

“Gratitude Is With Me All the Time”: How Gratitude Relates to Wisdom

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Objectives. This study investigated the relationship of gratitude to wisdom. Both constructs are conceptually related to self-reflectivity, but they differ in their emphasis on extrapersonal resources. Previous wisdom research has focused mainly on intrapersonal capacities.

Method. In Study 1, 47 wisdom nominees and 47 control participants were interviewed about their most difficult and best life event and filled out a questionnaire on sources of gratitude. Study 2 was a quantitative study ($N = 443$) of the relationship between a wisdom scale and scale measures and individual sources of gratitude.

Results. Significantly more wisdom nominees expressed feelings of gratitude spontaneously in their interview. Wisdom nominees reported gratitude for their life in general, religion, and partner more often than control participants. In Study 2, wisdom was related to all gratitude scales and to similar sources of gratitude as in Study 1. Both studies found gender differences in gratitude but not wisdom.

Discussion. Two important implications of these findings are that wisdom entails an appreciation of life and its experiences, especially the growth opportunities that may result from negative events, and that there may be substantial differences between male and female pathways to wisdom.

Key Words: Gender differences—Gratitude—Life story—Reflectivity—Wisdom.

“NO matter how difficult the circumstances, life is always enjoyable, because those things are only snapshots. The truth is that I can learn a lot from challenges like this, I continue to grow and develop [...], and I am grateful about such challenges. I am grateful for such lessons, because they can only make me grow” (wisdom nominee, male, 38 years).

How does gratitude relate to wisdom? Both wisdom and gratitude have long philosophical and religious traditions (e.g., Curnow, 1999; Dahlsgaard, Peterson, & Seligman, 2005; Emmons & Crumpler, 2000; Emmons & Kneezel, 2005), but psychology started to investigate them only recently. The growing research interest in wisdom and gratitude is probably related to the general movement toward positive psychological conceptions of growth and living a good life (e.g., Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). The two studies reported here are the first to investigate the relationship of gratitude to wisdom. Study 1 compared wisdom nominees and control participants with respect to spontaneous mentions of gratitude in life-event interviews and to sources of gratitude. Study 2 investigated relationships between wisdom and scale measures and sources of gratitude in a large sample of young adults.

Why Should Gratitude Be Related to Wisdom?

A relationship between gratitude and wisdom seems intuitively plausible—but empirical and theoretical work on

neither construct makes any explicit reference to the other. Both constructs have been defined in several different ways and investigated by a range of different methods.

Two general approaches to conceptualize gratitude concern interpersonal (benefit-triggered) gratitude and generalized gratitude (Lambert, Graham, & Fincham, 2009). Interpersonal conceptions define gratitude as a positive emotional response to a favor that is provided by others and perceived as intentional, valuable, and costly (Emmons, 2004; Roberts, 2004; Tesser, Gatewood, & Driver, 1968; Tsang, 2007; Watkins, Scheer, Ovnicek, & Kolts, 2006). Conceptions of generalized gratitude acknowledge that people are not only grateful for concrete favors—they may also be grateful for the beauty of a flower, their health, or an experience. Thus, generalized gratitude is a general attitude of appreciation of life and the positive in the world (Adler & Fagley, 2005; Lambert et al., 2009; Wood, Froh, & Geraghty, 2010; Wood, Maltby, Stewart, & Joseph, 2008). The boundaries between the two conceptions may be blurred, however, for example, if someone is grateful to his/her partner for a whole life lived together.

There is no consensus on a universal definition of wisdom, either. Staudinger and Glück (2011) distinguished conceptions of general wisdom, that is, insight and knowledge about life in general, from conceptions of personal wisdom, that is, insight, knowledge, and affective competencies

obtained through the challenges and uncertainties of one's own life. We propose that *personal wisdom* is related to gratitude for three reasons: Both wise and grateful individuals are aware of positive outcomes of negative events, the limitations of control over events, and the importance of relations to others.

First, reflection and integration of negative experiences characterizes both wisdom and gratitude. Specifically, the realization that a negative event led to a positive outcome, as is the case in benefit finding (Tennen & Affleck, 2002) or redemption sequences (McAdams & Bauer, 2004; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001), can cause gratitude—not necessarily for the negative event itself, but for what came from it. Thus, gratitude is related to life reflection and benefit finding (Bowman, 2007; Fredrickson, Tugade, Waugh, & Larkin, 2003; Lambert, Graham, Fincham, & Stillman, 2009; McAdams & Bauer, 2004; Watkins, Grimm, & Kolts, 2004). The retrospective reinterpretation and integration of negative experiences has also been discussed as important in the development of wisdom (Ardelt, 2005; Glück & Bluck, 2013; Kramer, 2000) and the related Eriksonian concept of integrity, the full acceptance of one's life when its end is approaching (Erikson, 1959). Both wisdom and gratitude have been related to integrity (McAdams & Bauer, 2004; Webster, 2003).

One important feature of many negative events is that they are unexpected and uncontrollable, shattering the individual's control illusions (Janoff-Bulman, 2004). If someone is able to find meaning in them and integrate them in his or her life story, such experiences can contribute to an increased appreciation of life (Lambert et al., 2009; Wood et al., 2010), posttraumatic growth (Linley & Joseph, 2004; Tedeschi & Calhoun, 2004), and the development of wisdom (Ardelt, 2005; Glück & Bluck, 2013). Wise individuals know that much of life is uncontrollable, but this knowledge does not render them helpless as they have learned to deal with difficult events (Ardelt, 2005; Baltes & Staudinger, 2000; Glück & Bluck, 2013) and know that their inner self does not depend on external sources (Levenson, Jennings, Aldwin, & Shiraishi, 2005). Thus, we assume that wise individuals can appreciate life and the good things that it brings, although, or perhaps because, they are aware of their frailty.

