emotional connection, sexual and erotic intimacy, communication, and transcendence. As one of the participants framed the experience, “Great sex is a gift from God” (p. 76). Woodward et al. (2009) interviewed 298 participants and administered additional surveys to determine the types of peak and mystical sexual experiences found in intimate relationships. The themes that emerged from their data included feelings of bliss and ecstasy; alterations in perceptions of time and space; sense of self and somatic awareness; a powerful connection with God, the universe, or spirit; and a powerful soul connection with another.

In a study of transcendent sexual experiences, Wade (2004) mapped the reports of 86 men and women who had experienced profound alterations of conscious awareness in the context of sexual
activity. These spontaneous occurrences happened outside the experience of orgasm and were not ascribable to the use of drugs. Wade categorized the phenomenological features of transcendent sex under the headings of transcendence of spatial boundaries; transcendence of the boundaries of linear time; narrowing of consciousness; experiential extension beyond consensus reality and space-time; and transpersonal experiences of a psychoid nature.

In a study of relationship satisfaction with couples engaged in sacred sexual practices, couples identified feelings of deepened connectedness, spirituality, altered states, and mystical experience (Kruse, 2002). These outcomes were replicated in a study that examined the effects of ceremonial sex practices such as Tantra and Taoism (Trull, 2006). Participant outcomes included instances of altered states of consciousness, direct experiences of the Divine, enhanced self-esteem, and intimate connection with the partner. In a study of Christians in long-term relationships, characteristics of profound sexual encounters were reported under the following headings: euphoria, sense of wonder and amazement, emotional cleansing, intense union, intense physical arousal, transcendence, holistic involvement, sense of blessing and giftedness, sense of sacredness, and ineffable mystery (Macknee, 2002).

All of the studies cited above point to some of the recurring features that are consistent with altered states of consciousness triggered by sexual arousal, most notably altered sensory perceptions, intense emotional connection, feelings of bliss and ecstasy, and a powerful connection with a transcendent divinity. In this study, the term sexual ecstasy is used to convey this cluster of features that emerge during peak states of awareness triggered by sexual arousal in order to both measure and distinguish among those features. Identifying and measuring these features is important to the field of transpersonal psychology because of the inherent transformative potential of these experiences.

Transformative Potential of Ecstatic States

States of ecstasy may be infrequent and transitory, but they are not insignificant. Repeatedly the experience of divine madness as described by Socrates is a catalyst for transformation at the personal, interpersonal, and even transpersonal level. Being fully present to an ecstatic experience is likely to break open the boundaries of ordinary ego-bound awareness, inviting us to temporarily expand beyond what is comfortable and familiar. This expansion of awareness creates the potential context for both vulnerability and enhanced connection with some other, whether a person, nature, or a transcendent divinity.

Several studies reveal the frequent association among peak states of sexual ecstasy with relationship satisfaction, sexual functioning, spirituality (Kleinplatz & Menard, 2007; Woodward et al., 2009), as well as enhanced self-esteem, personal growth, sexual healing, and spiritual breakthroughs (Kruse, 2002; Little, 2010; Sokol, 1989; Trull, 2006; Wade, 2004). While transcendent sexual experiences sometimes occur spontaneously, they can also be consciously cultivated through discipline and practice. In a study by the first author, ecstatic sexual experiences precipitated a sexual and spiritual awakening in participants that launched a self-initiated journey toward wholeness and healing (Elfers, 2009). The ecstatic features that emerge during sexual arousal that are the subject of this research study have the potential to influence every dimension of adult human development, including the physical, emotional, cognitive, interpersonal, spiritual, and transpersonal. As already mentioned, profound peaks of awareness can create upsetting or disorienting states—outcomes that are consistent with the nature of transformative learning (Kitchenham, 2008). This promise of growth is consistent with the transformative dimension of transpersonal psychology as identified by Hartelius, Caplan, and Rardin (2007), and presents an untapped opportunity to further personal development.

Development of the Sexual Ecstasy Scale

This present article describes the development of a psychometric instrument called the Sexual Ecstasy Scale (SES) that is designed to measure the features of peak experience presently unaccounted for in available measurements of sexual arousal. The target audience for the instrument was a lay audience, with the goal of determining the degree
to which ecstatic sexual experiences appear in the general population as well as the specific phenomenal features of that experience.

Development of the initial draft instrument of the SES began with a review of the features of peak sexual experiences that emerged from phenomenological studies (Holbrook, 2008; Kruse, 2002; Little, 2010; Sokol, 1989; Trull, 2006; Wade, 2004). Self-report descriptions of peak sexual experiences in available studies were reviewed. Representative items were drawn from the recurring and overlapping themes that emerge in phenomenological descriptions of peak sexual experience: altered sensory perceptions, intense emotional connection, feelings of bliss and ecstasy, and a powerful connection with a transcendent divinity. Whenever possible the reported verbal descriptions of the experience by participants were used in the item construction, for example, *my partner's emotions become mine*, or *I enter a state where time does not exist*.

