Liar! Liar! (when Stakes are Higher): Understanding how the Overclaiming Technique can be used to Detect Faking in Personnel Selection

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Abstract

Overclaiming questionnaires (OCQs), which capture ‘overclaiming behavior’ or exaggerating one’s knowledge about a given topic, have been proposed as potentially indicative of faking behaviors that plague self-report assessments in job application settings. The empirical evidence on the efficacy of OCQs in this respect is inconsistent, however. We draw from expectancy theory to reconcile these inconsistencies and identify the conditions under which overclaiming behavior will be most indicative of faking. We propose that the assessment context must be tied to an outcome with high valence, and that the content of the OCQ must match the perceived knowledge requirements of the target job, such that overclaiming knowledge of that content will be instrumental to receiving a job offer. We test these propositions through three studies. First, in a sample of 519 applicants to Firefighter positions, we demonstrate that overclaiming on a job-relevant OCQ is positively associated with other indicators of faking and self-presentation. Next, we demonstrate through a repeated-measures experiment (N = 252) that participants in a simulated personnel selection setting overclaim more knowledge on a job-relevant OCQ than on a job-irrelevant OCQ, compared to when they are instructed to respond honestly. Finally, in a novel repeated-measures personnel selection paradigm (N = 259), we observed more overclaiming during a ‘selection’ assessment compared to a ‘research’ assessment, and that this job-application overclaiming behavior predicted deviant behavior following selection. Altogether, the results show that overclaiming behavior is most indicative of faking in job application assessments when an OCQ contains job-relevant (rather than job-irrelevant) content.

Keywords: Overclaiming, bogus items, faking, applicant, self-report, social desirability
Liar! Liar! (when Stakes are Higher): Understanding how the Overclaiming Technique can be used to Detect Faking in Personnel Selection

Many organizations rely on the accuracy of self-report tools, such as personality assessments, situational judgment tests, or biodata questionnaires, to aid personnel selection. The use of such tools is well supported by empirical evidence that reveals substantive relations of many self-assessed characteristics with a range of organizationally-relevant criteria (Barrick & Mount, 1991; Judge & Zapata, 2015; Schmidt & Hunter, 1998; Van Iddekinge, Roth, Putka, & Lanivich, 2011). However, one major concern in practice is that self-report assessments are inherently vulnerable to “faking”. Ziegler, MacCann, and Roberts (2011) define faking as “a response set aimed at providing a portrayal of the self that helps a person to achieve personal goals. Faking occurs when this response set is activated by situational demands and person characteristics to produce systematic differences in test scores that are not due to the attribute of interest” (p. 8). Research into faking has revealed that: individuals can easily distort their responses to self-report questionnaires (Viswesvaran & Ones, 1999), they vary in the extent and manner in which they fake their responses (Donovan, Dwight, & Hurtz, 2003; McFarland & Ryan, 2000; Mueller-Hanson, Heggestad, & Thornton, 2006), and that, where it is observed, faking can undermine both the criterion-related validity of a self-report assessment as well as the quality of the selection decisions made with that assessment (Donovan, Dwight, & Schneider, 2014; Mueller-Hanson, Heggestad, & Thornton, 2003). Given these concerns, one major endeavor of researchers and practitioners has been to devise ways to identify individuals who have faked their responses to self-report assessments in job application settings, or to measure this behavior. Unfortunately, these attempts have had mixed success, at best (see Burns & Christiansen, 2011 for a review).
One approach that has been proposed as a way to capture faking behavior is the overclaiming technique. First presented in its contemporary form by Paulhus and colleagues (Paulhus, 2011; Paulhus, Harms, Bruce, & Lysy, 2003), the overclaiming technique describes a procedure that assesses a person’s tendency to exaggerate or ‘overclaim’ his or her knowledge about a given domain. In employing the overclaiming technique, a person’s tendency to overclaim is assessed using an “overclaiming questionnaire” (OCQ). Ostensibly, an OCQ appears to a respondent as a self-report test of knowledge, and given that knowledge is a known predictor of future work success (Schmidt & Hunter, 1998) respondents may view the purpose of the OCQ being the capturing of a desirable characteristic of a job applicant. As a result, when completing an OCQ, a job candidate might overclaim their knowledge with the goal of presenting as a desirable candidate, and hence measures of overclaiming might offer a means to identify faking behavior. While this proposition is intuitive, studies of the association between faking and overclaiming have arrived at mixed conclusions, with some suggesting there is little evidence that the two are associated (e.g., Feeney & Goffin, 2015; Ludeke & Makransky, 2016; Müller & Moshagen, 2018), and others suggesting the opposite (Bing, Kluemper, Davison, Taylor, & Novicevic, 2011).