These "good things" include personal relationships. Wise individuals are probably more aware than others of their embeddedness and connectedness to others and the world at large (Ardelt, 2005; Emmons & Kneezel, 2005; Le & Levenson, 2005; Solomon, 2004). Thus, they may be more grateful than others in the interpersonal as well as the generalized sense, but for relationships in general rather than for specific favors.

The prediction that personal wisdom is related to both generalized and interpersonal gratitude was tested in two studies. Study 1 investigated wisdom nominees' and age- and gender-parallel control participants' spontaneous

mentions of gratitude in life-event interviews and their personal sources of gratitude. Study 2 examined relationships between scale measures of gratitude and wisdom.

STUDY 1: SPONTANEOUS MENTIONS AND INDIVIDUAL SOURCES OF GRATITUDE

The focus of Study 1 was on how often wisdom nominees and control participants expressed gratitude spontaneously in interviews about difficult life challenges. They also wrote down what they were grateful for in their life. We expected wisdom nominees to express gratitude more often than control participants, and to be more often grateful for life in itself and for general personal and interpersonal resources, whereas control participants might more often report gratitude for specific favors.

Gender differences were also investigated. Several studies have found that women were more grateful than men (Kashdan, Mishra, Breen, & Froh, 2009; Wood et al., 2008), while gender differences in wisdom are mostly small or nonexistent (Ardelt, 2009; Levenson et al., 2005; Webster, 2003; Webster, Westerhof, & Bohlmeijer, in press). Ardelt (2009) proposed that gender differences are less pronounced in wise individuals than in the general population. Thus, we expected larger gender differences in gratitude in the control group than among the wisdom nominees.

Method

Participants.—The study included a sample of wisdom nominees and an age- and gender-parallel control group. Wisdom nominees were recruited through calls in newspapers and radio stations in Carinthia, Austria, which asked people who knew a particularly wise person to contact the project staff. In total, 82 individuals were nominated as wise, and 47 of them participated. Control participants were mostly recruited through invitation letters sent to a commercially available random sample of 1,600 Carinthians. Of 102 control participants who were interviewed, 37 were selected into the matched control sample. Ten control participants, especially in the oldest age bracket, were recruited through personal contacts. Participants were informed that the study was about "life knowledge," and received €70 (about US\$100) for participation.

The wisdom nominees were 23 women and 24 men (mean age 60.9, $SD = 16.26$, Min = 26, Max = 92). Of the nominees, 57.4% were married or living with a partner, 38.3% had a university degree, and 42.6% were retired. The control sample also included 23 women and 24 men (mean age 60.0, $SD = 15.10$, Min = 26, Max = 84). Of the control participants, 63.9% were married or living with a partner, only 8.5% had a university degree, and 59.8% were retired. Thus, although the two groups were comparable in age, gender, and marital and professional status, the control participants had lower education than the

wisdom nominees, $\chi^2(2, N = 94) = 11.66, p = .003$. For this reason, effects of education were examined in all group comparisons. Wisdom nominees were also higher in vocabulary, measured by the German language *Mehrfachwahl-Wortschatz-Intelligenztest* (multiple-choice vocabulary intelligence test, [Lehrl, 2005](#)), $t(88) = -2.37, p = .02$, but not in fluid intelligence, measured by a short form of the CFT-20-R matrices subtest ([Weiss, 2008](#)), $t(89) = -0.98, p = .33$.

Measures.—The study was part of a larger project; only the measures relevant to the current study are described here (see [Glück et al., 2013](#), for more details).

Life-story matrices and gratitude survey. In life story matrices (adapted from [Glück & Bluck, 2007](#)), participants listed up to 10 most important, five most difficult, and five best events from their life. For each event, they reported their age, a brief description, and ratings of variables such as valence and control. In the gratitude survey, participants listed up to five things for which they felt grateful and briefly noted why they were grateful for each. They also briefly described the most recent situation in which they had felt deep gratitude.

Procedure.—The study involved two interview sessions, which were conducted mostly in the university lab; only a few frail participants were interviewed at home. On average, interview sessions took about 1.5 hr, with a range of 1–4 hr. Before Session 1, participants filled out self-report measures of wisdom and predictors of wisdom, as well as the life-story matrices, at home. In Session 1, participants were presented with a task from the Berlin Wisdom Paradigm and interviewed about their most difficult and best life events (see Life-Event Interview). Session 2, about 2 weeks later, included measures of fluid and crystallized intelligence, an interview about a difficult conflict, and free accounts of participants' most important life lessons. The gratitude survey was given or mailed to participants after Session 2 and returned by all but four participants.

The interviewers were trained doctoral students (including the first author). For organizational reasons, it was impossible to blind them with respect to participants' group membership, but the training emphasized that control participants might be highly wise and wisdom nominees might not.

Life-event interview. Participants were asked to rank the events that they had listed by difficulty and then interviewed about the most difficult event. If they were younger than 15 when the most difficult event happened, if it was less than 5 years past, or if they had not rated it as at least moderately influential, they were also interviewed about the next-ranked event that did fulfill these three criteria. First, they described the event freely. Then, more specific questions were asked: how the situation had come about, what

had been most difficult, how they had dealt with the situation, what had helped them deal with it, how they had felt at the time, how they had dealt with their feelings, how the event had influenced their life, what they had taken away from it, what they would do in this situation today, whether they had received some helpful advice, what they would tell others in a similar situation, and how they felt about the event now. In the best-event interview, the participants again ranked the events and then talked about the best-ranked event and about another event if the first one did not meet the same three criteria as for the most difficult event. They described the event freely and were then asked how it had come about, what had been the best thing about it, how they had felt at the time, how the event had influenced their life, what they had taken away from it, what they would tell others in a similar situation, and how they felt about it today. The interviews were completely transcribed.

