

# Journal of Experimental Psychology: General

## **Boosting Wisdom: Distance From the Self Enhances Wise Reasoning, Attitudes, and Behavior**

Ethan Kross and Igor Grossmann

Online First Publication, July 4, 2011. doi: 10.1037/a0024158

### CITATION

Kross, E., & Grossmann, I. (2011, July 4). Boosting Wisdom: Distance From the Self Enhances Wise Reasoning, Attitudes, and Behavior. *Journal of Experimental Psychology: General*. Advance online publication. doi: 10.1037/a0024158

## BRIEF REPORT

## Boosting Wisdom: Distance From the Self Enhances Wise Reasoning, Attitudes, and Behavior

Ethan Kross and Igor Grossmann  
University of Michigan, Ann Arbor

Although humans strive to be wise, they often fail to do so when reasoning over issues that have profound personal implications. Here we examine whether psychological distance enhances wise reasoning, attitudes and behavior under such circumstances. Two experiments demonstrate that cueing people to reason about personally meaningful issues (Study 1: Career prospects for the unemployed during an economic recession; Study 2: Anticipated societal changes associated with one's chosen candidate losing the 2008 U.S. Presidential election) from a distanced perspective enhances wise reasoning (dialecticism; intellectual humility), attitudes (cooperation-related attitude assimilation), and behavior (willingness to join a bipartisan group).

*Keywords:* distance, self, wisdom, emotional intelligence, emotion regulation

Although humans strive to be wise, they often fail to do so when reasoning over issues that have profound personal implications. Consider, for example, the unemployed worker who stops searching for employment during tough times under the assumption that the job market will never improve or the party loyalist who predicts doomsday if the candidate they support loses the election. Here we examine how wisdom can be enhanced when people reason about profoundly meaningful personal issues—by adopting a *psychologically distanced* perspective.

Wisdom involves certain forms of pragmatic reasoning and behavior that help people navigate important life challenges (Baltes & Smith, 2008; Basseches, 1980; Craft, Gardner, & Claxton, 2008; Grossmann et al., 2010; Kramer, 2000). Although a variety of factors give rise to this quality,<sup>1</sup> an emerging consensus suggests that three important dimensions of wisdom involve recognizing that the world is in flux and the future is likely to change, recognizing that there are limits associated with one's own knowledge, and possessing a prosocial orientation that promotes the "common good."<sup>2</sup>

A common feature of these different dimensions of wisdom is that they require people to transcend their egocentric viewpoints to take the "big picture" into account and reason holistically (Cohen, Hoshino-Brown, & Leung, 2007; Craft et al., 2008; Ji, Nisbett, & Su,

2001; Staudinger & Gluck, 2011). Findings from multiple areas of research indicate that people from Western cultures experience difficulty engaging in this process when they reason about personally meaningful issues (Epley & Caruso, 2008). Under such circumstances, people tend to reflexively focus on the concrete details of their experiences (Ayduk & Kross, 2010; Grossmann & Kross, 2010). This suggests that to enhance wise reasoning, a mechanism is needed to allow people to transcend their egocentric viewpoint as they reason about self-relevant issues.

Here we hypothesized that one way of facilitating this shift in the way people reason about personally meaningful issues is to enhance psychological distance. Preliminary evidence supporting this view comes from experiments indicating that cueing people to reflect over negative past experiences from a self-distanced or "fly on the wall" perspective leads them to reason more abstractly (cf. Kross & Ayduk, 2011; Trope & Liberman, 2010) and research indicating that psychological distance enhances global processing (Förster, Liberman, & Kuschel, 2008). To our knowledge, however, no research has examined whether the particular type of thinking style that distancing promotes translates into "wise reasoning."

We addressed this issue by cueing participants in two experiments to reason about how a personally meaningful issue would develop from either a distanced or immersed perspective. We examined the implications of these manipulations for two common types of wise reasoning—*dialecticism* (i.e., recognizing that the world is in flux and future is likely to change; Basseches, 1984; Kramer & Woodruff, 1986), and *intellectual humility* (i.e., recog-

---

Ethan Kross and Igor Grossmann, Department of Psychology, University of Michigan, Ann Arbor.