In the present study, we investigate the potential use of the overclaiming technique as an indicator of faking behavior in job application settings, and through this, enhance our theoretical knowledge of overclaiming, and provide a practical solution to a key problem in the practice of personnel selection. Specifically, we employ expectancy theory (Ellingson, 2011; Ellingson & McFarland, 2011; Vroom, 1964) to resolve the discrepant findings across studies of overclaiming, and inform the conditions under which overclaiming is best suited to be an indicator of faking behavior. Across three studies with diverse designs and samples, we demonstrate that overclaiming can indeed indicate faking behavior in personnel selection contexts, a finding with critical practical implications. Further, advancing expectancy theory...
in the study of faking, we show that for the overclaiming technique to perform best as an indicator of faking, two conditions must first be met: the assessment context must ensure the valence of faking, and the knowledge content must correspond with the criteria, such that overclaiming is more likely to be seen as instrumental to obtaining a desired reward (e.g., a job offer).

Capturing Faking through the Overclaiming Technique

Overclaiming questionnaires (OCQs) are presented to respondents as a self-report assessment of their knowledge of—or familiarity with—a set of stimuli. When completing an OCQ, respondents are provided with a category heading (e.g., Historical Events; Fiction Authors) and a set of exemplars; respondents then rate their level of familiarity with each. While most exemplars are genuine (e.g., Vesuvius eruption), embedded among these ‘targets’ is a smaller set of bogus ‘foils’ (e.g., Troisdorf catastrophe). Participants are usually not informed that foils are present in the set. Paulhus et al. (2003) described the completion of an OCQ as a signal detection exercise (Swets, 1964) where respondents vary in the extent to which they successfully ‘detect’ targets and ‘reject’ foils. These authors proposed that two signal detection indices be extracted from responses to an OCQ: accuracy ($d'$) and response bias ($c$) (Paulhus, 2011; Paulhus & Petrusic, 2007). Accuracy, or $d'$, increases as a respondent endorses targets and rejects foils and is indicative of genuine knowledge (Atir, Rosenzweig, & Dunning, 2015; Dunlop et al., 2017; Paulhus & Dubois, 2014). Of most relevance to faking, however, is the response bias, $c$, which increases as a participant endorses targets and
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foils.\(^1\) The logic behind this is that a person who overclaims would report elevated knowledge indiscriminately.\(^2\)

OCQs can be adapted to any knowledge domain by creating items with domain-relevant content. Indeed, studies have measured accuracy and overclaiming in relation to religion (Dunlop et al., 2017), vocabulary (Ziegler, Kemper, & Rammstedt, 2013), psychology (Paulhus & Dubois, 2014), and math concepts (Vonkova, Papajoanu, & Stipek, 2018). As we explain below, we believe that the meaning and underlying drivers of overclaiming, and, as a result, the suitability of using OCQs as a technique for detecting faking on job applications, depend on the situation and content contained in the OCQ.