A panel of seven sex researchers and sex therapists with expertise in peak sexual experiences was recruited through colleagues to review this initial set of items. The original list of items is included as Appendix A. Panel members commented on item readability, appropriateness, and alignment with the features of peak sexual experience. Panel members identified the most appropriate statements of each theme. After their suggestions had been incorporated and some items eliminated, 31 statements were retained as those best representing the phenomenological features of ecstatic sexual experience. Since the panel of experts included individuals with prior experience with ecstatic sexual experiences to review the readability of the survey items, the authors also wished to have the items reviewed by persons with no reported experience. Two laypersons were recruited to review the 31 items for clarity and readability, and their suggestions were incorporated. These final items became the survey prototype for the initial study of the SES.

Since the general population was the target audience for the scale, the authors took an exploratory approach to the factor analysis and overall scale development. A demographic questionnaire was designed to collect data such as country of origin, age, race, gender, and sexual orientation. The response format for the first study was a 6-point Likert-type scale, ranging from 1 (strongly disagree) through 6 (strongly agree). In using this response scale, participants rated the extent to which they agreed that item content was applicable to their own experience.

**Recruitment**

The target audience for the scale development was a sampling of individuals across a range and variety of sexual experience. In keeping with the exploratory nature of the study, the goal of the design was to create an instrument that would be sensitive to a range of experiences that included individuals with no familiarity as well as those who have had profound experiences of sexual ecstasy. Accomplishing this goal involved recruiting a varied demographic sample to avoid identifying only those who professed to have previous ecstatic experiences. The authors hypothesized that recruiting across a variety of demographic variables would compromise internal validity but opted to sacrifice this for the sake of a stronger external validity. Identification and treatment of all participants was consistent with the ethical principles of the American Psychological Association for research and the study was approved by the lead author's Institutional Review Board.

While some participants were recruited from friends and colleagues, the primary vehicle was through a variety of social media sites including Yahoo Groups and Facebook. While this approach limited the sample to adults who frequent social media sites, the flexibility of social media allowed recruitment to target English-speaking populations around the world. Participants responded to a solicitation to participate in a study on relationship intimacy and were then directed to an online survey (Reips, 2002). Prior to taking the survey, respondents were provided with a definition of ecstatic sexual experiences. Each was asked to identify whether she/he had ever had such an experience never (22.2%), once (8.3%), occasionally (54.0%), or frequently (15.4%). The goal of this question was to determine the extent of variability among self-reported experience of respondents.

The demographics for the recruited sample can be found in Table 1. The result was a diverse demographic sample with over half of the
<table>
<thead>
<tr>
<th>Demographics</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
<th>Study 3</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Age</td>
<td>40.5</td>
<td>11.2</td>
<td>41.3</td>
<td>10.7</td>
<td>42.5</td>
</tr>
<tr>
<td>Range</td>
<td>18 – 71</td>
<td>18 – 77</td>
<td>18 – 71</td>
<td>18 – 73</td>
<td>18 – 77</td>
</tr>
<tr>
<td>n</td>
<td>184</td>
<td>55.6%</td>
<td>190</td>
<td>57.4%</td>
<td>151</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>184</td>
<td>55.6%</td>
<td>190</td>
<td>57.4%</td>
<td>151</td>
</tr>
<tr>
<td>Transgender/Other</td>
<td>1</td>
<td>0.3%</td>
<td>4</td>
<td>1.2%</td>
<td>1</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>292</td>
<td>88.2%</td>
<td>291</td>
<td>87.9%</td>
<td>209</td>
</tr>
<tr>
<td>Homosexual</td>
<td>11</td>
<td>3.3%</td>
<td>13</td>
<td>3.9%</td>
<td>5</td>
</tr>
<tr>
<td>Bisexual</td>
<td>28</td>
<td>8.5%</td>
<td>27</td>
<td>8.1%</td>
<td>19</td>
</tr>
<tr>
<td>Country of origin:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>149</td>
<td>45.0%</td>
<td>157</td>
<td>47.4%</td>
<td>94</td>
</tr>
<tr>
<td>Canada</td>
<td>21</td>
<td>6.3%</td>
<td>27</td>
<td>8.1%</td>
<td>0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>115</td>
<td>34.7%</td>
<td>106</td>
<td>32%</td>
<td>101</td>
</tr>
<tr>
<td>New Zealand</td>
<td>24</td>
<td>7.2%</td>
<td>23</td>
<td>6.9%</td>
<td>17</td>
</tr>
<tr>
<td>Australia</td>
<td>18</td>
<td>5.4%</td>
<td>11</td>
<td>3.3%</td>
<td>19</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1.2%</td>
<td>7</td>
<td>2.1%</td>
<td>2</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>258</td>
<td>77.9%</td>
<td>242</td>
<td>73.1%</td>
<td>174</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14</td>
<td>4.2%</td>
<td>13</td>
<td>3.9%</td>
<td>5</td>
</tr>
<tr>
<td>Native American</td>
<td>7</td>
<td>2.1%</td>
<td>6</td>
<td>1.8%</td>
<td>4</td>
</tr>
<tr>
<td>Asian</td>
<td>3</td>
<td>0.9%</td>
<td>3</td>
<td>0.9%</td>
<td>3</td>
</tr>
<tr>
<td>Black</td>
<td>5</td>
<td>1.5%</td>
<td>13</td>
<td>3.9%</td>
<td>9</td>
</tr>
<tr>
<td>Indian</td>
<td>6</td>
<td>1.8%</td>
<td>7</td>
<td>2.1%</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>11.5%</td>
<td>47</td>
<td>14.2%</td>
<td>35</td>
</tr>
<tr>
<td>Experience Frequency:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>79</td>
<td>23.9%</td>
<td>68</td>
<td>20.5%</td>
<td>56</td>
</tr>
<tr>
<td>Once</td>
<td>26</td>
<td>7.9%</td>
<td>28</td>
<td>8.5%</td>
<td>15</td>
</tr>
<tr>
<td>Occasionally</td>
<td>175</td>
<td>52.9%</td>
<td>183</td>
<td>55.3%</td>
<td>123</td>
</tr>
<tr>
<td>Frequently</td>
<td>51</td>
<td>15.4%</td>
<td>52</td>
<td>15.7%</td>
<td>39</td>
</tr>
<tr>
<td>Total sample</td>
<td>331</td>
<td>100.0%</td>
<td>331</td>
<td>100.0%</td>
<td>233</td>
</tr>
</tbody>
</table>

