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Do self-reported decision styles relate with others' impressions of decision quality? ☆

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ABSTRACT

Research has demonstrated the usefulness of decision styles for predicting various performance-related criteria. It is still unclear, however, which particular styles are associated with a general tendency to make high-quality decisions. Participants (n = 168) completed a common measure of five decision styles, along with a measure of the traits in the five-factor model of personality. Self and peer evaluations of general decision quality were obtained as performance criteria. Results showed that specific decision styles predicted variance in both measures of decision quality. And, there was clear evidence for incremental validity for specific decision styles when self-ratings were predicted. In the context of past research, this study supports a primary focus on rational or analytical styles for understanding and predicting decision success.

1. Introduction

The term *decision style* refers to a tendency to approach decisions in similar ways across time and situations (Harren, 1979; Rowe & Mason, 1987; Scott & Bruce, 1995). Researchers have identified various categories of decision styles (e.g., Allinson & Hayes, 1996; Epstein, Pacini, Denes-Raj, & Heier, 1996; Harren, 1979; Kirton, 1989; Scott & Bruce, 1995), but provide little explanation of how they develop, or how they differ from cognitive abilities and personality traits (see Kozhevnikov, 2007, for a critical review of the "style" construct in psychological research). Nevertheless, previous research has demonstrated the usefulness of decision styles for predicting performance-related criteria such as person-job fit (Singh & Greenhaus, 2004), method of conflict resolution (Sáez de Heredia, Arocena, & Gárate, 2004), susceptibility to stress (Thunholm, 2008), and job satisfaction (Crossley & Highhouse, 2005).

Decision styles would be particularly useful if they allowed us to distinguish between "good" decision makers and "bad" decision makers. It would be interesting to know, for example, if decision makers characterized as rational generally make better decisions than people characterized as intuitive. The present study sought to examine a widely used measure of decision-making styles as a predictor of general decision quality.

Another goal of the present study was to examine whether decision styles predict variance in decision quality above that accounted for by personality traits. Previous research suggests that relations exist between personality and decision styles, and both are related to decision outcomes (Bruine de Bruin, Parker, & Fischhoff, 2007; Davis, Patte, Tweed, & Curtis, 2007; Pacini & Epstein, 1999). If measures of decision style do not predict above and beyond that which is predicted by well-established individual differences in personality, then it is reasonable to call into question the discriminant validity and utility of the decision style construct (e.g., von Wittich & Antonakis, 2011). The approach taken in this study was to use subjective ratings of general decision quality as criteria. This is based on a long tradition of research using subjective ratings for establishing predictive validity (Schmidt & Hunter, 1998).

1.1. Decision styles

Decision styles are encompassed within the broader category of cognitive styles, which are general tendencies in the acquisition and processing of information (Kozhevnikov, 2007). Popular measures have assessed interactional styles (e.g., Myers & McCaulley, 1985), spatial-reasoning styles (Witkin, 1967), thinking styles (Epstein et al., 1996) and learning styles (e.g., Kolb, 1976) to name a few. Despite their obvious differences, they are all focused on the idea that people adapt to their environments in different ways, and

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that these differences in functioning can be assessed on parsimonious dimensions.

A popular conceptualization of decision styles is the dual-system framework (Epstein et al., 1996), which emphasizes rational versus intuitive decision making. A rational style is characterized by emotion-free deliberation. An intuitive style is characterized by heuristic decision-making. Scott and Bruce (1995) found evidence for three additional styles: dependent, avoidant, and spontaneous. Together these five styles make up their General Decision-Making Style (GDMS) measure. The GDMS was chosen as the focus of this investigation because it has been translated into multiple languages, it is widely cited, it is a reliable and valid measure, and there is considerable evidence for its factor structure (Curseu & Schruijer, 2012; Loo, 2000).

1.2. Defining good decision making

The "criterion problem" has occupied applied psychology for nearly 100 years (Austin & Villanova, 1992). It is only more recently that decision theorists have focused on assessing decision quality. Bruine de Bruin et al. (2007) developed a self-report measure of negative decision outcomes – the Decision Outcome Inventory. Another approach, developed by Curseu and Schruijer (2012) assesses one's tendency to engage in common decision errors.

