Generativity and Interaction Between the Old and Young: The Role of Perceived Respect and Perceived Rejection

Megumi Tabuchi, PhD,*1,2 Takeshi Nakagawa,2 Asako Miura, PhD,1,2 and Yasuyuki Gondo, PhD1,2

1Department of Integrated Psychological Science, Kwansei Gakuin University, Nishinomiya, Hyogo, Japan. 2Graduate School of Human Sciences, Osaka University, Suita, Osaka, Japan. *Address correspondence to Megumi Tabuchi, PhD, Department of Integrated Psychological Science, Kwansei Gakuin University, Nishinomiya, Hyogo 662–0891, Japan. E-mail: m.tabuchi@kwansei.ac.jp

Received May 29 2013; Accepted October 8 2013.

Decision Editor: Rachel Pruchno, PhD

Purpose of the Study: We examined the relationships among development of generativity, generative acts, and psychological well-being in old age and the possible mediating effects of perceived rejection and respect from younger generations. We hypothesized that generative action would not lead to well-being unless responding elders perceived respect from younger generations, and, further, that perceived respect would predict the development of generativity.

Design and Methods: In Study 1, we sampled 252 older persons to verify our hypothetical model in a cross-sectional survey. We assessed generative concern, generative action, perceived rejection from younger people, and psychological well-being. In Study 2, the same measures and a new scale to measure perceived respect from younger people were administered in a longitudinal survey. Four hundred older adults responded at 2 time points, 12 months apart.

Results: Path analysis showed that the effect of generative action on ill-being was mediated by perceived rejection and respect from younger generations. Perceived respect from younger generations at baseline predicted an increase in generative concern 12 months later.

Implications: The results suggest that positive intergenerational interaction leads to generativity development and better well-being in old age.

Key Words: Old age, Generativity, Generative acts, Perceived respect from younger generations, Intergenerational interaction

Generativity, described by Erikson (1950, 1963) as a developmental task of middle age, is the concern for contributing to the well-being of others, especially younger generations. During midlife, individuals often broaden their views to include not only care for their own children, but also care for the well-being of other members of future generations. Erikson’s theory posits that the human life cycle evolves through eight sequential stages from infancy.
to late adulthood according to biologically and culturally determined timing. Generativity is the seventh-stage task, with an increase in generativity leading to the achievement of ego integrity, the task of the eighth and final stage. Generativity is now an important life goal beyond the middle-aged years because the current trend of delaying marriage and childbearing means that many adults do not finish their parental duties until after middle age. In addition, health care improvements and longer life spans have made it possible for individuals to spend more years with their grandchildren and other members of younger generations (Cheng, 2009).

Previous studies showing that the development of generativity leads to well-being in old age have focused on age-related individual changes in generativity (Bradley, 1997; Christiansen & Palkovitz, 1998; Kotre, 1984; Peterson & Klohnen, 1993; Peterson & Stewart, 1990). However, when discussing the continuous development of generativity across the life span, social contexts should also be taken into account. Erikson (1950) argued that intergenerational “mutuality,” or intergenerational interactions in a social context outside of childbearing and parenting, is an important factor for the development of generativity.

According to previous studies, higher levels of generative concern and a greater frequency of generative acts lead to higher levels of psychological well-being in old age (An & Cooney, 2006; Figure 1, top). However, other studies have found that generative acts do not always lead to enhanced well-being, despite the strong correlation of well-being with generative concern (Grossbaum & Bates, 2002; McAdams & de St. Aubin, 1992). Cheng (2009) proposed a more complex model by including the actor’s perception of the recipient’s attitude and reported that older people’s generative acts lead to psychological well-being when they perceive respect from younger recipients (Figure 1, bottom). This “perception of recipient’s attitude model” indicates the importance of a welcoming, grateful attitude from others as a mediator between generative acts and psychological well-being. In the previous model, generative acts have a direct effect on psychological well-being, whereas in the revised model, perception of the younger generations’ attitudes mediate between generative acts and well-being. That is, if older adults feel that their generative actions are rejected by younger people, their positive well-being is lower and ill-being is higher. If they feel respected, their well-being is higher and their ill-being is lower.

