

Making judgments about other people: impression formation and attributional processing in older adults

By *ABBY HECKMAN COATS*¹ & *FREDDA BLANCHARD-FIELDS*²

Abstract

Older adults face changing relationships with family members and friends with aging. Social cognition researchers investigate how individuals think about these social situations. The results of this research suggest that older adults are effective at accurately judging social partners when they are motivated to do so and can apply their accumulated knowledge to the situation. However, when cognitive resources are required in social situations, older adults may not perform as well as young adults. We review evidence supporting the importance of cognition, motivation, and knowledge for older adults' impression formation and attributional reasoning. This research is important because it can lead to interventions to help older adults avoid scams and improve their interpersonal relationships.

Keywords: social cognition, aging, older adults, interpersonal relationships, scams, impression formation, attributions.

¹ *Abby Heckman Coats*, Department of Psychology, Westminster College, Fulton, MO, USA

² *Fredda Blanchard-Fields*, School of Psychology, Georgia Institute of Technology, Atlanta, GA, USA
Fredda Blanchard-Fields died August 3, 2010.

Research on social cognition attempts to identify how people reason about situations involving other people. For example, consider the following scenarios:

- A repairman rings Elizabeth's doorbell after a thunderstorm. The repairman explains that he is in the neighborhood fixing roofs, and would like to check Elizabeth's roof for hail damage. He can fix it right away but will need cash upfront.
- Mary has not heard from her adult son for several weeks, despite calling him and leaving messages. When he does finally call her, she chastises him for being selfish and uncaring.

What impression should Elizabeth form of the repairman? Why did Mary chastise her son? Human beings naturally try to make sense of others' behavior. Even situations that seem purely social involve what is going on in individuals' minds. This is the essence of social cognitive functioning. The goals of this review article are 1) to identify mechanisms that underlie age differences in the social cognitive processes of impression formation and attributional processing; and 2) to examine how these processes relate to real-world issues. We will review several possible mechanisms including cognition, motivation, and personal beliefs. We focus on impression formation and attributional processing in this review because these have important implications for helping older adults avoid scams and improve their intergenerational relationships. Impression formation and attributional processing fit together to help individuals develop and maintain relationships.

Impression Formation

Forming impressions of other people is important for understanding the social world. For example, accurately perceiving others' traits is associated with more cooperative behavior (De Bruin & Van Lange 1999). For older adults, it is particularly important to judge people carefully to avoid scams and improve social relationships. When forming an impression, individuals can engage in categorical processing or systematic, reflective processing. In categorical processing, people make trait inferences from a target's behavior based on overall impressions. The more systematic

processing style involves carefully looking at each feature. Thus, the systematic processing style demands cognitive resources, or deeper thought. It is well documented that many cognitive resources, such as some types of memory, decline in late life (Salthouse 2011). Therefore, older adults might be “unable” to devote cognitive resources to the task due to an underlying decline in cognitive capacity. Alternatively, they might be “unwilling” to devote resources due to changes in motivation with aging. In addition, older adults’ accumulated knowledge about life might affect impression formation. What evidence for each of these three possibilities exists?

1. Evidence for Cognitive Mechanisms

Impression formation studies from the social psychology literature suggest that cognition plays an important role in accurately judging a new person (Hamilton & Sherman 1996). To test a cognitive explanation of age differences in impression formation, young and older adults were asked to form impressions of people based on written descriptions that contained both positive and negative statements (Hess et al. 1998). After reading the target descriptions, participants rated how descriptive several characteristics were of each target. Some of the characteristics referred to specific behaviors, and were therefore trait specific (e.g. the target’s behavior suggests that he is honest). Other characteristics were general evaluations (e.g. he is likeable). Young adults were more likely than older adults to use trait-specific information when forming impressions. The data also suggested that older adults had worse memory for the behavioral information, which may explain why they did not use the trait-specific information to the same extent as young adults in forming their impressions. Finally, older adults’ working memory span played a role in their trait ratings, providing further evidence for the importance of cognitive resources in impression formation (Hess et al. 1998).

