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Structure of the Dospert: Is There Evidence for a General Risk Factor?

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ABSTRACT

The Domain-specific Risk-taking scale was designed to assess risk taking in specific domains. This approach is unconventional in personality assessment but reflects conventional wisdom in the decision community that cross-situational consistency in risk taking is more myth than reality. We applied bifactor analysis to a large sample (n = 921) of responses to the Domain-specific Risk Taking. Results showed that, in addition to domain-specific facets, there does appear to be evidence for a general risk-taking disposition. And this general appetite for risk appears to be useful for predicting real-world outcomes. Copyright © 2016 John Wiley & Sons, Ltd.

KEY WORDS risk taking; DOSPERT; personality; bifactor analysis

INTRODUCTION

Historically, there has been a lack of consensus about how to measure risk taking as a disposition. Nevertheless, assessing trait risk taking has considerable utility for understanding and predicting, for example, counterproductive work activities, entrepreneurial investments, compliance with safety guidelines, general physical health, and environmental sustainability activities. A notable exception is the work by Weber and her colleagues (Blais & Weber, 2006; Weber, Blais, & Betz, 2002) on the Domain-specific Risk-taking (DOSPERT) scale. The DOSPERT measures risk-taking attitudes by assessing one’s likelihood of engaging in domain-specific risky activities. The scale covers five different risk domains: (i) ethical; (ii) financial; (iii) health/safety; (iv) recreational; and (v) social. Despite its short existence, the DOSPERT is highly popular and widely used (e.g., Hanoch, Johnson, & Wilke, 2006; Weller & Tikir, 2011). A recent search on Google “Scholar” showed that the 2002 scale-development article has been cited nearly 1400 times.

Although the DOSPERT meets an important need in the measurement of risk as a disposition, it has come to symbolize a belief among many in the decision-making community that there is no general disposition toward risk (e.g., Figner & Weber, 2011; Fox & Tannenbaum, 2011). Despite their emphasis on DOSPERT, Weber and colleagues (Blais & Weber, 2006; Weber et al., 2002) suggested that risk-taking behavior is a function of both a general attitude toward risk and the domain-specific factors that are the basis for the DOSPERT. In this model, a person’s attitude toward risk is consistent across domains, but his or her perceptions of risk are not. Therefore, choices and behaviors within a particular situation should be predicted best by domain-specific measures, and the DOSPERT was developed for this purpose. A more recent article by Blais and Weber (2006), however, suggested that cross-situational consistency in risk attitude occurs only when perceived risk in different domains is statistically controlled. Moreover, their application of multilevel modeling procedures to the DOSPERT led them to conclude that between-person variation (i.e., individual differences) in risk taking was swamped by within-person (i.e., cross-situational) variation in risk taking. In summarizing DOSPERT research, Weber seemed to move away from the notion that attitude toward risk is consistent across domains (Figner & Weber, 2011). The authors declared that “Risk taking is not the expression of a single personality trait” (Figner & Weber, 2011; p. 214). Other scholars have similarly asserted that there is no such thing as a general risk-taking trait (e.g., Fox & Tannenbaum, 2011).

The position that risk cannot be assessed as a general trait but must be assessed as a situation-specific trait is inconsistent with research in the personality assessment literature. Indeed, there is no disputing the idea that situations influence the display of traits (Epstein, 1979), but psychologists have also found evidence for meaningful general traits, such as the “Big Five” (Saucier & Goldberg, 1996), that reflect consistency across situations. Similarly, although research suggests that people have different mean levels of risk in different domains (Blais & Weber, 2006), this does not preclude the possibility of rank-order consistency across these same domains (Roberts, 2006). The search for cross-situational consistency in risk, however, seems to have been discontinued—arguably before it has even begun.

BACKGROUND

Early research on risk taking as a disposition relied almost exclusively on one of two measures: the Choice Dilemmas Questionnaire and the risk-taking scale of the Jackson Personality Inventory (JPI; Jackson, 1976). The Choice Dilemmas Questionnaire was originally developed for use in studying the “risky shift” phenomenon, observed in group-consensus discussions. As such, it never underwent
the rigorous scale-development and construct validity measurement. Not surprisingly, therefore, the Choice Dilemma Questionnaire (CDQ) has been subject to considerable psychometric criticism (see Kamalanabhan, Sunder, and Vasanthi, 2000, for a review). The JPI risk-taking subscale views risk taking as a general dimension of risk preference inferred from responses to diverse risky situations (Jackson, Hourany, & Vidmar, 1972). Because the JPI is proprietary, however, little research has been carried out to examine the construct validity of inferences from summated scores on the scale.

