Everyday Problem Solving and Emotion

An Adult Developmental Perspective

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ABSTRACT—*Despite cognitive declines that occur with aging, older adults solve emotionally salient and interpersonal problems in more effective ways than young adults do. I review evidence suggesting that older adults (a) tailor their strategies to the contextual features of the problem and (b) effectively use a combination of instrumental and emotion-regulation strategies. I identify factors of problem-solving contexts that affect what types of problem-solving strategies will be effective. Finally, I discuss how this identification of factors affects what we know about developmental differences in everyday problem-solving competence.*

KEYWORDS—*emotion regulation; everyday problem solving; emotions; life-span development; aging*

Consider this example of an everyday problem situation. An older woman's daughter-in-law just gave birth to her fifth grandchild. However, the woman's daughter-in-law and son were quite insulting in instructing her on how to hold the baby. In order not to escalate the conflict, the older woman gently gave the baby back to the mother and left the hospital room to vent her emotions alone. She did not want to cause a fight with her family at such a vulnerable time. Regulating her emotional reaction to the situation made it easier for her to revisit the issue with her family later, undistracted by the emotional upheaval of the earlier moment. The older woman's primary use of emotion regulation was effective (and perhaps wise) given the context and her goal to avoid a fight. However, in another context, if this same older woman were administered a cognitive assessment battery, the extant cognitive aging research suggests that she would likely show cognitive decline on a number of tasks that assess working memory, attention, and executive abilities.

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This contrast between loss in cognitive abilities in one context and gains in effective problem solving in another has become increasingly evident as more research on cognitive functioning in older adulthood is examined in a pragmatic and socioemotional context. For example, researchers find that, despite cognitive decline, emotional processing, social behavior, and emotion regulation remain intact and may even improve across adulthood (Blanchard-Fields, Jahnke, & Camp, 1995; Carstensen & Mikels, 2005). Furthermore, current neuropsychological models of aging show that cognitive decline in executive functioning is related to deterioration in specific brain regions such as the dorsolateral prefrontal area, whereas emotional processing and social behavior remain relatively intact and are related to the ventromedial prefrontal area (MacPherson, Phillips, & Della Sala, 2002).

These findings highlight the fundamental difference between age-related change in structures and mechanisms of cognition and the functional dynamics of everyday cognitive behavior. Functional dynamics include the skills and knowledge necessary to effectively adapt to the demands and opportunities presented in daily life. It is this latter approach that characterizes my current research on emotion and everyday problem solving from an adult developmental perspective. Two important questions follow from this approach. What are the skills, knowledge, and expertise that allow older adults to effectively solve everyday problems and regulate their emotions? What individual-difference factors are related to this form of everyday cognition?

ASSESSING EVERYDAY PROBLEM SOLVING

One approach to everyday problem solving is grounded in the psychometric intelligence tradition and focuses on well-structured problems with one single correct solution, such as calculating the correct medicine dosage or using tax forms correctly. This approach requires that older adults rely solely on basic cognitive abilities that decline with age in order to answer problems correctly. Older adults fare poorly on these tasks.

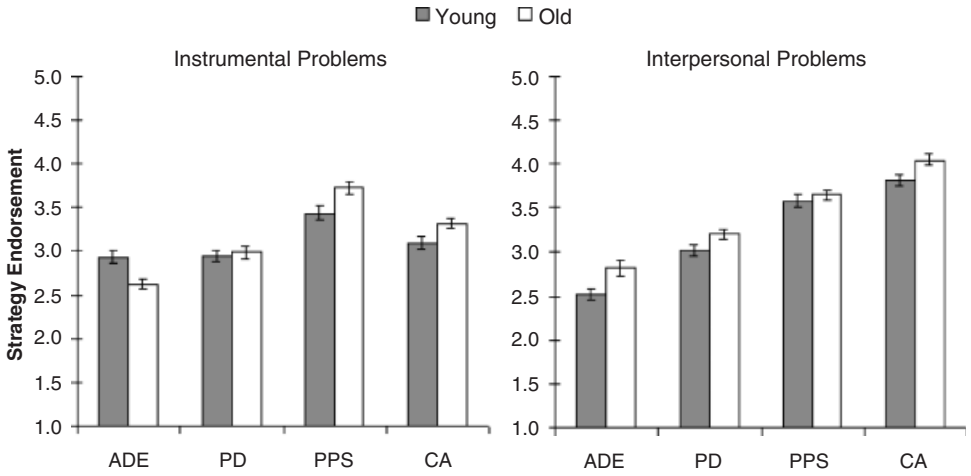

Fig. 1. Age-related differences in mean problem-solving-strategy endorsement for instrumental and interpersonal problems. The sample included young (n = 53; ages 18–27) and older adults (n = 53; ages 60–80). Passive strategies included avoidance-denial (ADE) and passive dependence (PD); instrumental strategies included planful problem solving (PPS) and cognitive analysis (CA).