Further evidence for the importance of cognition comes from manipulations of cognitive load during impression formation tasks. Increasing the cognitive difficulty of the impression formation task impairs older adults’ performance more than younger adults’. For example, asking participants to complete a distracter task while viewing target descriptions had a detrimental effect on older adults’ memory for the specific content of trait statements (Mutter 2000). In another study, older adults’ memory for

negative information was impaired relative to young adults when they had positive expectancies about the target and were under time pressure (Ybarra & Park 2002). When information is incongruent with expectancies (e.g. processing negative information while holding positive expectancies), systematic processing is required. This demands cognitive resources. Thus, in situations where time is limited, memory capacity limits are approached, or the individual is distracted, older adults' declining cognitive capacity may reduce the quality of their impression formations.

2. Evidence for Motivational Mechanisms

Although cognitive resources play an important role in impression formation, this does not fully explain older adults' social cognition. How motivated older adults are to process trait information systematically instead of categorically is another key variable. Given older adults' limited cognitive resources, they may choose to selectively allocate resources to meet only those goals that are most important to them. This was evident in a study in which participants' interest in the task was directly assessed (Hess et al. 2009b). Participants made judgments about targets' guilt for crimes such as vandalizing a construction site. Participants then listed the thoughts they had while making the judgments. Older adults who reported the most interest in the task used more systematic thinking strategies compared to disinterested older adults (Hess et al. 2009b).

Motivation to process systematically has also been manipulated in terms of accountability (Hess et al. 2009a; Hess et al. 2001). Participants formed impressions of individuals involved in an older adult's retirement housing search. Accountability was manipulated by asking some participants to share their impressions with peers, who would judge the accuracy of the impressions. Older adults' trait impressions were more accurate when they were held accountable for their impressions (Hess et al. 2001). This increased accuracy was driven by older adults' increased use of deliberate, systematic memory processes when they are expected to explain their judgments to peers later (Hess et al. 2009a). It appears that when older adults believe accurate social judgments are important, they consciously work harder to think carefully about their judgments. This suggests that

motivational aspects of the context in which impressions are formed can affect trait judgments.

3. Evidence for Knowledge-Based Mechanisms

In addition to cognitive and motivational factors, older adults may rely on a rich storehouse of accumulated knowledge, or social expertise, to help them form accurate impressions (Hess 2006). To test a knowledge-based hypothesis, researchers have manipulated the diagnosticity of reported behaviors. A behavior is diagnostic if it provides consistently good information about an underlying trait. Depending on the trait in question, positive or negative information may be more or less diagnostic. For example, in the intelligence domain, when someone receives an A on a challenging math test, this leads one to conclude confidently that the person is intelligent. A poor grade could be due to other factors such as a lack of sleep, but it most likely takes intelligence to receive a high grade. Conversely, in the morality domain, performing even one negative behavior (e.g. stealing) is diagnostic of dishonest behavior. This asymmetry in the weighting of positive and negative information may reflect culturally based belief systems regarding appropriate behavior. Sensitivity to this asymmetry in the diagnosticity of behavioral information increases with age (Hess & Auman 2001).

There is evidence that older adults' increased use of diagnostic cues is related to increased attention to relevant cues. For example, participants spent more time reading diagnostic behaviors in each domain (i.e. negative behaviors in the morality domain and positive behaviors in the competence domain), and this effect was particularly true for older adults (Hess & Auman 2001). Furthermore, older adults show increased flexibility in weighting the most relevant diagnostic information when forming impressions in different contexts (Hess et al. 2005). Individuals with more experience in social settings showed more flexibility in impression formation. Thus, accumulated social knowledge plays an important role in older adults' successful impression formation skills.