The perception of younger generations’ attitudes could also influence psychological development in old age. The importance of social and intergenerational interactions for the development of generativity has been mentioned in some studies (Erikson, 1950; Morgan, Schuster, & Butler, 1991; Stewart & Vandewater, 1998). Using longitudinal data, Cheng (2009) reported that perceived respect from younger generations influences the continuous development of generative concern and action in older adults. As defined by McAdams and de St. Aubin (1992), generative concern is a psychological dimension, a part of one’s personality. Thus, the finding that perception of younger generations’ attitudes affected not only concrete acts but also the development of generative concern, which was hitherto thought to be highly stable, is notable in Cheng’s (2009) report.

In this investigation, we examined the influence of the perception of younger generations’ attitudes on both psychological well-being and the development of generativity in older adult respondents. In Study 1, a cross-sectional survey was used to investigate the influence of perceived rejection on older adult respondents’ psychological well-being. In Study 2, a longitudinal survey was conducted to test the hypothesis that perceived rejection and respect would influence not only generative acts but also the development of generativity.

**Study 1: Cross-Sectional Study**

The aim of this study was to verify Cheng’s (2009) hypothetical model. We hypothesized that higher levels of generative concern would lead to more frequent generative actions; however, if older adults perceive rejection from younger generations, these generative actions would not lead to better psychological well-being. For this reason, perceived rejection was expected to mediate the relationship between generative actions and well-being. We assessed emotional well-being, which consists of positive and negative dimensions as a part of a measure of psychological well-being. The positive and negative dimensions of well-being have been analyzed separately in previous studies (Mroczek, 2001) because they relate in different ways to psychological
development. Both cross-sectional and longitudinal analyses have shown that negative emotional aspect is affected by levels of functional constraints and psychological adaptations, whereas positive emotional aspect shows relative stability regardless of functional and psychological variables (Isaacowitz & Smith, 2003; Kunzmann, Little, & Smith, 2000). We therefore analyzed Cheng's model separately for positive and negative dimensions of well-being.

**Method**

**Participants and Procedure**
Three hundred and ninety people were recruited conveniently from two social centers for older persons in Japan. Two hundred and fifty-two Japanese persons older than 60 years completed the questionnaires (collection rate: 64.62%). The sample had a mean age of 66.13 (SD = 3.87) years, and there were more women (51.6%) than men. The majority of the participants lived with their spouses (87.7%).

**Measures**

**Perceived Rejection From Younger Generations**
The Perceived Respect Scale (Cheng, 2009) was used to evaluate perceived rejection from younger generations. The Chinese version of this scale was administered to a sample of Hong Kong participants, and the results were reported in English (Cheng, 2009). We translated and used this scale in the Japanese language. Although this scale was developed to evaluate the degree of perceived respect from younger generations, 13 of 15 items assess perceived rejection (e.g., “I have no way of getting younger generations to accept my guidance,” “The younger generations do not like ‘old people’s ways’ of seeing and doing things,” “The younger generations do not appreciate my thoughts and concern for them”). Items are rated on a 5-point Likert-type scale ranging from 1 (never applies to me) to 5 (very often applies to me). The alpha coefficient was .76. Five items are reverse scored, and all items are summed. Higher scores indicate the presence of more generative concern.

**Generative Acts**
The generative acts checklist contains 18 items rated on a 5-point scale from 1 (never) to 5 (very often). These items correspond to the five aspects of generativity (McAdams & de St. Aubin, 1992), namely, (a) passing on knowledge; (b) making significant contributions for the betterment of one’s community; (c) doing things that will be remembered for a long time; (d) being creative and productive; and (e) caring for and taking responsibility for other people. The alpha coefficient was .88. All item scores are summed, and higher scores indicate more frequent engagement in generative acts.

