

MEASUREMENT OF SPONTANEITY: THE RELATIONSHIP  
BETWEEN INTENSITY AND FREQUENCY OF  
THE SPONTANEOUS EXPERIENCE<sup>1</sup>

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*Summary.*—In the present article, the construct validity of one aspect of the definition of spontaneity is examined. Two ways of measuring spontaneity are presented. One involves the use of the revised version of a Spontaneity Assessment Inventory in which respondents are asked to indicate the intensity of the feeling of spontaneity they experience during a typical day. The second was a specially worded version of the Spontaneity Assessment Inventory—Revised: respondents were asked to indicate the frequency with which they experienced spontaneity during a typical day. 81 students responded to the two versions, which were given 1 wk. apart. The order of administration of the two versions was counterbalanced across the participants. The very high positive correlation between versions ( $r = .84$ ) suggests that either measure may be used as an estimator of spontaneity.

Spontaneity occupies a special place in the theory that has led to the invention of psychodrama (Moreno, 1964). Spontaneity is generally defined as an experiential, attitudinal, and emotional state of mind marked by the readiness to embark on a creative process. In the theory, spontaneity is a part of a multistep process labeled the Canon of Creativity (Moreno, 1953). Originally conceived as a four-step process and later expanded to five steps (Kipper, 2006), the canon proposes that the creative process begins with (a) warming up that leads to (b) spontaneity or a “spontaneous state” (Kipper, 2006). The spontaneous state triggers (c) a creative state, followed by (d) a creative act, which ends with (e) a final product or “a cultural conserve” (Moreno, 1953). In other words, the warming up is a preparatory step that produces a state of arousal and readiness to become spontaneous. The spontaneous state triggers a creative state, namely, an internal state of mind where various fragmented, temporary ideas run in the creator’s mind, often in a chaotic fashion. The next step is the creative act, marked by the actual implementation of the creative ideas. The completion of this step is manifested in a final product that can be used repeatedly (e.g., a book, a CD, a painting, a mathematical formula, a technology).

Clearly, both the warming up and the spontaneous state play a pivotal role in the Canon. Both are needed to trigger the creative process. Of these two, the spontaneous state is of a greater importance, for the warming up

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may be either appropriate or inappropriate, and in the latter case never triggers a spontaneous state. However, a spontaneous state is by definition a positive experience that, according to the theory, once elicited begins to stimulate the creative process.

Gathering Moreno's (1964) various statements about spontaneity yields the following definition. First, spontaneity is a positive experiential state of mind. Second, it is marked by an attitude that displays a readiness to respond appropriately, in an unpremeditated fashion, to unexpected situations. Third, it represents involvement in activities that ends in a creative outcome. Finally, it is an emotional and cognitive experience (e.g., Bozionelos, 1996) of varying intensity and frequency.

The present study was set to explore empirically the construct validity of the last facet of the definition. Specifically, a high positive correlation between two measures of spontaneity was expected, one measure that tapped the intensity of the spontaneous experience, and one that measured the frequency with which it is experienced.

#### METHOD

##### *Participants*

Participants were 81 graduate and undergraduate students at Roosevelt University in Chicago, 65 (80%) women and 16 (20%) men. Their ages ranged from 19 to 56 years ( $M=26.7$ ,  $SD=7.8$ ). The inventories were administered in small groups. The average level of education, as measured by years of formal study, was  $M=16.0$  yr. ( $SD=1.4$ ).

##### *Measurements*

The study used two versions of the same inventory.

*Intensity.*—For measuring the Intensity of the spontaneous experience, the Spontaneity Assessment Inventory–Revised (Kipper & Shemer, 2006) was administered. The inventory is an 18-item self-report designed to measure spontaneity. It poses the question, “How strongly do you have these thoughts and feelings in a typical day?” followed by a list of 18 items comprising brief descriptions of various feelings and thoughts associated with the state of being spontaneous. Respondents rated the items using a 5-point Likert-type scale with a response range of 1: Very weak to 5: Very strong. The total score is the sum of the ratings of all the items, and the higher the score, the greater the spontaneity. Examples of the items on this Intensity version of the inventory are “happy,” “fulfilled,” “uninhibited,” and “living fully, in balance.”

