Psychological Needs and Emotional Well-being in Older and Younger Koreans and Americans

Jungwon Hahn  
Merrimack College  
Shigehiro Oishi  
University of Virginia

Abstract
This study tested the relevance of ten psychological needs in emotional well-being among older and younger adults in two cultures (the US and South Korea). Participants were asked to recall their “most satisfying event” for the past month, and then were asked to evaluate the relevance of ten psychological needs to that event. Results indicated that both age and cultural groups generally emphasized the importance of autonomy, competence, and relatedness, as proposed by Self-determination Theory (Deci & Ryan, 1991). There were, however, some cultural variations. For Americans, self-esteem was the most important need for both young and old age groups. For Koreans, autonomy was the most salient need for young adults, whereas self-actualizing-meaning and popularity-influence were the most important needs for older adults.

Keyword: psychological needs, age difference, cultural difference, positive emotion
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It is part of our everyday knowledge that the source of the emotional well-being may vary across individuals. For example, an 18-year old woman and a 70-year old woman may both report that they were very satisfied when they ran into an old friend and had a good conversation, but the reasons why they felt satisfied may not be the same. The 18-year-old girl may report that she was very satisfied when she ran into her old friend because during that event she felt that she is very popular and influential; the 70-year-old woman may report that she was very satisfied when she ran into her old friend because during that event she felt close and connected with the people around her. In other words, simply saying that the two women were satisfied when they met their old friends does not describe the inner wants and needs which define each woman’s personal growth and well-being (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000).

In the present study, we attempted to explore the fundamental dimensions of emotional well-being via an identification of the inner psychological needs related to emotional well-being across different age and cultural groups. By determining the inner needs related to emotional well-being from different age and cultural groups, we integrate research on psychological needs, aging, and cultural variations of well-being, in a way that we believe helps synthesize disparate areas in psychology.

Emotional well-being in older adults

Old age is often characterized as a period of multiple losses (Baltes & Baltes, 1990; Baltes & Mayer, 1999), loneliness (Pratt & Norris, 1994), declining physical and mental functioning (Erber, 1989; Manton, 1990; Ryan, 1992), and restricted cognitive abilities (Cavanaugh, 1989; Levy & Langer, 1994; Ryan & Kwong See, 1993). Given these well-documented changes in physical and cognitive functioning and social losses, a question about the emotional well-being in old age arises: Do the increasing health risks and social losses in older individuals lead to a decline in emotional well-being? Surprisingly, recent findings suggest that emotional well-being in old age remains relatively intact (e.g., Diener & Suh, 1997; Horley & Lavery, 1995; Larson, 1978; Smith, Fleeson, Geiselmann, Settersten, & Kunzmann, 1999). Empirical support for this “paradoxical” (Baltes & Baltes, 1990; Brandstädter & Greve, 1994; Filipp, 1996; Staudinger, Marsiske, & Baltes, 1995) pattern of the relationship between age and well-being consistently displays that older adults fare well emotionally.

However, it is still unclear whether the underlying mechanisms of emotional well-being remain stable throughout adulthood. For example, Ryff (1989) reported that views on positive functioning among middle-aged and older adults reflected both developmental variation and invariance. Both middle-aged and older adults responded that “others orientation,” namely, being a caring person and having a good relationship with others, is a key feature of a well-adjusted and mature person. At the same time, older adults emphasized “accepting changes” as the second most important quality of positive functioning, whereas middle-aged adults underscored self-confidence and self-acceptance, suggesting a difference in the conceptual prerequisites of well-being throughout adulthood.

Psychological needs and emotional well-being

In an earlier investigation of the role of needs in emotional well-being, Omodei and Wearing (1990) assessed need-satisfaction in relation to well-being. They developed single-item phrases for creativity, self-esteem, personal control, purpose and meaning, and 20 of Murray’s (1938) needs selected in the previous literature (Jackson, 1984). They retained only the items that were associated with either positive or negative affect with correlations greater than .20, and identified 15 psychological needs including creativity, self-esteem, control, purpose and
meaning, achievement, affiliation, change, cognitive structure, exhibition, impulsivity, play, sentience, social recognition, succorance, and understanding. They found the satisfaction of these needs was related to subjective well-being, and proposed a need-satisfaction model of subjective well-being.

