Age Differences in Wisdom-Related Knowledge: Does the Age Relevance of the Task Matter?

Stefanie Thomas and Ute Kunzmann

Institute of Psychology, University of Leipzig, Germany.

**Objectives.** Contrary to lay theories, past work does not suggest robust age differences in wisdom-related knowledge across the adult life span. This study investigated a potential moderator of age differences in wisdom-related knowledge: The age relevance of a given wisdom task.

**Method.** To test this moderator, 192 participants covering the adult life span were asked to think aloud about a traditional vignette-based wisdom task with no particular age relevance and about newly developed tasks of problems that arguably are particularly salient in young adulthood, namely, marital conflicts. These tasks were presented as vignette and as naturalistic video clips.

**Results.** Replicating earlier work, there were no linear age differences in wisdom-related knowledge as elicited by the traditional age-neutral wisdom task. However, both vignette-based and video-based tasks about marital conflict elicited greater wisdom-related knowledge in younger than in older adults. Young adults’ greater actual experience and openness to marital conflict contributed to these age differences.

**Discussion.** This study provides evidence for the idea that age differences in wise reasoning about fundamental life issues depend on the relevance of age-normative problems in individuals’ own lives. This suggests that any phase of life offers opportunities for the attainment of wisdom-related strengths as long as an individual is willing and able to actively engage in life’s ongoing challenges.

**Key Words:** Adult life span—Age relevance—Ecological validity—Marital conflict—Wisdom-related knowledge.

Although the psychology of wisdom is a relatively small field, several promising definitions of wisdom have been developed during the last decades (Ardelt, 2004; Baltes & Smith, 1990; Staudinger & Glück, 2011). In this study, we adopted the Berlin wisdom model as a theoretical framework. The Berlin model has focused on one component of wisdom, that is, broad and deep knowledge about important, difficult, and uncertain questions related to the meaning and conduct of life. This body of knowledge has been further described on the basis of five criteria, including three core criteria: life-span contextualism, value relativism and tolerance, and recognition and management of uncertainty (Baltes & Smith, 1990; Baltes & Staudinger, 2000). The definition of wisdom as knowledge about fundamental life problems signals that wisdom does not refer to purely academic or intellectual knowledge that can be acquired vicariously or by direct instruction; rather it encompasses insight into human nature and the complexity of the life course that can only be achieved through exposure to difficult and uncertain questions about the meaning and conduct of life as well as deep reflection upon and critical evaluation of one’s experiences (Glück & Bluck, 2013; Staudinger & Glück, 2011; Sternberg, 2005). This process has been thought to involve questioning and, if necessary, transcending the given circumstances (e.g., rules, norms, and expectations). In this sense, and similar to related concepts such as cognitive-affective complexity (Labouvie-Vief, 2003), wisdom has been considered a prototype of personality growth that is distinct from other forms of positive personality development aimed at an optimal adjustment of the individual to the given circumstances and a maximization of positive experiences within such given settings (Staudinger & Kunzmann, 2005).

**Age and Wisdom-Related Knowledge**

The idea that the way to higher wisdom is resource demanding and requires a deliberate, intensive, and extended dealing with difficult and uncertain life problems suggests that only very few individuals will acquire wisdom in its higher and idealized form and that becoming older is not sufficient for wisdom to develop. In fact, in several cross-sectional studies utilizing the Berlin wisdom tasks, the association between age and wisdom-related knowledge was nonsignificant and virtually zero. In addition, mean levels of wisdom-related knowledge were generally below the mean of the wisdom scales (Staudinger, 1999; Staudinger & Glück, 2011).

Although this evidence is consistent with the idea that few individuals possess high wisdom-related knowledge and that age per se does not bring wisdom, it is still possible that many adults, regardless of their age, can gain some wisdom-related knowledge about some problems, namely the problems that are particularly salient in their own current life. Life-span developmental researchers...
would suggest that the problems an individual has a high need to deal with and solve are at least partly influenced by this individual’s age (Baltes, 1987). In a similar vein, Erikson (1968) proposed that in each stage in the life cycle, a person faces specific challenges and tasks. For example, old age has been described as a period of loss during which individuals need to let go of many goals and find meaning in their lives as lived. Eventually because of their greater exposure to the theme of loss, older adults may be more likely to gain wisdom-related knowledge about the problems and challenges that surround this theme than their younger counterparts. This does not necessarily mean, however, that older adults generally have greater wisdom-related knowledge than younger people. As with any type of knowledge, wisdom-related knowledge may be less likely to be available and may even vanish if it is of little salience to the individual and, thus, not regularly used (Förster, Liberman, & Higgins, 2005; Jarvis, 1987). Seen in this light, there may be problems that elicit greater wisdom-related knowledge in younger than in older adults, namely, problems that are particularly relevant in young adulthood but not in old age.