While overclaiming was originally proposed by Paulhus et al. (2003) as an indicator of a tendency to self-enhance, a review of the literature suggests uncertainty around this interpretation. Some empirical work suggests that, in ‘low-stakes’ assessment settings (e.g., research participation), overclaiming is positively associated with measures of trait narcissism (Gebauer, Sedikides, Verplanken, & Maio, 2012; Paulhus, 2011; Paulhus et al., 2003), measures thought to capture unconscious self-deceptive enhancement (Bing et al., 2011; Musch, Ostapczuk, & Klaiber, 2012), openness/intellect-like traits (Dunlop et al., 2017; Paulhus et al., 2003); and overconfidence (Bensch, Paulhus, Stankov, & Ziegler, 2017; Paulhus & Dubois, 2014). We note, however, that these patterns have not been replicated across all studies (e.g., Grosz, Lösch, & Back, 2017; Kam, Risavy, & Perunovic, 2015; Ludeke & Makransky, 2016; Müller & Moshagen, 2018).

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\(^1\) For ease of interpretation, the \(c\) index from classical signal detection theory is multiplied by \(-1\) in the study of overclaiming to allow high scores to be interpreted as more overclaiming. Refer to Paulhus and Petrusic (2007) for a discussion of the overclaiming indices and an explanation of how they are calculated.

\(^2\) Although in the present study, we adopted the scoring process recommended by Paulhus et al. (2003), we note that researchers of overclaiming have been inconsistent in their approaches to scoring OCQs, with some studies adopting the \(c\) index and others relying on false-positive rates or derivatives thereof.
In addition to self-enhancement, researchers have examined overclaiming as a potential indicator of deliberate impression management. Indeed, one study by Bing et al. (2011), where some participants completed an OCQ as part of a hypothetical application for university admission, found evidence that overclaiming was associated with faking. However, Feeney and Goffin (2015), using a similar paradigm, found only very weak relations of overclaiming with personality score inflation in a simulated job application condition (cf. faking), and near zero relations with admissions of purposefully faking in that condition. Further, across studies in low-stakes assessment settings, overclaiming has failed to show consistent relations with measures thought to capture conscious positive impression management (Barber, Barnes, & Carlson, 2013; Bensch et al., 2017; Müller & Moshagen, 2018; Musch et al., 2012).

The results of the studies reviewed above (aside from Bing et al., 2011) suggest that the overclaiming of knowledge, as captured through the overclaiming technique, may hold little promise in capturing faking on job applications. Curiously, such a conclusion would appear to be at odds with the findings of research on what is now often termed the “bogus item technique”, which shares similarities with the overclaiming technique. This technique involves embedding bogus items into a biodata questionnaire that ostensibly assesses knowledge, skills, abilities, or work behaviors (Anderson, Warner, & Spencer, 1984; Dwight & Donovan, 2003; Levashina, Morgeson, & Campion, 2009; Pannone, 1984). Studies investigating the bogus item technique have shown that bogus items were endorsed more often in job application than in honest contexts (Dwight & Donovan, 2003; Fan et al., 2012) and those who endorsed bogus items performed worse on objective performance tests (Anderson et al., 1984; Levashina et al., 2009; Pannone, 1984).

In short, while the bogus item literature suggests that such items are indicative of faking in job application settings, the results of studies of overclaiming are ambiguous. We
believe that the key to understanding the discrepancy between the two literatures, and to adapting the overclaiming technique to detect faking, lies in understanding the differences between the settings and context of measures in these literatures. Unfortunately, there has been a lack of guiding theory in both literatures and thus no known systematic investigations of the conditions under which overclaiming would be most indicative of faking. However, we propose that expectancy theory provides a compelling framework for this purpose (Ellingson & McFarland, 2011). Specifically, we argue that the extent to which overclaiming will capture faking is driven by expectancy theory’s instrumentality and valence components, which are tied to the content of the OCQ and the context under which it is completed.

**Expectancy Theory, Faking, and Overclaiming**

To understand the circumstances in which overclaiming knowledge would be indicative of faking behavior in job application settings, it is first important to understand the origin of faking. In a recent integration of theories on faking with expectancy theory (Vroom, 1964), Ellingson and McFarland (2011) proposed that individuals would be most likely to fake their responses to a self-report assessment when three conditions are satisfied: high valence, instrumentality, and expectancy. In this context, *valence* refers to the anticipated satisfaction with the outcome of successful faking (e.g., receiving a desired job offer); *instrumentality* refers to the extent to which engaging in faking is perceived to increase the chances of receiving that outcome; and *expectancy* refers to the respondent’s confidence in his or her ability to fake effectively.