Table 1: Demographic comparisons from Study 1, Study 2 and Study 3.

respondents living outside of the United States. The sample was primarily Caucasian and heterosexual. The sex ratio for the overall sample was roughly equal with several of the sub-samples showing almost two-thirds female respondents.

Given the logistical demands of this recruitment strategy, a large sample (n = 662) was solicited at one time to respond to the 31-item survey in conjunction with one or two additional scales that would be used in Study 3 to test for construct
validity. This larger sample was then randomly divided into two sample sets of equal size (n = 331) using “R” software to be used for exploratory and confirmatory factor analysis respectively.

**Study 1: Exploratory Factor Analysis**

An exploratory factor analysis (EFA) was conducted on the first random subsample of responses to the survey (N = 331). The final scale included 12 items of the original 31 items, which loaded onto 4 factors. Items that did not load well or were redundant with existing items were eliminated, until the items consistently loaded onto the same factors. Cronbach’s alpha was also used to assess the internal consistency of the overall scale, along with each subscale. Internal consistency also played a role in selecting good items and constructing internally consistent subscales. The final scale expressed a variety of features of sexual ecstasy, while exhibiting acceptable internal validity. Factor loadings for the EFA can be found in Table 2.

Mplus version 6.12 software was used to conduct the exploratory factor analysis. All reported factors were Geomin rotated, which allowed for some correlation between factors. Pearson r correlation coefficients between latent factors for both the EFA and CFA can be found in Table 3. The non-normal distribution of Likert items and non-normal distribution of the summed scale were accounted for by using weighted least squares estimation, with mean and variance adjustments (WLSMV) allowing the production and evaluation of normally distributed factors.

**Results**

The final version of the SES consists of 12 items, which are equally divided across four dimensions. Cronbach’s alpha was used to assess inter-item reliability, which was 0.875 in the current subsample. The four dimensions are used as subscales and were labeled Empathy, Sacred Connection, Distress, and Space Time. The final version of the SES is included in Appendix B.

**Empathy.** This factor reflected a profound connection in which feelings of the partner are sensed and shared (e.g., I can feel what my partner is feeling as if I were him/her). This points to a loosening of the boundaries of self-identity and an intimate sharing of the feelings of the other. Such an experience implies a deep empathy. When treated as a subscale, this factor demonstrated good internal consistency with Cronbach’s alpha at 0.81.

**Sacred Connection.** While Empathy reflected an experience with a partner, this factor reflected a relationship with a being or presence beyond the physical relationship. Items in this subscale described an encounter with God, a divine being, or a presence (e.g., I feel I am in the presence of something sacred or holy). Such an experience implies a dimension...
to sexual intimacy that goes beyond the physical and is one of the recurring features of descriptions of sexual ecstasy. The experience is not one of identity with the other as implied by deep empathy, but awareness of an additional presence. This factor demonstrated good reliability with Cronbach’s alpha at 0.88.

**Distress.** In phenomenological analyses of peak sexual experiences, some individuals describe the feelings during sexual arousal as disturbing or even frightening (e.g., I am distressed by the feelings that arise). This factor described such distressing feelings, pointing to the potential intensity of feelings in peak experiences. While the overall numbers describing frightening experiences was low, the items in this latent subscale formed a clear latent factor. The positive emotions associated with sexual ecstasy were varied and did not form any consistent factors. However, when these items are reverse scored they become a measure of more positive, or at least neutral, emotions. This factor exhibited relatively good internal consistency, with Cronbach’s alpha at 0.89.

**Space and Time.** This factor described a feeling of being beyond the ordinary understanding of space and time (e.g., I enter a state where time does not exist). Such an experience is one of the hallmarks of transformation and implies the temporary loosening or dissolving of ego-boundaries (e.g., I find myself melting into something greater than myself). Alterations in the sensations of space and time imply a personal orientation that may be independent of the intimate connection with a partner or a divine presence. This altered orientation to time is one of the defining features of transcendence often cited in classical descriptions of peak experience (Eliade, 1957; James, 1902/1982; Underhill, 1910/2005). This factor exhibited good internal reliability with Cronbach’s alpha at 0.86.