Direct evidence for this idea is sparse, given that most past studies interested in age differences in wisdom-related knowledge have been based on wisdom tasks with no particular age relevance or domain specificity (Staudinger & Glück, 2011). However, indirect evidence comes from two studies that varied the age of the wisdom tasks’ main protagonists (Smith, Staudinger, & Baltes, 1994; Staudinger, Smith, & Baltes, 1992). Both studies suggested an age-match effect in wisdom-related knowledge although this effect was limited to either one type of problem (Smith et al., 1994) or one wisdom criterion (Staudinger et al., 1992). One explanation for this limited evidence is that the authors varied the main protagonist’s age but held the problem’s structure and content constant across their experimental conditions. Whereas the two studies reviewed earlier investigated adult age groups, a study conducted by Pasupathi, Staudinger, and Baltes (2001) compared adolescents and young adults and actually varied the wisdom tasks’ age relevance in that some tasks covered themes specifically interesting to adolescents, whereas other tasks were specifically relevant to the adult group. Within young adults, wisdom-related knowledge was significantly more pronounced in response to the “adult” wisdom tasks than in response to the “adolescent” problems. However, the age relevance of the wisdom problems made no difference for adolescents’ wisdom-related knowledge, which was generally relatively low, suggesting that all tasks might have been too difficult for this group for age-match effects to occur.

The Present Study

The goal of this study was to extend the empirical work reviewed earlier, testing the age relevance of a given wisdom task as a moderator of age differences in wisdom-related knowledge in a sample of 192 adults covering the adult life span. We utilized a task with no particular age relevance and a task that was particularly relevant to young adults. The age-neutral task dealt with suicide, a nonnormative critical life event that is not specifically likely to occur at any particular age during adulthood. The task that was particularly relevant to young adults dealt with marital conflict. Establishing an intimate relationship has been thought to be a major developmental task in young adulthood, and this task clearly involves negotiating conflict, particularly about intimacy-related issues (Erikson, 1968). Recent lifespan developmental research is consistent with the idea that the salience of marital conflict is highest in young adulthood and linearly declines with age. In addition, whereas younger spouses are likely to actively engage in a given marital conflict, older spouses tend to avoid or deny the conflict (Birditt, Fingerman, & Almeida, 2005; Blanchard-Fields, Jahnke, & Camp, 1995). The age-related decrease in the frequency and intensity of marital conflict and the increase in passive and avoidant conflict management strategies have been interpreted as adaptive feature of socioemotional aging and a sign of older adults’ motivation and ability to adapt to the given and make the most of it in terms of affect optimization (Carstensen, Isaacowitz, & Charles, 1999; Labouvie-Vief, 2003). Although the decreasing concern with marital conflict in old age may have emotional benefits, to the extent that wisdom-related knowledge requires direct experience with and active engagement in a problem, it is unlikely to foster wisdom-related knowledge.

In the tradition of the Berlin wisdom paradigm, the suicide and marital conflict tasks were presented as hypothetical text vignettes. In addition, and to test the idea that the ecological validity of the marital conflict task may be a factor that facilitates particularly young adults’ wisdom-related performance, the marital conflict problem was also presented via films of couples having a conversation about a mutual and long-lasting conflict in their marriage. These film-based tasks arguably are more ecologically valid than the vignettes in that they resemble real-life experiences more closely (Brewer, 2000). As a consequence, the films may be particularly well suited to elicit young individuals’ experience-based knowledge. Given that older adults have relatively little direct exposure to marital conflict, we expected that the tasks’ ecological validity would make less of a difference for their wisdom-related performance.