**Psychological Well-Being**
The Japanese version of the Emotional Well-Being Scale (Mroczek & Kolarz, 1998; Nakahara, 2011) was used to assess positive and negative emotional dimensions of psychological well-being. Participants were asked to rate their positive and negative emotions during the past month. Six of 12 items measure positive emotions (e.g., “cheerful,” “satisfied”), and six measure negative emotions (e.g., “so sad nothing could cheer you up,” “nervous”). Each item is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scores for positive and negative emotions were summed separately. The total score for positive emotions was termed “positive well-being,” and the total score for negative emotions was termed “ill-being.” The alpha coefficients were .84 for positive well-being and .78 for ill-being.

**Data Analysis**
The model was estimated with maximum likelihood estimation of path coefficients using Amos software, version 19.0 (SPSS, Chicago, IL). All variables in the model were treated as observed variables in the analysis. In keeping with recent evaluations of goodness-of-fit indices, we have reported the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). Recommended cutoff values for these fit indices are values of 0.95 or more for the CFI and values of 0.10 or less for the RMSEA. We also conducted a mediation analysis using three of the four variables (generative acts, perceived rejection, and emotional well-being).

**Results and Discussion**
The results of the path analysis are shown for positive well-being and ill-being in Figure 2A and 2B, respectively.
Most of the goodness-of-fit estimates yielded in the initial test of this model indicated a good fit of the model to the data (CFI = 0.98, RMSEA = 0.054, Figure 2A; CFI = 0.89, RMSEA = 0.043, Figure 2B). Figure 2A shows that higher generative concern led to more frequent generative acts (β = 0.59, p < .01), but perceived rejection from younger generations did not mediate the relationship between generative acts and positive well-being. On the other hand, Figure 2B shows that perceived rejection did mediate the relationship between generative acts and ill-being.

A regression analysis was conducted to further examine the role of perceived rejection on the relationship between generative acts and psychological well-being as a moderator. The predictors were generative acts, perceived rejection, and the interaction between generative acts and perceived rejection. When the dependent variable was positive well-being, generative acts significantly predicted higher positive well-being (β = 0.25, p < .01), but perceived rejection did not predict positive well-being (β = 0.05, ns), and the interaction between generative acts and perceived rejection was not significant (β = 0.01, ns). However, when the dependent variable was ill-being, generative acts (β = −0.24, p < .01) and perceived rejection (β = 0.32, p < .01) significantly predicted greater ill-being, and the interaction between generative acts and perceived rejection was marginally significant (β = 0.09, p < .10). Like the path analysis, these results indicate the effect of perceived rejection on greater ill-being.

Our hypothetical model could be verified only when ill-being was an outcome variable, perhaps because of the stability of positive emotional well-being. Previous studies have shown that positive emotion does not change when a person is under high stress, whereas negative emotion is labile and changes under environmental influences (Isen, 2003). Therefore, the stress of perceived rejection by members of younger generations would be expected to have little effect on positive emotions. However, it is possible that the results were affected by methodological flaws in Study 1, in which we conducted a cross-sectional survey and did not examine longitudinal effects of perceived rejection on positive emotion. Moreover, the results could be a consequence of the Perceived Rejection Scale’s emphasis on negative emotions. If so, then perceived rejection scores would be directly connected with ill-being. In order to address these possible shortcomings, we carried out a longitudinal study using an additional measure for perceived respect.

### Pilot Study: Development of Items

Two items of the Perceived Respect Scale used by Cheng (2009) assess respect (e.g., “I am helpful in the eyes of my neighbors”), and 13 items assess rejection (e.g., “I wish to help the next generation but they do not appreciate it”). We therefore used this scale to measure perceived rejection in Studies 1 and 2 and developed a new scale to measure perceived respect.

In the pilot study, we administered a free-response questionnaire with the question, “Under what situations do you feel that younger generations respect or welcome you?” to 76 older adults in a life-span educational center. The sample had a mean age of 67.15 (SD=6.23) years. Perceived respect situations (125 in total) were extracted from the descriptions and classified into seven categories: (a) transmission of knowledge and experience, (b) advice from their experiences, (c) teaching about traditional events or foods, (d) business advice, (e) volunteer activities for younger people, (f) success in one’s field, and (g) support for younger persons in need. We used these categories to develop seven items to measure perceived respect from younger people (e.g., “I’m appreciated by younger people when I share my experience and knowledge,” “When helping younger generations in need, I am respected”).