The DOSPERT (Blais & Weber, 2006; Weber et al., 2002) was developed to fill the void in risk-taking research by presenting a self-report measure of risk-taking attitudes that is theory based and psychometrically sound. The DOSPERT presents respondents with a series of risk-related activities (e.g., “going camping in the wilderness,” “engaging in unprotected sex,” and “betting a day’s income on the outcome of a sporting event”) and asks them to indicate the likelihood that they would engage in each. The scale is based on psychological risk–return models that view risk as an individual difference specific to different contexts. Accordingly, the scale yields separate scores for the five risk domains. Despite its short existence, the DOSPERT has been translated into multiple languages and has been used to study risk attitudes among many populations (www.dospert.org). Given its exceptional citation count and broad usage, the DOSPERT measure could be considered the current standard in the field of judgment and decision making (Appelt, Milch, Handgraaf, & Weber, 2011). As such, it deserves special attention.

A GENERAL RISK FACTOR?

Although we have seen little controversy generated by the assertion that risk taking is domain specific, we believe that it is premature to dismiss the idea of a general appetite for risk. The issue is reminiscent of the person–situation debate that existed for many decades in personality and social psychology (see Epstein and O’Brien, 1985, for a review). Trait approaches to behavior were challenged by those who pointed toward many instances where behaviors occurred only in certain situations. A shy person, for example, could be found to act extraverted when in the presence of family members. When aggregated across occasions and situations, however, behavioral observations can show substantial evidence for cross-situational consistency. Shy people can sometimes be outgoing, but they are generally less so than extraverted people.

In arguing for a situational approach to the measurement of risk-taking attitudes, Weber and her colleagues (Blais & Weber, 2006; Weber & Miliman, 1997; Weber et al., 2002) cited evidence from past research showing that risk measures used in experimental and field studies failed to show evidence for cross-situational convergence. The conclusions reached in these studies, however, were in many cases based on single-item measures or measures that have not been shown to be reliable or construct valid. The evidence that is presented based on responses to the DOSPERT shows evidence for mean differences across situations, but it is unclear whether there is evidence for a general risk factor (GRF) underlying those item responses.

We tested the structure of the DOSPERT using a form of confirmatory factor analysis known as bifactor analysis (Holzinger & Swineford, 1937; Schmid & Leiman, 1957). A bifactor solution constrains all indicators (i.e., risky behaviors in this analysis) to load on one general factor while simultaneously loading on an orthogonal specific factor. In the current study, the general factor reflects the hypothesized GRF, whereas the specific factors reflect the five major risk domains. Because each item is constrained to load on both the general factor and one of the domain-specific factors, it is possible to determine the amount of the variance in the measure that is attributable to each. In other words, bifactor analysis can be used to examine the importance of a GRF relative to the widely used domain-specific dimensions.

A unique advantage of the bifactor model is that it allows us to test the incremental validity of both general and specific factors simultaneously. In these comparisons, we expect that the general factor will be the best predictor of a broad outcome variable (i.e., counterproductivity) while the domain-specific factors will be the best predictors of narrower, domain-specific criteria (i.e., health, safety, and finances). Counterproductivity is the enactment of deviant behavior at work and represents a combination of different domains measured in the DOSPERT (Grusy & Sackett, 2003). Using any single domain-specific factor to predict counterproductivity is therefore inadequate. This approach to maximizing validity by matching the breadth of the predictor to the breadth of the criterion dates back to Cronbach’s (1960) discussion of the bandwidth–fidelity debate in the context of psychological measurement. Since that time, the benefits of matching the breadth of the predictor and the criterion have been demonstrated in several domains of psychology, including in the personality literature where narrow facets have been found to predict specific behaviors while broader personality traits predict broader outcomes (e.g., Dudley, Orvis, Lebiecki, & Cortina, 2006). Similar results have also been obtained in the job attitude literature where it has been shown that broad attitudinal constructs are stronger predictors of broad behavioral outcomes than their narrower attitudinal components (Harrison, Newman, & Roth, 2006). Based on these findings, we expect to find similar results here when the validities of narrow risk dimensions are compared with a general factor.