The original version of the Spontaneity Assessment Inventory (Kipper & Hundal, 2005; Christoforou & Kipper, 2006) showed statistically significant positive correlations with a measure of well-being (Friedman, 1994) and

the present dimension of a temporal orientation scale (Jones, Banicky, Pomar, & Lasane, 2004). It showed statistically significant negative correlations with State and Trait Anxiety (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and obsessive-compulsive tendencies (Foa, Huppert, Leiberg, Langner, Kichic, Hajcak, *et al.*, 2002). The revised version correlates positively with measures of well-being, intrinsic motivation, self-efficacy, and self-esteem (Davelaar, Araujo, & Kipper, 2008) and correlated negatively with stress (Kipper & Shemer, 2006). Reliability data for past research showed satisfactory split-half, test-retest, and coefficients alpha. Cronbach alpha revised version in the present study was .91.

*Frequency.*—For measuring the frequency of the spontaneous experience, the Spontaneity Assessment Inventory–Revised was administered as described above, with one change. In this Frequency version, the participant was asked for the frequency of the spontaneous experience rather than its intensity. The question was, thus, “How often do you have these thoughts and feelings in a typical day?” The question was followed by a list of the same 18 items, rated on the same 5-point Likert-type response scale. The total score was the sum of the ratings of all the items, so that the higher the score, the greater the spontaneity. In the present study, Cronbach alpha for the Frequency version was .90.

#### *Procedure*

The two versions of the inventory were administered in small groups. The participants were recruited through a convenience sampling and they signed an informed consent form. They took the inventory voluntarily, and were told ~~that~~ they could withdraw from participation at any time without penalty. There was no pressure to participate in the study and no reward was given. Administration of the inventories was anonymous; participants used code numbers, providing personal data only regarding age, sex, and level of education. The two versions were administered one week apart. The order of administration of the two measures was counterbalanced across participants.

#### RESULTS AND DISCUSSION

The mean score on the Intensity version of the inventory was 63.2 ( $SD=10.0$ ). There is no statistically significant sex difference on this version of the inventory (women:  $M=63.6$ ,  $SD=10.7$ ; men:  $M=64.1$ ,  $SD=10.0$ ;  $t_{79}=-.43$ ,  $p>.05$ ). The Intensity average score and the absence of sex differences are supportive of three studies reported in Davelaar, *et al.* (2008) and the study by Kipper and Shemer (2006). On the Frequency version of the inventory, the average score for the entire sample was 63.2 ( $SD=9.1$ ). Again, there was no statistically significant sex difference (women:  $M=64.0$ ,  $SD=8.6$ ; men:  $M=63.8$ ,  $SD=11.0$ ;  $t_{79}=-.30$ ,  $p>.05$ ). The mean scores on the two versions

of the inventory for the entire sample were practically identical ( $t_{79} = .02, p > .05$ ) with a similar distribution of responses.

The main hypothesis predicted a positive high correlation between Intensity and Frequency of spontaneity. The results confirmed this expectation, showing a very high positive correlation between the two versions of the Spontaneity Assessment Inventory-Revised ( $r = .84, p < .001$ ). Evidently, people who experience spontaneity intensely also report experiencing it frequently. The finding lends credence to the construct validity of the dimensionality of spontaneity, i.e., that it is an experience with varying intensity and frequency. The high positive correlation also suggests that either measure may serve as an operative estimator of spontaneity. Diener, Larsen, Levine and Emmons (1985) studied the relationship between the intensity of affect and its frequency. They found that the frequency and intensity of affect tended to vary independently, so that intensity could be regarded as a new personality dimension. The finding might suggest the use of the Intensity version of the Spontaneity Assessment Inventory-Revised in estimating spontaneity.

Clearly, the obtained correlation between the Intensity and Frequency of the spontaneous experience does not indicate causality and cannot be explained without further research. Notwithstanding, one relevant idea from the concept of "availability heuristic" (e.g., Tversky & Kahneman, 1973) is a relationship between estimating the frequency of occurrences in life and the ease with which such occurrences are recalled. The easier the recall, the greater the frequency with which one believes these occurrences happened. There are probably other determinants as well. One may be the emotional intensity of the event, which could be related not to the actual frequency of these experiences but rather to the perceived frequency: intense experiences are more easily recalled than less intense ones. Future research should investigate further why intensity and frequency are so closely related.

The present study raises a few concerns that need to be addressed in future research. One pertains to the issue of divergent validity. It has been argued that the two versions of the measure of the spontaneous experience could have been so similarly phrased that respondents might have not distinguished them, although the measures were administered one week apart. This is a valid argument and should be explored. On the other hand, the above alternative explanation also raises the possibility that the finding of a high positive correlation between the intensity and the frequency of experiences has been observed previously. The present data are not sufficient to thoroughly address this criticism. In this study, sex differences were not found, but women participants outnumbered the men four to one. Future research would be advised to employ samples with equal numbers of men and women.

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