Sheldon, Ryan, and Reis (1996) also examined the link between psychological need and emotional well-being. Sheldon et al. found that the satisfaction of autonomy and competence was related to well-being both at trait and state levels. At the same time, the degree of satisfaction of competence and autonomy needs was predictive of daily well-being. Reis, Sheldon, Gable, Roscoe, and Ryan (2000) extended Sheldon et al.’s findings to the satisfaction of relatedness need. They argued that autonomy, competence, and relatedness are the most important psychological needs associated with psychological well-being, and that the satisfaction of important psychological needs is critical in predicting emotional well-being.

More recently, Sheldon, Elliot, Kim, and Kasser (2001) expanded the list of psychological needs to ten needs: autonomy, competence, relatedness, physical thriving, security, self-esteem, self-actualization, pleasure-stimulation, money-luxury, and popularity-influence. They evaluated the relative importance of each psychological need in satisfactory experiences among American and South Korean college students, and reported that autonomy, competence, relatedness, and self-esteem needs were the key determinants of satisfying experiences for both Americans and Koreans. One notable difference between American and Korean participants was that satisfaction of self-esteem need was the strongest predictor of positive affect among Americans, whereas satisfaction of relatedness need was the strongest predictor of positive affect among Koreans. In other words, Sheldon et al.’s findings reflected the universal importance of autonomy, competence, relatedness, and self-esteem as well as some cultural variation in the relative importance of self-esteem and relatedness needs.

The Present study

One limitation of the previous cross-cultural studies in this area (Diener & Diener, 1995; Oishi et al., 1999; Sheldon et al., 2001) is that comparisons were made between college students in different nations. To test the universality of a theory, however, it is critical to subject the theory to cultural comparisons beyond college students, as salient needs might be different depending on the stage of life (Ryff, 1989). The present study was designed to address this limitation of the previous research. Specifically, we examined the role of ten psychological needs in the emotional well-being of older and younger individuals in the U.S. and South Korea. Inspired by the previous literature on cross-cultural variations of needs (e.g., Heine, 1997), samples representing distinct cultural traditions were selected to test the cross-cultural replicability for the identified needs. Participants of varying ages and different cultural backgrounds were given the list of the ten candidate needs, and asked to evaluate the relevance of those needs in their satisfactory experiences. This procedure allows us (a) to identify the underlying psychological needs in emotional well-being, (b) to explore the age differences of the underlying needs in emotional well-being, and (c) to test the universality or cultural variations of the role of needs in emotional well-being.

Method

Participants

Participants were recruited from the US and South Korea. In US, participants were recruited from Minneapolis-St. Paul metropolitan area, MN. In South Korea, participants were recruited from Seoul. Older adults were recruited from community centers, churches, and with snowball technique. Younger adults were recruited using flyers and advertisements on the
electronic bulletin boards in university campuses. No external compensation had been provided, and participation of this study was strictly voluntary. Demographic information of the participants in the US and South Korea is presented in Table 1.

**Measures and Procedures**

*Need-Satisfaction Questionnaire.* Participants completed the need-satisfaction questionnaire developed by Sheldon et al. (2001). Following Sheldon et al.’s procedure, participants were instructed at the beginning of the questionnaire to think about the “most satisfying event for the past month.” Participants were then asked to rate the relevance of the 30 descriptive statements of psychological needs “during this event,” from 1 (not at all) to 5 (very much). The 30 descriptive statements were composed of 10 needs categories, each of which consists of 3 need-satisfaction items (e.g., feeling that they have many positive qualities for self-esteem; feeling that their choices reflect their true interests for autonomy; feeling that they can complete difficult tasks for competence; feeling connected with people around them for relatedness; feeling a sense of deeper purpose of life for self-actualizing-meaning; feeling a sense of physical well-being for physical thriving; feeling new sensations for pleasure-stimulation; feeling that they can buy most of the things they want for money-luxury; feeling that their lives are structured and predictable for security; feeling that other people respect their advices for popularity-influence.)

*PANAS.* After completing the need-satisfaction questionnaire, participants were asked to rate the extent to which they felt positive and/or negative affect during the event using the Positive Affect Negative Affect Scale (*PANAS*; Watson, Tellegen, & Clark, 1988), from 1 (not at all) to 5 (very much). The *PANAS* contains affect adjective items such as interested, ashamed, scared, and attentive. Positive and negative affects were computed by averaging the ratings of the items in each affect category.