Real-world implications of impression formation: avoiding scams

Older adults struggle with impression formation tasks due to their limited cognitive resources but do better when motivation is high and they can

apply their accumulated knowledge to social situations. Finding ways to help older adults increase the accuracy of their social judgments can help reduce elder scams. Con artists often target older adults (McGhee 1983), and about 20% of older adults in the United States have been victims of fraud (Bachman 1992). Older adults are especially vulnerable to fraud in door-to-door (Tueth 2000) and telemarketing scams (Cohen 2006), both of which require impression formation skills to avoid. Indeed, older adults were worse at detecting deceit than young adults when targets described crimes they had possibly committed (Stanley & Blanchard-Fields 2008). Older adults' deceit detection deficit was explained by cognitive limitations (in particular, emotion recognition ability). Importantly, older adults were most impaired at deceit detection in face-to-face situations (Stanley & Blanchard-Fields 2008). Thus, one way older adults can protect themselves from scams is to avoid financial decisions at initial face-to-face meetings. Accurate impressions are more likely when older adults instead take the time to use their accumulated knowledge to assess individuals who want to do business with them. In addition, increased public awareness of elder scams might increase older adults' motivation to engage in careful deliberation when forming impressions in the real-world. Thus, in the first opening example, Elizabeth should probably form a negative impression of the repairman.

Attributional Processing

Similar to the second opening example about an intergenerational conflict, another important type of social cognition occurs when individuals attempt to explain others' behavior by making attributions about the underlying causes of a particular behavior. Causal attributions can be dispositional (i.e. something internal about the person) or situational (i.e. something about the external environment). Research shows that young adults often explain a person's behavior in terms of dispositional forces (e.g. the son failed to call because he is selfish) and underestimate the role of situational forces (e.g. the son failed to call because he is busy caring for his sick infant; see Gilbert & Malone 1995 for a review). This over-emphasis on dispositional factors is labeled the correspondence bias and can lead to problems with subsequent social interactions.

To investigate this process in older adults, Blanchard-Fields and colleagues (Blanchard-Fields & Beatty 2005; Blanchard-Fields et al. 1998) presented participants with interpersonal conflict situations. The participants' task was to decide whether something about the main character in the story (dispositional attribution) or the situation (situational attribution) was responsible for the outcome. For example, one vignette described a situation about Barbara pressuring Allen to live with her before marriage. Allen protested, but Barbara continued to pressure him. The relationship fell apart. Older adults consistently tend to blame the main character more (i.e. make dispositional attributions about Barbara) than young adults do, particularly in relationship situations with negative outcomes. This might be due to generational differences in the acceptability of living together before marriage, or it might be due to changes with ageing. At this time, only cross-sectional data is available, so the extent to which age differences in attributional processing are truly changes with age is unknown. The mechanisms underlying age differences in dispositional attributions mirror the ones for impression formation reviewed above. Specifically, cognition, knowledge, and motivation each play a role in attributional processing.

1. Evidence for Cognitive Mechanisms

As with impression formation, cognitive decline is one mechanism that might explain age differences in attributions. Social psychology research demonstrates that considering both situational and dispositional aspects of a situation requires cognitive effort and resources, such as memory (Gilbert & Malone 1995). Given cognitive limitations, older adults might respond with the more accessible dispositional explanations for the characters' behavior (e.g. blaming). To test this mechanism, Chen and Blanchard-Fields (1997) presented social dilemmas to young and older adults. In each situation, a character violated a social rule about what is appropriate social behavior. Participants rated the degree to which the character was to blame for the situation either immediately following the story or after a delay. Older adults made higher dispositional ratings than young adults did in the immediate-rating condition. However, older adults made lower dispositional attribution ratings when given more time to think about the situations. This adjustment when given more time suggests that older

adults' dispositional bias is partially due to cognitive limitations that make fast processing difficult. Similar findings were obtained with a different social judgment paradigm when using a distracter task instead of limited time (Chen & Blanchard-Fields 2000). There is also evidence that cognitive mechanisms such as increased rates of false memories impact older adults' dispositional attributions (Chen 2002).