Predictions.—We predicted that the effects of age on wisdom-related knowledge about marital conflict should be significant and negative, whereas the effects of age on wisdom-related knowledge about suicide should be nonsignificant. In addition, age differences in wisdom-related knowledge about conflict should be stronger if wisdom-related knowledge was assessed by the film-based wisdom tasks rather than the vignette-based task. To begin to better understand the
mechanisms that contribute to the predicted age differences in wisdom-related knowledge about marital conflict, we assessed two factors, which both indicate the degree to which marital conflict is a concern in individuals’ current lives: the stressfulness of own marital conflicts (conflict severity) and the willingness to engage actively in a given conflict in order to gain insight (openness to conflict). Proceeding from the evidence that older adults are less concerned with marital conflict than their younger counterparts as well as the idea that exposure to difficult life problems and the willingness to deal with life problems in an open, insight-seeking way may both enhance wisdom-related knowledge, we predicted that the severity of conflicts and the open and active engagement in conflicts would be negatively associated with age but positively associated with wisdom-related knowledge.

**Method**

**Participants**

The sample comprised 192 adults from six age groups (19–29, 30–39, 40–49, 50–59, 60–69, and 70–79 years), each stratified by gender. Participants were recruited through newspaper advertisement and distribution of flyers. They received £25 (approximately $35) for two 2-hr sessions to compensate their expenses. On average, participants were well educated with 15.7 years of education. Overall, they reported high levels of life satisfaction ($M = 3.68$; measured by a single item with a scale ranging from 1 [very unsatisfied] to 5 [very satisfied]).

Age group differences were found for years spent with education, $F(5,181) = 4.51$, $p < .01$, with the group of 30–39 years old having received the highest educational level ($M = 17.80$ years) and the group of 50–59 years old having the lowest level ($M = 14.16$ years). The analysis of a dichotomized variable “partnership” (yes vs. no, each 50% of the sample) revealed no age differences, $\chi^2(5, N = 190) = 4.15$, ns, suggesting that, in principle, the members of all age groups did not differ in the risk of being exposed to partnership conflicts.

**Wisdom Tasks**

As the age-neutral task, we used the suicide task, a task that had been used in several past studies from the Berlin group (i.e., “Somebody receives a phone call from a good friend. The friend says that she or he cannot go on anymore and that she or he has decided to commit suicide. What could one/the person consider and do?”). In addition, we formulated a vignette about marital conflict as a task that is particularly relevant to young adults (“Somebody has a serious conflict in her or his partnership. What could one/the person consider and do?”). Finally, to assess wisdom-related knowledge about marital conflict under more natural conditions, we presented films of couples as they discussed a mutual conflict in their marriage. Thus, the films presented real people’s real problems in context-rich ways (i.e., the spouses engaged in an authentic conflict conversation and expressed their thoughts and emotions on various verbal and nonverbal channels). Thirty-four couples were initially invited to our laboratory and video-taped as they had a conflict conversation (interview procedures were modeled after those that had been developed by Levenson and Gottman; Gottman & Levenson, 1992; Levenson & Gottman, 1983). At the end of a multiple-step validation procedure, three video clips were selected for which there was agreement that the conversations were highly authentic, the discussed conflicts were serious and emotionally burdensome for the couples, and the spouses expressed a wide range of negative emotions. Not surprisingly, the marital conflict films elicited greater negative emotional reactions than the hypothetical-vignette-based conflict task, $F(1,175) = 5.91$; $p = .016$; $\eta^2_p = .03$. At a baseline period and after each wisdom task, negative emotional reactions were assessed by asking participants to indicate how intensely they currently feel each of 22 negative emotions. Negative emotional reactivity was calculated as the mean across the 22 negative emotion adjectives (negative emotion scale: $\alpha_{video\clips} = .79$; $\alpha_{vignette} = .85$). There were no age differences in negative emotional reactivity ($M_{baseline} = 0.46, SD = 0.58; M_{vignette} = 0.55, SD = 1.23; M_{video} = 0.99, SD = 0.72$). Each of the finally selected three films was approximately 5 min long, showed the spouses’ front view in a split screen, and dealt with a different topic: hierarchy between the spouses and child-rearing problems, loyalty between the spouses and relationship with parents-in-law, and intimacy and amount of time spend together. The spouses were between 30 and 35 years old and had been living together since several years.