However, such an approach overlooks strategies used to solve ill-structured problem situations. My research takes a different approach that highlights the socioemotional nature of ill-structured problems, which are unpredictable and continually transforming. Such problems require individuals to appraise the causes and demands of the situation and to decide among many potentially effective solutions based on the particular trade-offs the person is willing to make. In such cases, older adults can draw on accumulated experience in socioemotional realms to solve problems effectively. In some situations, this may involve an immediate proactive plan of action, whereas in other situations it may involve first regaining emotional composure and then taking proactive action. Finally, effective problem solving needs to consider how the individual interprets the problem as reflected in an adaptive match between individual goals and strategy use. I shall now examine evidence for these forms of effective problem solving in older adulthood.

AGE DIFFERENCES AND EFFECTIVENESS IN EVERYDAY PROBLEM-SOLVING STRATEGIES

In a first set of studies, we presented hypothetical problem scenarios to participants ranging in age from 14 to 75 years. Some problems were emotionally laden or interpersonal (e.g., the decision to place your mother in a nursing home), whereas others were less emotionally charged and more instrumental (e.g., returning defective merchandise). One study asked participants how they would solve the problems (Blanchard-Fields et al., 1995). Other studies asked participants to rate the degree to which they would employ particular strategies (Blanchard-Fields, Chen, & Norris, 1997; Blanchard-Fields, Mienaltowski, & Baldi, in press). We examined two general categories of strategies: instrumental strategies (e.g., direct action taken to solve the problem) and passive emotion-regulation strategies (e.g., suppressing feelings, not trying to alter an uncontrollable situation).

In instrumental domains, most individuals across age groups tended to use action-oriented more than passive strategies. Furthermore, in some situations (e.g., consumer matters involving shopping strategies), older adults used more instrumental, less passive, and arguably more effective strategies than did young adults (Blanchard-Fields et al., 1997; in press). A different picture emerged when examining socioemotional problem situations. First, it is important to note that there were no age differences in the preference for direct action-oriented strategies. More importantly, older adults endorsed more passive emotion-regulation strategies than younger age groups in this domain did (see Fig. 1). However, it is not the case that older adults simply relied more on the regulation of their psychological state (e.g., withdrawal from an interpersonal conflict) in this context. They also engaged in a combined use of multiple strategies, including more action-oriented strategies (Watson & Blanchard-Fields, 1998). Thus, older adults' preference for more passive emotion-regulation strategies may not be a function of decline in adaptive functioning; instead it may be contingent on whether the emotional demands of the problem situation are high (i.e., tailoring strategies to the situation). Moreover, it is not the case that older adults do not have the energy to actively solve problems or that they are highly emotional. Instead, they may effectively recognize that not all problems can be fixed immediately or can be solved without considering the regulation of emotions.

To more directly examine the degree to which instrumental and passive emotion-regulation strategies are used adaptively, we assessed effectiveness of strategy choice. Effectiveness ratings for each strategy associated with each problem came