Coded variables.—The transcripts and gratitude-survey responses were analyzed by qualitative content analysis ([Mayring, 2007](#)). All data were coded by two independent trained coders; coder agreements are reported in the following.

Gratitude expressions in the interview. We first analyzed how often participants spontaneously mentioned gratitude in the life-event interview. Only explicit expressions of gratitude were coded, such as “I feel thankful” or “I am grateful to her.” Comments such as “thank goodness” or “I’m glad that...” and mentions of another person’s gratitude toward the narrator were excluded. Each narrative was coded for whether it contained a mention of gratitude or not. Narratives that contained expressions of gratitude were coded into one or more of three categories (Cohen’s kappa = 0.96): being grateful *to other people*, *to God*, or *for the experience itself*. [Table 1](#) gives examples for each category. As an aside, two wisdom nominees and one control participant mentioned that they were grateful to have been invited to participate in this study because it had made them reflect upon their entire life. In the words of a 70-year-old woman: “The most important life events, well, let me start by saying that when I read the instructions, I was confused, ranging from depressive feelings to gratitude (...) [for] the amazing fact that someone is interested in life. Not only interested in my life, but in life in general. And that really affected me and made me surprised and grateful.”

Gratitude sources. The sources for which participants were grateful were inductively coded into 13 categories (see [Table 2](#)); again, multiple codings were possible. Cohen’s kappa was 0.94. Participants’ explanations why they were grateful for each aspect were also coded. However, as the categories for reasons were largely overlapping with the sources and a clear distinction was impossible, we focus on the sources of gratitude in the following.

Table 1. Examples of Gratitude Expressions in Narratives of Most Difficult and Best Life Event

Target of gratitude	Most difficult life events	Best life events
Other people	[Terminal care for father – feelings at the time of the event]: “Feelings – when my daughter came back, I felt very grateful, because at least I had some time for other things again.” (wisdom nominee, female, 66 years) [Detachment from mother, long hospital stay – feelings now]: “Gratitude, gratitude toward my mother who always visited me and was against the amputation of my leg, and [gratitude] toward the nurse in the hospital.” (control participant, female, 66 years)	[Partnership – general description]: “... he feels it when I don’t feel well, and I can talk to him about it and yes, I am very grateful that I have such a wonderful relationship. I am happy and grateful that I have him.” (wisdom nominee, female, 65 years) [Interesting journeys – general description]: That was the Dominican Republic, Cuba, Thailand. We really saw a lot of the world. And I feel grateful to my husband, who encouraged me with respect to those experiences, he came with me even after his strokes.” (control participant, female, 81 years)
God	[Natural disaster– general description]: “I was faced with ruin [...] All was lost, it was a state of shock. And then, there was no use thinking, only to continue to work, and to thank God that the family, the greatest thing in life, was okay.” (control participant, female, 70 years)	[Dedication to God – feelings now]: “Gratitude. Gratitude that God embraced me and I am free to be His child.” (wisdom nominee, male, 76 years) [Positive acceptance of my abilities, my engagement – lessons learned]: “I can only thank. I can only thank God, that my life went as it did, yes I can really say that my life was guided by God.” (wisdom nominee, female, 81 years)
Experience itself/ process	[Heart attack – general description]: “The big gratitude came into my life, I said, I have a new life now. Because of this new life, I have new lessons to learn, and I have started to see life in a different way.” (wisdom nominee, male, 76 years) [Sexual problems within marriage – feelings now]: “So, today I am very grateful, that it happened like this, because a lot of things have changed. If that had not happened, I don’t know if I could have proceeded in my personal development so rapidly and if I would have learned so much.” (wisdom nominee, female, 35 years)	[Birth of children – feelings now]: Yes, joy, that everything went so well, and gratitude. I am very grateful, again and again. I feel that the older I get, the more grateful I am. Or the more grateful I become for how my life was or for what a year brings, even if it is not only positive, but there is always something to learn. Gratitude is with me all the time.” (wisdom nominee, female, 35 years) [Left by girlfriend – feelings now]: “I get along with her very well, but I am very grateful that she ditched me back then, very important [laughs], because otherwise my private life would have gone in a completely different direction. And my occupational development would have been far slower and in another direction and I would miss that very much. So I am grateful for that.” (wisdom nominee, male, 38 years)

Results

Frequency of gratitude expressions.—Of the 94 participants, 29 (30.9%) expressed gratitude in the interview about their most difficult life events, which were about various types of difficult challenges, such as the death of a close other person, war experiences, illness, or divorce. Most participants expressed gratitude concerning how they felt about the event now. More wisdom nominees (46.8%) than control participants (14.9%) expressed gratitude, $\chi^2(1, N = 94) = 11.22, p = .001$, and this did not change when participants with high levels of education were excluded, $\chi^2(1, N = 71) = 10.89, p = .001$. Also, 45.7% of the women but only 16.7% of the men mentioned gratitude, $\chi^2(1, N = 94) = 9.25, p = .002$.

