# Knowing loved ones' end-of-life health care wishes: Attachment security predicts caregivers' accuracy.

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# Knowing Loved Ones' End-of-Life Health Care Wishes: Attachment Security Predicts Caregivers' Accuracy

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## Abstract

**Objective**—At times caregivers make life-and-death decisions for loved ones. Yet very little is known about the factors that make caregivers more or less accurate as surrogate decision makers for their loved ones. Previous research suggests that in low stress situations, individuals with high attachment-related anxiety are attentive to their relationship partners' wishes and concerns, but get overwhelmed by stressful situations. Individuals with high attachment-related avoidance are likely to avoid intimacy and stressful situations altogether. We hypothesized that both of these insecure attachment patterns limit surrogates' ability to process distressing information and should therefore be associated with lower accuracy in the stressful task of predicting their loved ones' end-of-life health care wishes.

**Methods**—Older patients visiting a medical clinic stated their preferences toward end-of-life health care in different health contexts and surrogate decision makers independently predicted those preferences. For comparison purposes, surrogates also predicted patients' perceptions of everyday living conditions so that surrogates' accuracy of their loved ones' perceptions in non-stressful situations could be assessed.

**Results**—Surrogates high on either type of insecure attachment dimension were less accurate in predicting their loved ones' end-of-life health care wishes. Interestingly, even though surrogates' attachment-related anxiety was associated with lower accuracy of end-of-life health care wishes of patients, it was associated with higher accuracy in the non-stressful task of predicting their everyday living conditions.

**Conclusions**—Attachment orientation plays an important role in accuracy about loved ones' end-of-life health care wishes. Interventions may target emotion regulation strategies associated with insecure attachment orientations.

## Keywords

Close Relationships; Emotion Regulation; Attachment; Aging; Caregiving

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Effective relationships demand that partners understand each others' concerns (Gill & Swann, 2004; Luo & Snider, 2009; Reis & Shaver, 1988). Understanding another's concerns and wishes allows partners to tailor and fine tune their efforts to be supportive (Mikulincer, Shaver, Gillath, & Nitzberg, 2005; Neff & Karney, 2005). A great deal has been learned about the ways in which such understanding affects close relationships. Yet most of this research has focused on romantic relationships. Given increases in life expectancy, relationships between adult caregivers and their older relatives are becoming increasingly important. Indeed, increases in life expectancy make it possible that adult children will care for their parents even longer than their parents cared for them (Watkins, Menken, & Bongaarts, 1987). Arguably, at no time is understanding care-seekers' wishes more important than when care-seekers are incapacitated, especially when life-or-death decisions about medical interventions are required. In this study, we assessed surrogates decision makers' *accuracy* in predicting their older relatives' end-of-life health care wishes—whether they would choose intensive and painful life-sustaining procedures or would refuse those treatments in order to maximize the quality of their remaining life.

According to a recent review, surrogates' accuracy in knowing their loved ones' end of life health care wishes is far from perfect (68% on average; Shalowitz, Garrett-Mayer, & Wendler, 2006). Little is known about the processes involved in predicting loved ones' end of life wishes and how these processes relate to personality differences, but surrogates' predictions seem to be affected by how they process relevant information. For example, surrogates base their predictions of their loved ones' end of life wishes on their own wishes (Fagerlin, Ditto, Danks, Houts, & Smucker, 2001; Marks & Arkes, 2008; Moorman, Hauser, & Carr, 2009; Vig, Taylor, Starks, Hopley, & Fryer-Edwards, 2006). However, previous studies were not able to identify predictors of this tendency for projection, or more broadly, personality variables that facilitate or impede the ability to process relevant information effectively. One exception is the finding that surrogates' own fear of end-of-life suffering is associated with their predictions of their loved ones' end of life health care wishes (Pruchno, Lemay, Field, & Levinsky, 2006).

An attachment theoretical perspective may be useful in examining surrogates' accuracy in predicting loved ones' end-of-life health care wishes. According to this theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1988) people develop attachment patterns, which guide their thoughts and behaviors in close relationships. A secure attachment orientation is characterized by comfort in support exchanges in relationships and by regarding the self as competent in dealing with stress. There are two insecure attachment orientations: Attachment-related anxiety is characterized by chronic worries about relationship partners' availability, and attachment-related avoidance is characterized by keeping emotional distance from close others.