**Age relevance of wisdom tasks.**—Participants of a pilot study (young: $N = 32, M = 23.6$, range = 18–30 years; old: $N = 32, M = 69.3$, range = 61–80 years) indicated for each vignette how often the described problem (suicide or marital conflict) occurs in young adulthood and old age using a response scale from 1 (very rarely) to 5 (very often). A repeated measures ANOVA with target age (young vs. old) and problem domain (suicide vs. marital conflict) as within-subject factors and participants’ age (young vs. old) as between-subject factor revealed a significant main effect of problem domain, $F(1,62) = 10.28$, $p = .002$, as well as a significant interaction effect between problem domain and target age, $F(1,62) = 36.22$, $p < .001$. As expected, suicide was rated to occur less frequently ($M = 2.20; SD = 0.75$) than marital conflict ($M = 2.57; SD = 0.65$). Follow-up $t$-tests of the interaction effect suggested that suicide was considered to occur similarly infrequently in young adulthood and old age, $t(63) = 1.14$, ns, but marital conflict was considered to be more typical in young adulthood than in old age ($M_{young} = 3.39, SD = 1.05; M_{old} = 1.75, SD = .76$, $t(63) = 10.18, p < .001$). There were no significant main or interaction effects of participants’ age.
Procedure

All participants attended two individual sessions. In the first session, participants were thinking aloud about the two vignettes (suicide and marital conflict) that were presented in counterbalanced order. All answers were tape-recorded and later transcribed. Four to seven days after the first session, participants returned for a second session during which they were thinking aloud about the three marital conflict films that were presented in counterbalanced order. Actually, this session comprised three trials [one film per trial], each consisting of four epochs: (a) A 1-min baseline period during which participants were asked to relax and clear their minds of all thoughts, feelings, and memories; (b) a film viewing period; (c) a period during which participants completed an inventory assessing their feelings during the film and their perceptions of the spouses’ feelings; (d) a period during which participants thought aloud about what the couple should consider or do in this situation. Again, all answers were tape-recorded and later transcribed. At the end of this session, participants completed a single-item and a five-item questionnaire assessing the occurrence of serious marital conflicts in their current life and their openness to the conflicts.

Measures

Wisdom-related knowledge.—Each of the transcribed think-aloud protocols from the first \( n = 384 \); 192 participants \( \times 2 \) vignette-based wisdom tasks) and second session \( n = 576 \); 192 participants \( \times 3 \) video-based wisdom tasks) was coded by pairs of trained independent raters according to three wisdom criteria (i.e., life-span contextualism, value relativism and tolerance, and awareness of uncertainty). The rater-training and coding procedures were established in our previous work (Kunzmann & Baltes, 2003; Staudinger, Smith, & Baltes, 1994). During the actual coding process, the raters assigned each protocol one score representing the degree to which the protocol matched the ideal definition of one of the three wisdom criteria (scores can range from 1 [no correspondence] to 7 [high correspondence]). We decided not to code the basic criteria of wisdom-related knowledge (rich factual and rich procedural knowledge, see Staudinger et al., 1992) as they are (a) specific for expertise but not for wisdom, (b) thought to precede the wisdom-specific criteria in development (Pasupathi et al., 2001), and (c) relatively highly correlated with the wisdom-specific metacriteria (Smith & Baltes, 1990).

Considering the complexity of the criteria, interrater reliabilities were acceptable for the vignette-based tasks \( r = .62 \); range = .56–.69) and for the video-based tasks \( r = .65 \); range = .59–.69) and comparable with previous research (Mickler & Staudinger, 2008; Staudinger & Baltes, 1996). For each wisdom criterion, the codings of the two raters were averaged. The resulting three wisdom criteria scores for each task displayed satisfactory internal consistencies \( \alpha = .87; \alpha = .83; \alpha = .76; \alpha = .77; \alpha = .79 \) and were aggregated by computing mean scores. Descriptive statistics of and zero-order correlations among the single five measures are depicted in Table 1. The protocols’ length was comparable across tasks and age groups \( M = 553.03; SD = 308.64 \).

Mediator variables.—A single item assessed the severity of own marital conflicts (“how emotionally stressful are your current marital conflicts?”) on a response scale from 0 (not at all stressful) to 6 (very stressful). Furthermore, participants were asked to indicate their agreement to five statements assessing openness to their own conflicts (i.e., the appreciation of conflicts as a source of insight and willingness to engage actively in conflicts; five items, \( \alpha = .67 \)) on a response scale ranging from 0 (completely disagree) to 4 (completely agree). The variables assessing openness to conflict and conflict severity were positively but nonsignificantly correlated \( r = .14; ns \). Descriptive statistics for the mediator variables are depicted in Table 3. Participants who were not married or in a similar relationship were asked to think of the person they felt most closely to when responding to the items assessing conflict severity and openness to conflict.