In the interview about their best life event, 20 participants (21.3%) mentioned gratitude, mostly with respect to current feelings and lessons learned from the event. Again, wisdom nominees (38.3%) mentioned gratitude more often than control participants (4.3%), $\chi^2(1, N = 94) = 16.26, p < .001$, and this did not change when participants with high levels of education were excluded, $\chi^2(1, N = 71) = 9.79, p = .002$. Women (30.4%) again mentioned gratitude more often than men (12.5%), $\chi^2(1, N = 94) = 4.51, p = .030$.

Most expressions of gratitude in the interviews referred to the experience itself (difficult event: 86.2%, best event: 85.0%). For example, two wisdom nominees talked about experiences in World War II. One said that he was grateful “to have survived it. But also to have learned a lot from it. And, of course, gratitude related to the insight that all forms of violence [are] something that a human being should never engage in. This concerns physical but also mental violence.” The other said that she was desperate when her husband had died in the war but that she had found her way back to religion “when I noticed that eventually everything somehow gets balanced. That that’s the way of the world, things go down, there is a deep valley, but you can never stay at the bottom, at some point you go up again. My religion, that’s just gratitude.” As best events, many participants mentioned the birth of their children. One wisdom nominee said, “It is humility and gratitude about the fact that a new soul grows inside my body and at some point a new life starts out from the womb.” Another listed the birth of her son, who was born with major disabilities, both among her most difficult and best events. In the interview, she said that she was grateful “because I was faced with this enormous challenge. This certainly sounds strange, but I am really grateful that I had the chance to

Table 2. Study 1: Content Categories of Sources of Gratitude Listed in the Gratitude Survey

Category	Examples	Total mentions (% of 89)	Mentions nominees (% of 42)	Mentions controls (% of 47)	Z (p) Group	Z (p) Gender
Family of origin	Intact family	52.8	40.5	63.8	-1.95 (.051)	-0.71 (.480)
Children	For my parents and siblings	44.9	45.2	44.7	-0.07 (.945)	-2.66 (.008)
	My daughter					
Health ^a	That both my family and I are healthy	42.7	45.2	40.4	2.14 (.033)	1.82 (.070)
Occupation/wealth	Staying healthy	37.1	33.3	40.4	-0.71 (.477)	1.82 (.068)
	Occupational history					
Other people	That I have no money troubles	37.1	33.3	40.4	0.53 (.600)	-0.16 (.876)
	Friends, colleagues					
Partner	For my social network	36.0	47.6	25.5	2.09 (.036)	-0.530 (.596)
	For my wonderful wife					
Life experiences	My first husband	32.6	38.1	27.7	0.72 (.474)	-0.60 (.549)
	For good and bad times					
	For everything positive in my life					
Life in general	Life knowledge and insights	28.1	45.2	12.8	3.17 (.002)	-1.33 (.182)
	My whole life					
Freedom/living in Austria	Being alive	27.0	23.8	29.8	-0.48 (.632)	0.53 (.597)
	Living in freedom and peace					
Attitude/personality	Our social system	19.1	28.6	10.6	1.94 (.053)	-1.00 (.317)
	Humility					
Nature	Inner stability and patience	11.2	11.9	10.6	-0.25 (.803)	-0.62 (.534)
	For my curiosity and creativity					
	The beauty of nature					
Religion	Enjoying nature	10.1	19.0	2.1	2.26 (.024)	-1.62 (.105)
	Living in and with nature					
Others	That God loves me	3.4	2.4	4.3	0.42 (.672)	0.58 (.561)
	For my faith, my love for god					
	Abstraction—meta-level is reality					
	Having a driver's license					

Note. ^aFor health, there was a significant group \times gender interaction (see text).

master this, that I am still mastering it. It has altered my life fundamentally.”

A smaller percentage of expressions of gratitude was directed at other people (difficult event: 27.6%, best event: 20.0%) or God (difficult event: 10.3%, best event: 15.0%). For example, one nominee was grateful to her parents for struggling hard after the war: “That my mother had the pride to say, I’m not moving into those barracks. Fought with all her strength. And my father was never out of work for a single minute. He would have done anything not to join the unemployed masses at that time. And that was so important for us later, my husband and my children were never unemployed. I am grateful that my parents taught me that.”

Wisdom nominees expressed gratitude for the *experience itself* more often than control participants (difficult event: 44.7% vs 8.5%, $\chi^2[1, N = 94] = 15.75, p < .001$; best event: 31.9% vs 4.3%, $\chi^2[1, N = 94] = 12.14, p < .001$). Women were also more grateful than men for the *experience itself* in both interviews (difficult event: 39.1% vs 14.6%, $\chi^2[1, N = 94] = 7.25, p = .001$; best event: 28.3% vs 8.3%, $\chi^2[1, N = 94] = 6.30, p = .01$) and to *other people* in the difficult-event interview (15.2% vs 2.1%), $\chi^2(N = 94) = 5.20, p_{\text{exact}} = .030$.

When expressions of gratitude over the whole interview were combined, far more wisdom nominees (59.6%) than control participants (19.1%) expressed gratitude at least once, $\chi^2(1, N = 94) = 16.09, p < .001$, and far more women (60.9%) than men (18.8%) did, $\chi^2(1, N = 94) = 17.46, p < .001$. Again, the difference between nominees and control participants held up when highly educated participants were excluded, $\chi^2(1, N = 71) = 13.18, p < .001$. A logit model predicting expressions of gratitude from group and gender found significant main effects of group, $Z = 3.295, p < .001$, and gender, $Z = 3.395, p < .001$, but no significant group \times gender interaction, $Z = 0.236, p = .813$. Figure 1 illustrates the frequency of expressions of gratitude in male and female wisdom nominees and control participants.

