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Overconfidence in personnel selection: When and why unstructured interview information can hurt hiring decisions

Edgar E. Kausel [a,b,*], Satoris S. Culbertson [c], Hector P. Madrid [a]

[a] School of Management, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, Macul, Santiago, Chile
[b] Depto. de Administración, Universidad de Chile, Chile
[c] Pamplin School of Business, University of Portland, Portland, OR 97203, United States

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ABSTRACT

Overconfidence is an important bias related to the ability to recognize the limits of one's knowledge. The present study examines overconfidence in predictions of job performance for participants presented with information about candidates based solely on standardized tests versus those who also were presented with unstructured interview information. We conducted two studies with individuals responsible for hiring decisions. Results showed that individuals presented with interview information exhibited more overconfidence than individuals presented with test scores only. In a third study, consisting of a betting competition for undergraduate students, larger overconfidence was related to fewer payoffs. These combined results emphasize the importance of studying confidence and decision-related variables in selection decisions. Furthermore, while previous research has shown that the predictive validity of unstructured interviews is low, this study provides compelling evidence that they not only fail to help personnel selection decisions, but can actually hurt them.

1. Introduction

What would I eliminate if I had a magic wand? Overconfidence.
[Daniel Kahneman (Shariatmadari, July 15, 2015)]

Extant research on how managers make decisions in personnel selection falls under two main areas. Some researchers have studied lack of bias (e.g., Dipboye, 1982; Lee, Pitesa, Thau, & Pillutla, 2014). Other researchers have conducted policy capturing studies to assess how managers weigh different predictors or interview dimensions (e.g., Dougherty, Ebert, & Callender, 1986; Lievens, Highhouse, & De Corte, 2005). However, there is surprisingly little published research combining what Hammond (1996) calls *external correspondence* (i.e., accuracy) with *internal coherence* (see also Yates, 1982) in judgment and choice research within employee selection contexts. More specifically, little research has examined how the way managers combine information can affect their predictions of job performance when making hiring decisions. This is unfortunate, as job performance is one of the most important variables in organizational behavior and is critical for organizational success (Bowen & Ostroff, 2004).

Similarly, subjective probability or confidence in one's judgment (Harvey, 1997; Hastie & Dawes, 2009; Klayman, Soll, González-Vallejo, & Barlas, 1999) is considered a key construct in the cognitive and decision sciences (Ratcliff & Starns, 2013). As Pleskac and Busemeyer (2010) argued, "confidence [in one's judgment] has long been a measure of cognitive performance used to chart the inner workings of the mind" (p. 864). Yet, confidence is mostly ignored by personnel selection researchers.[1] Personnel selection processes often result in a choice among candidates, and managers' confidence in their decisions is likely to be linked to the type of job offer as well as subsequent events in the selection process. For example, if a manager is certain that the candidate will be a top performer, the manager will be more likely to make an offer with a high salary and attractive perquisites. If the selection and recruitment processes are intertwined (e.g., managers who assess a set of candidates and decide to either make an offer or recruit more

* Corresponding author at: School of Management, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, Macul, Santiago, Chile.
E-mail addresses: ekausel@uc.cl (E.E. Kausel), culberts@up.edu (S.S. Culbertson), hpmadrid@uc.cl (H.P. Madrid).

[1] An exception is Highhouse (2008) who implicitly emphasized the importance of confidence when he noted that people, when thinking about hiring decisions, fail to view them as subject to error (he termed this *the irreducible unpredictability* in personnel selection).

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applicants; Seale & Rapoport, 1997), a confident decision maker may be more likely to hire a candidate and terminate the process.

Related to confidence is overconfidence (Soll, Milkman, & Payne, 2015), which has been defined by Koriat, Lichtenstein, and Fischhoff (1980) as "an unwarranted belief in the correctness of one's answers" (p. 108). Decision makers should not only know about facts and relationships between concepts, but also understand the boundaries of their knowledge (Kahneman, 2011; Mannes & Moore, 2013). Russo and Schoemaker (1992) argued that the key issue in overconfidence is metaknowledge: Appreciating what we know and what we do not know. Metaknowledge—and its cousin, self-knowledge—is a value at the heart of many philosophical and religious perspectives (Gertler, 2015). Beyond a value *per se*, a lack of metaknowledge or extreme overconfidence is related to excessive risk; thus, it has consequences on a number of decision-related outcomes (see Goodie, 2003; Malmendier & Tate, 2015; Picone, Dagnino, & Minà, 2014).

Our main goal, therefore, is to study overconfidence among hiring managers when they generate predictions regarding applicants' performance. A second, related goal is to examine whether the ways in which managers combine information about unstructured interviews and other predictors can hurt selection decisions. We focus on the overconfidence of managers presented with information about standardized tests vis-à-vis ratings on unstructured interviews. For the standardized tests, we include measures of conscientiousness (a trait from the Five Factor Model of personality) and general mental ability (GMA). We chose these three predictors (GMA, conscientiousness, and unstructured interviews) because of their frequent use in personnel selection (Farr & Tippins, 2010).