2. Evidence for Knowledge-Based Mechanisms: Schemas and Beliefs

Although cognitive limitations play a role in attributions, individuals' schemas about proper behavior in specific situations may also be important. Age differences in dispositional attributions are not observed in all situations. Age differences occur most strongly in relationship situations that result in a negative outcome and not in achievement-related situations (Blanchard-Fields et al. 2012). This suggests that older adults' heightened dispositional attributions are not solely due to general cognitive decline.

In fact, age differences in dispositional attributions vary to the extent that the content of the situation triggers relevant beliefs and values (Blanchard-Fields et al. 2012; Chen & Blanchard-Fields 1997). For example, Blanchard-Fields et al. (1998) asked participants to explain their attributions. Individuals who focused their attention on a particular character (i.e. stated that the character violated an important social rule) tended to blame only that character for the outcome despite the influence of other actors and situational factors.

Chen and Blanchard-Fields (1997) also asked participants to explain their attributions. The content of their statements was used to identify each participant's schemas about appropriate behaviors in social situations. Older adults made more schematic statements about the main character in the immediate rating condition than young adults (e.g. "you shouldn't live together before marriage"). In addition, the higher the dispositional ratings, the more justification statements were made regarding values and beliefs related to the main character's behavior. Finally, the degree to which participants produced schematic justification statements about the main character accounted for the relationship between age and

dispositional ratings in the immediate rating condition. Thus, the degree to which an individual endorses social rules predicts when a dispositional bias will be made. In support of this idea, a related study found that older adults exhibited everyday reasoning biases because they were more likely than young adults to base their judgments on their own beliefs (Klaczynski & Robinson 2000).

Finally, in a recent study, Blanchard-Fields et al. (2012) examined age differences in blame attributions for characters who behaved traditionally (e.g. a character who insists on marriage before cohabitation) or nontraditionally (e.g. a character who consents to live together before marriage) in interpersonal conflict situations. Individuals who held traditional beliefs about appropriate behavior in interpersonal relationships were more likely to blame individuals whose behavior violated those beliefs. Older adults held more traditional beliefs than young adults and this accounted for older adults' greater tendency to blame nontraditional characters. Beliefs fully mediated the effect of working memory, suggesting that the beliefs mechanism may be more important than the cognitive mechanism. Overall, these studies suggest that generational differences in the content of beliefs and values may contribute to age differences in attributional processing.

3. Evidence for Motivational Mechanisms

Individuals' beliefs also affect motivation to think systematically about social situations. It takes effort to move beyond dispositional attributions to consider situational causes of behavior. When older adults are given a plausible situational explanation for behavior, they make fewer dispositional attributions (Blanchard-Fields & Horhota 2005). Indeed, older adults report stronger motivation to believe that behaviors reflect true attitudes compared to young adults (Stanley & Blanchard-Fields 2011). This belief in attitude-behavior consistency is an important mechanism underlying age differences in attributional processing (Stanley & Blanchard-Fields 2011). Furthermore, when older adults view attributional tasks as personally relevant and meaningful, they invest more effort and demonstrate better memory for the task (Hess et al. 2009a). Thus, as with impression

formation, motivation partially explains why some older adults do not over-attribute behavior to internal, dispositional traits.

Real-world implications of attributional processing: improving intergenerational relationships

Older adults are more likely to make dispositional attributions than young adults, especially when their cognitive resources are taxed, the situation involves negative relationship outcomes, or motivation is low. These attributions have important real-world implications, such as in intergenerational relationships. Maintaining satisfying relationships with adult children is important for older adults' health and happiness (Lowenstein 2007). Finding ways to improve older adults' attributional processing can increase the quality of parent-child bonds. For example, as in the second opening example, if an adult child hasn't called his older adult parent recently, the parent may make a dispositional attribution that the child is selfish and uncaring. This may lead the older adult to scold the child, which is a destructive strategy associated with lower relationship quality (Birditt et al. 2009b). Indeed, it is common for parents to desire more frequent contact than adult children do, and this discrepancy can lead to intergenerational tensions (Fingerman 1996). Parents also report more intense tensions than their adult children do, particularly about children's finances, education, and life choices (Birditt et al. 2009a). This could be because parents want their children to be successful and to maintain the values the parents instilled. Older adults who consider the situation in making attributions (e.g. the poor job market as a contributor to a child's financial difficulties) may develop more positive intergenerational relationships. Thus, interventions to help older adults' attributional processing may lead to healthier, less ambivalent parent-child relationships.