Of note, the studies of the bogus item technique reviewed above were conducted with actual job applicant samples, or with simulated job application designs, where valence associated with the outcome (hypothetical or otherwise) is likely to be high. By contrast, aside from two exceptions (Bing et al., 2011; Feeney & Goffin, 2015) studies of the overclaiming technique have not been conducted in competitive application settings nor
simulations thereof, thus valence of outcomes tied to overclaiming, and hence the externally driven motivation to overclaim, is likely to be relatively low. We also note that studies of the bogus item technique used job-contextualized bogus items. By contrast, studies of the overclaiming technique and faking have typically used OCQs sourced from past research, without customization. This distinction may prove critical for understanding how instrumentality drives overclaiming. In Bing et al.’s (2011) study, which found strong evidence that overclaiming was indicative of faking, participants completed an academically-themed OCQ for a hypothetical application into a university position. By contrast, the study by Feeney and Goffin (2015), which found very weak evidence that overclaiming indicated faking, also involved an academically-themed OCQ, but participants were asked to ‘apply’ for a hypothetical retail position. We suspect that these two studies produced diverging results because overclaiming knowledge on an academically-themed OCQ would be regarded as instrumental to achieving the goal of being offered a position in a university, but not in retail. In other words, the retail setting would have provided relatively low instrumentality, and hence expectancy-driven motivation to overclaim, as compared to the academic setting.

**Summary and Aims**

To summarize, the overclaiming technique has been proposed as a potential indicator of faking behavior in job application assessments. There exists very little theoretical discussion, however, on the precise mechanisms through which overclaiming might function in this manner, and the empirical evidence base is inconsistent. To resolve the discrepant findings, and to shed new light on the use of the overclaiming technique to capture faking, we test the proposition that the overclaiming technique will best capture faking when the setting includes a high valence outcome, in our case attaining a desired job, and the knowledge domain of the OCQs is customized such that respondents will perceive claiming knowledge as instrumental to attaining the outcome (i.e., the desired job). We commence with a field
study of applicants to Firefighter positions, where we investigate, for the first time, the performance of a tailored job-relevant OCQ in a high-stakes personnel selection setting. The results of this study guided an experimental study that manipulated the mechanisms of instrumentality and valence to ascertain their combined effects on overclaiming. Finally, in the third study, using a novel high-fidelity personnel selection paradigm, we investigate the extent to which overclaiming emerges in selection, and whether it is indicative of behavior once employed.

**Study 1**

In this first study, we employed the overclaiming technique to attempt to capture a tendency to fake among a large sample of applicants to firefighter positions by creating a customized job-relevant OCQ. As it is impossible to distinguish ‘honest’ from ‘faked’ responses from a single self-report assessment, in this initial investigation we examined whether overclaiming relates to indicators that are known to be sensitive to faking. Each of these criteria is known to be limited in some way (hence the desire to investigate whether the OCQ can capture faking) but including a number of such indicators can each provide evidence that job-relevant overclaiming scores are at least somewhat indicative of faking or positive self-presentation.

First, we considered relations of overclaiming with social desirability scale scores. These scales were originally thought to capture faking through the endorsement of unlikely virtues and the denial of basic human vices (Crowne & Marlowe, 1960; Edwards, 1953; Paulhus & Reid, 1991). While social desirability scales are sensitive to conditions that trigger faking (Viswesvaran & Ones, 1999), the scales are problematic for identifying faking because they are positively associated with truly desirable characteristics assessed by knowledgeable others and through objective behaviors (De Vries, Zettler, & Hilbig, 2014; Kurtz, Tarquini, & Iobst, 2008; Uziel, 2010; Zettler, Hilbig, Moshagen, & De Vries, 2015). Nonetheless, because
of the sensitivity to faking, if overclaiming captures faking behavior, we expected a positive association of overclaiming with social desirability scores.