In a set of three studies, we make three contributions to the literature. We first build on previous research involving undergraduate students that suggests unstructured interviews adversely impact predictions of others' performance (Dana, Dawes, & Peterson, 2013). Based on these prior findings, and on research suggesting that GMA and conscientiousness tests are important predictors of job performance (Schmitt, 2014), we expected that experienced managers presented with information of unstructured interviews would have decreased accuracy compared to those presented only with standardized tests. Thus, our first contribution expands previous work to an applied sample. A second contribution of our study is the analysis of potential mechanisms of the above effect. In order to do this, we study different decision-related measures that are important in JDM: judgmental consistency, coefficients of cue utilization, and judgment slope or discrimination. A final contribution of our study is that we highlight the importance of confidence and overconfidence in personnel decisions. A heightened overconfidence, we argue, can have deleterious consequences for decision makers, such as lower financial returns. As such, we argue that personnel selection scholars and practitioners should pay closer attention to confidence and overconfidence, as researchers in other areas have done successfully (e.g., weather forecasting, Tetlock & Gardner, 2015).

The theoretical background for the present study is organized as follows. First, we briefly explain the lens model (Brunswik, 1956) and discuss the expected effect of information presented on accuracy. Then, we explain different decision-related measures that could serve as mechanisms explaining the information-accuracy relationship. Next, we explicate the expected effect of information presented on confidence and overconfidence. Finally, we explain the importance of slope in judgment analysis and state our research question related to this construct.

1.1. Effect of predictor types on accuracy of performance estimates

A useful framework to understand why presenting information on unstructured interviews to practitioners may limit their accuracy in the presence of other (more valid) information is Brunswik's lens model (Brunswik, 1956; Kaufmann, Reips, & Wittmann, 2013; Kuncel, Klieger, Connelly, & Ones, 2013). There are three main components in the lens model (see Fig. 1): the decision maker's judgment, the cues, and the criterion. There are also two main relationships: the relationship between the cues and the criterion (akin to the idea of criterion-related validity) and the relationship between the decision maker's judgment and the cues (i.e., the coefficients of utilization or how the decision maker weighs the different cues). Thus, judgmental accuracy will be high if there is a match between the criterion-related validity and cue weighing. If the *external world* shows that the relationship between GMA and job performance is high and the relationship between unstructured interviews is almost zero, then the decision maker (in his or her *internal world*) should place a high weight on GMA and little to no weight on the interview.

With regard to the left side of the lens, a considerable amount of research has been conducted examining the criterion-related validity of GMA tests, conscientiousness tests, and employment interviews. Perhaps the most consistent finding is that GMA is one of the best predictors of job performance (Ones, Dilchert, Viswesvaran, & Salgado, 2010; Schmitt, 2014). In addition to GMA, two predictors have received considerable attention in the workplace, both due to their predictive capabilities and potential to lessen the adverse impact associated with GMA: Conscientiousness tests and employment interviews. Among the Big Five personality variables, conscientiousness has consistently been shown to be the best predictor of job performance across all occupational groups and job-related criteria (Barrick & Mount, 2012; Barros, Kausel, Cuadra, & Díaz, 2014; Hough & Dilchert, 2010; Hough & Oswald, 2008). In their comprehensive meta-analysis, Barrick, Mount, and Judge (2001) found that the corrected relationship between conscientiousness and job performance was 0.31 (uncorrected, $r = 0.15$).

The interview has also gained substantial attention as a selection tool. One of the key findings that has emerged from numerous meta-analyses (e.g., Huffcutt & Arthur, 1994; McDaniel, Whetzel, Schmidt, & Maurer, 1994) is that increased structure (i.e., question and response evaluation standardization) has been associated with higher criterion-related validity of the employment interview. Recent estimates show that whereas the corrected criterion-related validity for unstructured interviews is only 0.20 (uncorrected $r = 0.07$), it is as high as 0.69 (uncorrected $r = 0.36$) for highly structured interviews (Huffcutt, Weyhrauch, & Culbertson, 2014). In terms of incremental contributions, Cortina, Goldstein, Payne, Davison, and Gilliland (2000) found that "unstructured interviews contribute very little, even under ideal circumstances, and interviews high in structure contribute as much, if not more, to prediction as do cognitive ability scores" (p. 340). This conclusion is in line with Schmidt and Hunter's (1998) findings that the combined validity of job performance and unstructured interviews (corrected) is only 0.55 (a slight improvement over GMA's validity coefficient of 0.51). These results suggest that using unstructured interviews to make predictions of job performance when other valid predictors are available is unwise.[2]

Thus, with regard to Brunswik's (1956) model, the left side of the lens is fairly straightforward. If the predictors from which to choose are standardized tests (GMA and conscientiousness tests) and unstructured interviews, in order to match the external world, the decision maker should place some combination of consistent

[2] Some researchers argue that the coefficients involving unstructured interviews in meta-analyses are likely to be overestimated. This is because unstructured interviews are not typically scored (and therefore unavailable for inclusion in a meta-analysis). Those included in a meta-analysis are likely on the high end of rigor (Highhouse, personal communication, May 18, 2012).