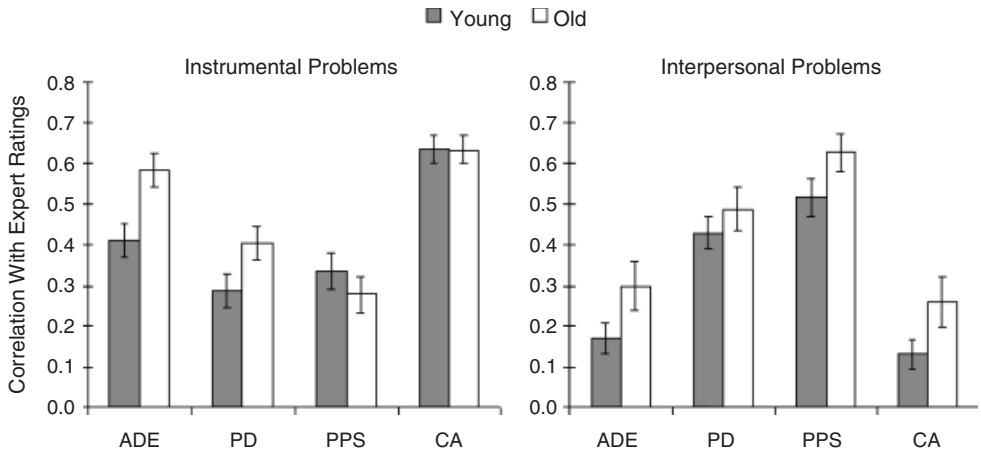

Fig. 2. Age-related differences in mean problem-solving effectiveness for instrumental and interpersonal problems. The sample included young (n = 53; ages 18–27) and older adults (n = 53; ages 60–80). Passive problem-solving strategies included avoidance-denial (ADE) and passive dependence (PD); instrumental strategies included planful problem solving (PPS) and cognitive analysis (CA).

from a panel of external judges (Cornelius & Caspi, 1987).[1] The match between judges' effectiveness ratings and participants' responses indicated that older adults were more effective than were young adults in their overall choice of strategies; and in particular, young adults were less effective than were older adults in their strategy preferences for interpersonal problems (Blanchard-Fields et al., in press). Thus, we not only documented the degree to which older adults used more or less of a particular strategy that matched the problem context; we found that when they used strategies, they used them effectively (See Fig. 2).

However, external ratings by judges do not take into account how the individual interprets what is important about the problem context. Problems involve differential goals (e.g., to display one's competency vs. concern for others), which may guide selection of problem-solving strategies. In a recent study (Hoppmann, Heckman, & Blanchard-Fields, 2006) we examined effectiveness in terms of goal–strategy match. An effective strategy match for a generative goal (concern for the well-being of another) involves strategies directed toward the needs of the other person. Autonomy goals (concern for independence) should be linked to self-focused problem-solving strategies. Using an interview method, we asked 15- to 84-year-olds to generate a past problem and indicate how they solved the problem and to identify their goals associated with the problem. Age differences in goal–strategy match revealed that young adults exhibited more matches between autonomy goals and self-focused problem solving. Developmentally, autonomy goals fostering individuality and independent striving are more relevant in youth. Older adults showed a higher degree of goal–strategy match between generative goals and other-focused problem solving (e.g., strategies directed at maintaining relationships). Given that older adulthood is characterized by a greater concern for social connectedness and goals to achieve it, older adults appear to be employing effective strategies to achieve this goal. Young and older adults differentially approach problems because they focus on different goals related to their stage in life. Parenthetically, the goal–strategy match emphasized in older adulthood (involving social connectedness) suggests that older adults may be better at solving social problems.

Taken together, older adults' apparent use of a more diverse repertoire of problem-solving strategies and their effectiveness in using such strategies (effectiveness ratings and goal–strategy match) can lead to a more flexible application of problem-solving strategies to varying contexts. This is especially evident in their combined use of emotion-regulation strategies along with instrumental strategies in such contexts. In other words, older adults demonstrated an awareness of when to "do" (be instrumental), when to "let it be" (passively accept a situation), and when to use a combination of the two approaches. This supports past research indicating that older adults report that they are better at emotion regulation (Lawton, 2001); place more emphasis on emotional aspects of their environment (Carstensen & Mikels, 2005); and use more passive emotion-regulation coping when a stressful event is appraised as uncontrollable, in comparison with young adults (Blanchard-Fields & Irion, 1988). Our studies further suggest that this becomes evident in older adults' approach to socioemotional problem situations.