Attachment orientations are associated with reactions to distress. When processing information in distressing situations, people with a secure attachment orientation are able to remain flexible, tolerate ambiguity and uncertainty, and revise beliefs in light of new evidence (Mikulincer & Florian, 1998; Mikulincer & Sheffi, 2000). Theoretically, such skills would facilitate surrogates' accuracy in the distressing task of predicting their older relatives' end-of-life health care wishes. People with insecure attachment orientations (i.e., with high attachment-related anxiety or high attachment-related avoidance), on the other hand, are typically concerned with their own needs, which may hamper their ability to shift

mental resources to caregiving and be accurate caregivers (Bowlby, 1988; Mikulincer & Shaver, in press).

Individuals with insecure attachment orientations do not trust others to be helpful in stressful situations and therefore feel the need to increase their coping efforts (Mikulincer & Florian, 1998). However, avoidant and anxious individuals use very different coping strategies. Therefore, the two types of insecure attachment may lead to inaccuracy through different mechanisms. Attachment-related anxiety is associated with heightened attention to, and vigilance about relationship partners' feelings and thoughts, which would enhance accuracy about partners' perceptions (Simpson, Ickes, & Grich, 1999). However, in stressful or threatening situations (such as when deciding on end-of-life health care), individuals with high attachment-related anxiety are prone to being overwhelmed by distress, making it difficult for them to process relevant information flexibly and effectively (Mikulincer, et al., 2005; Mikulincer & Shaver, in press). Therefore, attachment-related anxiety should be associated with *greater* accuracy about partners' wishes in non-stressful situations, but with *lower* accuracy in stressful contexts, such as predicting loved ones' end-of-life health care wishes.

On the other hand, attachment-related avoidance is associated with uneasiness with, and dislike of, interdependence and vulnerability: Avoidant individuals utilize an emotion regulation strategy based on active avoidance of issues related to distress, support, and interdependence (Mikulincer et al., 2005). Theoretically, this aspect of attachment-related avoidance would also limit a person's accuracy in predicting the wishes of a close other. Previous research suggests that avoidant individuals use defense mechanisms that operate preemptively: They avoid thoughts that may, if processed deeply, lead to feelings of vulnerability and distress (Fraley, Garner, & Shaver, 2000). Therefore, they attempt to limit distress at the source by cognitively avoiding potentially distressing interpersonal content. Surrogates with high attachment-related avoidance may therefore avoid thinking about the topic of end-of-life health care decisions as a whole, which would result in reduced accuracy.

## Methods

### Participants and Procedures

Older participants (hereafter referred to as *patients*) were recruited from a community-based medical clinic serving low-income elderly and were asked whether they would be willing to provide contact information for their surrogate health-care decision makers in order to invite the surrogates to the study. The average age of the patients and the surrogates (N = 81 dyads) were, respectively 72.3 (*SD* = 7.9) and 52.7 (*SD* = 13.2). The majority of the surrogates were adult children (n = 47); the rest were close friends (n = 15), spouses or romantic partners (n = 12), and other relatives (n = 7). Forty-nine surrogates were European-American and 26 were African-American. The assessment sessions for the patients and surrogates were conducted separately and included the measures described below. Participants were paid $50 for participating and $50 for travel expenses.

### Measures

#### Experiences in Close Relationships (ECR; Brennan, Clark, & Shaver, 1998)—
The 36-item ECR is the most popular self-report attachment measure. It assesses the two dimensions of insecure attachment: anxiety and avoidance. (ECR does not assess secure attachment directly; low scores on both insecure attachment dimensions imply a secure attachment.) An item of the anxiety scale is "I worry about being abandoned," and an item of the avoidance scale is "I am nervous when partners get too close to me." In our

surrogates' data, both avoidance and anxiety scales showed good internal consistency; α = .
89 and α = .90, respectively.

**Modified Life-Support Preferences-Predictions Questionnaire (LSPQ; Coppola et al. 1999)—**We modified the LSPQ to describe five different illness scenarios that varied in terms of severity, prognosis, and pain (current health, Alzheimer disease, congestive heart failure, stroke, and pancreatic cancer). Patients were asked to imagine each scenario and indicate the likelihood that they would want each of the following four life-sustaining treatments if they were to need that treatment for some reason in that scenario (using a 4-point rating scale): antibiotics, cardiopulmonary resuscitation, hip replacement surgery, and nutrition via a feeding tube. (Following the original measure, feeding tube was excluded as a treatment option for current health because people are unlikely to need it in their current health situation). Surrogates were asked to imagine their older relative in each scenario and predict the likelihood that *their older relative* would want each of the four life-sustaining treatment options in that scenario.