### Study 2: Model Confirmation Through a Longitudinal Survey

The aims of the second study were to determine the influence of perceived rejection and respect from younger generations (a) on emotional well-being and (b) on the longitudinal development of older adult respondents’ generativity.

### Study Hypotheses

First, we reasoned that older adults’ generative acts would not predict psychological well-being unless they perceived...
respect from younger generations; perceiving respect would lead to higher positive emotional well-being and lower ill-being, whereas perceiving rejection would lead to lower positive emotional well-being and higher ill-being. Thus, we hypothesized that perceived rejection and respect would mediate the relationship between generative acts and psychological well-being.

Second, we hypothesized that perceiving rejection would inhibit the development of generativity. Perceived rejection from younger generations would decrease the generative concern of older adults and, consequently, their generative actions would not continue.

Method

Participants

The participants of Study 2 were 1,250 members of the alumni association of a life-span education program in Japan. We considered this sample to be especially appropriate for this study because many of the participants were involved in volunteer activities and thus had more opportunities, compared with the general population, to interact with younger people.

Procedure

Two mail surveys were conducted 12 months apart. First, we explained the purpose of the study to the group administrators and obtained their consent. We then enclosed the questionnaire, information about the survey, and return envelopes with the association’s newsletter, which is sent to group members at regular intervals. In the enclosed letter, the participants were told that their survey responses were anonymous and confidential. They were asked to return the questionnaire within 1 month after receiving it. The Time 1 (T1) survey was conducted in July 2010 and the Time 2 (T2) survey in July 2011. We also requested demographic information about sex, age, birth date, and hometown from participants in order to identify those who answered both the T1 and T2 surveys.

We received written informed consent and completed responses from 556 older adults at T1 (collection rate: 44.48%) and 623 older adults at T2 (collection rate: 49.84%). We matched T1 data with T2 data using the four demographic variables and obtained panel data from 400 respondents. The panel sample had a mean age of 71.92 years (SD = 12.03; range = 62–87), with more men (60.6%) than women (39.4%) participating. A majority (81.7%) of participants lived with their spouse, but only 39.3% of the participants had a high school diploma or equivalent. The matched individuals did not differ from the unmatched individuals by gender, educational level, or residential status. Fisher exact test detected no significant differences in gender, educational level, and residential status between the Study 1 and Study 2 samples.

Measures

Perceived Respect From Younger Generations

The scale developed in the pilot study contains seven items (e.g., “I’m appreciated by young people when I share my experience and knowledge” and “When helping younger generations in need, I am respected”), each of which is rated on a 5-point Likert scale from 1 (never applies to me) to 5 (very often applies to me). The alpha coefficients were .86 at T1 and .88 at T2.

Perceived Rejection From Younger Generations

The 15-item scale used in Study 1 was also used in Study 2 to evaluate perceived rejection by younger generations. As in Study 1, two items were reverse scored and all 15 items were summed. The alpha coefficients were .90 at T1 and .84 at T2.

Remaining Measures

The same measures used in Study 1 were used in Study 2 to assess generative concern (alpha coefficients: .71 at T1 and .75 at T2), frequency of generative acts (alpha coefficients: .85 at T1 and .90 at T2), and psychological well-being (T1 positive and ill-being alpha coefficients: .87 and .72, respectively; T2 positive well-being and ill-being alpha coefficients: .85 and .73, respectively).

Data Analysis

The theoretical model was tested with causality analysis, with separate analyses for perceived rejection and respect and emotional positive well-being and ill-being. Generative concern, generative acts, and perceived rejection and respect from younger people were treated as antecedent factors for psychological well-being. Generative concern was an antecedent for generative acts, which, in turn, was an antecedent for perceived rejection and respect. In addition, T2 generative concern was predicted by T1 perceived rejection and respect to determine if perceived respect from younger generations would lead to subsequent generativity development and if perceived rejection would lead to stagnation.