Both authors contributed equally to this research. It was supported by a University of Michigan Summer Research Grant to Ethan Kross and a Daniel Katz Dissertation Fellowship from the Institute for Social Research, University of Michigan to Igor Grossmann. We thank Ozlem Ayduk, Robin Edelstein, and Oscar Ybarra for their comments.

Correspondence concerning this article should be addressed to Igor Grossmann or Ethan Kross, University of Michigan, Psychology Department, 530 Church Street, Ann Arbor, MI 48109-1109. E-mail: igrossm@umich.edu or ekross@umich.edu

---

<sup>1</sup> Other commonly mentioned wise reasoning dimensions include searching for compromise between groups involved in conflict and adopting the perspective of other people involved in conflict. We did not focus on these dimensions because our experiments did not focus on issues involving group conflict.

<sup>2</sup> This consensus emerges from the fact that these dimensions are among the most frequently mentioned facets of wisdom across different operationalizations of the construct.

nizing the limits of one's own knowledge; Baltes & Smith, 2008; Ryan, 2008). Because prosocial orientation is often conceptualized as an important consequence of wise reasoning (Sternberg, 1998), Experiment 2 also examined the effect of distancing on two prosocial tendencies.

### Experiment 1

College seniors and recent college graduates who were unsuccessful at securing a job after graduation were asked to reason about how the economic recession characterizing the United States economy at the time of the study would influence their career prospects. We focused on this issue to examine how distancing would influence wise reasoning over an issue that was both ecologically valid and meaningful to our sample. Participants were randomly assigned to reason about this issue from a distanced or immersed perspective. We predicted that distancing would enhance wise reasoning.

### Method

**Participants.** Fifty-seven University of Michigan college seniors and recent graduates who were unsuccessful at securing a job after graduation at the time of data collection (35 women, 22 men;  $M_{\text{age}} = 21.57$  years,  $SD = 2.22$ ) participated in a study on human reasoning in exchange for \$12.

**Procedure.** A hypothesis-blind experimenter informed participants that the study explored "the ways people talk and reason about different future events." Participants were asked to select a card from a deck to choose a topic to discuss. Each card described the current recession in the United States and rising unemployment rates. Participants were first instructed to "take a few minutes to think about how the current economic climate will impact you personally." They were then randomly assigned to reason aloud to an interviewer about how the recession would impact their career prospects from either an *immersed perspective* (i.e., "imagine the events unfolding before your own eyes as if you were right there";  $n = 27$ ) or a *distanced perspective* (i.e., "imagine the events unfolding as if you were a distant observer";  $n = 30$ ) using a modified version of established procedures (Kross, Ayduk, & Mischel, 2005). Interviewers followed a standardized script to deliver all instructions.

**Affect.** Participants rated their current mood on a 1 (*very unhappy*) to 9 (*very happy*) scale at baseline ( $M = 6.57$ ,  $SD = 1.28$ ) and immediately after reasoning about their future ( $M = 6.00$ ,  $SD = 1.21$ ).

**Wise reasoning.** Participants' responses were recorded, transcribed and content analyzed for dialectical thinking and intellectual humility following established procedures (Grossmann et al., 2010). Two hypothesis and condition-blind raters coded participants' responses on these dimensions using a 1 (*not at all*) to 3 (*a lot*) scale (inter-rater  $r_s > 0.9$ ).

### Results

Response omissions and an equipment malfunction resulted in missing values for post manipulation affect ( $n = 3$ ), and wise reasoning ( $n = 4$ ). We used a multiple imputation approach to replace missing values (Rubin, 1996), which produces parameter estimates that are less biased than listwise deletion and mean substitution procedures (Schafer & Graham, 2002). Missing values were not related to condition,  $\chi^2(1, N = 57) = 0.86$ ,  $ns$ ; the results of all analyses remained substantively the same when analyses were performed without missing values imputed.

When appropriate, effect sizes were quantified using the probability of superiority ( $PS$ ), which estimates the probability that a randomly selected participant from the distanced group scored higher than a randomly selected immersed participant on a given dependent variable. Thus, a  $PS$  score of .60 indicates that there is a 60% chance that a randomly selected distanced participant scored higher than a randomly selected immersed participant.

All participants reported feeling less happy after reasoning about their future compared to baseline,  $F(1, 56) = 24.41$ ,  $p < .001$ ,  $\eta_p^2 = .30$ . This effect was not moderated by condition,  $F(1, 55) < 1$ ,  $ns$ .