BIFACTOR ANALYSIS

As described previously, the bifactor model has several unique advantages for comparing the utility of general and specific risk factors. Use of the bifactor approach is novel to decision research, but it has been used extensively in areas such as personality and ability testing (e.g., Gignac, 2014; Reise, 2012). One source of confusion about the bifactor model is its relation to more traditional higher-order factor models. A traditional higher-order model is illustrated in Figure 1 for comparison with the bifactor model. In contrast
to the bifactor approach, a standard higher-order factor structure models the indicators of a measure as direct outcomes of a set of lower-order factors. The relations among these lower-order factors are then modeled as reflections of a general factor on the top of the hierarchy. According to Reise, Moore, and Haviland (2010), “The general and group factors are on equal conceptual footing [with the bifactor model] and compete for explaining item variance—neither is ‘higher’ or ‘lower’ than the other” (p. 547). With this structure, the standard second-order model can be viewed as a special case of the bifactor solution where each item’s loading on the general factor is constrained to zero and the indicators of the model are only related to the general factor indirectly through the lower-order factors. Thus, the standard second-order solution is more restricted than the bifactor model (Chen, West, & Sousa, 2006).

The domain-specific factors can be thought of as residual factors that explain left over variance—after accounting for the general dimension. This allowed us to test whether the items assessing these constructs were primarily measuring the GRF or the specific DOSPERT factors. In addition, because the general factor is constrained to be orthogonal to the specific factors, bifactor models can be used to examine the incremental validity of the domain-specific factors over the general dimension. In other words, this model allows us to identify the relative importance of each factor for the prediction of various outcomes (e.g., health outcomes and safety outcomes) related to risk taking.

**METHOD**

American Amazon Mechanical Turk (MTurk) workers ($n = 998$) were paid 30 cents each to participate in our study. Seventy-seven people were eliminated from our sample for failing at least one of the three items checking whether they were reading the instructions carefully (i.e., “In order to show that you are carefully reading the interview questions, please leave this item blank”). This resulted in the final sample of $(n = 921)$ participants. Fifty percent of the participants were male, and 78% were Caucasian. The average participant was 36 years of age. Although the use of MTurk workers is controversial, the track record of a worker’s approval and rejection is public and thus can be used to screen unmotivated respondents. Moreover, considerable research suggests that MTurk research participants provide data that are reliable and generalizable (Buhrmester, Kwang, & Gosling, 2011).

**Measures**

**Domain-specific Risk Taking**

We used the revised DOSPERT scale (Blais & Weber, 2006), which contains 30 self-report items assessing the likelihood of engaging in risky behaviors. The specific behaviors represent five content domains: financial, health/safety, recreational, ethical, and social. Items are rated on a scale from 1 (extremely unlikely) to 7 (extremely likely) with higher scores indicating greater risk taking.

In light of the fact that examining relations with other constructs in the nomological network is a critical step in determining the value of general versus specific factors, we selected life and work outcome constructs that represented a broad conceptual space.

**Narrow outcomes**

**General health**

Participants’ overall health was assessed using four items (e.g., “I am as healthy as anybody I know”) from the Medical Outcomes Study short-form general health survey (Stewart, Hays, & Ware, 1988). Responses were made on a five-point (strongly disagree–strongly agree) scale with higher scores indicating greater health.

**Work safety**

The degree to which participants engage in safe workplace practices (e.g., “I ensure the highest levels of safety when I carry out my job”) was assessed using nine items from Neal...
and Griffin (2006). Responses were made on a five-point (strongly disagree–strongly agree) scale with higher scores indicating greater engagement in safe behaviors.

Financial strain
The degree to which participants experience financial problems was assessed using nine items (e.g., “I am able to afford furniture or household equipment that needs to be replaced”) from Rowley and Feather (1987). Responses were made on a five-point (strongly disagree–strongly agree) scale with higher scores indicating greater financial strain.

Broad outcome
Counter productivity
The degree to which people engage in counterproductive behavior (e.g., aggression, sabotage, theft, and withdrawal) at work was assessed using the 10-item version of the Counterproductive Work Behavior Checklist (Spector, Bauer, & Fox, 2010). This is a broad bandwidth measure that combines both interpersonal and organizational deviance (Berry, Ones, & Sackett, 2007; Gruys & Sackett, 2003) and spans behaviors ranging from teasing (e.g., “made fun of someone’s personal life”) to lying (“stayed home from work and said you were sick when you weren’t”). Responses were made on a five-point (never–every day) scale.