The model was estimated with the maximum likelihood estimation of path coefficients using Amos software, version 19.0 (SPSS, Chicago, IL). All variables in the model were treated as observed variables in the analysis. Following current consensus on goodness-of-fit indexes, we have reported the chi-square statistic, CFI, and RMSEA. Recommended cutoff values for these indices are .95 or more for the CFI and 0.10 or less for the RMSEA.
Results

Preliminary Analyses
Two sets of preliminary analyses were conducted. First, we generated descriptive statistics, which are presented in Table 1. The differences between the longitudinal sample (n = 400) and participants excluded from the analysis for having data for only one time point (T1: n = 156, T2: n = 223) were not significant for generative concern (T1: t(371) = 1.58, p = .19; T2: t(386) = 1.51, p = .13) or generative acts (T1: t(362) = 1.67, p = .10; T2: t(387) = 1.88, p = .07). Second, we examined the intercorrelations among the study variables, also shown in Table 1. Generative concern was moderately correlated with generative acts at the same time points (T1: r = 0.67, p < .01; T2: r = 0.63, p < .01) and weakly correlated with psychological positive well-being (T1: r = 0.27, p < .01; T2: r = 0.23, p < .01). At T2, the correlation between generative concern and ill-being was not significant (r = -0.08, ns). Generative acts were weakly correlated with positive well-being at T1 (r = 0.28, p < .01) and T2 (r = 0.23, p < .01) but were not correlated with ill-being at either time point. All variables at T1 had moderate to strong correlations with the corresponding variables at T2 (minimum r = 0.60, p < .01; maximum r = 0.81, p < .01).

Evaluating the Causality Model I: Perceived Rejection Models
The models that included perceived rejection as the mediating factor between generative acts and ill-being are shown in Figure 3. Most of the goodness-of-fit estimates yielded in the initial test of these models indicated a good fit of the model to the data (CFI = 0.961, RMSEA = 0.083, Figure 3A; CFI = 0.956, RMSEA = 0.081, Figure 3B). Figure 3A illustrates the predicted causal connections. That is, higher generative concern led to more frequent generative acts (β = 0.22, p < .001). A greater frequency of generative acts reduced ill-being, which was mediated by less perceived rejection from younger generations. In contrast, perceived rejection from younger people did not mediate the relationship between generative acts and positive well-being, as shown in Figure 3B.

In addition, we conducted a regression analysis using the data from T2 to examine the role of perceived rejection on the relationship between generative acts and psychological well-being as a moderator. When the dependent variable was positive well-being, generative acts significantly predicted higher positive well-being (β = 0.27, p < .01), but perceived respect did not predict positive well-being (β = 0.03, ns) and the interaction between generative acts and perceived respect was not significant (β = 0.01, ns). On the other hand, when the dependent variable was ill-being, generative acts (β = 0.28, p < .01) but perceived rejection did not predict positive well-being (β = 0.01, ns) and the interaction between generative acts and perceived rejection was not significant (β = 0.008, ns). On the other hand, when the dependent variable was ill-being, generative acts (β = -0.27, p < .01) and perceived rejection (β = 0.30, p < .05) significantly predicted greater ill-being and the interaction between generative acts and perceived rejection was marginally significant (β = 0.07, p < .10). Thus, regression analysis showed, like path analysis, that the effect of perceived rejection was significant only on greater ill-being.

Finally, older adults who perceived rejection from younger people at T1 tended to show a lower level of generative concern (β = -0.09, p < .01) and a lower frequency of generative acts (β = -0.22, p < .10) at T2.

Evaluating the Causality Model II: Perceived Respect Models
The perceived respect models are presented in Figure 4. Most of the goodness-of-fit estimates yielded in the initial test of these models indicated a good fit of the model to the data (CFI = 0.958, RMSEA = 0.083, Figure 4A; CFI = 0.955, RMSEA = 0.081, Figure 4A). Figure 4A illustrates the predicted causal connections. That is, higher generative concern led to more frequent generative acts. A higher frequency of generative acts reduced ill-being through the mediation of perceived respect from younger generations. On the other hand, as shown in Figure 4B (and similar to Figure 3B), perceived respect from younger people did not mediate the relationship between generative acts and positive well-being.