Our main predictions concerned the effect of distancing on wise reasoning. As predicted, participants in the distanced group were significantly more likely to recognize the limits of their knowledge,  $F(1, 55) = 7.00$ ,  $p = .01$ ,  $\eta_p^2 = .11$ ,  $PS = .68$ , and recognize that the future was likely to change,  $F(1, 55) = 7.14$ ,  $p = .01$ ,  $\eta_p^2 = .12$ ,  $PS = .68$  (see Table 1 and Figure 1A). Controlling for gender, baseline affect, and pre- versus post-manipulation change in affect did not alter these results.

Table 1  
Examples of Wise Responses From Study 1

| Wisdom dimension                            | Example   |
|---|---|
| Recognition of limits of knowledge/humility | This is a challenge. In the immediate future I see myself enrolled in a vet school at Michigan State, and being a lab technician. And then this would roll out either to vet school after the lab technician or working somewhere whether it be as a doctor in a clinic setting or in a lab. Maybe I see myself in Michigan, in the close proximity and then maybe in a different state wherever any of these paths take me, possibly abroad in Latin America . . . <i>But I can't really understand what the future of the economy is going to be like. In part, this is because I don't really understand the economic situation well enough.</i> |
| Recognition of the likelihood of change     | It's going to be hard in the first couple of years to find a job, because the whole economy has just gone downhill. But once I do get a job, it's going to be a good job. It'll be good pay and then I'll be able to afford for myself and then eventually my family, so <i>I think it'll be hard for the first couple of years and after that, it should look better . . . The economy right now is just bad, but it's coming back up. I think the current economy will be an obstacle that will actually help me become a better and more motivated worker.</i>   |

Note. Italics are added for emphasis.

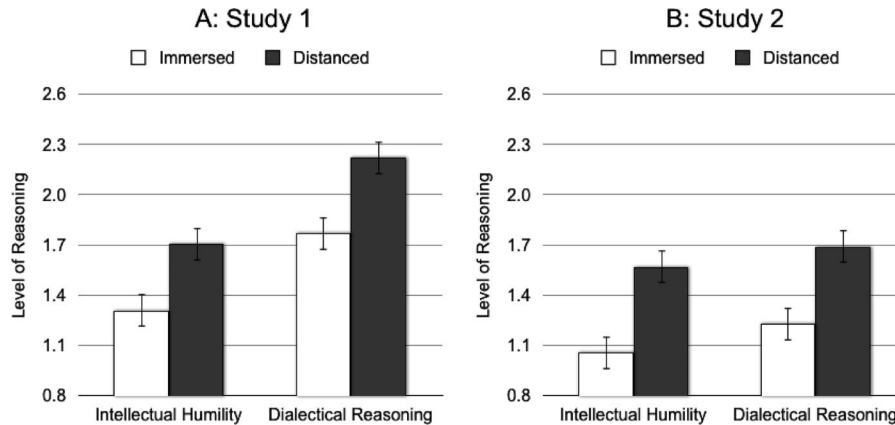


Figure 1. The effect of condition on wise reasoning in Studies 1 (A) and 2 (B). Error bars represent 1 standard error above/below the mean value for each condition.

## Experiment 2

The Study 1 findings provide preliminary evidence indicating that distancing enhances wise reasoning. Study 2 aimed to extend these findings in four ways.

First, we sought to conceptually replicate the Study 1 results by having participants' reason about a different personally meaningful issue. Specifically, during the 3 weeks preceding the 2008 U.S. Presidential election, we asked strongly liberal and conservative participants to think about how various foreign and domestic issues would play out over the next 4 years *if the candidate that they did not endorse wins the election* from a distanced or immersed perspective.

Second, prior research indicates that different types of distancing manipulations similarly influence the way people construe information (Trope & Liberman, 2010). Therefore, to further establish the relationship between distance and wisdom we used a different type of manipulation.

Third, we examined the effect of distancing on two prosocial tendencies—cooperation and openness to diverse views. First, we examined whether distancing influenced participants' political beliefs. Prior research indicates that cooperation leads people to assimilate other people's views (Stapel & Koomen, 2005). Thus, we expected participants in the distancing group to endorse their liberal or conservative views less strongly after the experiment. Second, we measured openness to diverse viewpoints behaviorally by asking participants if they would like to join a *bipartisan* group devoted to discussing political issues in an informal setting at the end of the study. We predicted that participants who distanced would be more likely to join this group.