RESULTS
Table 1 presents the intercorrelations among the variables. This table shows that all of the DOSPERT risk subscales were significantly (negatively) correlated with work safety. And all of them, except social, predicted counterproductivity. As might be expected, the ethical subscale was the best predictor of counterproductivity. Although the health subscale of the DOSPERT predicted general health, it was a better predictor of financial strain—much better than the financial subscale of the DOSPERT. The DOSPERT total score correlated significantly with work safety and counterproductivity but not with general health and financial strain.

Table 2 shows that the bifactor model fits the data quite well and better than a single, global factor model or the five-factor model posited by the DOSPERT creators. For instance, smaller values for the root mean square error of approximation indicate a better fit; the bifactor model’s root mean square error of approximation value of .05 represents a good fit. In contrast, the relatively higher values for the Tucker–Lewis index and the comparative fit index represent better fit. Finally, a value of standard root mean square residual less than .08 is generally considered a good fit (Hu & Bentler, 1999). Thus, these results suggest that neither a general factor nor the five risk domains (i.e., ethical, health, financial, recreational, and social) are sufficient to explain the data. Instead, both general and domain-specific factors appear to exist.

Table 3 shows the factor loadings for the bifactor model. This table shows that financial risk taking generally has the highest loadings on the GRF. Social risk taking, in contrast, has the lowest loadings on the GRF. Note that there are negative loadings for many of the financial items on its corresponding factor. Weber et al. (2002) make a distinction between gambling and risk taking in a business context. In the context of our study, the negative loadings may indicate that once we control the general riskiness of investing, the act of investing is actually the antithesis of taking financial risk (i.e., people invest retirement funds to keep up with inflation, and this could be seen as being prudent and not taking risks). We reran the bifactor model with six specific factors (i.e., the financial factor split into an investment factor and a gambling factor), and the model fit worse than the model with five specific factors (Table 2). Consequently, we do not include this model in the paper. However, the six-factor model did fix the negative loadings for the financial items such that all of the financial items had positive loadings on their corresponding factor. Therefore, we believe that the negative loadings reported in the paper are due to the relation between gambling and investment risk after partialling out variance related to general risk taking. In other words, when we control for general risk-taking propensity, investing money is negatively related to financial risk taking.

Table 4 shows the results of a path model in which the latent factors from the bifactor analysis are used to predict the outcomes. Again, because the specific factors are orthogonal
to the general factor and represent the shared variance that is left over after accounting for the GRF. Paths from the domain-specific dimensions illustrate the incremental validity of these narrow factors for predicting the outcomes. In other words, significant paths for the DOSPERT domains indicate that these factors provide incremental validity over the general factor. For example, the path from GRF to counterproductivity was .43. However, after parceling out the variance related to the GRF, none of the DOSPERT factors, except the ethical dimension, were significantly related to the broad counterproductivity criterion. As reported in Table 4, the GRF significantly predicts two of the four criteria. The specific (i.e., residual) health factor outperforms GRF to a substantial degree when predicting work safety. Moreover, the residual health factor is the best predictor of general health, and the residual financial factor is the best predictor of financial strain. GRF was the best predictor of counterproductivity and provided substantial prediction above and beyond the residual ethical factor. Thus, as expected, the general factor was the best predictor of the broad criterion while the specific factors were the best predictors of narrower, domain-specific criteria.

### DISCUSSION

Despite the common intuition that some people are generally more willing to take risks than others, some scholars of risk taking have concluded that the search for a general attitude toward risk is more romance than reality (e.g., Figner, & Weber, 2011; Fox & Tannenbaum, 2011). Because of the within-person variability of behavior across situations, the current conventional wisdom, reflected in the popularity of the DOSPERT scale, is