In addition, we conducted a regression analysis using the data from T2 to examine the role of perceived respect on the relationship between generative acts and psychological well-being as a moderator. When the dependent variable was positive well-being, generative acts significantly predicted higher positive well-being (β = 0.27, p < .01), but perceived respect did not predict positive well-being (β = 0.03, ns) and the interaction between generative acts and perceived respect was not significant (β = 0.01, ns). On the other hand, when the dependent variable was ill-being, generative acts (β = -0.28, p < .01) and perceived respect (β = 0.15, p < .05) significantly predicted lower ill-being, and the interaction between generative acts and perceived respect was marginally significant (β = 0.08, p < .10). As was the case in the path analysis, regression analysis showed that the effect of perceived respect was significant only on lower ill-being.

As hypothesized, older adults who perceived respect from younger people at T1 showed a higher level of generative concern (β = 0.13, p < .01) and a higher level of generative acts (β = 0.20, p < .01) at T2.

General Discussion
We used a cross-sectional survey to examine the effects of perceived rejection from younger generations on
Table 1. Correlations of Scores for Generative Concern, Generative Acts, Perceived Rejection, Perceived Respect, and Positive Well-Being and Ill-Being at Time 1 and Time 2 in Study 2

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Generative concern</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Generative acts</td>
<td>.67*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived rejection from young</td>
<td>-.50**</td>
<td>-.39**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perceived respect from young</td>
<td>.43**</td>
<td>.51**</td>
<td>-.29**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Positive well-being</td>
<td>.27**</td>
<td>.28**</td>
<td>-.27**</td>
<td>.15*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ill-being</td>
<td>-.10*</td>
<td>-.04</td>
<td>.39**</td>
<td>-.12*</td>
<td>-.35**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Generative concern</td>
<td>.81**</td>
<td>.62**</td>
<td>-.46**</td>
<td>.45**</td>
<td>.24**</td>
<td>-.12*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Generative acts</td>
<td>.63**</td>
<td>.80**</td>
<td>-.35**</td>
<td>.53**</td>
<td>.25**</td>
<td>-.08</td>
<td>.69**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Perceived rejection from young</td>
<td>-.46**</td>
<td>-.37**</td>
<td>.76**</td>
<td>-.27**</td>
<td>-.42**</td>
<td>.31**</td>
<td>-.52**</td>
<td>-.38**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Perceived respect from young</td>
<td>.47**</td>
<td>.47**</td>
<td>-.32**</td>
<td>.63**</td>
<td>.10*</td>
<td>.04</td>
<td>.49**</td>
<td>.58**</td>
<td>-.38**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Positive well-being</td>
<td>.23**</td>
<td>.23**</td>
<td>-.09*</td>
<td>.16*</td>
<td>.60**</td>
<td>-.26**</td>
<td>.30**</td>
<td>.35**</td>
<td>-.34**</td>
<td>.15*</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>12. Ill-being</td>
<td>-.08</td>
<td>.02</td>
<td>.31**</td>
<td>.11*</td>
<td>-.32**</td>
<td>.64**</td>
<td>-.11*</td>
<td>.00</td>
<td>.29**</td>
<td>.11*</td>
<td>-.34**</td>
<td></td>
</tr>
</tbody>
</table>

M  | 67.16 | 53.33 | 39.93 | 19.75 | 10.65 | 6.31 | 67.41 | 53.26 | 40.57 | 19.12 | 10.34 | 6.38 |
SD | 9.21  | 10.35 | 7.78  | 9.01  | 2.63  | 2.27 | 9.21  | 10.74 | 7.44  | 9.40  | 2.67  | 2.27 |

*p < .05, **p < .01.
psychological well-being (Study 1) and a longitudinal survey to examine the effects of both perceived rejection and respect on psychological well-being and the development of generativity in older adults (Study 2).