*Translation of the measures.* All instruments were provided to the participants in their native languages. For the Korean version of the measures, the original measures were translated by Jungwon Hahn, a native Korean. A back-translation was then conducted by a second English-Korean bilingual.

**Results**

*Mean differences in the salience of needs*

Table 2 presents the means and standard deviations of need salience across the whole sample. When ignoring age and cultural factors, relatedness, autonomy, and self-esteem emerged as the most important needs in our participants, replicating Sheldon et al.’s (2001) study which also found these three needs at the top of the list. Competence emerged in the second position, as in Sheldon et al.’s study. Tied with competence did we find self-actualizing need, which was ranked lower in Sheldon et al.’s study. Pleasure-stimulation, popularity-influence, physical thriving, and security needs were in the third position, followed by money-luxury need. With an exception of the rising importance of self-actualizing, the hierarchy of the need salience was very similar to that of Sheldon et al.’s findings, replicating the importance of relatedness, autonomy, and self-esteem needs.

Table 3 presents the means and standard deviations of need salience for different age and cultural groups. Differences between the age and cultural groups were tested using Tukey’s HSD (p < .05). For all four samples, relatedness, autonomy, self-esteem, and self-actualizing were the most salient needs. In older adults groups, relatedness was the most salient need in both American and Korean samples, whereas self-esteem and autonomy were the two most salient needs for younger adult groups in both American and Korean samples.
Next, we predicted each need separately using ANOVA specifying culture (U.S. Vs. Korea) and age (Old Vs. Young) as two between-subjects factors to test how levels of need vary by age, culture, and their interaction. Age made significant differences on the levels of relatedness ($F = 9.464, p < .01, \eta^2 = .04$), physical thriving ($F=14.978, p < .001, \eta^2 = .07$), Money-luxury ($F = 6.447, p < .05, \eta^2 = .03$), security ($F=18.607, p < .001, \eta^2 = .08$), and popularity-influence ($F = 9.702, p < .01, \eta^2 = .04$). That is, old participants perceived the importance of these needs significantly more than young participants. Culture made significant differences on the levels of autonomy ($F = 6.186, p < .05, \eta^2 = .03$), competence ($F = 9.828, p < .012, \eta^2 = .048$) and self-esteem ($F = 16.787, p < .001, \eta^2 = .07$), indicating that American participants perceived these needs more salient in their satisfying events than Koreans. Interactional effect of age and culture was found to be significant on competence ($F = 7.180, p < .01, \eta^2 = .035$).

Relations between need satisfaction and event-related affect

Table 4 presents the correlations of each of the 10 needs with event-related positive and negative affect across the sample. All ten needs showed significant correlations with participants’ positive affect, which is generally similar to the findings from Sheldon et al.’s (2001) study. An exception here was the high correlation between the need for money-luxury and the positive affect. Relatedness was associated with both positive ($r = .31, p < .01$) and negative affect ($r = -.17, p < .05$), similar to the previous literature. No other needs were associated significantly with negative affect.

To examine the relative importance of the ten psychological needs to event-related affect, we performed simultaneous regression analyses in which event-related positive and negative affect were set up as dependent variables and predicted by the ten needs that were entered with stepwise fashion. When considering all age and cultural groups, self-esteem ($\beta = .293, p < .01$), autonomy ($\beta = .207, p < .01$), pleasure-stimulation ($\beta = .218, p < .01$), and competence ($\beta = .133, p < .01$) emerged as significant predictors of positive affect. As for the negative affect, relatedness ($\beta = .163, p < .05$) was the unique predictor of negative affect, suggesting its potential buffering effect to the negative affect.