*What were participants grateful for?—*All participants except one listed at least one source of gratitude; the average number was 4.18 (median = 5, $SD = 1.35$, Max = 8). There were no significant group or gender differences in the number of sources. Participants were most often grateful for their *family of origin* (52.8%), *children* (44.9%), *health* (42.7%), *occupation/wealth*, and *other people* (37.1% each). Table 2 shows the results of logit models predicting sources of gratitude from group and gender. Wisdom

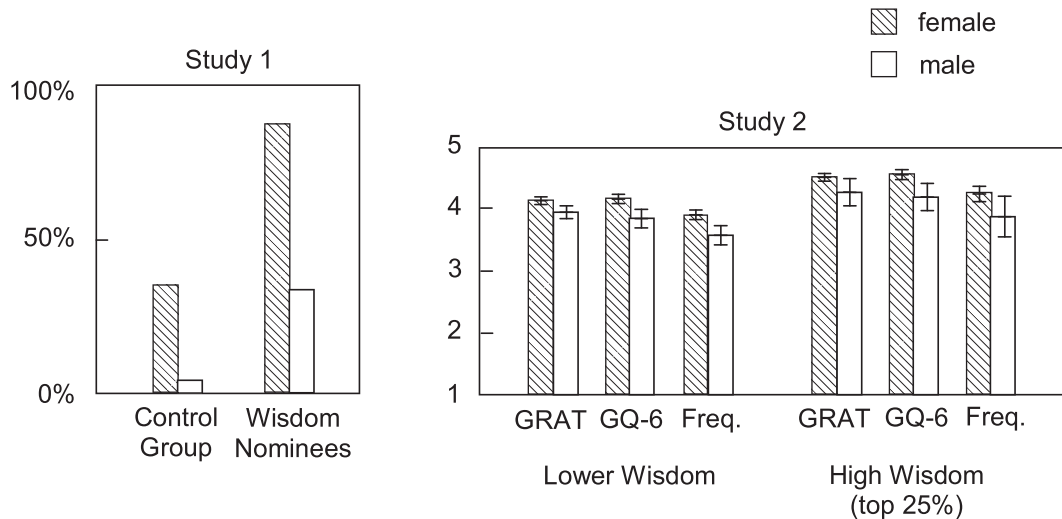


Figure 1. Levels of gratitude in high- and low-wisdom groups across two studies. Study 1: frequency of mentions of gratitude in the interview. Study 2: means and confidence intervals in three scale measures of gratitude. *Note.* Response scales: Gratitude, Resentment and Appreciation Test (GRAT) and Gratitude Questionnaire-6 (GQ-6): 1 = *strongly disagree*, 5 = *strongly agree*; frequency item: 1 = *never*, 5 = *very often*.

nominees expressed gratitude for *life in general*, their *religion*, their *partner*, and marginally for their *attitudes/personality* ($p = .053$) more often than control participants, who were marginally more grateful for their *family of origin* ($p = .051$). Women expressed more gratitude than men for their *children*, and men expressed marginally more gratitude for their *occupation/wealth* ($p = .068$). One group \times gender interaction was found ($Z = -2.389$, $p = .017$): among men, more wisdom nominees (63.2%) than control participants (29.2%) expressed gratitude for their *health*, whereas there was no such difference among the women.

Again, we reran the analyses excluding participants at the highest level of education. Results remained largely the same (group differences: *life in general*: $p = .040$, *religion*: $p = .020$, *partner*: $p = .024$, *family of origin*: $p = .056$; gender differences: *occupation/wealth*: $p = .047$, *children*: $p = .053$; interaction for *health*: $p = .061$), with the exception that the group effect for *attitudes/personality* became insignificant ($p = .197$). Five of the 11 wisdom nominees, but none of the five control participants who were grateful for their *attitudes/personality* had the highest level of education.

Discussion

Study 1 provided first empirical evidence for a relationship between gratitude and wisdom. As expected, more wisdom nominees (about 60%) than control participants (about 20%) expressed gratitude spontaneously in interviews about both their most difficult and best life event. Interestingly, participants mentioned gratitude more often in narratives of difficult events than best events, and they most often reported being grateful for the experience itself, rather than for the support of others or God. Concerning sources of gratitude, wisdom nominees were more often

grateful for *life in general*, their *religion*, their *partner*, and (tendentiously and qualified by education) their *attitudes/personality* than control participants. Male wisdom nominees were also more grateful for their *health* than male control participants. Tendentiously, control participants were more grateful for their *family of origin* than wisdom nominees.

Thus, especially in wise individuals, gratitude may refer less to particular favors received from others than to the reflection and integration of negative events. Such reflection may facilitate posttraumatic growth (Tedeschi & Calhoun, 2004), benefit finding (Tennen & Affleck, 2002), and the generation of autobiographical redemption sequences (McAdams & Bauer, 2004; McAdams et al., 2001). If wisdom develops through a certain way of integrating negative experiences into one's life story (Ardelt, 2005; Glück & Bluck, 2013), a grateful attitude toward life (e.g., Wood et al., 2010) may indeed be related to wisdom.

The assumption of a general relationship between wisdom and gratitude is somewhat challenged, however, by the size of the gender differences. About 60% of the female participants but only 19% of the male participants expressed gratitude spontaneously in the interviews. Among the wisdom nominees, 20 of 23 women but only 8 of 24 men mentioned gratitude. Thus, the gender differences in gratitude were not smaller among the nominees. Gratitude may be a "largely female" aspect of wisdom. On the other hand, there were no differences between men and women in the number of sources of gratitude they listed. Thus, men and women might differ less in their experienced gratitude than in their readiness to spontaneously talk about gratitude. It might be socially endorsed for women to overstate their gratitude and for men to emphasize their own control over events. Also, especially among older participants, women may consider it more appropriate than men to talk about feelings in general.