In Study 1, we found that the relationships of the variables differed according to positive or negative emotional outcomes. Generative concern, generative acts, and perceived rejection from younger people predicted older adults’ negative emotional well-being, similar to the results of Cheng (2009). On the other hand, perceived rejection from younger people had no direct impact on older adults’ positive well-being. We hypothesized that these results may have been caused by the cross-sectional survey methodology and the contents of the perceived rejection scale, which emphasizes negative aspects of intergenerational relationships. Consequently, we developed a new perceived respect scale and conducted a longitudinal survey. However, the results in Study 2 were similar to those in Study 1: Perceived rejection and respect mediated the relationship between generative acts and ill-being but not positive well-being. These results highlight the different characteristics of positive and negative emotional aspects. Previous reports have shown that negative affect is labile and related to levels of physical activity and psychological adaptations, whereas positive affect is stable and relatively independent from these factors (Isen, 2003; Mroczek, 2001). In this investigation, we found a strong relationship between negative emotional well-being and the perception of younger generations’ attitudes, whereas positive emotional well-being was independent from these perceptions.

As predicted in the second hypothesis of Study 2, we found that perceived rejection reduced later levels of generativity and generative acts in older adults, whereas perceived respect was associated with an increase in these factors. This result demonstrates that perceiving appreciation from younger generations has a significant impact on the development of generativity in older adults, whereas older adults who perceive rejection from younger generations may, as an adaptive, self-protective behavior, lose interest in supporting younger generations. This effect of perceived rejection can hinder the promotion of intergenerational interactions and the development of generativity.

Figure 3. The models tested in Study 2. (A) Structural relationships among the observed variables, focusing on perceived rejection and ill-being. (B) Structural relationships among the observed variables, focusing on perceived rejection and positive well-being. The paths that were not statistically significant ($p > .10$) are indicated by dotted lines; **$p < .01$, *$p < .05$, †$p < .10$. 

[Diagram showing structural relationships among the observed variables]
This would be a serious problem in promoting intergenerational interactions in the long term. This finding is worthy of continued follow-up with the participants to determine the effects of intergenerational interactions on the psychological development of older individuals over a longer time span.

The results of these two studies show that perceived rejection and respect had a substantial influence on the development of generativity. On the other hand, the influence of perceived rejection and respect on emotional well-being was observed only for ill-being. These results may be explained by the multidimensional nature of generativity (McAdams & de St. Aubin, 1992). The core concept of generativity is a concern for contributing to younger generations. It is a cognitive factor assumed to develop slowly throughout the aging process. Furthermore, this core concept of generativity is affected by intergenerational interactions because it is a conscious understanding of the self-gained through experiences with others, including the experiences of receiving rejection or respect. Peripheral factors of generativity include the sense of self-contentment or fulfillment achieved through contributing to younger generations. These peripheral factors might be unstable because they are related to fluctuating emotions, so that older adults’ perceptions of intergenerational interactions have only an indirect, partial effect on emotional well-being. In this study, we did not measure the peripheral factors of generativity, and subsequent studies are needed.

Erikson and McAdams suggested the cultural universality of the importance of mutuality in human development, and the theoretical model demonstrated in this study could be applied to older persons’ psychological development in all cultures. However, we expect that feedback from other generations would have a greater impact on psychological development in East Asian countries than in the West. Because of their experiences with a collectivist culture, East Asian persons might be more sensitive to reactions from those around them, and interactions with people within their society might have a greater effect on their psychological development than would be seen in the West. In addition, we expect that the effect of younger generations’ attitudes would differ depending on the level of age integration in societies. In an age-integrated society, elderly people have many opportunities to interact with young people and may thus have clearer perceptions of rejection or respect. On the other hand, in societies with more limited interaction among age groups, the elderly people do not have an opportunity to develop perceptions of young people’s

Figure 4. The models tested in Study 2. (A) Structural relationships among the observed variables, focusing on perceived respect and ill-being. (B) Structural relationships among the observed variables, focusing on perceived respect and positive well-being. The paths that were not statistically significant (p > .10) are indicated by dotted lines; **p < .01, *p < .05, †p < .10.
rejection or respect, and the effect of younger generations’
attitudes would be lower.