Our goal was to derive an index of each surrogate's *accuracy* in predicting the older relative's end-of-life health care wishes. For this purpose, we examined the ratings on the LSPQ for each surrogate-patient dyad separately and computed intraclass correlation coefficients for each dyad to reflect their agreement (using the 19 LSPQ items as rows and the surrogate's and patient's ratings as columns). These correlations ranged from −.13 to +. 84 ($M$ = .43, $SD$ = .26), where higher correlations reflect *better* agreement. Because the accuracy variable did not violate a normal distribution, r-to-z transformation was not applied. (Results and conclusions were similar when transformed values were used.)

There are many different unique medical decision situations that may emerge and it is not possible to measure surrogates' accuracy in all of these specific situations. Our goal was to use the intraclass correlations to estimate surrogates' *general* understanding of their loved ones' preferences, values, and goals. This kind of general understanding should be an important factor in determining whether or not the surrogates can honor their incapacitated loved one's wishes (Brett, 1991; Ditto & Hawkins, 2005; Hawkins, Ditto, Danks, & Smucker, 2005).

**Knowledge of Older Relative's Everyday Living Conditions—**Cox (1986) developed a list of elderly adults' living environments to assess how these issues are perceived by the elderly and their adult children. We modified the list in order to assess surrogates' accuracy in knowing their older relatives' everyday living conditions: Older relatives revealed their perceptions of their living conditions by indicating their agreement (using a rating scale 1-5) with 13 statements such as "I spend much of my time by myself," and surrogates independently predicted the perceptions of their older relatives. As with the LSPQ, to operationalize surrogate's *accuracy* we computed intraclass correlation coefficients for each dyad.

## Results

Surrogates' attachment-related avoidance and attachment-related anxiety were entered into a regression equation to predict their accuracy (agreement between surrogate and patient assessed by intraclass correlations on the LSPQ). As hypothesized, both attachment-related avoidance (β = −.29, $t$ = − 2.78, $p$ < .01) and attachment-related anxiety (β = −.25, $t$ = − 2.36, $p$ < .05) were significant predictors ($R^2$= .17). That is, surrogates with higher attachment-related avoidance and surrogates with higher attachment-related anxiety were less accurate. Relationship status of the prospective surrogate decision maker, e.g., adult child or spouse, did not affect accuracy (directly or in interaction with other predictors), and

was therefore not included in these analyses. (Analyses using only the adult children yielded similar results. However, the effect of attachment-related anxiety did not reach significance in this smaller sample ($p = .06$), even though the size of its effect was slightly larger.)

Characteristics of the patients (gender, age, ethnicity, education, religiosity, attachment-related anxiety, attachment-related avoidance, how often they talk with or see the surrogate, and whether or not they have advance directives concerning their end-of-life health care wishes) were not significantly related to surrogates' accuracy. Surrogates' gender, age, ethnicity, and religiosity were also unrelated to accuracy, but surrogates' education level was related (Pearson $r = .25$, $p \leq .05$). However, when entered into a regression equation together with education, surrogates' attachment-related avoidance ($\beta = -.27$, $t = -2.54$, $p < .05$) and attachment-related anxiety ($\beta = -.23$, $t = -2.25$, $p < .05$) were still significant predictors of their accuracy, whereas education was rendered marginally significant ($\beta = .18$, $t = 1.74$, $p = .09$).

These results support the main hypothesis: Surrogates' attachment orientation is related to their accuracy in predicting their loved one's wishes. However, agreement between surrogates and their loved ones assessed with intraclass correlations may not necessarily indicate that surrogates know the *specific* wishes of their loved ones: High agreement may also result if the surrogate bases predictions on what the surrogate thinks older people *in general* want. General accuracy about older people's wishes was operationalized as the correlation between the surrogate's predictions across the 19 LSPQ items and the mean values for the LSPQ items across the whole sample of patients. We also computed accuracy controlling for general accuracy: Separately for each dyad, we obtained correlations between the surrogate's predictions and the patient's ratings across the 19 LSPQ items, controlling for the mean values for the LSPQ items (for the whole sample of patients). These correlations reflecting specific accuracy were lower than the correlations not controlling for general accuracy; $M=.12$, $SD=.33$.