Results

Age Differences in Wisdom-Related Knowledge

Given the hierarchical structure of the present data set, age differences in wisdom-related knowledge and interactions with the tasks’ content and tasks’ presentation

<table>
<thead>
<tr>
<th>Wisdom tasks</th>
<th>M</th>
<th>SD</th>
<th>Suicide vignette</th>
<th>Conflict vignette</th>
<th>Couple 1 video</th>
<th>Couple 2 video</th>
<th>Couple 3 video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide vignette</td>
<td>2.90</td>
<td>.93</td>
<td>.50***</td>
<td>.34***</td>
<td>.39***</td>
<td>.37***</td>
<td></td>
</tr>
<tr>
<td>Conflict vignette</td>
<td>3.23</td>
<td>.98</td>
<td>.50***</td>
<td>.45***</td>
<td>.42***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple 1 video</td>
<td>3.35</td>
<td>.74</td>
<td>.50***</td>
<td>.59***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple 2 video</td>
<td>3.20</td>
<td>.77</td>
<td>.54***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple 3 video</td>
<td>3.27</td>
<td>.75</td>
<td>.54***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *** \( p < .001 \).
modus were tested by multilevel modelling using MPlus (Muthén & Muthén, 2010). In this analysis, the five tasks assessing wisdom-related knowledge served as Level-1 variables that were nested in participants (Level 2). The intercept-only model revealed an intraclass correlation coefficient of .432. This indicated that 43.2% of the variance of wisdom-related knowledge was attributable to tasks and 56.8% to persons suggesting that a multilevel analysis approach is recommended. In the next step, chronological age was added as Level-2 predictor variable. The means-as-outcomes model suggested a significantly negative relationship between wisdom-related knowledge and age (see Table 2). Wisdom-related knowledge was overall higher in younger than in older individuals. Next, the random-coefficient model was used to test the tasks’ content as predictor variable on Level 1. The regression coefficient was significantly negative, which suggested that wisdom-related knowledge was overall higher in response to the conflict tasks than in response to the suicide task (using a dummy variable: conflict tasks = “0,” suicide task = “1”). Further, a second random-coefficient model was run for tasks’ presentation modus. This time, the coefficient was significantly positive, that is, the video-based wisdom tasks elicited more wisdom-related knowledge than the vignette-based tasks (dummy variable: vignette-based tasks = “0,” video-based tasks = “1”). Finally, the intercepts-and-slopes-as-outcomes model was tested with all predictors on Level 1 and Level 2 entered into the model. The regression coefficient relating age to wisdom-related knowledge continued to be significantly negative. The same was true for the association between wisdom-related knowledge and the tasks’ content. The main effect for the presentation modus, however, did not reach significance after controlling for the tasks’ content. The cross-level interaction effect between age and the tasks’ presentation modus was also nonsignificant. In contrast, the cross-level interaction between participants’ age and the tasks’ content was significantly positive. Simple slope tests revealed that in the tasks depicting marital conflicts young adults scored higher than older adults, whereas no age differences occurred for the suicide task (see Figure 1). Notably, a significantly negative covariance between wisdom-related knowledge and the slopes of content and of presentation modus indicated that these predictor variables’ effects were smaller for individuals high in wisdom-related knowledge (content, $r = -.213, p = .003$; presentation modus, $r = -.362, p < .001$). Overall, these findings suggested that age was negatively associated with wisdom-related knowledge, but only for the marital conflict tasks. The marital conflict tasks’ presentation modus had no significant influence on the relationship between age and wisdom-related knowledge. These results remained basically unchanged when analyzing the three wisdom criteria separately as well as when testing education, gender, and health status as covariates.

Additional analyses: Top 20% performances.—As the term wisdom is reserved only to the highest performances (Baltes, Staudinger, Maercker, & Smith, 1995; Staudinger & Baltes, 1996), we tested age differences in the top 20% range of wisdom-related knowledge in response to each task using Chi-Square tests. Analyses of wisdom-related knowledge as assessed by the conflict videos were based on an aggregate score (i.e., the mean performance across the three tasks; $\alpha = .80$). As expected, all age groups were similarly frequent among the top performers in response to the suicide vignette, $\chi^2(5, N = 36) = 5.67, ns$. In response to the conflict vignette, no age differences emerged either, although descriptively a larger number of young (19–39 years, $N = 15$) than old adults (60–79 years, $N = 7$) were among the top performers, $\chi^2(5, N = 31) = 4.42, ns$. However, significantly more young (19–39 years, $N = 21$) than older adults (60–79 years, $N = 5$) were among the top 20% performers in response to the video-based conflict tasks, $\chi^2(5, N = 40) = 13.10, p = .022$.