This factor structure of the SES was based on an exploratory approach to the phenomenological features of sexual ecstasy that emerged in the general population. The results of the factor analysis produced four subscales consistent with participant descriptions of peak experiences. The items that described profound positive emotions such as euphoria and bliss did not emerge as a distinct factor, suggesting that these descriptors may be too varied and personal to be representative of the general population. The latent variables in this exploration of sexual ecstasy were profound feelings of emotional connection and empathy, an experience sometimes accompanied by unpleasant and distressing feelings, and a sense of spiritual connection. The subscales of the SES reflect temporary transformations in states of consciousness, emotional connection, and the boundaries of personal identity.

**Study 2: Confirmatory Factor Analysis**

The purpose of Study 2 was to test the factor structure of the Sexual Ecstasy Scale as developed in the exploratory factor analysis with a confirmatory factor analysis (CFA). The independent sample for Study 2 (N = 331) was the second randomly generated subsample from the original recruitment campaign (N = 662). Using a combination of one-way ANOVA, chi-square and Fisher’s exact tests, we found no evidence to suggest that the first subsample (used in the EFA) significantly differed from the second subsample (used for the CFA: all p values > 0.05). As with Study 1, the WLSMV estimator was used to account for non-normal Likert scales, allowing for the production of normally distributed latent factors from non-normal data.

**Results**

The confirmatory factor analysis produced excellent Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) values, respectively 0.969 and 0.958, indicating an excellent fit for the CFA data. However, the chi-square goodness of fit test was significant, \( \chi^2(48, N = 331) = 261.287, p < .0001 \), indicating inadequate model fit. Importantly, chi-square was not the primary measure used to assess model fit, because we decided to use a weighted least squares estimation method which undermines the use of chi-square tests. Furthermore, chi-square tests become increasingly predisposed to false positives as sample sizes increase. We therefore chose to exclude chi-square from our assessment of model fit. Additionally, the RMSEA was significantly greater than 0.05 at 0.116. Similar to the chi-square test, RMSEA was not the primary measure used to assess model fit, because the data were non-normal. Under such conditions RMSEA has a false-positive rejection rate of about 50% in similarly
sized samples (Yu, 2002). Item-level statistics for the CFA can be found in Table 4.

After accounting for correlations between latent factors, all items loaded significantly onto their appropriate factors. The factor loadings and correlations among them can be seen in Figure 1. Comparison of Cronbach’s alpha coefficients between the subscales of the EFA and CFA subscales can be found in Table 5.

Study 3: Construct Validity

In Study 2, a confirmatory factor analysis was used to confirm the factor structure of the SES. Following this confirmation, the SES was compared with additional measures to establish convergent validity in Study 3. The measures were chosen to demonstrate the extent to which similar and divergent constructs would correlate with the SES subscales.

Given the distinction of the latent variables among the SES, four measures were chosen to demonstrate the construct validity of the various dimensions and factors of the scale.

Recruitment

Participants completing these measures were subsamples of Studies 1 and 2, in which participants were invited to take an additional scale(s) to measure construct validity along with the original 31-item survey used to create the SES. Demographic data for participants completing the measures are included in Table 1. The first group of respondents (N = 233) took the SES and the Emotional, Sexual, and Spiritual Intimacy Scale. The second group (N = 186) took the SES and the Self-Transcendence Scale. The third group (N = 128) took the SES, the Self-Esteem Scale and the Satisfaction With Life Scale. A larger sample was recruited for the

Figure 1. Sexual Ecstasy Scale factor loadings and correlations among them.
ESSI, because it is a multi-dimensional scale with 3 subscales, while the remaining measures were one-factor scales.

**Emotional, Sexual, Spiritual Intimacy Scale.** The Emotional, Sexual, Spiritual Intimacy Scale (ESSI), developed by Davis, Pallen, DeMaio, and Jackson (2000), is a multidimensional measure consisting of three subscales of intimacy—emotional, sexual, and spiritual—with reliability as estimated by Cronbach’s alpha for the sample in Study 3 at 0.96, 0.96, and 0.92 respectively. A high total score on the ESSI indicates a high level of perceived intimacy, with individual items speaking to one of the three dimensions of intimacy. The ESSI was chosen as a measure to explore convergent validity, because the three scales measure latent variables with similar content to three of the factors of the SES.