The theory described here on the impact of perceived
rejection and respect on generative concern and well-being
in old age is supported by contact theory. According to con-
tact theory, the quality of contact, rather than the quantity
of contact, is important in promoting psychological adapta-
tion (Caspi, 1984). Jarrott and Smith (2011) reported that
an intergenerational program based on contact theory was
more effective than traditional programs. Other studies
have borne out contact theory with respect to intergenera-
tional interaction and psychological adaptation in old age
(e.g., Chapman & Neal, 1990; de Souza & Grundy, 2007;
Ward, Los Kamp, & Newman, 1996). The results described
here indicate that generativity, an important psychological
developmental task for the elderly people, can be promoted
by positive interactions with younger generations, includ-
ing receiving respect. Future studies should build on this
interesting finding.

Recent social changes in Japan have decreased oppor-
tunities for intergenerational interaction. For example, the
percentage of three-generation families decreased from
16.9% in 1975 to 7.9% in 2012 (Cabinet Office, 2012),
resulting in fewer opportunities for older generations to
make contact with and support younger generations with
their experiences and skills. To remedy this intergenera-
tional disconnect, programs have been established in which
older persons support younger generations (e.g., using
their experience and skills to alleviate younger adults’
child-rearing anxiety; Tabuchi, 2008; Uchida et al., 2012).
However, these traditional programs do not significantly
increase opportunities for intergenerational interactions.
As indicated by the results of the studies described in this
article, older adults’ perceptions of rejection from younger
individuals can lead to a worsening of intergenerational
relations and a negative effect on older adults’ psychologi-
cal development and well-being. To prevent these negative
effects, the importance of perceived respect from younger
generations should receive additional focus. We have there-
fore introduced a new program in which older persons in
a senior volunteer group receive positive messages from
younger persons as a real-world application of our theo-
retical model. In this program, younger persons are given
comment cards in which they write appreciative words to
the older persons who have helped them. This positive and
direct feedback is expected to promote the development of
generativity in older persons and their continuous partici-
pation in intergenerational programs (a result that would
also be predicted by contact theory). In this program,
there are two equal groups: Older generations transmit
their knowledge and receive appreciation from young and
younger generations do reverence to old and receive helpful
knowledge from older generations. Therefore, the direct
contact between two groups would moderate the frictions.

Many programs already exist in Japan to connect the
different generations and encourage development of good
relationships within communities (Kaplan, Kusano, Tsuji,
& Hisamichi, 1998). The aims of these programs are not
only to increase opportunities for intergenerational inter-
actions, but also to promote mutual-assistance networks
in communities. The results described in this article could
provide useful information for these ongoing intergenera-
tional programs.

The studies described here are not without limitations.
First, the validity of the new scales used in these investiga-
tions should be verified using a larger data set. Second, the
duration of our longitudinal survey was only 12 months.
Achievement of each stage of psychosocial developmental
requires several years across the life span, and levels of
generative concern would probably not change much in
1 year. Therefore, additional studies with longer follow-
up intervals are needed. Third, to increase the number of
participants engaged in generative acts, we recruited par-
ticipants from the alumni association of a life-span edu-
cation program. Many of the participants were engaged
in community activities, such as voluntary child-support
cleanup programs. We assume that engagement in these
sorts of deliberate activities would have different effects
than “everyday” generative acts, such as caring for grand-
children. In future studies, a population-based sample that
includes people who have fewer opportunities to interact
with younger generations should be used. Fourth, we pro-
posed only theoretical, academic models in this research.
In future studies, the theoretical models should be applied
to the fields in which the intergenerational interactions
occur.

Funding
This study was funded by a grant to the first and the fourth authors
from Osakagasgroup Welfare foundation.

References
mid to late life: The role of generativity development and
parent–child relationships across the lifespan. International
doi:10.1177/0165025406071489
Bradley, C. L. (1997). Generativity-stagnation: Development of a sta-
drev.1997.0432
Cabinet Office. (2012). Analyze the transition of household com-
position. Health, Labour and Welfare Ministry, Government of
Japan, 5–6.


de Souza, E. M., & Grundy, E. (2007). Intergenerational interaction, social capital and health: Results from a randomised controlled trial in Brazil. Social Science and Medicine, 65, 1397–1409. doi:10.1016/j.socscimed.2007.05.022