We also tested the relative contribution of each need in experiencing positive and negative affect in different age and cultural groups. Pleasure-stimulation ($\beta = .405, p < .01$), and self-esteem ($\beta = .338, p < .05$) emerged as significant predictors for American older adults’ positive affect, and self-esteem ($\beta = .678, p < .001$) was a single significant predictor for American younger adults’ positive affect. In the Korean sample, age-related change of the relative importance of needs was observed. Self-actualizing-meaning ($\beta = .458, p < .001$) and popularity-influence ($\beta = .377, p < .01$) were the strongest predictors of older adults’ positive affect. Conversely, pleasure-stimulation ($\beta = .374, p < .01$) and autonomy ($\beta = .314, p < .05$) were the significant predictors of Korean younger adults’ positive affect. Note that the need for self-esteem predicts positive affect in the American sample for both older and younger adult groups, but not for the Korean sample. With regard to negative affect, no significant effect of psychological need was found in the American older adult sample. In the American younger adult group, money-luxury ($\beta = .379, p < .01$) was positively associated with negative affect, and popularity-influence ($\beta = -.331, p < .05$) was negatively associated with negative affect, consistent with the “dark side” hypothesis of Kasser and Ryan (1996). For the Korean sample, popularity-influence ($\beta = .341, p < .05$) emerged as a significant predictor of negative affect for the older sample, and physical thriving ($\beta = -.355, p < .01$), self-actualizing-meaning ($\beta = .395, p$
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<.001), and pleasure-stimulation ($\beta = -0.353$, $p < .01$) contributed to younger adults’ negative affect, which again illustrates the age-related shift of the importance of needs.

We subsequently performed a series of regression analyses to test for the interactions between culture and needs as well as interactions between age and needs in relation to the positive and negative affect. To perform the regression analyses, two dummy variables were created to code culture and age groups (US = 1, Korean = -1; old age group = 1, young age group = -1). In the regression to test the interaction of culture x need, positive and negative affect were predicted by each need along with interaction terms of needs x culture. Within the older age group, the interaction of self-actualizing-meaning x culture on the positive affect was significant ($\beta = -0.632$, $p < .05$), and the interaction of popularity-influence x culture on positive affect was marginally significant ($\beta = -0.564$, $p = .069$), suggesting that Korean older adults perceived the role of the self-actualizing-meaning and the popularity-influence more importantly than American older adults in their positive affect. As for the negative affect, interaction terms were generally not significant. Within the younger age group, the interaction of self-esteem x culture on positive affect emerged as significant ($\beta = 1.662$, $p < .001$), suggesting that American younger adults perceived the role of the self-esteem more strongly than Korean younger adults. For the negative affect, interaction terms of culture x competence ($\beta = -0.728$, $p < .05$), culture x physical thriving ($\beta = 0.568$, $p < .05$), culture x money-luxury ($\beta = 0.706$, $p < .01$), and self-actualizing-meaning ($\beta = -0.895$, $p < .05$) were significant, and an interaction of culture x popularity-influence was marginally significant ($\beta = -0.576$, $p = .068$). That is, Korean younger adults perceived the role of competence and self-actualizing-meaning more importantly than American younger adults. Also, physical thriving and money-luxury contributed significantly more to American younger adults’ negative affect than they did to Korean younger adults’ negative affect.

Next, interaction of needs and age on the experience of positive and negative affect were examined. Within the American sample, none of the interaction terms were significant on event-related positive and negative affect. However, within the Korean sample, interaction between age and relatedness ($\beta = 1.180$, $p < .01$), age and security ($\beta = 0.838$, $p < .05$), age and self-esteem ($\beta = 1.322$, $p < .05$), age and popularity-influence ($\beta = 0.924$, $p < .01$), and age and self-actualizing-meaning ($\beta = 1.269$, $p < .01$) showed significant influences on the experience of positive affect. Also, the interaction of age x pleasure-stimulation ($\beta = 0.580$, $p < .05$) was significant on negative affect, reflecting the distinctive contribution of each need in different age on the affective experience within Korean sample.

Discussion

The primary goal of this study was to examine the universality of self-determination theory (Deci & Ryan, 1991), which posits the need for autonomy, competence, and relatedness as key needs in daily well-being, across lifetime and cultures. Our findings generally provide support for the relevance of these three needs to the “most satisfying event” across ages and cultures. As in Sheldon et al. (2001), however, there were some cultural differences in the relative importance of specific needs. For Americans, the most important need to be satisfied was self-esteem, regardless of their age. By contrast, for older Koreans, the most important needs to be satisfied were self-actualizing-meaning and popularity-influence; for younger Koreans, most important was the need for autonomy. Thus, it appears that the three basic needs proposed by self-determination theory are important in young and old, and American and Korean
samples. At the same time, the relative importance of the needs for self-esteem and self-
actualizing was different across cultures and various age groups.