Finally, we explored the relationship between distance, wise reasoning, and prosocial tendencies. If distancing influences prosocial tendencies, we predicted that it would do so via wise reasoning.

## Method

**Participants.** Three weeks before the 2008 U.S. Presidential election 54 strongly liberal or conservative participants (27 women, 27 men;  $M_{\text{age}} = 18.5$  years,  $SD = 0.81$ ) were recruited for

a study on human reasoning in exchange for course credit. All participants were U.S. citizens. Participants were enrolled if they scored in the “very liberal” ( $\leq 3$ ;  $n = 47$ ) or “very conservative” ( $\geq 7$ ;  $n = 7$ ) range on a 10-point political ideology question (Inglehart & Baker, 2000) administered during university subject pool prescreening.

**Procedure.** Participants first read summaries of the Democrat and Republican parties' position on different political issues taken from each party's website. They were then asked to focus on two issues about which they felt strongly. Next, they were randomly assigned to reason aloud to an interviewer about how each issue would develop over the next 4 years *if the candidate that they did not endorse wins the election* from an immersed ( $n = 29$ ) or distanced ( $n = 25$ ) perspective.

We used a spatial distance paradigm to manipulate distance (Fujita, Henderson, Eng, Trope, & Liberman, 2006). Specifically, immersed participants reasoned about each issue from the perspective of a U.S. citizen living in the United States for the next 4 years; distanced participants reasoned about each issue from the perspective of a citizen of Iceland living in Iceland for the next 4 years.

**Affect.** The same measure was used to measure baseline ( $M = 6.58$ ,  $SD = 1.09$ ) and post-manipulation affect ( $M = 6.02$ ,  $SD = 1.18$ ), as in Study 1.

**Wise reasoning.** Participants' predictions about the future were content analyzed for dialectical thinking and intellectual humility following the Study 1 procedures (inter-rater  $r_s > 0.9$ ).

**Attitude assimilation.** Participants' rated their level of political ideology after the interview using the same question administered before the experiment. Political ideology adjustment scores were computed by first reverse coding scores for liberal participants and then subtracting post-manipulation scores from pre-manipulation scores for all participants such that lower scores reflected less extreme views ( $M = -0.19$ ,  $SD = 1.73$ ).

**Openness to diverse viewpoints.** At the end of the study participants were asked if they were interested in joining a bipartisan group devoted to discussing political issues in an informal setting. They were told to leave their e-mail address if they wanted to join the group.

## Results

**Preliminary analyses.** Response omissions and a procedural error resulted in missing values for post manipulation affect ( $n = 2$ ), wise reasoning ( $n = 8$ ), and attitude assimilation ( $n = 7$ ). We again used a multiple imputation approach to replace missing values, which were unrelated to condition,  $\chi^2(1, N = 54) = 0.52, ns$ . The magnitude of our observed effects remained substantively the same when analyses were performed without missing values imputed. Neither gender, nor political ideology, nor the type of political issue that participants discussed moderated the results. Effect sizes are quantified using *PS*.

**Affect and wise reasoning.** Participants reported feeling more distressed after the experiment compared to baseline,  $F(1, 52) = 22.49, p < .001, \eta_p^2 = .29$ . This effect was not moderated by condition ( $F < 1$ ).

As in Study 1, distanced participants were more likely to predict that the future was likely to change,  $F(1, 52) = 11.14, p = .002, \eta_p^2 = .18, PS = .69$ , and acknowledge the limits of their knowledge,  $F(1, 52) = 11.80, p = .001, \eta_p^2 = .19, PS = .68$  (see Figure 1B).

**Prosocial tendencies: Attitude assimilation and openness to alternative viewpoints.** Participants in the distancing group endorsed their political views less strongly after the experiment compared to baseline,  $F(1, 52) = 4.84, p = .03, \eta_p^2 = .09, PS = .65$  (see Figure 2), and signed up to join a bipartisan political issue discussion group at the end of the study at a higher rate (8/25) than immersed participants (3/29;  $B = -1.41, SE = .75, Wald = 3.56, p = .059$ ).