The second faking indicator we considered was a count of the extreme response options selected when completing the personality questionnaire. With Likert-type assessments, fakers can maximize their scores on desirable traits by selecting the most extreme response options. Studies suggest that when given ‘fake-good’ instructions or conditions where people were highly motivated to fake, respondents gaze more at—and select—extreme response options than in neutral or honest conditions (Landers, Sackett, & Tuzinski, 2011; Levashina, Weekley, Roulin, & Hauck, 2014; Van Hooft & Born, 2012).

In addition, research has demonstrated that applicants are most likely to elevate their scores on particular, desirable personality traits. Anglim, Morse, De Vries, MacCann, and Marty (2017) observed large group differences between job applicants and non-applicants on agreeableness, honesty-humility, conscientiousness, and extraversion ($d$ ranged from 0.73 to 1.06). Thus, another sign that a job-relevant OCQ is sensitive to faking would be if overclaiming scores correlate positively with scores on these desirable personality scales collected under job application conditions.

Finally, we also examined the strength of the relations between OCQs and positive self-presentation behaviors observed in the employment interview. The two most common self-presentation tactics that applicants use are ingratiation and self-promotion (Ellis, West, Ryan, & Deshon, 2002; Higgins & Judge, 2004; Van Iddekinge, McFarland, & Raymark, 2007). Ingratiation involves behaviors intended to make the applicant appear likable, such as opinion-conformity and other-enhancement, whereas self-promotion describes behaviors intended to make the applicant appear competent, such as enhancements of one’s qualities. If job-relevant overclaiming indeed captures faking, then individuals who overclaim more should also be more likely to engage in positive self-presentation in other components of the
selection process (in this case, the interview), leading to a correlation between overclaiming and interview self-presentation. Altogether, we hypothesized the following:

H1: Overclaiming will be positively correlated with each of the following: Social desirability scale scores (H1a), A count of the extreme responses (H1b), Agreeableness (H1c), Honesty-humility (H1d), Conscientiousness (H1e), Extraversion (H1f), and Interview self-promotion and ingratiation behavior (H1g).

Method

The data collected for this study is the first use of a larger dataset. Collection and use of these data for research was approved by the Human Research Ethics Office of University of Western Australia (UWA HREO) under the project title, *The Assessment of Cognitive Ability and Personality in Firefighter Selection: Investigating Validity and Threats to Validity* (protocol number RA/4/1/7664, amendment 1).

Participants and Procedure

Participants were 519 applicants to Firefighter positions in Western Australia. As is typical for Australian Firefighter applicants (e.g., Dunlop, Morrison, & Cordery, 2011), the majority (93%) were male. The mean age was 29.6 years (SD = 5.9) and 24 percent had applied previously. All participants completed measures of personality and overclaiming for their applications. A subset of 134 shortlisted applicants (96% male; mean age = 28.2 years, SD = 5.1) were interviewed by a panel of four interviewers. Immediately after each interview, each panel member independently rated the applicants’ self-presentation behaviors.

Measures

**Personality.** Applicants completed the 200-item HEXACO-PI-R (Lee & Ashton, 2004), which measures the six HEXACO domains with 32 items each.

**Social Desirability.** Sixteen items from Stöber’s (2001) social desirability scale were embedded amongst the 200 items of the HEXACO-PI-R.
**Extreme Response Count.** We counted the participants’ endorsements of the most extreme socially desirable response option to the HEXACO-PI-R items.³

**Job-relevant Firefighter themed OCQ.** For this study, we developed a new job-relevant OCQ that contained content relevant to firefighting, and its contents and sample items are summarized in Table 1. Items were identified through web searches with the aim of including targets of varying obscurity and foils that were verified to be non-existent (Paulhus et al., 2003). The final content of this OCQ was reviewed and endorsed by members of the hiring organization. Applicants were asked to rate their knowledge of the items with the following options: 0 (I have never heard of this item), 1 (I can understand what/who this item is when it is discussed), and 2 (I can talk intelligently about this item). We calculated the two indices of \( c \) (overclaiming) and \( d' \) (accuracy) following the scoring procedures described by Paulhus et al. (2003) (details are provided in the supplemental materials).