EMOTION REGULATION

Given the importance of emotions in older adults' lives, the next step was to focus more exclusively on the adaptive significance

[1]Cornelius and Caspi (1987) recruited 23 judges to determine which of four strategies could be used to effectively solve a series of everyday problems. Of these 23 people, 18 were "laypersons without formal training in psychology," and five were "graduate students majoring in developmental psychology" (p. 146). Overall, the panel consisted of young (n = 9, ages 24–40, M = 28.4), middle-aged (n = 8, ages 44–54, M = 50.3), and older adults (n = 6, ages 62–72, M = 67.3). Ten members of the panel were men and 13 were women. Participants' responses were correlated with the judges' ratings to determine degree of effectiveness.

of older adults' ability to regulate emotions in a problem context. The focus of past research has been on passive emotion-regulation strategies. Interestingly, the stress-and-coping literature views passive emotion regulation as less effective than more instrumental or proactive strategies, suggesting that older adults may rely to a greater extent on less-adaptive strategies. However, the use of passive emotion-regulation strategies needs to be placed in a life-span developmental context. Passive emotion-regulation strategies may play a beneficial role for adaptive functioning, particularly in older adulthood. For example, passive strategies such as suppressing or avoiding negative emotions may help maintain tolerable levels of arousal given increased vulnerability and reduced energy reserves in older adulthood (Consedine, Magai, & Bonanno, 2002; Leventhal, Patrick-Miller, Leventhal, & Burns, 1998).

This becomes even more evident when specific emotions are considered. In a recent set of studies, we examined age differences in how individuals regulate emotions in problem situations. Using an interview procedure, participants ranging in age from 14 to 84 years generated interpersonal problems they had experienced in the previous year and described how they had handled specific emotions they had experienced throughout the problem situations. We expanded our previous coding scheme to include both passive (e.g., denial, withdrawal, suppression) and proactive (e.g., seeking out emotional support, directly confronting emotions) emotion-regulation strategies. We were now able to determine the degree to which older adults used both passive and proactive emotion-regulation strategies.

As expected from previous work, older adults tended to use more passive emotion-regulation strategies in comparison to younger age groups when handling emotions evoked from interpersonal problems (Blanchard-Fields, Stein, & Watson, 2004). Even more interesting, this age difference was qualified when we examined the regulation of anger and sadness separately (Blanchard-Fields & Heckman, 2006). Anger and sadness pose different regulatory challenges. Sadness may be more tolerable, requiring less allocation of resources to proactively regulate it (Consedine et al., 2002). Anger is higher in intensity and requires greater allocation of resources toward proactive strategies to reduce arousal.

Accordingly, we found that older adults were less likely to report feeling angry than were young adults, and this statistically accounted for the age differences in the use of proactive strategy use (i.e., older adults reported less proactive strategy use than young age groups did). Thus, a viable possibility why older adults use fewer proactive emotion-regulation strategies could be their decreased experience of anger. Problems reported by older adults in past research were most likely disproportionately low in evoking anger. Given that anger poses more of a physical challenge to older adults, it may be optimal for such individuals to allocate more effort to preventing the experience of that emotion (e.g., withdrawing from the situation to prevent its escalation). Thus, in reporting emotions experienced in problem situations, older adults report other, less-taxing emotions such as sadness.

However, we found that when older adults did feel angry they used proactive strategies. In contrast, when experiencing sadness they primarily used passive emotion-regulation strategies. When discrete emotions are taken into consideration, older adults appear to be differentiated in their use of emotion-regulation strategies and do not exclusively rely on passive strategies (i.e., using proactive strategies to handle anger). Therefore, it appears that with the development of emotion-regulation skills, older adults may consider a broader range of strategies. Emotion researchers such as Klaus Scherer (1986) have put forth the idea that differential emotional experience results from individuals continually performing evaluation checks on the environment using functionally defined criteria. Lawton (2001) extends this idea into a developmental context by observing that "Emotion may act as an intrusive element in social decisions among developmentally immature people, but as a source of differentiation among social situations for mature people" (p. 122).

Thus, in answer to the first question posed, the skills and knowledge older adults possess that allow them to effectively solve everyday problems appear to be related to their dynamic use of strategies that correspond to the nature of the problem situation encountered (e.g., interpersonal/emotionally charged vs. instrumental) and the specific discrete emotions they are managing in these situations.