Conclusions and Future Directions

Cognition, motivation, and beliefs are all important factors that interact in explaining age differences in reasoning about social situations. Impression formation and attributional processing work together to help older adults

develop and maintain relationships. Improving these social cognitive processes could have real-world implications, such as reducing the incidence of elder scams and improving intergenerational relationships. Although some types of cognition decline in late life, social cognitive processing in interpersonal relationships will not necessarily decline if older adults are motivated and knowledgeable. This is important as older adults' social relationships change with aging. As older adults navigate changing relationships with family and friends, most report more positive emotional exchanges and fewer conflicts compared to young adults (Fingerman & Charles 2010). Understanding the processes underlying this general improvement could lead to interventions to help those individuals who struggle to adapt to changing social situations. In addition, longitudinal studies are needed to examine social cognition across the lifespan. This would provide insight into whether age differences in these processes are due to ageing or to cohort differences. It is also important to consider cross-cultural differences in older adults' social cognition. Most research in social cognition is from the United States. Cultures that value collectivism over individualism may show different patterns of social reasoning. Indeed, Chinese older adults showed fewer attributional biases than American older adults (Blanchard-Fields et al. 2007). This provides further evidence for the importance of contextual factors in social cognition. Future research investigating social cognition in a variety of real-world interpersonal situations around the world would help adults thrive with aging.

Acknowledgements

The authors are grateful to Michelle Horhota and Jennifer Tehan Stanley for comments on a previous draft of this article.

Corresponding Author

Abby Heckman Coats, Department of Psychology, Westminster College, 501 Westminster Ave., Fulton, MO 65251, USA. Email: abby.coats@westminster-mo.edu

References

- Bachman, R. (1992). *Elderly victims: Bureau of Justice Statistics special report*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
- Birditt, K. S., Miller, L. M., Fingerman, K. L. & Lefkowitz, E. S. (2009a). Tensions in the parent and adult child relationship: Links to solidarity and ambivalence. *Psychology and Aging* 24: 287–295.
- Birditt, K. S., Rott, L. M. & Fingerman, K. L. (2009b). “If you can’t say something nice, don’t say anything at all”: Coping with interpersonal tensions in the parent–child relationship during adulthood. *Journal of Family Psychology* 23: 769–778.
- Blanchard-Fields, F. & Beatty, C. (2005). Age differences in blame attributions: The role of relationship outcome ambiguity and personal identification. *Journal of Gerontology: Psychological Sciences* 60: P19–P26.
- Blanchard-Fields, F., Chen, Y., Horhota, M. & Wang, M. (2007). Cross cultural and age differences in the correspondence bias. *Journals of Gerontology: Psychological Sciences* 62B: P362–P365.
- Blanchard-Fields, F., Chen, Y., Schocke, M. & Hertzog, C. (1998). Evidence for content-specificity of causal attributions across the adult life span. *Aging, Neuropsychology, & Cognition* 5: 241–263.
- Blanchard-Fields, F., Hertzog, C. & Horhota, M. (2012). Violate my beliefs? Then you’re to blame! Belief content as an explanation for causal attribution biases. *Psychology and Aging* 27: 324–337.
- Blanchard-Fields, F. & Horhota, M. (2005). Age differences in the correspondence bias: When a plausible explanation matters. *Journals of Gerontology: Psychological Sciences* 60B: P259–P267.
- Chen, Y. (2002). Unwanted beliefs: Age differences in beliefs of false information. *Aging, Neuropsychology, and Cognition* 9: 217–230.
- Chen, Y. & Blanchard-Fields, F. (1997). Age differences in stages of attributional processing. *Psychology and Aging* 12: 694–703.
- Chen, Y. & Blanchard-Fields, F. (2000). Unwanted thought: Age differences in the correction of social judgments. *Psychology and Aging* 15: 475–482.
- Cohen, C. A. (2006). Consumer fraud and the elderly: A review of Canadian challenges. *Journal of Gerontological Social Work* 46: 137–144.