<table>
<thead>
<tr>
<th>Item</th>
<th>Item #</th>
<th>GRF Social Recreation Financial Health Ethical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitting that your tastes are different from those of a friend.</td>
<td>DOSPERT_S1</td>
<td>.18*</td>
</tr>
<tr>
<td>Disagreeing with an authority figure on a major issue.</td>
<td>DOSPERT_S2</td>
<td>.16*</td>
</tr>
<tr>
<td>Choosing a career that you truly enjoy over a more secure one.</td>
<td>DOSPERT_S3</td>
<td>.00</td>
</tr>
<tr>
<td>Speaking your mind about an unpopular issue in a meeting at work.</td>
<td>DOSPERT_S4</td>
<td>.08*</td>
</tr>
<tr>
<td>Moving to a city far away from your extended family.</td>
<td>DOSPERT_S5</td>
<td>.10*</td>
</tr>
<tr>
<td>Starting a new career in your mid-30s.</td>
<td>DOSPERT_S6</td>
<td>.03</td>
</tr>
<tr>
<td>Going camping in the wilderness.</td>
<td>DOSPERT_R1</td>
<td>.12*</td>
</tr>
<tr>
<td>Going down a ski run that is beyond your ability.</td>
<td>DOSPERT_R2</td>
<td>.38*</td>
</tr>
<tr>
<td>Going whitewater rafting at high water in the spring.</td>
<td>DOSPERT_R3</td>
<td>.30*</td>
</tr>
<tr>
<td>Taking a skydiving class.</td>
<td>DOSPERT_R4</td>
<td>.33*</td>
</tr>
<tr>
<td>Bungee jumping off a tall bridge.</td>
<td>DOSPERT_R5</td>
<td>.39*</td>
</tr>
<tr>
<td>Piloting a small plane.</td>
<td>DOSPERT_R6</td>
<td>.33*</td>
</tr>
<tr>
<td>Betting a day’s income at the horse races.</td>
<td>DOSPERT_F1</td>
<td>.79*</td>
</tr>
<tr>
<td>Investing 10% of your annual income in a moderate growth mutual fund.</td>
<td>DOSPERT_F2</td>
<td>.26*</td>
</tr>
<tr>
<td>Betting a day’s income at a high-stake poker game.</td>
<td>DOSPERT_F3</td>
<td>.89*</td>
</tr>
<tr>
<td>Investing 5% of your annual income in a very speculative stock.</td>
<td>DOSPERT_F4</td>
<td>.46*</td>
</tr>
<tr>
<td>Betting a day’s income on the outcome of a sporting event.</td>
<td>DOSPERT_F5</td>
<td>.86*</td>
</tr>
<tr>
<td>Investing 10% of your annual income in a new business venture.</td>
<td>DOSPERT_F6</td>
<td>.48*</td>
</tr>
<tr>
<td>Drinking heavily at a social function.</td>
<td>DOSPERT_HS1</td>
<td>.30*</td>
</tr>
<tr>
<td>Engaging in unprotected sex.</td>
<td>DOSPERT_HS2</td>
<td>.28*</td>
</tr>
<tr>
<td>Driving a car without wearing a seat belt.</td>
<td>DOSPERT_HS3</td>
<td>.29*</td>
</tr>
<tr>
<td>Riding a motorcycle without a helmet.</td>
<td>DOSPERT_HS4</td>
<td>.43*</td>
</tr>
<tr>
<td>Sunbathing without sunscreen.</td>
<td>DOSPERT_HS5</td>
<td>.16*</td>
</tr>
<tr>
<td>Walking home alone at night in an unsafe area of town.</td>
<td>DOSPERT_HS6</td>
<td>.34*</td>
</tr>
<tr>
<td>Taking some questionable deduction on your income tax return.</td>
<td>DOSPERT_E1</td>
<td>.42*</td>
</tr>
<tr>
<td>Having an affair with a married man/woman.</td>
<td>DOSPERT_E2</td>
<td>.44*</td>
</tr>
<tr>
<td>Passing off somebody else’s work as your own.</td>
<td>DOSPERT_E3</td>
<td>.54*</td>
</tr>
<tr>
<td>Revealing a friend’s secret to someone else.</td>
<td>DOSPERT_E4</td>
<td>.26*</td>
</tr>
<tr>
<td>Leaving your young children alone at home while running an errand.</td>
<td>DOSPERT_E5</td>
<td>.44*</td>
</tr>
<tr>
<td>Not returning a wallet you found that contains $200.</td>
<td>DOSPERT_E6</td>
<td>.27*</td>
</tr>
</tbody>
</table>

DOSPERT, Domain-specific Risk Taking; GRF, general risk factor. 
*p < .05.
that stable risk preferences only exist within specified domains of risk, such as gambling and health. Our study was aimed at examining whether evidence exists for a GRF.

Results showed that a bifactor model explained the data well—suggesting the existence of a GRF and five residual factors represented by the DOSPERT domains. This situation is somewhat analogous to the existence of a general intelligence (g) factor, along with evidence for several unique subfactors (Carroll, 1993). Contrary to popular belief, there does appear to be evidence for a general risk-taking disposition, and this GRF appears to be useful for predicting real-world outcomes.