<table>
<thead>
<tr>
<th></th>
<th>Study 1 (EFA)</th>
<th>Study 2 (CFA)</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>0.811</td>
<td>0.803</td>
<td>0.805</td>
</tr>
<tr>
<td>Sacred Connection</td>
<td>0.882</td>
<td>0.873</td>
<td>0.877</td>
</tr>
<tr>
<td>Distress</td>
<td>0.889</td>
<td>0.861</td>
<td>0.875</td>
</tr>
<tr>
<td>Space &amp; Time</td>
<td>0.860</td>
<td>0.867</td>
<td>0.864</td>
</tr>
<tr>
<td>Total scale</td>
<td>0.875</td>
<td>0.870</td>
<td>0.873</td>
</tr>
</tbody>
</table>

**Self-Transcendence Scale.** The Self-Transcendence Scale (STS), developed by Reed (1991), is a one-dimensional scale that measures the ability to derive meaning and significance through cognitive, creative, social, spiritual, and introspective pursuits. Self-transcendence has been defined as the expansion of personal boundaries and an orientation toward introspection, concern for the welfare of others (Reed, 1991), and a transpersonal connection with a higher or greater dimension (Reed, 2003). A higher total score on the STS suggests an increased measure of the development of psychosocial and spiritual resources. Reliability as estimated by Cronbach’s alpha for the sample in Study 3 was 0.91. This scale was chosen to explore the correlation between the features of the SES that assess transcendence of personal boundaries inherent in strong emotional connections with others as well as the construction of personal meaning and significance necessary to peak sexual experience.

**Discriminant Validity**

Two scales were used to explore discriminant validity by distinguishing responses on the SES with measures unrelated to peak experience.

**Self-Esteem Scale.** The Self Esteem Scale (Self-ES), developed by Rosenberg (1989), is a one-dimensional measure of a positive or negative orientation toward oneself. Reliability as estimated by Cronbach’s alpha for the sample in Study 3 was 0.93. As an overall evaluation of one’s worth or value, self-esteem is only one component of self-concept (Rosenberg, 1989). A measure of self-esteem was chosen to evaluate discriminant validity of the SES, because it is categorically different from that of sexual ecstasy, with self-esteem being a personal assessment of worth and sexual ecstasy a relational experience.

**Satisfaction With Life Scale.** The Satisfaction With Life (SWL) scale developed by Diener, Emmons, Larsen, and Griffin (1985) is a brief 5-item measure that assesses global life satisfaction without tapping related constructs such as positive affect (Diener et al., 1985). It has been used with a variety of age groups. Higher scores on the SWL indicate greater degrees of life satisfaction. Reliability as estimated by Cronbach’s alpha for the
sample in Study 3 was 0.87. The SWL was chosen as a neutral measure because it focuses on personal, as distinct from relational, satisfaction.

**Results**

The Pearson Correlations among the various scales and subscales used to test the construct validity of the SES are summarized in Table 6. Overall, the correlations reflect the anticipated performance of the scales. The subscales of the ESSI distinguish among emotional, sexual, and spiritual intimacy. The responses to this measure provide a direct comparison with latent variables of the SES. The emotional intimacy subscale of the ESSI correlated strongly with the SES Empathy and Space and Time subscales, a modest correlation with the Sacred Connection subscale and the absence of correlation with the Distress Subscale.

The sexual intimacy subscale of the ESSI echoed this with strong correlations with Empathy and Space and Time and a modest correlation with Sacred Connection. The correlation among the sexual intimacy subscale with the three SES subscales suggests the possibility that sexual intimacy naturally contains modest degrees of deep connection with a transcendent dimension. The strongest correlation in Study 3 was between spiritual intimacy and the Sacred Connection subscale, providing strong support to the construct validity of the sacred dimension of sexual ecstasy.

The authors sought an independent measure of self-transcendence to validate the boundary-dissolving features of ecstatic sexual experiences. The STS scale was chosen because of its focus on the ability to derive meaning from individual experience in several domains of life. The strong correlations among the STS and the two subscales of Empathy and Sacred Connection point to the relationship between transcendence of self and connections with another person or transcendent divinity. The correlation with the Space and Time subscale point to one of the defining features of transcendent experience, namely, feelings of being outside of consensus reality. The negative correlation with the distress subscale suggests that self-transcendence is more strongly biased toward positive emotion.

The Self-Esteem Scale showed no significant correlations with any of the SES subscales. The construct of self-esteem is an intrapersonal judgment of worth, while sexual ecstasy is an altered state of consciousness. The lack of correlation with self-esteem indicates that levels of positive self-worth are not associated with high levels of reported sexual arousal. The same is true of the SES subscale correlations with the Satisfaction With Life scale as it is a measure of a personal assessment of value. The significant correlation between SWL and the Empathy subscale was unanticipated, and this correlation suggests that partner emotional intimacy may be related to overall life satisfaction. The Distress subscale showed an absence of correlation with either the SES or SWL scales, suggesting that levels of personal esteem and life satisfaction are not correlated with distress. Overall, however, the