< Table 1 about here >

**Interview Self-Presentation Behaviors.** Interview panel members independently rated each interviewee on a set of six self-presentation items (three for ingratiation and three for self-promotion) that were adapted from existing measures of impression management behavior in interviews (Higgins & Judge, 2004; Stevens & Kristof, 1995; Wayne & Ferris, 1990). Importantly, because interviewers are not necessarily accurate at judging whether interviewee self-presentation behaviors are honest or deceptive (e.g., whether a self-promoting behavior is faking or truthful; Roulin et al., 2015) we removed judgments regarding the intent behind self-presentation items. In this way, the items simply captured whether interview panel members observed acts of ingratiation and self-promotion. An ingratiation item was “complimented me and/or the organization” and a self-promotion item

³ We considered *strongly agree* to be the most socially desirable option to positively-keyed items and *strongly disagree* for negatively-keyed items to all scales, except for emotionality where we did the reverse because higher levels of fearfulness, anxiety, sentimentality, and dependence are presumably less desirable at work.
was “described their skills and abilities in an attractive way.” Interviewers rated each item on a five-point scale ranging from not at all to almost all of the time. Though we aimed to capture two types of self-presentation behavior, an exploratory factor analysis suggested that the six items formed a single factor, and we therefore combined them as such. Inter-rater consistency was estimated at .91 via the intraclass coefficient (ICC (2, 4)).

Results

Table 2 shows the descriptive statistics of and intercorrelations among all study variables. Hypothesis set 1 stated that there would be positive associations of overclaiming with a set of faking indicators and all hypotheses were supported. Overclaiming was positively associated with (p < .001 unless otherwise stated): scores on the socially desirable responding scale (r = .24), the extreme response count (r = .23), agreeableness (r = .15), honesty-humility (r = .10, p = .026), conscientiousness (r = .21), extraversion (r = .25), and positive self-presentation behaviors during the interview (r = .21, p = .012).

Discussion

This study is the first known investigation of overclaiming in an operational selection setting and the results revealed that overclaiming on a customized OCQ was positively associated with two measures derived from self-report assessments known to be sensitive to faking behavior, with scores on desirable trait measures, and with self-presentation behavior as perceived by interviewers. Although each of these indicators is flawed in its own way, the fact that each of these unique indicators seems to share some variance with the job-relevant OCQ is encouraging, and prompted us to conduct additional studies to further examine these mechanisms and use additional, more robust, measures of faking that can only be gathered using repeated-measures designs.

4 Correlations of overclaiming with personality facet scales are provided in the supplemental materials.
Study 2

In Study 1, because of its operational setting, we were unable to directly compare a job-relevant OCQ to one with job-irrelevant content, and thus could not investigate the role of instrumentality, specifically, whether overclaiming relevant knowledge for a job application is more indicative of faking than overclaiming irrelevant knowledge. We also could not test how the operation of different OCQs varies with the valence of the assessment context (e.g., job application vs. research participation). Accordingly, we addressed both concerns via a repeated measures experiment. First, we developed a novel OCQ with content relevant to a professional job. Then, using a traditional simulated job application experimental paradigm (e.g., Feeney & Goffin, 2015), we compared this job-relevant OCQ to a job-irrelevant OCQ derived from Paulhus et al.’s (2003) academic OCQ (see Table 1) under two assessment conditions: instruction to respond honestly (low valence), and instruction to imagine the OCQs are being completed as part of an application for a professional position (high valence). In the latter setting, we anticipated that overclaiming job-relevant knowledge would be more instrumental than overclaiming job-irrelevant knowledge to achieving the goal of appearing as a desirable candidate (Ellingson & McFarland, 2011; Ziegler et al., 2011). Based on the assumption that overclaiming is particularly indicative of faking under higher valence – higher instrumentality conditions, we expected to see that participants would overclaim most on the job-relevant (i.e., high instrumentality) OCQ when in the job application condition (i.e., high valence), and hypothesized the following:

H2: In comparison to honest assessment conditions, when in job application assessment conditions, participants will overclaim more on the job-relevant OCQ than on the job-irrelevant OCQ.