PREDICTORS OF EMOTION-REGULATION STRATEGIES

With respect to the second question, cognitive abilities were not related to strategy use in socio-emotional problem solving. The question remains, what factors predict emotion-regulation strategy use? We are beginning to address this issue. Our research suggests that affect complexity and emotional expressivity may be promising candidates. Affectively complex individuals are those who are able to integrate emotional and cognitive aspects of themselves and their environment (Labouvie-Vief, 1998). At high levels of affect complexity, emotion is seen as jointly reflecting internal states and external contexts. We were interested in individual differences within older adults in their use of passive emotion-regulation strategies as indexed by affect complexity and emotional expressiveness. In a recent study we presented adults ranging in age from 18 to 80 years with hypothetical problem situations that evoked either anger or sadness (Heckman & Blanchard-Fields, 2006). Participants were then presented with a list of passive and proactive emotion-regulation strategies as well as instrumental problem-solving strategies and were asked which strategies they would use to manage anger and sadness. We also administered assessments of affect complexity and emotion expressivity.

We found that there were individual differences in older adults' use of passive strategies. Those older adults who were

lower in affect complexity (i.e., who were less able to think in complex ways about the role emotions play in the context of everyday situations) were the ones who were more likely to use passive emotion-regulation strategies. Again, taking into consideration this finding and those reviewed above, it is not simply that older adults uniformly prefer passive strategies. Instead this preference is multiply determined by level of affect complexity and context–strategy match, among other variables. Future research needs to determine the extent to which these and other factors interact and contribute to the use of passive strategies. For example, it may be that older adults with lower levels of affect complexity prefer passive strategies across situations, whereas older adults with high levels of affect complexity prefer passive strategies only when the context demands it. Finally, we found that individuals who were more expressive when experiencing sadness were also more likely to rely on direct, action-related strategies than were individuals who were less expressive.

CONCLUSIONS AND FUTURE DIRECTIONS

In conclusion, the above research suggests that older adults effectively solve everyday problems because of their ability to balance emotion regulation with proactive instrumental strategies. Due to an accumulation of experience, older adults are more likely than young people to deal with the hassles of life with a wider array of problem-solving techniques and, even more importantly, to use these strategies more effectively. Furthermore, older adults are more likely than young adults to combine (a) actions directly targeted to the source of their problems with (b) emotion-regulation strategies that buffer psychological stress. This suggests that when solving everyday problems older adults display more complex, flexible, and emotionally mature functioning than otherwise expected. These findings stand in stark contrast to stereotypes of "rigidity" in older adulthood, as well as to traditional evidence of declines in reasoning that are often associated with advancing age. Of course this applies to normal-functioning older adults and not to individuals with creeping dementia, who do seem to become more rigid and less adaptive with increasing age. In other words, although normal advancing age may be associated with cognitive decline, such declines do not readily translate into impaired everyday problem-solving effectiveness. Furthermore, we have a better understanding of when it is advantageous for older adults to regulate their emotions as well as balance emotional and instrumental aspects of the problem situation. This could guide researchers in developing intervention programs that take into consideration the role emotion plays in effective strategy use—for example, when elderly people need to make important medical and health decisions.

These conclusions raise some interesting questions for future research. Of particular importance to our understanding of health and quality-of-life issues in the elderly is that the criteria for effective everyday problem solving needs to be extended to both psychological and bodily well-being. Most studies on emotion regulation are based on self-report data and not on observed performance. Thus, there is a clear need for well-controlled studies of emotion regulation examining naturally occurring emotional and physiological states that occur in association with on-line problem solving and emotion-regulation strategy use. In this way we can observe problem solving as it occurs over time. For example, anticipating heightened emotions before they arise could promote subsequent effective problem solving as time progresses. In this case, it may be quite effective to recognize the limitations of immediate proactive action and manage strong emotional reactions before acting. This approach could build on our finding that older adults use multiple strategies by examining the sequential ordering of strategy use.

Another important question involves the costs and benefits of older adults' emphasis on emotion regulation when handling everyday problems. What are the costs for older adults who selectively allocate resources toward regulating emotions and consequently reduce cognitive resources available to process other information? What are the other benefits of strategies used to regulate on-line emotional experiences, above and beyond improved emotion-regulation outcomes (e.g., an increase in positive feelings)? Finally, future research needs to substantiate our findings in an experimental context. For example, one could manipulate problem problem-solving goals under controlled laboratory conditions. This would reveal if participants adjust their strategies in accordance with their goals. Furthermore, investigating problems in people's ongoing daily life would help determine whether those whose problem-solving strategies match their goals are more effective in down-regulating negative affect and increasing their well-being.

Recommended Reading

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