It is important to note that we do not question the value of domain-specific risk measures, especially for predicting domain-specific behaviors. For instance, the DOSPERT residual for health was the strongest predictor of general health, and the DOSPERT residual for finance was the best predictor of financial strain. It is notable, however, that the GRF provided increments in the prediction of work safety, over and above the health risk-taking residual. And GRF was the best predictor of counterproductivity—a broader construct that encompasses multiple DOSPERT domains (Grusy & Sackett, 2003)—and provided substantial increment in prediction above and beyond the DOSPERT ethical factor. Risk attitude (assessed by the GRF) is domain general, and it is theoretically independent of perceived value or risk across situations, therefore, making it a better predictor of risky behaviors that are multifaceted (such as counterproductive work behaviors). We suspect that the GRF would be a better predictor of other risky real-world behaviors that do not match exactly with one of the DOSPERT facets.

There is also the conceptual issue involved with assessing situation-specific traits. Even though such traits may allow better prediction in specific situations, how psychologically meaningful is it to talk about situational traits as opposed to narrow traits? Consider the Big Five trait agreeableness; researchers have identified more narrow traits that fall under this general trait (e.g., compassion and politeness; DeYoung, Quilty, & Peterson, 2007). No one proposes, however, that agreeableness facets should be situational (e.g., medical agreeableness, financial agreeableness, and recreational agreeableness). One could argue that risk-taking facets should represent narrow traits underlying risk taking, such as thrill seeking, rebellious, reckless, and antisocial (Skeel, Neudecker, Pilarski, & Pytlak, 2007).

Our results have important implications for the measurement of risk propensity. As described previously, it is a general principle in psychological research that the prediction of outcomes is maximized when the breadth of the predictor matches the breadth of the criterion (Campbell, 1990; Fishbein & Ajzen, 1974; Ironson et al., 1989; Smith, 1976). The results of the present study support this general finding and indicate that both general and domain-specific risk dimensions may be useful for predicting different outcomes. In other words, both general and specific dimensions may be useful—but for different purposes. If the goal of a study is to predict broad outcomes, such as counterproductive behavior or life satisfaction, researchers may want to aggregate across the domain-specific dimensions to obtain a score on the general factor. In contrast, if the purpose is to predict narrower outcomes, a domain factor may provide better prediction and a closer theoretical link to the nomological networks of the criteria.

One limitation of our study is that our outcome measures did not include recreational and social risk-related criteria. We should note, however, that the counterproductivity measure contains a disproportionate number of items that are social in nature (e.g., “started an argument with someone at work”), so it is surprising to us that it did not have a stronger correlation with the DOSPERT social scale. Future research should examine objective indicators of risky behavior. As one reviewer suggested, assessing height and weight and measuring body mass index could be one such way. Or providing either a sure bonus or different risky bonus payments and seeing which ones are selected could be a way of assessing real financial or gambling risk taking.

Arguably, this research is a call for a new measure of the GRF. The 30-item revised DOSPERT is relatively long if the only goal is to aggregate. And redundancies in the scale may act as suppressors when attempting to predict broad criteria (Tenopyr, 1977). Developing a general measure of risk-taking attitudes has several advantages. First, there is no theoretical reason to measure risk in only the five domains used by the DOSPERT. As such, a more general scale would allow the respondent to assess risk taking across life situations. Items could be designed to reflect more directly the GRF construct (e.g., “My friends would say that I am a risk taker”). Moreover, past research in the domain of job attitudes has shown that summing narrow facets to generate a score for a more general construct does not necessarily provide the same information or predictive validity as a more direct assessment of the general factor (Ironson, Smith, Brannick, Gibson, & Paul, 1989). In the risk-taking literature, this suggests that a direct assessment of attitude toward risk can provide a more accurate description of the general construct than the sum of domain-specific responses.

Although these results suggest that a GRF may be useful, research on risk taking has generally focused only on the specific domains of risk and their relations to specific choices or behaviors in a particular situation. Given the results of the current study, it is not surprising that broad assessments of risk taking do not successfully predict these narrow outcomes. Again, because a person’s general attitude toward risk will influence decisions and behavior in varied situations, this general tendency should be a better predictor of broad behavioral outcomes. Certainly, more research is needed to examine the predictive validity of the GRF for predicting broader outcomes than have been examined to date.

REFERENCES


Buhmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon’s Mechanical Turk: A new source of inexpensive, yet high-


Gignac, G. E. (2014). Fluid intelligence shares closer to 60% of its variance with working memory capacity and is a better indicator of general intelligence. Intelligence, 47, 122–133.


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