Another culture-specific variation was observed with regard to the relationship between
the need for money-luxury and affect, and its interaction with culture and age. Consistent with
Kasser and Ryan (1993, 1996), the need for money-luxury was associated with negative affect
among the younger American sample. However, within the Korean samples, this relation
between money-luxury and negative affect did not emerge in both young and old age groups.
Oishi et al. (1999, Study 1) found that financial satisfaction was a stronger predictor in nations
low in GNP than in nations high in GNP. Thus, this difference could be due to the fact that
money is a more salient need for Koreans than for Americans.

In terms of the age difference in each culture, a large difference was found within the
Korean sample. Although the basic needs were found to be important in the satisfying experience
for both age groups, the ordering of the needs was largely different, and the contribution of other
needs varied greatly. Most notably, self-actualizing-meaning as well as popularity-influence
were associated strongly with Korean older adults’ positive affect, which was not the case for
Korean younger adults as well as American older adults. Popularity-influence predicted negative
affect as well as positive affect of Korean older adults. This unique pattern may be best
explained by the Korean cultural tradition, which emphasizes order and hierarchy in human
relationships (Cha, 1994). Influenced strongly by Confucianism, the Korean culture enforces
order between senior and junior cultural members, and strong family ties and respect for
authority are greatly valued. As a result, Koreans have strictly obliged the veneration of the
elderly through generations. The elderly have been honored as “elders,” as a guide for the
younger generations, and “wisdom of age” has been highly respected. Hence, older Koreans who
tend to have pride in their “elder” status may view the satisfaction of self-actualization and
popularity-influence needs as key conditions for a satisfying experience. At the same time, the
very thought of their impact on younger generations may accompany feelings of responsibility
and concerns for younger generations, as well as pride as a guide for them.

Before closing, limitations of the present study should be noted. First, our samples were
samples of convenience. The younger participants were mostly college students, who were easily
accessible. Thus, generalizability of the present findings is limited. Second, the socioeconomic
status was not matched between American and Korean samples, thus possible differences in
socioeconomic status may have affected our findings, especially the relationship between the
need for money-luxury and affect. Third, since we have used a cross-sectional design, it is
unclear whether the age difference observed in this study actually reflects the developmental
changes. It might be that the differences found in this study reflect the characteristics of certain
age cohorts. These limitations should be considered in future research.
References
Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial...


Table 1

*Characteristics of cultural and age groups*

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>%Women</th>
<th>Age</th>
<th>Years of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americans – Old</td>
<td>49</td>
<td>69.4</td>
<td>73.7</td>
<td>14.54</td>
</tr>
<tr>
<td>Americans – Young</td>
<td>55</td>
<td>54.6</td>
<td>22.3</td>
<td>15.61</td>
</tr>
<tr>
<td>Koreans – Old</td>
<td>47</td>
<td>72.3</td>
<td>69.7</td>
<td>13.33</td>
</tr>
<tr>
<td>Koreans – Young</td>
<td>50</td>
<td>40.0</td>
<td>21.7</td>
<td>15.76</td>
</tr>
</tbody>
</table>
Table 2

*Mean Salience of Each Need within All Samples (N = 201)*

<table>
<thead>
<tr>
<th>Needs</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatedness</td>
<td>3.73</td>
<td>.97</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.70</td>
<td>.97</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>3.68</td>
<td>1.01</td>
</tr>
<tr>
<td>Self-actualizing-meaning</td>
<td>3.40</td>
<td>1.04</td>
</tr>
<tr>
<td>Competence</td>
<td>3.28</td>
<td>1.01</td>
</tr>
<tr>
<td>Pleasure-Stimulation</td>
<td>3.03</td>
<td>1.05</td>
</tr>
<tr>
<td>Popularity-influence</td>
<td>2.95</td>
<td>.98</td>
</tr>
<tr>
<td>Physical thriving</td>
<td>2.93</td>
<td>1.01</td>
</tr>
<tr>
<td>Security</td>
<td>2.88</td>
<td>1.05</td>
</tr>
<tr>
<td>Money-luxury</td>
<td>2.42</td>
<td>1.10</td>
</tr>
</tbody>
</table>

*Note.* Means not sharing subscripts are significantly different from each other at $p \leq .01$. Means could range from 1.00 from 5.00.
Table 3