Study 1 had several limitations. First, most participants were in late middle age and old age. Second, the nominees differed from the control participants in education and crystallized intelligence. Our findings were robust, however, when only the two lower education groups were included. We originally aimed to make the two groups comparable with respect to education as well. This turned out to be impossible, however, although we invested quite some effort in finding highly educated older control participants. We consider this partly as a sampling problem, but probably more as a consequence of the nominees' higher motivation and active engagement toward learning and growth, which may have led them to develop higher levels of both wisdom and education.

Third, it is an open question whether being nominated as wise by others is a valid indicator of wisdom (cf. Redzanowski & Glück, 2013). Our general impression was that some but definitely not all nominees were highly wise. As a group, the wisdom nominees did score higher than the control participants in measures of wisdom (Glück et al., 2013), but it seems important to directly relate measures of wisdom and gratitude. Also, spontaneous mentions of gratitude are interesting precisely because they were not elicited in any way, but they may reflect aspects of language style or subjective conversation norms rather than truly felt gratitude. For these reasons, Study 2 employed scale measures of wisdom and gratitude.

STUDY 2: RELATIONSHIPS BETWEEN MEASURES OF WISDOM AND GRATITUDE

In Study 2, we tested whether the main findings from Study 1 would hold up (a) in a larger sample of young adults, (b) using a different measure of wisdom than nomination, and (c) using scale measures of gratitude. We expected wisdom to be significantly related to scale measures of gratitude and to sources of gratitude involving life in general and social and personal resources. We also expected to find gender differences in gratitude again.

Method

Participants.—The data were collected in an online survey. In total, 527 students of the University of Klagenfurt participated, but only 443 filled out at least one part of the gratitude measures. Their mean age was 28.2 (median = 25, $SD = 10.27$, Min = 18, Max = 69); 77.7% were female participants. About half (47.4%) were psychology students, 20.5% were students of the educational sciences, and the remainder (32.1%) were students of other fields including business studies, computer sciences, and media communication.

Measures.—Wisdom was assessed using a revised version of the *Adult Self-Transcendence Inventory* (ASTI;

Levenson et al., 2005). Levenson and colleagues (2005) defined wisdom as self-transcendence, based on Tornstam's (1997) concept of gerotranscendence and Curnow's (1999) philosophical analysis of European and Asian wisdom literatures. Curnow identified four general principles of wisdom—self-knowledge, detachment, integration, and self-transcendence—which Levenson and colleagues (2005) consider as stages in the development of wisdom. Self-knowledge is awareness of the sources of one's sense of self. Detachment is an understanding of the provisional nature of external sources of self, such as relationships, roles, and material goods. Integration is the acceptance and inclusion of all aspects of the self, including those that may be unwanted. Self-transcendence means independence from external definitions of the self and the dissolution of rigid boundaries between self and others. While the original ASTI consisted of 14 items, we used a new version, developed by the original ASTI authors, that includes 24 wisdom items, which were analyzed here, and 10 alienation items. In contrast to the original ASTI, it consists of general statements rather than statements about changes. Sample items include "My peace of mind is not easily upset," "I feel that my individual life is a part of a greater whole," and "Whatever I do to others, I do to myself." The ASTI has a 4-point response scale from *disagree strongly* to *agree strongly*. In the Study 1 sample, the ASTI had satisfactory reliability (Cronbach's $\alpha = 0.83$) and shared the largest amount of common variance with three other measures of wisdom (Glück et al., 2013). In Study 2, Cronbach's α for the ASTI was 0.78.

Gratitude was assessed by three measures. The *Gratitude, Resentment and Appreciation Test* (GRAT, Watkins, Woodward, Stone, & Kolts, 2003) consists of 44 items forming three scales: sense of abundance (e.g., "I never seem to get the breaks that other people do"; $\alpha = 0.91$), simple appreciation (e.g., "I love to sit and watch the snow fall"; $\alpha = 0.89$), and appreciation of others (e.g., "I'm really thankful for friends and family"; $\alpha = 0.75$). One item (Item 23 "One of my favorite times of the year is Thanksgiving") was excluded because Thanksgiving is not an important holiday in Austria. The *Gratitude Questionnaire-6* (GQ-6, McCullough, Emmons, & Tsang, 2002) consists of six items measuring the frequency, intensity, span, and density of the experience of gratitude (e.g., "I have so much in my life to be thankful for," "I am grateful to a wide variety of people"; $\alpha = 0.78$). Response scales for the GRAT and the GQ-6 range from 1 = *strongly disagree* to 5 = *strongly agree*. Additionally, we included an item measuring participants' *Frequency of Gratitude* in their everyday life ("How often do you feel grateful?"; 1 = *never* to 5 = *very often*). As in Study 1, participants also listed two to five things that they were grateful for.

Coded variables.—These sources of gratitude were coded into the 13 categories from Study 1 and two new categories

that probably reflect the life situation of younger adults: *interests/passions* and *education*. A random subset of 200 sources of gratitude (11.4%) was independently coded by a second coder; Cohen's kappa was 0.87.

Results

Relationships among scale measures of gratitude and wisdom.—Wisdom was positively correlated to all four measures of gratitude (simple appreciation: $r = 0.50$, GQ-6: $r = 0.42$, sense of abundance: $r = 0.39$, frequency of gratitude: $r = 0.31$, appreciation of others: $r = 0.28$, all $ps < .01$). Together, the gratitude measures explained 31.3% of the variance in wisdom.