**Mediation analyses.** We performed a path analysis to examine whether the effect of condition on prosocial tendencies was mediated by wise reasoning, which we operationalized as the average of participants dialectical reasoning and intellectual humility scores ( $r = .49, p < .001$ ). Wise reasoning was correlated with openness to diverse viewpoints (Spearman's  $\rho = .57, p < .001$ ) but not attitude assimilation scores ( $r = -.09$ ). Thus, we focused on the former measure.

Because the pathway we examined included both a continuous variable (wise reasoning) and a categorical variable (openness to

diverse viewpoints), we ran a series of linear and logistic regressions to test for mediation following established procedures (MacKinnon, Fairchild, & Fritz, 2007). These analyses provided evidence for mediation (see Figure 3 for statistics). Specifically, condition was related to wise reasoning and openness to diverse viewpoints, and the effect of wise reasoning on openness to diverse viewpoints was significant when controlling for condition. Finally, a bootstrap test indicated a significant indirect effect of condition on openness to diverse viewpoints via wise reasoning.

## General Discussion

Although research on wisdom has increased dramatically in recent years, much of this work has focused on defining wisdom and examining how it changes over the lifespan. Comparatively less attention has been devoted to identifying the basic psychological mechanisms that underlie this process. The findings from the present research address precisely this issue. They indicate that people who “distance” while reasoning over personally meaningful issues think and behave in ways that prior research suggests is wise.

It is noteworthy that we observed shifts in wise reasoning and behavior in response to relatively simple manipulations. This suggests that people may not need to go to great lengths to reason wisely in daily life. Whether people can be taught how to distance and implement this process outside the laboratory remains to be seen. It is also unclear whether reasoning over nonpersonal issues from a distanced perspective enhances wisdom or whether distancing has additional beneficial implications for how people make important decisions. The shortcomings of human reasoning and intuition are well established (Gilovich, Griffin, & Kahneman, 2002). Might distancing help people overcome such limitations? Future research is needed to address this issue and is important for integrating these findings with research in the decisions sciences more generally.

In addition to having implications for research on wisdom and psychological distance, these findings extend cultural psychological research. They suggest that distancing may be a mechanism that leads to cultural differences in context-oriented reasoning (i.e., dialecticism; Nisbett, Peng, Choi, & Norenzayan, 2001). This inference is consistent with research showing that cultures that endorse more context-oriented reasoning also tend to spontaneously distance more when reflecting over their experiences than cultures that are less contextual (Cohen et al., 2007; Grossmann & Kross, 2010).

Two caveats are in order before concluding. First, distancing did not influence mood in either study. On the one hand, this suggests that affect did not mediate the effects of distancing on wise reasoning. On the other hand, this finding was unexpected given prior research indicating that distancing dampens emotional reactions (e.g., Kross et al., 2005). One explanation for this asymmetry concerns methodological differences across these studies. Here participants reasoned about *what* would happen in their *future*, whereas studies linking distancing with less emotionality have cued participants to focus on *why* they felt the way they did in their *past*. This explanation notwithstanding, future research is needed to examine the relationship between distance, emotion, and wisdom.

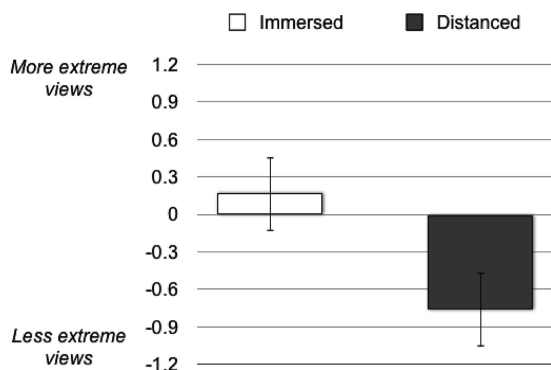
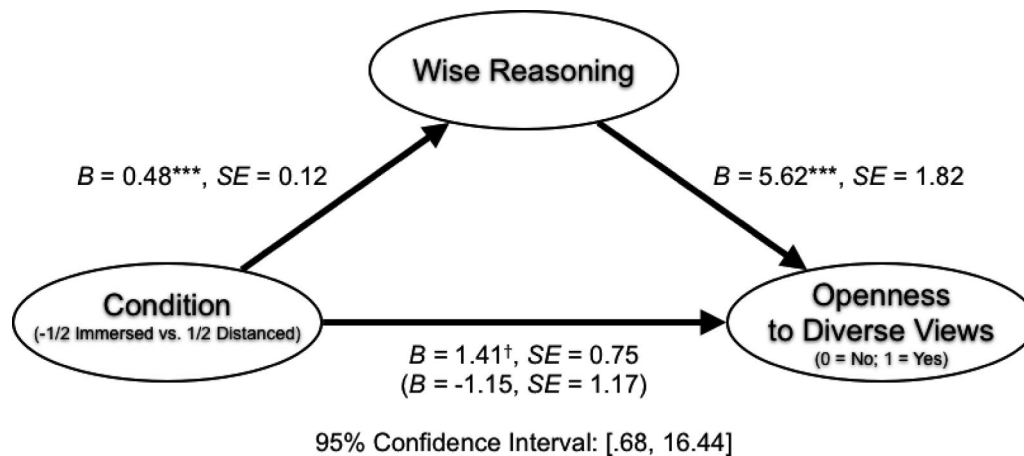