- De Bruin, E. N. M. & Van Lange, P. A. M. (1999). Impression formation and cooperative behavior. *European Journal of Social Psychology* 29: 305–328.
- Fingerman, K. L. (1996). Sources of tension in the aging mother and adult daughter relationship. *Psychology and Aging* 11: 591–606.
- Fingerman, K. L. & Charles, S. T. (2010). It takes two to tango: Why older people have the best relationships. *Current Directions in Psychological Science* 19: 172–176.
- Gilbert, D. T. & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin* 117: 21–38.
- Hamilton, D. L. & Sherman, S. J. (1996). Perceiving persons and groups. *Psychological Review* 103: 336–355.
- Hess, T. M. (2006). Adaptive aspects of social cognitive functioning in adulthood: Age-related goal and knowledge influences. *Social Cognition* 24: 279–309.
- Hess, T. M. & Auman, C. (2001). Aging and social expertise: The impact of trait-diagnostic information on impressions of others. *Psychology and Aging* 16: 497–510.
- Hess, T. M., Follett, K. J. & McGee, K. A. (1998). Aging and impression formation: The impact of processing skills and goals. *Journal of Gerontology: Psychological Sciences* 53B: P175–P187.
- Hess, T. M., Germain, C. M., Swaim, E. L. & Osowski, N. L. (2009a). Aging and selective engagement: The moderating impact of motivation on older adults' response utilization. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences* 64B: 447–456.
- Hess, T. M., Leclerc, C. M., Swaim, E. & Weatherbee, S. R. (2009b). Aging and everyday judgements: The impact of motivational and processing resource factors. *Psychology and Aging* 24: 735–740.
- Hess, T. M., Osowski, N. L. & Leclerc, C. M. (2005). Age and experience influences on the complexity of social inferences. *Psychology and Aging* 20: 447–459.
- Hess, T. M., Rosenberg, D. C. & Waters, S. J. (2001). Motivation and representational processes in adulthood: The effects of social accountability and information relevance. *Psychology and Aging* 16: 629–642.
- Klaczynski, P. A. & Robinson, B. (2000). Personal theories, intellectual ability, and epistemological beliefs: Adult age differences in everyday reasoning biases. *Psychology and Aging* 15: 400–416.

- Lowenstein, A. (2007). Solidarity-conflict and ambivalence: Testing two conceptual frameworks and their impact on quality of life for older family members. *Journals of Gerontology: Social Sciences* 62B: S100–S207.
- McGhee, J. (1983). The vulnerability of elderly consumers. *International Journal of Aging and Human Development* 17: 223–242.
- Mutter, S. A. (2000). Illusory correlation and group impression formation in young and older adults. *Journal of Gerontology: Psychological Sciences* 55B: P224–P237.
- Salthouse, T. (2011). Neuroanatomical substrates of age-related cognitive decline. *Psychological Bulletin* 137: 753–784.
- Stanley, J. T. & Blanchard-Fields, F. (2008). Challenges older adults face in detecting deceit: The role of emotion recognition. *Psychology and Aging* 23: 24–32.
- Stanley, J. T. & Blanchard-Fields, F. (2011). Beliefs about behavior account for age differences in the correspondence bias. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences* 66B: 169–176.
- Tueth, M. J. (2000). Exposing financial exploitation of impaired elderly persons. *American Journal of Geriatric Psychiatry* 8(2): 104–111.
- Ybarra, O. & Park, D. C. (2002). Disconfirmation of person expectations by older and younger adults: Implications for social vigilance. *Journal of Gerontology: Psychological Sciences* 57B: P435–443.