<table>
<thead>
<tr>
<th>SES Subscales</th>
<th>Empathy</th>
<th>Sacred Connection</th>
<th>Distress</th>
<th>Space &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSI-Emotion</td>
<td>0.41**</td>
<td>0.24**</td>
<td>-0.09</td>
<td>0.36**</td>
</tr>
<tr>
<td>n = 233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESSI-Sex</td>
<td>0.45**</td>
<td>0.25**</td>
<td>-0.12</td>
<td>0.40**</td>
</tr>
<tr>
<td>n = 233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESSI-Spirit</td>
<td>0.31**</td>
<td>0.57**</td>
<td>0.17**</td>
<td>0.29**</td>
</tr>
<tr>
<td>n = 233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STS</td>
<td>0.42**</td>
<td>0.37**</td>
<td>-0.21**</td>
<td>0.45**</td>
</tr>
<tr>
<td>n = 186</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-ES</td>
<td>0.10</td>
<td>0.09</td>
<td>-0.02</td>
<td>0.09</td>
</tr>
<tr>
<td>n = 128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWL</td>
<td>0.24**</td>
<td>0.12</td>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>n = 128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6.** Pearson Correlations among the scales. Subscales of the Sexual Ecstasy Scale with Emotional, Sexual and Spiritual Intimacy Scale (ESSI), with subscales for Emotion (ESSI-Emotion), Sexuality (ESSI-Sex), and Spirituality (ESSI-Spirit), the Self-Transcendence Scale (STS), The Self-Esteem Scale (Self-ES) and the Satisfaction With Life Scale (SWL). Significant correlations are flagged with an asterisk or double asterisk depending on the significance threshold for that value. * (p < 0.05) ** (p < 0.01). To find significant differences between correlations, please visit http://www.psychmike.com/dependent_correlations.php and use the values above to run the Steiger’s Z-test.
comparison of these two measures supports the independence of the measure of sexual ecstasy from measures of personal worth and satisfaction. Correlational comparisons of SES with other measures of transcendence and intimacy in the future will help to support validity of the SES as a measure of a distinct construct.

General Discussion

The goal of this study was to explore the features of peak experience that emerge during sexual ecstasy and to construct and provide initial support for the design of a psychometric instrument to measure those features. Drawing from descriptions of peak sexual experiences in phenomenological studies, the initial 31 survey items yielded four distinct subscales that capture dimensions of the experience. The SES revealed strong internal consistency, with a Cronbach’s alpha of 0.87. The original factor structure was supported by a confirmatory factor analysis with excellent fit indices. Correlations of the SES subscales with measures of emotional, sexual, and spiritual intimacy and a measure of self-transcendence provided evidence for construct validity. An absence of correlation with measures of self-esteem and satisfaction with life suggest the independence of sexual ecstasy from other personality factors.

Respondent scores on the four subscales of the SES have the potential to reflect a variety of profiles of peak sexual experience and provide insight into the nature of an individual’s phenomenal response. Table 7 compares the mean scores and standard deviation for each of the four subscales, drawing from the combined responses to Studies 1 and 2. Feelings of being outside of space and time and deep empathy with a partner were the most common features of the phenomenal experience of sexual ecstasy. Feelings of a sacred connection with a divine being were less common with feelings of distress lowest of all.

While the majority of participants in the phenomenological studies identified pleasurable feelings in relation to sexual ecstasy, it is important to note that feelings of distress were occasionally noted as well (Elfers, 2009; Wade, 2004), and this was evidenced in the Distress subscale. Any measure of sexuality must account for the prevalence of sexual trauma in the general population, which could conceivably bias the results toward emotional discomfort (Van Der Kolk, 2014). Responses to the items in the Distress subscale can be calculated as a measure of distress, or reverse scored as a measure of the absence of distress. While the absence of distress is not the same as a positive emotion, this subscale has the potential to point to a range of emotional responses to the experience of ecstatic sex.

Experiences that involve emotions of either euphoria or distress have the potential to become transformative (Schlitz, Vieten, & Amorok, 2008). The experience of a spiritual emergency as identified by Grof and Grof (1989) involves a transformation of personal identity and is frequently accompanied by distressing and challenging emotions. The emotion-experience of awe, which is associated with transcendence, can carry the hedonic tone of threat as well as beauty due to the inability of an individual to assimilate the vastness of the experience (Keltner & Haidt, 2003). It is not unreasonable, then, to consider that a peak experience of sexual arousal could activate a spiritual emergency and, if cultivated, could be an opportunity for spiritual growth.

Recruitment for the studies described here deliberately targeted a demographic population with some variability in their self-reported history with states of sexual ecstasy. Yet, even those respondents who claimed to have never had a profound experience identified some features of ecstasy as measured in the subscales as a part of

<table>
<thead>
<tr>
<th>SES Subscale Scores</th>
<th>Empathy</th>
<th>Sacred Connection</th>
<th>Distress</th>
<th>Space Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1 (N = 331)</td>
<td>11.5 ± 4.0</td>
<td>8.1 ± 4.6</td>
<td>6.4 ± 4.3</td>
<td>12.0 ± 4.5</td>
</tr>
<tr>
<td>Study 2 (N = 331)</td>
<td>11.4 ± 4.0</td>
<td>8.0 ± 4.8</td>
<td>6.2 ± 4.1</td>
<td>11.8 ± 4.6</td>
</tr>
</tbody>
</table>

Table 7. Comparison of the mean and standard deviation of SES subscale scores. Scores are drawn from responses to studies 1 and 2. Possible score range is 3 – 18.
their history. This fact suggests that sexual ecstasy is not limited to a categorical experience with distinct features. Rather, such experience is found along the spectrum of ordinary sexual arousal, though it becomes more salient at the extreme margin where ecstatic features become part of sexual phenomenology. Ongoing prevalence studies could help to identify the frequency of sexual ecstasy in a variety of demographic populations.