Figure 2. Change in political ideology (post-manipulation scores – pre-manipulation scores). Negative values mean that participants endorsed their political ideological beliefs *less* strongly after the experiment; positive values mean that participants endorsed their political ideological beliefs *more* strongly after the experiment. Error bars represent 1 standard error above/below the mean value for each condition.



*Figure 3.* Results of a path analysis examining the role that wise reasoning plays in mediating the effect of condition on openness to diverse viewpoints in Study 2. Unstandardized coefficients (betas) are shown. The value in parentheses reveals the relationship between condition and openness to diverse viewpoints after controlling for wise reasoning. Statistical significance is indicated by superscripts ( $^{\dagger}p = .06$ .  $*p \leq .05$ .  $***p \leq .01$ .  $****p \leq .005$ ). The values in the square brackets correspond to the 95% confidence interval from a bootstrap test performed to assess the significance of the indirect effect. The mediation is significant if the confidence interval does not include zero.

Second, attitude assimilation was not significantly correlated with the other wisdom measures in Study 2. Failure to observe a significant relationship between conceptually related outcomes measured across levels of analysis is not uncommon. For example, established measures of cognitive style (Na et al., 2010), attitudes (Greenwald & Farnham, 2000), and emotion (Ayduk, Mischel, & Downey, 2002) often correlate weakly or nonsignificantly. It is also possible that distancing influenced attitude assimilation through a mechanism we did not assess. For example, prior research indicates that distancing promotes global processing which has also been linked with assimilation effects (Förster et al., 2008)—it is possible that distancing influenced attitude assimilation through this mechanism.

## Conclusion

Wisdom is a multifaceted construct. The current findings begin to demystify this construct by highlighting a specific psychological process that underlies it. A key challenge for future research is to develop an increasingly fine-grained understanding of how distancing promotes wisdom. Addressing this issue, along with the other questions raised by these findings, promises to enhance knowledge concerning how wisdom operates and can be cultivated in daily life.