We again expected to observe positive associations of overclaiming on a job-relevant OCQ with other indicators of faking behavior. The repeated measures design of this study
enabled the calculation of two indicators that capture the faking that is triggered, specifically, by the job applicant assessment context, in comparison to that which emerges under instruction to respond honestly (Burns & Christiansen, 2011). The first, Residualized Individual Change Scores (RICS), are derived from a regression of personality scores collected under job application conditions on scores collected under ‘honest’ conditions; in other words, this measure directly captures the changes in personality score that are prompted by the job application manipulation. The second, within-person correlation (WPC), is an index of the consistency of participants’ responses to personality scales across the two assessment conditions. We hypothesized that:

H3: Overclaiming job-relevant knowledge under simulated job application conditions will be positively correlated with RICS (H3a) and negatively correlated with WPC (H3b).

Given the hypothesized role of instrumentality in driving overclaiming, we expected that overclaiming on the job-irrelevant OCQ would be relatively less sensitive to faking than overclaiming on the job-relevant OCQ. Further, consistent with the valence principle of expectancy theory, overclaiming on the job-relevant OCQ should be most strongly associated with faking indicators when it is completed under high-valence (i.e., job application) conditions. We therefore hypothesized the following:

H4. The correlations of overclaiming job-relevant knowledge with RICS (H4a) and WPC (H4b) will be larger than the correlations of overclaiming job-irrelevant knowledge with, respectively, RICS and WPC, under simulated job application conditions.

H5. The correlations of overclaiming job-relevant knowledge with RICS (H5a) and WPC (H5b) under simulated job application conditions will be larger than the correlations of overclaiming job-relevant knowledge with, respectively, RICS and WPC under honest conditions.

**Method**
Collection and use of these data for research was approved by the UWA HREO under the project title, *Expectancy Theory & Overclaiming as Predictors of Faking Behaviour on Personality Assessments* (protocol number RA/4/1/6705, amendment 3).

**Stimulus Development**

Prior to running the main experiment, we developed both a position description for a hypothetical target ‘Graduate Accounts Clerk’ job, based on materials sourced from O*NET, and a new customized job-relevant OCQ. Full details regarding stimulus development, including evidence of the customized OCQ’s validity, are reported in the supplemental materials. To summarize, the customized job-relevant OCQ contained three topics (see Table 1), each with 12 targets and three foils. The three topics were selected from a larger set that we had asked 15 independent judges to evaluate in relation to the topics’ relevance to the target job. The foils for those three topics were selected from a larger set, based on the judges’ ratings of the foils’ plausibility. A contrasting job-irrelevant OCQ was constructed from the items of Paulhus et al.’s (2003) original OCQ. Specifically, we used the three topics from that OCQ that were rated by the judges as being least relevant to the target job.

**Main Experiment**

**Design.** This study employed a 2×2 repeated-measures design. The first factor was assessment condition, which was counterbalanced and designed to manipulate valence: honest vs. job application; that is, participants completed a set of questionnaires both under instructions to respond in an honest manner and as if they had applied for the job as a Graduate Accounts Clerk. The second within-person factor was designed to manipulate instrumentality, namely OCQ type: job-relevant vs. job-irrelevant.⁵