Limitations

Although data from this investigation provide initial support for the SES as a valid instrument, several limitations exist for its measurement results. The recruitment of participants through social media is an emerging strategy in many areas of research, and the potential biases of solicitation through online media are still being determined. This form of recruitment limits the potential pool of respondents to those who frequent social media sites. While the sample for this scale development was drawn from several English-speaking countries, this also limited the range of cultural variability in the sample. This leaves open the question as to whether the results would have varied with respondents from different cultural backgrounds. This limitation can be addressed in future studies by confirming the factor structure of the SES in different languages. Variability in the sexual orientation and gender identity of respondents was also significantly lower than in the general population. Recruiting respondents with more variability in sexual orientation and gender identity will help to determine the sensitivity of the SES for these populations.

There were inherent limitations to the use of self-report items, including self-reported history with ecstatic sexual experience. In addition, further research will be important to confirming how well the SES is able to distinguish among individuals with limited experience with ecstatic sexual experience and those with frequent experience. Test-retest reliability and continued comparisons with other measures of sexuality, intimacy, and ecstatic experience would be a logical next step in this determination.

Future Directions

The understanding of sexual arousal with a partner as a peak experience adds new dimension to the phenomenological profile of sexuality. What has yet to be determined is whether the dynamics of ecstasy triggered by sexual arousal are consistent with other peak experiences. The overall profile of experience identified by the SES would point to that consistency, but further confirmation is needed. An expanded recognition of ecstatic sex raises the possibility for sex to be transformative. Clearly sexuality is central to the crucible of human relationships, and fostering the role of sexuality within intimate relationships could have important outcomes. Technologies for cultivating ecstatic sexual experiences could be evaluated using the SES along with investigations into the specific triggers and precursors that elicit the experience.

An expansion of the definition of sexuality to include characteristics of peak experience has implications for transpersonal psychology with its increasing focus on the importance of the psychology of transformation (Hartelius et al., 2007). Investigations into the process of transformation point to the dramatic changes in the boundaries of self-identity that characteristically result from transformational experience (Schlitz et al., 2008). Changes in the perceived boundaries of the self are central to the four latent variables in the SES. The dissolution of boundaries between sexual partners is inherent in the heightened experience of emotional connection in the Empathy subscale. The experience of direct knowing associated with deep empathy is a critical area of investigation in transpersonal psychology (Hart, 2000), and the SES is promising as a measure in this area.

An obvious application of the SES is the correlation of sexual ecstasy with other measures of life experience. Such correlations will help to confirm the construct of peak sexual experience and document the potential impact on other measures of life experience. The majority of participants responding to the survey identified having the experience of ecstatic sex “occasionally.” But the nature of the recruitment for the studies described here does not allow their report to generalize into a measure of prevalence. Additional research is needed to obtain a closer approximation of the incidence of sexual ecstasy across cultures and age groups.
Conclusions

What makes ecstatic sex extraordinary is not the quality or intensity of the autonomic activity, though there may be a heightened sense of arousal associated with it. In speaking about peak moments of sexual connection, Schnarch (2009) emphasized that the intensity reportedly characterizing sexual ecstasy is not the result of special positions or sophisticated techniques but rather of the meaning the experience holds for the lovers. Watts (2002) described this as a shift in the experience of sex as an activity implied in such terms as “having sex” or “making love,” to an experience of contemplation implied in the expression “a state of being.” The ecstatic nature of sexuality is more than an exceptional orgasm and more than an emotional connection with a partner. Along the spectrum of sexual arousal, the terms found in the literature such as great sex, optimal sex, peak sex, mystical sex, and sacred sex might be laid out along a gradient of intensity encompassing overlapping features identified by most participants as peak or ecstatic. The SES has the potential to map some of the additional dimensions of meaning inherent to sexuality within a relationship.

References


**Appendix A**

Original Items for Survey Development
(R) = Reverse Scored

My awareness becomes intensely focused
My thoughts and feelings are entirely absorbed in what is occurring
Nothing else matters but what I am experiencing
My attention wanders and jumps around (R)
My awareness is pulled in many directions (R)
I am moved by an energy that is not my own
I become overwhelmed by powerful feelings
I surrender to feelings that come from outside myself
I am entirely absorbed in the experience
I have no control over what is occurring
I feel entirely in control of the experience (R)
I let go and surrender to the experience
I am able to maintain control throughout the entire experience (R)
I find it difficult to describe the experience to others
My experience is not unique at all (R)
My experience is too powerful for words or judgments
I can easily describe my experience in words (R)
Words cannot describe the feelings and sensations that I have