## References

- Ayduk, O., & Kross, E. (2010). From a distance: Implications of spontaneous self-distancing for adaptive self-reflection. *Journal of Personality and Social Psychology, 98*, 809–829. doi:10.1037/a0019205
- Ayduk, O., Mischel, W., & Downey, G. (2002). Attentional mechanisms linking rejection to hostile reactivity: The role of “hot” versus “cool” focus. *Psychological Science, 13*, 443–448. doi:10.1111/1467-9280.00478
- Baltes, P. B., & Smith, J. (2008). The fascination of wisdom: Its nature, ontogeny, and function. *Perspectives on Psychological Science, 3*, 56–64. doi:10.1111/j.1745-6916.2008.00062.x
- Basseches, M. (1980). Dialectical schemata: A framework for the empirical study of the development of dialectical thinking. *Human Development, 23*, 400–421. doi:10.1159/000272600
- Basseches, M. (1984). *Dialectical thinking and adult development*. Norwood, NJ: Ablex.
- Cohen, D., Hoshino-Brown, E., & Leung, A. K. (2007). Culture and the structure of personal experience: Insider and outsider phenomenologies of the self and social world. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 39, pp. 1–67). San Diego, CA: Academic Press.
- Craft, A., Gardner, H., & Claxton, G. (Eds.). (2008). *Creativity, wisdom, and trusteeship: Exploring the role of education*. Thousand Oaks, CA: Corwin Press.
- Epley, N., & Caruso, E. M. (2008). Perspective taking: Misstepping into others’ shoes. In K. D. Markman, W. M. P. Klein & J. A. Suhr (Eds.), *Handbook of imagination and mental simulation* (pp. 297–311). Hove, England: Psychology Press.
- Förster, J., Liberman, N., & Kuschel, S. (2008). The effect of global versus local processing styles on assimilation versus contrast in social judgment. *Journal of Personality and Social Psychology, 94*, 579–599. doi:10.1037/0022-3514.94.4.579
- Fujita, K., Henderson, M. D., Eng, J., Trope, Y., & Liberman, N. (2006). Spatial distance and mental construal of social events. *Psychological Science, 17*, 278–282. doi:10.1111/j.1467-9280.2006.01698.x
- Gilovich, T., Griffin, D. W., & Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgement*. Cambridge, England: Cambridge University Press.
- Greenwald, A. G., & Farnham, S. D. (2000). Using the implicit association test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology, 79*, 1022–1038. doi:10.1037/0022-3514.79.6.1022
- Grossmann, I., & Kross, E. (2010). The impact of culture on adaptive versus maladaptive self-reflection. *Psychological Science, 21*, 1150–1157. doi:10.1177/0956797610376655
- Grossmann, I., Na, J., Varnum, M. E., Park, D. C., Kitayama, S., & Nisbett, R. E. (2010). Reasoning about social conflicts improves into old age.

- Proceedings of the National Academy of Sciences of the United States of America*, 107, 7246–7250. doi:10.1073/pnas.1001715107
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65, 19–51. doi:10.2307/2657288
- Ji, L. J., Nisbett, R. E., & Su, Y. (2001). Culture, change, and prediction. *Psychological Science*, 12, 450–456. doi:10.1111/1467-9280.00384
- Kramer, D. (2000). Wisdom as a classical source of human strength: Conceptualization and empirical inquiry. *Journal of Social and Clinical Psychology*, 19, 83–101. doi:10.1521/jscp.2000.19.1.83
- Kramer, D., & Woodruff, D. S. (1986). Relativistic and dialectical thought in three adult age-groups. *Human Development*, 29, 280–290. doi:10.1159/000273064
- Kross, E., & Ayduk, O. (2011). Making meaning out of negative experiences by self-distancing. *Current Directions in Psychological Science*, 20, 187–191.
- Kross, E., Ayduk, O., & Mischel, W. (2005). When asking “why” does not hurt. Distinguishing rumination from reflective processing of negative emotions. *Psychological Science*, 16, 709–715. doi:10.1111/j.1467-9280.2005.01600.x
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614. doi:10.1146/annurev.psych.58.110405.085542
- Na, J., Grossmann, I., Varnum, M. E. W., Kitayama, S., Gonzalez, R., & Nisbett, R. E. (2010). Cultural differences are not always reducible to individual differences. *Proceedings of the National Academy of Sciences of the United States of America*, 107, 6192–6197. doi:10.1073/pnas.1001911107
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310. doi:10.1037/0033-295X.108.2.291
- Rubin, D. B. (1996). Multiple imputation after 18+ years. *Journal of the American Statistical Association*, 91, 473–489. doi:10.2307/2291635
- Ryan, S. (2008). *Wisdom*. Retrieved from <http://plato.stanford.edu/archives/fall2008/entries/wisdom/>
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7, 147–177. doi:10.1037/1082-989X.7.2.147
- Stapel, D. A., & Koomen, W. (2005). Competition, cooperation, and the effects of others on me. *Journal of Personality and Social Psychology*, 88, 1029–1038. doi:10.1037/0022-3514.88.6.1029
- Staudinger, U. M., & Gluck, J. (2011). Psychological wisdom research: Commonalities and differences in a growing field. *Annual Review of Psychology*, 62, 215–241. doi:10.1146/annurev.psych.121208.131659
- Sternberg, R. J. (1998). A balance theory of wisdom. *Review of General Psychology*, 2, 347–365. doi:10.1037/1089-2680.2.4.347
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117, 440–463. doi:10.1037/a0018963

Received March 16, 2011

Revision received April 30, 2011

Accepted May 1, 2011 ■