Mediation Analyses
Following the procedure proposed by Baron and Kenny (1986), associations between wisdom-related knowledge and age were tested using the model of Baron and Kenny (1986). The model included the main effect of age on wisdom-related knowledge as well as the interaction of age and tasks’ content or presentation modus. The mediation analyses revealed that the association between age and wisdom-related knowledge was mediated by the tasks’ content and presentation modus. This suggests that age differences in wisdom-related knowledge are due to differences in the tasks’ content and presentation modus.

Table 2. Results of the Multilevel Analysis

<table>
<thead>
<tr>
<th>Predictors of wisdom-related knowledge</th>
<th>Unstandardized coefficient</th>
<th>Standardized coefficient</th>
<th>Two-tailed $p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means-as-outcomes model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.007</td>
<td>-.145</td>
<td>.004</td>
</tr>
<tr>
<td>Random-coefficient models</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tasks’ content</td>
<td>-.360</td>
<td>-.422</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tasks’ presentation modus</td>
<td>.208</td>
<td>.244</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Intercepts-and-slopes-as-outcomes model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.011</td>
<td>-.218</td>
<td>.005</td>
</tr>
<tr>
<td>Tasks’ content</td>
<td>-.947</td>
<td>-.382</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Tasks’ presentation modus</td>
<td>-.034</td>
<td>-.053</td>
<td>.841</td>
</tr>
<tr>
<td>Age x Tasks’ content</td>
<td>.013</td>
<td>.262</td>
<td>.001</td>
</tr>
<tr>
<td>Age x Tasks’ presentation modus</td>
<td>.002</td>
<td>.033</td>
<td>.641</td>
</tr>
</tbody>
</table>

Notes. The table depicts main and interaction effects of Level-1 and Level-2 predictors for wisdom-related knowledge in three steps of the multilevel analysis computed with MPlus. In step 1, age was entered as Level-2 predictor. In step 2, two random-coefficient models were run to separately test for effects of the Level-1 predictors, tasks’ content and presentation modus. Step 3 represents the full model including all Level-1 and Level-2 predictors simultaneously.
about conflict, age, and the mediators were examined in linear regression analyses. Again, a mean score of the three video-based tasks was used. As indicated by multilevel analyses, age predicted wisdom-related knowledge in response to both task types, vignette, $\beta = -.19, t(191) = -2.67, p < .01$; video, $\beta = -.25, t(191) = -3.52, p < .01$.

As depicted in Table 3, age significantly predicted conflict severity and openness to conflict, suggesting less exposure to stressful conflicts and less openness to engage actively in conflicts with age. In the next step, conflict severity and openness to conflict were tested as predictors of wisdom-related knowledge; the effects of both variables were significantly positive when analyzing the video-based wisdom scores as outcomes. Additional analyses testing the relationship between wisdom-related knowledge about conflict and the mediator variables separately for married and unmarried participants (each half of the sample) revealed virtually the same pattern as for the entire sample suggesting that the meaning of the mediator variables was similar for these groups (severity, $r_{married} = .21; r_{unmarried} = .33$; openness, $r_{married} = .17; r_{unmarried} = .21; p < .05$). Based on these results, a multiple mediator model was calculated using INDIRECT (Preacher & Hayes, 2008). In this model, conflict severity and openness to conflict were specified as mediators of the relationship between age and wisdom-related knowledge in response to the video-based tasks. The total indirect effect was nonsignificant, standardized coefficient $= -.0001$; confidence interval $(-0.015, 0.007)$.

**Discussion**

The goal of this study was to provide evidence for the idea that age differences in wisdom-related knowledge will depend on the wisdom tasks’ problem domain. We tested this idea by examining an adult life-span sample’s wisdom-related knowledge about two problem domains, one that is not particularly relevant to any age group (i.e., suicide) and another that is highly salient in young adulthood (i.e., marital conflict). Replicating earlier studies that utilized the suicide task, the linear association between age and wisdom-related knowledge about suicide was nonsignificant and virtually zero (Baltes et al., 1995). In contrast, and in line with our predictions, the vignette-based and video-based marital conflict wisdom tasks elicited greater wisdom-related knowledge in young than in older adults. Given that suicide can be considered a critical life event that rarely occurs in people’s lives, whereas marital conflict is a problem that is normative in young adulthood, this evidence is consistent with the idea that age differences in wisdom-related knowledge are dependent on the wisdom tasks’ age relevance.