<table>
<thead>
<tr>
<th>Needs</th>
<th>Old Americans</th>
<th>Young Americans</th>
<th>Old Koreans</th>
<th>Young Koreans</th>
<th>$F$ (3, 197)</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>3.93 (0.97) $_a$</td>
<td>3.79 (1.02) $_a$</td>
<td>3.55 (1.00) $_a$</td>
<td>3.49 (0.85) $_a$</td>
<td>2.245</td>
<td>.033</td>
</tr>
<tr>
<td>Competence</td>
<td>3.38 (1.16) $_b$</td>
<td>3.60 (0.98) $_b$</td>
<td>3.31 (0.89) $_b$</td>
<td>2.79 (0.85) $_a$</td>
<td>6.251***</td>
<td>.097</td>
</tr>
<tr>
<td>Relatedness</td>
<td>4.14 (1.01) $_b$</td>
<td>3.59 (1.43) $_a$</td>
<td>3.84 (0.84) $_b$</td>
<td>3.39 (1.15) $_a$</td>
<td>3.983**</td>
<td>.057</td>
</tr>
<tr>
<td>Physical thriving</td>
<td>3.13 (1.25) $_{ab}$</td>
<td>2.66 (1.24) $_a$</td>
<td>3.38 (1.05) $_b$</td>
<td>2.61 (0.96) $_a$</td>
<td>5.349***</td>
<td>.076</td>
</tr>
<tr>
<td>Pleasure-Stimulation</td>
<td>3.11 (1.13) $_a$</td>
<td>2.91 (1.01) $_a$</td>
<td>2.96 (1.10) $_a$</td>
<td>3.13 (0.97) $_a$</td>
<td>0.570</td>
<td>.009</td>
</tr>
<tr>
<td>Money-luxury</td>
<td>2.69 (1.29) $_a$</td>
<td>2.28 (1.25) $_a$</td>
<td>2.55 (0.86) $_a$</td>
<td>2.18 (0.85) $_a$</td>
<td>2.350</td>
<td>.035</td>
</tr>
<tr>
<td>Security</td>
<td>3.10 (1.30) $_{bc}$</td>
<td>2.67 (0.94) $_{ab}$</td>
<td>3.30 (0.91) $c$</td>
<td>2.51 (0.81) $_a$</td>
<td>6.675***</td>
<td>.093</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>4.06 (1.01) $_b$</td>
<td>3.84 (1.05) $_{ab}$</td>
<td>3.38 (1.01) $a$</td>
<td>3.40 (0.81) $_a$</td>
<td>5.899***</td>
<td>.083</td>
</tr>
<tr>
<td>Popularity-influence</td>
<td>3.26 (1.09) $_b$</td>
<td>2.83 (1.02) $_{ab}$</td>
<td>3.09 (0.84) $_{ab}$</td>
<td>2.67 (0.84) $_a$</td>
<td>3.702*</td>
<td>.054</td>
</tr>
<tr>
<td>Self-actualizing-meaning</td>
<td>3.43 (1.28) $_a$</td>
<td>3.27 (1.10) $_a$</td>
<td>3.55 (0.82) $_a$</td>
<td>3.39 (0.90) $_a$</td>
<td>0.651</td>
<td>.010</td>
</tr>
</tbody>
</table>

Note. Means not sharing subscripts in each row are significantly different from each other at $p \leq .01$. Means could range from 1.00 from 5.00. Standard deviations were presented in the parenthesis.
Table 4

*Correlation of candidate needs with event-related affect: All Samples*

<table>
<thead>
<tr>
<th></th>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>.43**</td>
<td>-.02</td>
</tr>
<tr>
<td>Competence</td>
<td>.36**</td>
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<tr>
<td>Relatedness</td>
<td>.31**</td>
<td>-.17*</td>
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<tr>
<td>Physical thriving</td>
<td>.21**</td>
<td>-.10</td>
</tr>
<tr>
<td>Pleasure-Stimulation</td>
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<td>-.02</td>
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<tr>
<td>Money-luxury</td>
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<td>Security</td>
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<td>.01</td>
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<tr>
<td>Self-esteem</td>
<td>.48**</td>
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<tr>
<td>Popularity-influence</td>
<td>.34**</td>
<td>-.05</td>
</tr>
<tr>
<td>Self-actualizing</td>
<td>.31**</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Note. N = 201. * p < .05, ** p < .01, ***p < .001*