To test the assumption that gender differences in gratitude would be smaller among highly wise participants, we split the sample into the top 25% ASTI scorers versus the remaining 75%. The high-wisdom group scored significantly higher in all three gratitude measures (GRAT: $F(1, 431) = 41.711$; GQ-6: $F(1, 431) = 27.543$; frequency item: $F(1, 431) = 15.585$; all $ps < .001$), and women scored significantly higher than men (GRAT: $F(1, 431) = 15.745$; GQ-6: $F(1, 431) = 22.317$; frequency item: $F(1, 431) = 18.472$; all $ps < .001$), but there was no indication at all of a wisdom group \times gender interaction (all $Fs < 1.0$). Figure 1 illustrates the gender differences.

Sources of gratitude.—All participants listed at least two sources of gratitude; the mean was 3.95 sources (median = 4; $SD = 1.05$). The most frequent categories were *family of origin*, mentioned by 72.0% of the participants, *other people* (62.1%), and *health* (51.5%). The relationship between wisdom, gender, and individual sources of gratitude was analyzed by binary logistic regression. Linearity of logits for the wisdom score was tested by including Box–Tidwell transformations into each model and assuring that these terms were not significant (Tabachnick & Fidell, 2001).

Table 3 shows the odds ratios for those sources where significant group or gender effects were found. Wiser participants were less likely to report gratitude for their *family of origin* and more likely to report gratitude for *nature*, *religion*, *life experiences*, and *life in general*. Women were more likely than men to report gratitude for their *family of origin*, *partner*, *life experiences*, and *attitude/personality*. A significant wisdom \times gender interaction showed that the gender difference with respect to gratitude for one's *attitude/personality* was larger among highly wise than among less wise participants.

Discussion

Study 2 tested whether the findings of Study 1 held up with a different sample and methodology: participants were mostly young adults, and both wisdom and gratitude were assessed by scale measures. All gratitude scales were significantly correlated to wisdom; together, they explained 31% of the variance in wisdom. The correlation to wisdom was highest for simple appreciation and lowest for appreciation of others.

With respect to sources of gratitude, the findings were consistent with those of Study 1. Wiser participants were more likely to report gratitude for their *religion*, *life in general*, *life experiences*, and *nature*. Female wiser participants were also more likely to be grateful for their *attitude/personality*. As was tendentially the case in Study 1, wiser participants were less likely to report gratitude for their *family of origin*. In our view, this finding suggests two possible interpretations. First, it fits with our general assumption that wise individuals' gratitude is less directed at concrete others and more indicative of a general appreciation of life, its experiences, and one's resources to deal with them. Second, we believe that it is important to distinguish between "truly felt" gratitude and gratitude expressed in response to study prompts. Most people are probably able to come up with something that they are grateful for when asked for it, but they may not necessarily have such grateful feelings spontaneously in their real life. In some cases, gratitude toward

Table 3. Study 2: Final Logistic-Regression Model for Sources of Gratitude

Dependent variable	Independent variables	Odds ratio	95% Confidence interval		<i>p</i> Value
			Lower	Upper	
Family of origin	Wisdom	0.39	0.20	0.74	.004
	Gender (female) ^a	1.65	1.02	2.68	.043
Partner	Gender (female)	1.93	1.06	3.51	.033
Nature	Wisdom	3.87	1.27	11.85	.018
Attitude/personality	Wisdom	0.85	0.22	3.32	.809
	Gender (female)	0.01	0.00	0.15	.007
	Wisdom \times gender	8.65	1.63	45.87	.011
Religion	Wisdom	10.89	1.44	82.20	.021
Life experiences	Wisdom	3.31	1.72	6.35	<.001
	Gender (female)	1.76	1.03	3.01	.040
Life in general	Wisdom	3.24	1.53	6.85	.002

Note. ^aMale = 0, female = 1.

one's parents may be a somewhat stereotypical and socially endorsed response rather than a true feeling.

As in Study 1, and in line with previous work on gratitude (e.g., Kashdan et al., 2009; Wood et al., 2008), women scored higher than men in all gratitude measures except sense of abundance, but not in wisdom (see also Le & Levenson, 2005; Levenson et al., 2005). Again, the prediction that gender differences in gratitude might be less pronounced in highly wise participants was not confirmed. Thus, gratitude seems to be highly typical of wise women but less typical of wise men. To some degree, this finding may still be attributable to gender differences in the social desirability of gratitude, but the general idea that wiser individuals are less gender stereotyped (Ardelt, 2009) would also suggest that they should be less susceptible to social desirability effects. It seems more plausible to us that women's higher amount of gratitude compared with men is at least partly related to their stronger feelings of connectedness and interdependency (e.g., Bekker & van Assen, 2008; Cornwell, 2011).

GENERAL DISCUSSION

As far as we know, this research is the first that analyzed the relationship between gratitude and wisdom. The findings provide new insights concerning both constructs.

Gratitude and Wisdom Are Related

The findings of both studies provide substantial evidence for a positive relationship between gratitude and wisdom. Wisdom nominees mentioned gratitude more often than control participants in interviews about their most difficult and best life event (Study 1), and a scale measure of wisdom was significantly related to a number of scale measures of gratitude in a large young-adult sample (Study 2). In both studies, wiser individuals reported more sources of gratitude that were related to life reflection and the integration of life experiences (*life in general* in both studies; *life experiences* in Study 2), as well as to personal and social resources that may facilitate dealing with and integrating difficult experiences (*religion, partner, attitudes/personality* in Study 1; *nature and religion* in Study 2).