A similar pattern of results was evident in our analyses of the top 20% of performances within each problem domain: More young than older adults provided the relatively best performances in response to the video-based conflict tasks, whereas no age differences emerged in the top range of
responses to the suicide problem. This evidence suggests that relative to older adults, young adults have a higher potential to approach the ideal of wisdom-related knowledge when dealing with marital conflict, a task that is highly familiar to them.

As to high-level performances, another finding that we had not predicted deserves note. In our main analyses, a significantly negative covariance between wisdom-related knowledge and the problem domain variable suggested that the wisdom tasks’ problem domain (marital conflict vs. suicide) made less difference for wisdom-related knowledge at higher performance levels. This finding is consistent with the idea that wisdom-related knowledge generalizes across problem domains if it approaches an ideally high level (Baltes, 2004). From a life-span developmental perspective, in-depth knowledge in a particular life domain may be considered a stepping stone for the attainment of a metalevel view on the fundamental pragmatics of life that generalizes across problem domains. Notably, however, mean levels of wisdom-related knowledge are typically well below the theoretical mean of wisdom scales (Baltes & Smith, 1990; Sternberg, 1998), suggesting that domain specificity in wisdom-related knowledge is the rule rather than the exception.

A secondary goal of this study was to better understand the mechanisms that contribute to age differences in wisdom-related knowledge. As expected, greater exposure to emotionally stressful marital conflicts and greater openness to conflict were negatively related to age (Birditt et al., 2005; Levenson, Carstensen, & Gottman, 1994). In addition, and consistent with the idea that deep and broad knowledge about difficult and uncertain life problems is facilitated by direct exposure to such problems and the willingness to actively deal with them (Glück & Bluck, 2013; Kunzmann & Baltes, 2005; Staudinger & Kunzmann, 2005), greater conflict severity and greater openness to conflict were positively related to wisdom-related knowledge. Most important for the present predictions, after statistical control of conflict severity and openness to conflict, the negative effect of age on wisdom-related knowledge about marital conflict in response to the video-based tasks was significantly reduced. This evidence is in line with our predictions, and it deserves particular note that when simultaneously tested, conflict severity and openness to conflict both remained significant mediators of the effects of age on wisdom-related knowledge. We had thought it possible that it is more the way in which conflicts are dealt with that mediates the effects of age on wisdom-related knowledge rather than exposure to serious conflicts per se. However, exposure to conflict and openness to an active and reflective conflict management may represent two factors that independently facilitate particularly younger adults’ wisdom-related knowledge about conflict.

Role of the Wisdom Tasks’ Ecological Validity in Age Differences in Wisdom

One goal of this study was to develop video-based wisdom tasks that present couples as they discuss a real, serious, and long-lasting conflict in their marriage. The new tasks displayed satisfactory psychometric characteristics (i.e., wisdom-related knowledge in response to the video-based tasks could be reliably coded in terms of the wisdom criteria and the new tasks showed convergent validity with the vignette-based measures of wisdom-related knowledge). In addition, there was high agreement among the spouses themselves and participants of different age groups that the conflict conversations were highly authentic and the discussed problems were serious, complex, and emotionally stressful. We had predicted that the marital conflict task presented via these ecologically valid video clips would increase particularly young adults’ wisdom-related knowledge by facilitating the application of their experience-based knowledge about the problem. We found no evidence for this with respect to the overall pattern of age differences in wisdom-related knowledge, which was similar in response to both task types (vignette and video). It deserves note, however, that our two mediators of the effects of age on wisdom-related knowledge about marital conflict (i.e., severity of own marital conflicts and openness to an active conflict management) showed more pronounced and significant links to wisdom-related knowledge as assessed by the video-based tasks than to wisdom-related knowledge as assessed by the vignette. This is one indication that the video-based tasks were better suited to elicit experience-based wisdom-related knowledge than the vignettes. However, the video-based tasks’ ecological validity may have been still too restricted so as to produce greater age effects on wisdom-related knowledge than the vignettes (e.g., the videos were relatively short and presented couples that were unknown to the participants).