Research examining GDMS as a predictor of these criteria has shown mixed findings. Bruine de Bruin et al. (2007) found that people who adopted rational or intuitive decision styles reported experiencing fewer negative outcomes in life, whereas people who adopted avoidant or spontaneous styles reported experiencing more. Only the rational style predicted performance on Curseu and Schruijer's (2012) decision-errors criterion.

Yates and Tschirhart (2006) noted that lay notions of decision quality are multi-faceted, and that almost any objective indicator will be deficient or contaminated. Milkman, Chugh, and Bazerman (2009) suggested that, in addition to the traditional benchmarks from economic theory, decision quality can be evaluated based upon whether (a) after the fact, the decision maker remains satisfied with his or her decisions, and (b) decisions are considered high-quality by others. Accordingly, we measured decision quality in the present study by asking the decision maker, and people close to the decision maker, whether he or she generally makes good decisions.

1.3. Current study

Our primary objective in this study was to examine the relations between decision-making styles defined by Scott and Bruce (1995) and subjective ratings of decision quality. We offer a new method of measuring decision quality that is consistent with previous approaches, and is appropriate for the predictors included. In accordance with Milkman and colleagues (2009), we examined people's evaluation of their own decision making (self-ratings), along with what others think of their decisions (peer-ratings). Subjective self and peer ratings are commonly-used in leadership assessments (e.g., Atwater & Yammarino, 2006), and in multi-source performance ratings (Hoffman & Woehr, 2009). According to Conway and Lance (2010), these methods represent valid and complementary perspectives on performance.

The second purpose of our study was to evaluate the incremental validity of decision styles for predicting decision quality over and above the Big Five traits. Incremental validity is aimed at determining whether a new method can add to the prediction of outcomes beyond what is available with well-established methods (Hunsley & Meyer, 2003). Individual differences, such as decision styles, that bear a stronger theoretical tie to decision outcomes should be better predictors than those with weaker ties, such as personality inventories (Appelt, Milch, Handgraaf, & Weber, 2011). Dewberry, Juanchich, and Narendran (2013) provided evidence for the uniqueness of Big Five traits and decision styles in predicting responses to the DOI. We examined whether the GDMS explains variance in subjective ratings of decision quality, over what is explained by the five-factor model.

2. Methods

2.1. Participants and procedure

2.1.1. Target ratees

Three hundred and twenty participants were recruited from undergraduate courses at a public university in the Midwestern United States using an online survey administration and data collection system. The target participants received extra credit in exchange for their participation. Data were inspected for unusually homogeneous responses, and data were discarded if people responded inappropriately to reverse-scored items. The final target sample retained for analyses contained 315 people (56% female, 85% white). The average participant was 20 years of age.

2.1.2. Peer raters

Ratees were asked to provide contact information for a peer who knew them well enough to answer questions about their decision-making habits. Forty-one participants provided erroneous email addresses. Two hundred and seventy-four qualifying peers were contacted by email, of which, 186 peers responded to the survey, resulting in a response rate of 68%. We examined mean responses on each of the GDMS scales for those who had peer ratings, versus for those who did not have peer ratings. None of the means were significantly different at $p < .05$.

In exchange for their participation, the peers were entered in a drawing for a chance to receive one of five $100 Amazon gift cards. Of the 186 responding peers, four were eliminated because insufficient information was available to match their responses to the targets' responses. The peer raters responded to three items assessing their perceived ability to adequately report on the target's decision-making ability, and eight peers were eliminated because they responded "disagree" or "strongly disagree" to at least one of the three items. Data were inspected for unusually homogeneous responses. Six participants were eliminated because they responded "strongly agree" to all of the criterion items, which contained one reverse-scored item ("The decisions my friend makes are regretted later"). One hundred and sixty eight peer raters (61% female, 82% white) were retained for analyses, 61% of the 274 qualifying peers who were given the opportunity to participate in the study.

2.2. Materials

2.2.1. Decision style

Decision style was measured using Scott and Bruce's (1995) *General Decision-Making Style* measure. The GDMS is comprised of five subscales. Each scale contains five items.

2.2.2. Big Five personality traits

Standing on the five-factor model of personality was assessed using the International Personality Item Pool short scales for the NEO-PI-R (Goldberg, 1999; Goldberg et al., 2006). This is a 50-item measure of the five-factor model of personality traits including *extraversion*, *neuroticism*, *openness to experience*, *agreeableness*, and *conscientiousness*. Each subscale contains ten items.