A regression analysis predicting these adjusted (specific) accuracy scores revealed that surrogates' attachment-related anxiety was a significant predictor ($\beta = -.25$, $t = -2.16$, $p < .05$). However, attachment-related avoidance was not a significant predictor of specific accuracy ($\beta = .01$, $t = .11$, $p = .91$). Thus, anxiety, but not avoidance, was inversely associated with specific accuracy of the wishes of the patient. Further analyses revealed that avoidance had a significant inverse association with general accuracy ($\beta = -.36$, $t = -3.24$, $p < .01$), whereas anxiety was not associated significantly with general accuracy ($\beta = -.07$, $t = -.66$, $p = .51$). It is possible that as part of a strategy of avoiding intimacy with loved ones, individuals high on attachment-related avoidance base predictions about loved ones' wishes on what they think older people in general prefer. In addition, they may attempt to distance themselves not only from their loved one's end-of-life health care wishes, but from the whole distressing issue of end-of-life in general, since they tend to "inhibit accessibility to unpleasant affect and thoughts" (Mikulincer & Florian, 1998, p. 146). A tendency to avoid the issue of end-of-life health care altogether (Fraley, Garner, & Shaver, 2000) may result in reduced general accuracy, which then leads to lower accuracy concerning their loved ones' wishes.

Accuracy about the patients' perceptions about their everyday living conditions was also regressed on surrogates' avoidance and anxiety. A consistent, yet contrasting, pattern of findings emerged. In this context of low distress, surrogate avoidance was not a significant predictor ($\beta = -.12$, $t = -1.08$, $p = .28$), whereas surrogate anxiety was ($\beta = .27$, $t = 2.44$, $p < .05$). Note, however, that anxiety predicted *higher* accuracy about the patients' perceptions of their day-to-day normal living conditions, whereas anxiety predicted *lower* accuracy about patients' end-of-life health care wishes. As discussed earlier, it is possible that

attachment-related anxiety is associated with paying close attention to loved ones' perceptions, and therefore predicts better accuracy concerning their everyday living conditions. However, the sizeable stress associated with end-of-life health care decisions may overwhelm surrogates who are high on attachment-related anxiety and reduce their ability to focus on loved ones' needs. Results were similar when *general* accuracy concerning older relatives' everyday living conditions was controlled: Avoidance was not a significant predictor of specific accuracy concerning older relatives' everyday living conditions ($\beta = -.13$, $t = -1.16$, $p = .25$); anxiety was a significant predictor ($\beta = .24$, $t = 2.16$, $p < .05$).

## Discussion

Theoretically, being understood by loved ones is an important aspect of successful close relationships (Reis & Shaver, 1988). Spouses' accuracy in knowing each others' wishes and concerns, for example, not only predicts relationship harmony, but lower divorce rates as well (Gill & Swann, 2004; Luo, & Snider, 2009; Neff & Karney, 2005). Similarly, a parent's accuracy in perceiving and interpreting a baby's signals leads the baby to expect that the caregiver will provide appropriate support when needed (Ainsworth, et al., 1978).

The vast majority of attachment research has focused on young children's relationships with their parents or, alternatively, on the effects of attachment representations on romantic relationships. However, relationships between parents and adult children grow particularly important in an historical era where three or four generations are alive at the same point in time; indeed at a time when the "caregivers" in parent-child relationships are more likely to be children. To the best of our knowledge the present findings are the first to show how attachment orientation influences the likelihood that adult children (and other relatives) know their parents' end-of-life health care wishes; an outcome that is not predicted well with demographic variables. Future research should attempt to distinguish the effects of attachment-related anxiety from the effects of general trait anxiety (see Mikulincer, Gillath, & Shaver, 2002 for an example).

Our findings have implications for interventions aimed at increasing surrogates' accuracy and the quality of their caregiving. Changing surrogates' attachment orientation may not be easy. However, interventions can (a) focus on detecting surrogates' emotional reactions and coping strategies when faced with the stressful possibility of making end-of-life decisions for loved ones (being overwhelmed or emotionally avoiding the topic) and (b) target the limiting emotion regulation strategies associated with insecure attachment orientations.

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