Limitations and Outlook

A first limitation of this study is its focus on “age-neutral” and “young” wisdom tasks. Although we consider this a first valuable step to test our ideas, future research is clearly needed that will vary the wisdom tasks’ age relevance more systematically and include “young,” “old,” and “age-neutral” problems. Given that old age has been described as a life period during which the reflection of one’s life as lived in the face of limited time left gains considerable importance (Erikson, 1968) and losses become almost normative (Baltes & Mayer, 1999), “old” problems that surround age-typical losses (e.g., dealing with serious illness) may tap onto old adults’ rich experience-based knowledge and elicit more wisdom-related knowledge in older than young adults. Indeed, research involving other deliberate cognitive tasks suggests that older adults’ performance is moderated by the tasks’ relevance (Hess, Rosenberg, & Waters, 2001; Richter & Kunzmann, 2011; see also Hess, Queen, & Ennis, 2012; Swift, Abrams, & Marques, 2013). Thus, we would expect to find a similar pattern with respect to wisdom-related knowledge.
A second limitation refers to the problem domain of social conflict. In designing tasks particularly relevant to younger adults, we focused on one facet of social conflict, that is, intimacy-related marital problems. Other social conflict issues may be more relevant to older than younger adults, however. For example, conflicts among ethnic groups might elicit generativity-related needs that are more prevalent in older adults (Grossmann et al., 2010). One avenue for future research is to consider a given problem domain’s multiple facets more comprehensively than was possible in this and other relevant studies (Grossmann et al., 2010).

A third limitation refers to our focus on one core aspect of wisdom, that is, broad and deep knowledge about fundamental life problems. One avenue for future work is to test the present theoretical ideas in the context of a more comprehensive conceptualization of wisdom that also encompasses social and emotional qualities (e.g., empathy, emotional warmth, and affect balance; Ardelt, 2003; see also Richards & Hatch, 2011). These qualities may show quite different age gradients than cognitive/reflective components. For example, as to marital conflict, relative to younger adults, older adults may possess less wisdom-related knowledge, but they may nevertheless behave more “wisely” during actual conflicts in that they better regulate their negative feelings and show greater sympathy for their spouses.

The example above points to yet another avenue for future research. In the tradition of the Berlin wisdom model, our wisdom tasks assessed wisdom-related knowledge about problems in general or about other people’s problems. Given that our participants’ wisdom-related knowledge about marital conflict was partly informed by their own experiences with such conflicts, we would expect to find parallel age differences in wisdom-related knowledge about other people’s conflicts and wisdom-related knowledge about one’s own conflicts. However, this question clearly deserves future research, given that initial evidence suggests that it may be more difficult to acquire and/or apply wisdom-related knowledge to one’s own problems than to give advice to others (Staudinger & Glück, 2011).

Finally, an interesting avenue for future work will be to disentangle the effects of a problem’s familiarity and the problem’s motivational relevance on age differences in wisdom-related knowledge. In this study, our hypotheses were based on the idea that marital conflicts are particularly familiar to younger adults and because of their greater experience with this problem type they should possess higher wisdom-related knowledge than their older counterparts. However, it is also possible that the marital conflict problems simply were more motivationally engaging for young adults. Put differently, older adults principally may have been equipped with a similar amount of wisdom-related knowledge about marital conflict as their younger counterparts, but they may have been less motivated to reason deeply about this topic. Although the absence of age differences in the protocols’ length may speak against this, we cannot rule out that motivational rather than experience-based factors accounted for the present age differences.

**Funding**

This work was supported by a grant from The John Templeton Foundation’s “Defining Wisdom” project of the Arete Initiative at the University of Chicago awarded to U. Kunzmann (grant number 34879).

**Acknowledgments**

This research was undertaken as partial requirement of the doctoral dissertation project of Stefanie Thomas. We gratefully acknowledge Susanne Assmann for her assistance in the development of the video-based wisdom tasks. We also thank the student assistants in our laboratory for their help in coding the present think-aloud protocols.

**Correspondence**

Correspondence should be addressed to Stefanie Thomas, PhD, Life-Span Developmental Lab, Department of Psychology, University of Leipzig, Seeburgerstrasse 14–20, 04103 Leipzig, Germany. E-mail: stefanie.thomas@uni-leipzig.de.

**References**


AGE DIFFERENCES IN WISDOM-RELATED KNOWLEDGE