These findings are consistent with the idea that the reflection and retrospective integration of difficult life experiences into one's life story plays an important role in the development of wisdom (Ardelt, 2005; Glück & Bluck, 2013). Wise individuals think deeply about experiences and their own role in them and are able to integrate them into their view of themselves and to grow through them. They may be more aware than other people of the limitations of their personal control over events (Ardelt, 2005; Baltes & Staudinger, 2000; Glück & Bluck, 2013), but they also appreciate the internal (religion, attitudes/personality) and external (relationships, nature) resources that are available to them. Thus, wisdom is associated with a certain view

of what is important in one's life (see also Lambert et al., 2009; Wood et al., 2010), which puts experiences in a broad perspective and enables the individual to see the bigger picture (cf. Solomon, 2004). Although many people may take their life situation, personality, and learning opportunities for granted, wiser individuals seem to be more aware of the fact that they are important resources for living a good life even in the face of challenges.

As an example, at least among the older participants in Study 1, wisdom was related to being grateful for one's partner. Although being in a relationship is generally considered as a positive resource, recent research shows that living with a partner can also cause interpersonal stress (Hahn, Cichy, Small, & Almeida, *in press*), that marital quality, not marriage itself, is important for coping with age-related disability (Bookwala, 2011), and that adjusting one's view of the partner is essential to marital quality in older adulthood (Li & Fung, 2012). Being grateful for one's partner after many years of living together may be an interesting indicator of how wisdom manifests in long-term relationships.

It is often hard to determine the conceptual role of correlates of wisdom: should they be considered as predecessors or consequences of wisdom, as coemerging with wisdom, or as parts of wisdom? We believe that gratitude and wisdom coemerge in the sense that they both are the result of a self-reflective integration of experiences. Our data obviously do not allow any conclusions about causality or developmental sequences, however. Longitudinal and experimental studies are needed to clarify the developmental nature of the relationship between gratitude and wisdom.

Gender, Gratitude, and Wisdom

Although the statistical relationship between wisdom and gratitude is strong, it is important to note that there can be both wisdom without gratitude and gratitude without wisdom. In particular, gratitude seems to accompany wisdom much more typically in women than in men. Women expressed gratitude spontaneously more often than men in Study 1, scored higher than men in almost all gratitude scales in Study 2, and reported partly different sources of gratitude in both studies, especially concerning important other persons. These findings are in line with various other studies on gender differences in gratitude (e.g., Kashdan et al., 2009; Wood et al., 2008). At the same time, women did not score higher in wisdom. These findings bring up the question whether there is something like "male wisdom" and "female wisdom" after all. Previous work has mostly found small or nonexistent gender-related differences in both lay conceptions of wisdom (e.g., Glück, Bischof, & Siebenhüner, 2012; Glück, Strasser, & Bluck, 2009; Glück & Bluck, 2011) and actual wisdom scores (e.g., Ardel, 2009; Levenson et al., 2005; Webster, 2003; Webster et al., *in press*). Thus, there do not seem to be important gender differences in the main criteria for assessing wisdom—in

fact, it has been argued that wise men and women may be less gender stereotypical in their thinking and behavior than other people (Ardelt, 2009; Orwoll & Achenbaum, 1993).

Our findings are not easy to reconcile with this general assumption of small or no differences between wise men and women: 87% of the female wisdom nominees but only 33% of the male nominees expressed gratitude spontaneously in Study 1. One possible explanation is that gratitude may be a co-outcome of some but not other pathways toward wisdom. Orwoll and Achenbaum (1993) suggested that although wise individuals have integrated both female and male aspects, the path toward wisdom may differ for men and women. Experience with particular life situations and developmental tasks is an important factor in the development of wisdom (Glück & Bluck, 2013, Thomas & Kunzmann, in press). Especially in older cohorts, women's important life experiences often involved raising children and caring for frail older family members, whereas men experienced central life challenges in the professional domain. This is reflected in the finding that in Study 1, women were more grateful for their children, and men were marginally more grateful for their professional experiences. Similarly, in an earlier study, we found marked gender differences in autobiographical wisdom events (Glück et al., 2009): Men more often reported having been wise in professional contexts, whereas women more often referred to family life and death and illness. Thus, especially in older generations, the experiences through which wisdom develops and manifests may have differed between men and women, and the more typically female experiences may involve more connectedness to others and less personal control. The finding that in Study 2, women in general and wiser women in particular were more grateful for their own attitudes/personality, that is, for an internal resource, is consistent with this assumption. In this vein, gratitude may be a more typical outcome of the path toward the attainment of wisdom for women than for men. Note, however, that in Study 1, male wisdom nominees expressed gratitude for their health more often than male control participants, which may suggest that experiences of uncontrollability are also related to male wisdom. Certainly, the dissociation between gratitude and wisdom with respect to gender needs to be further investigated.

Methodologically, this research has profited from the integration of quantitative and qualitative methods. With highly desirable constructs like gratitude, it is probably worthwhile to study spontaneous expressions as well as responses to self-report scales. Also, the data on sources of gratitude were relatively easy to code reliably and provided interesting additional information on qualitative differences between individuals who may display the same level of gratitude in a scale measure.

The present research is an important first step toward understanding the relationship between wisdom and gratitude and may offer new ideas about both constructs and

their developmental pathways. Cultivating the experience and expression of gratitude may be conducive to dealing with the demands of life in a wise way, and in this sense, to living a good life.

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