---

International Journal of Transpersonal Studies

14 Elfers & Offringa
Sexual Ecstasy Scale

I experience sensations that are unusual or that I don't normally feel.
Features in my environment seem to change.
Colors, shapes, and sounds take on a new character.
Sights and feelings remain predictable and do not change (R).
Visual sensations and sounds become distorted and unreal.
My thoughts and feelings remain pretty much ordinary (R).
I enter a state where time does not exist.
My usual sense of time is distorted.
I am completely aware of the passing of time (R).
Time has no meaning or significance for me.
The boundaries of space and time become fluid.
I feel energy centers in my body opening up.
All bodily sensations disappear.
My body disappears so that I have no physical existence.
I feel my heart and chest opening up.
I do not experience unusual changes in my body (R).
I find myself melting into something greater than myself.
Doorways to new feelings open up.
The cells of my body feel like they are made up of light.
I have a feeling of being in another body at a different time and place.
What is outside and what is inside feels mixed up.
I experience myself as another person in a different time period.
I feel as though I am traveling to another place.
I feel as though I have no body.
I can view my sexual experience as if looking at it from above.
I view my sexual experience as if I were a separate person.
I feel extreme pleasure and euphoria.
My physical sensations are filled with wonder and amazement.
I experience joy and bliss.
I rarely experience extreme joy or bliss (R).
In that moment I feel overwhelming gratitude.
I experience boundless love.
I feel a sense of dread at what I am experiencing.
I am frightened by the sensations I experience.
My experience can create feelings of apprehension.
I can easily accept everything that happens to me (R).
My feelings and emotions are disturbing to me.
I am distressed by the feelings that arise.
I have a desire to surrender to feelings but am afraid to let go.
I sense my partner's emotions and feelings.
I can feel what my partner is feeling as if I were him/her.
My partner's emotions become mine.
I feel separate from my partner's emotions (R).
I feel as though everything familiar to me is left behind.
My defenses fall completely away.
I feel myself expand and rise above everything.
I lose the ability to let go (R).
My sense of self opens up.
I experience little change in my sense of self (R).
My sense of self expands to five or six feet all around me.
I lose my familiar sense of who I am.
My sense of myself merges with everything around me.
My sense of identity disappears.
I become one with God or the cosmos.
I experience a vast stillness into which all thought and feeling disappear.
My experience of spirituality changes.
I feel I am in the presence of something sacred or holy.
Sexuality becomes a spiritual experience.
My sexual feelings do not seem spiritual (R).
I feel an influx of grace.
I feel a third presence in addition to my partner.
I experience a divine presence.
I have a direct encounter with God.
I feel a divine presence within me.
I encounter a spiritual being.
I merge with everything around me.
I experience a deep connection to all of life.
The separation between people and things disappears.
I feel a deeper sense of belonging.
I feel a profound sense of coming home.
My feelings remain separate from everything else (R).
I feel isolated from everything (R).
I feel that I am part of the flow of all of life
I have a deep sense of oneness with plants or animals
I feel an energy connection with everything around me
I become convinced that all of life is profoundly connected
I have moments of profound mental clarity
For a brief moment I can see the world from multiple points of view
I do not experience new insights or revelations (R)
Everything I thought to be real is shattered
My understanding of the world shifts to another level
I know and understand things directly without any learning
I am drawn into new and different ways of thinking
I have an awareness of all possibilities
My thoughts tend to remain ordinary (R)
My thoughts take on new meaning and significance

Appendix B

Sexual Ecstasy Scale (SES)

Directions: Take a moment to remember the times when you have had a dramatic or profound shift in consciousness during sexual arousal with a partner. Recall the sensations, feelings, and thoughts you experienced. Respond to the items below based on your personal experience during those times. Read each statement and choose the number of the response that best describes how often you have the experience. There are no right or wrong answers, so please be as honest and accurate as possible. It is important to answer all of the questions.

During sexual arousal marked by dramatic or profound changes of consciousness:

1. I sense my partner’s emotions and feelings. (Empathy)
2. I enter a state where time does not exist. (Space Time)
3. I am distressed by the feelings that arise. (Distress)
4. I feel I am in the presence of something sacred or holy. (Sacred Connection)
5. I can feel what my partner is feeling as if I were him/her. (Empathy)
6. I find myself melting into something greater than myself. (Space Time)
7. Time has no meaning or significance for me. (Space Time)
8. I am frightened by the sensations I experience. (Distress)
9. I experience a divine presence. (Sacred Connection)
10. My partner’s emotions become mine. (Empathy)
11. I have a direct encounter with God. (Sacred Connection)
12. My feelings and emotions are disturbing to me. (Distress)

About the Authors

John Elfers, PhD, is a licensed Marriage Family Therapist and an associate professor at Sofia University. For the past 25 years he has created programs and conducted professional development in the areas of mental health, adolescent reproductive health, drug intervention, and community building. He maintains a lifelong interest in the sacred dimension of sexuality. His research interests include transformative experience and gratitude.

Reid Offringa, PhD, is an independent research consultant living in Brooklyn, NY. Theorizing that one could conduct scientific research outside of academia, Dr. Offringa stepped into the real world in 2012. He awoke to find himself surrounded by projects that were not his own, but driven by an unknown force to change them for the better. Now, his only guide on this journey is a mastery of statistical methods and his formal training as an experimental psychologist.
About the Journal

The *International Journal of Transpersonal Studies* is a peer-reviewed academic journal in print since 1981. It is sponsored by the California Institute of Integral Studies, published by Floraglades Foundation, and serves as the official publication of the International Transpersonal Association. The journal is available online at www.transpersonalstudies.org, and in print through www.lulu.com (search for IJTS).