⁵In this study, we also included a between-groups condition where we manipulated the response format of the OCQs. In one condition, participants reported their familiarity with the items, whereas in the other, participants reported their knowledge of the items. This manipulation appeared to have no appreciable effects on the results.
Participants. This study recruited 258 participants through two channels. Seventy-nine Australian participants were recruited by two of the authors through approaching personal contacts and promoting the study on social media. The remaining 179 participants were recruited from the United States via Amazon’s Mechanical Turk (MTurk) site, though six participants from the latter cohort were removed due to evidence of careless responding to the HEXACO measure, namely very low variability in item responses between scales (SD < .70) or high variability in item responses within scales (SD > 1.60; Barends & De Vries, 2019; Lee & Ashton, 2018). Across the two samples, we observed a significant age difference (Aus. mean = 33.4 years vs. US mean = 40.6 years, t(250) = 4.55, p < .001) and in the time spent undertaking full-time work (Aus. mean = 9.5 years vs. US mean = 16.6 years, t(247) = 4.58, p < .001). Most of the sample were women (63.9%) and held tertiary qualifications (73.5%).

Procedure

Data were collected via Qualtrics. In both conditions, participants first completed a personality inventory and then both OCQs. Full instructions for both conditions are provided in the supplement, but briefly, participants were instructed to respond to all assessment honestly in the honest condition, and to imagine they were completing the assessments as part of an application for the Graduate Accounts Clerk position in the job application condition.

Measures

Overclaiming Questionnaires. When completing the job-relevant and job-irrelevant OCQs, constructed during stimulus development, participants were either asked to report their familiarity with, or knowledge of (see footnote 5), the items on a three-point scale. The two OCQs were scored separately using signal detection principles (Paulhus et al., 2003).
**Personality.** Participants completed the HEXACO-100 personality inventory (Lee & Ashton, 2018) in both conditions. Responses to the items from the HEXACO-100 (without altruism) were used to derive the RICS and WPC.

**Residualized Individual Change Scores (RICS).** RICS were derived from the HEXACO-100 by regressing each scale score from the job application condition onto its honest condition counterpart (e.g., job application extraversion was regressed onto honest extraversion) and saving the residuals of these regressions. This procedure yielded one RICS per HEXACO domain. A global estimate of faked personality was required, and therefore an exploratory factor analysis (maximum likelihood) was conducted on the six HEXACO RICS, extracting one factor, which provided a summary index of each participants’ RICS.  

**Within-Person Correlation (WPC).** We calculated a WPC for each participant by following the procedure described by Burns and Christiansen (2011). Large positive WPCs indicate a high degree of consistency in responses across conditions, whereas the WPC declines as participants adjust their responding strategy across assessment conditions. To calculate the index, we first ipsatized the responses to the personality items separately for both assessment conditions. We then calculated the cross product of the 96 pairs of ipsatized scores and divided this total by the number of items minus 1 (95) to derive WPCs. We then transformed the resultant ‘raw’ WPCs into a linear scale using Fisher’s $r$ to $z$ transformation.

**Results**

**Manipulation Check**

To check the instrumentality manipulation (i.e. OCQ topic relevance), we asked participants to rate each of the six topics from the two OCQs in terms of their relevance to the target job from 1 (not at all relevant) to 7 (very relevant). We found a very large difference in

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6The first eigenvalue was 2.62, and it explained 43.6% of the variance in the six RICS. The next largest eigenvalue was 1.11, which was smaller than 95% of the second eigenvalues observed from a ‘parallel’ exploratory factor analysis of 10000 sets of randomly generated data of an equivalent size (Horn, 1965).
the expected direction between the mean relevance ratings of the three job-irrelevant topics to that of the job-relevant topics ($M_{\text{diff}} = 4.44, t(251) = 48.6, p < .001, \text{Cohen's } d = 3.06$).  

**Hypothesis Tests**

To test H2, we conducted a two-way repeated measures ANOVA with OCQ type and assessment conditions as factors, and overclaiming the dependent variable. There was a significant main effect of both OCQ type ($F(1, 251) = 152.8, p < .001, \eta_p^2 = .378$) and assessment condition ($F(1, 251) = 116.8, p < .001, \eta_p^2 = .317$). Importantly, there was a significant moderate two-way interaction between OCQ type and assessment condition ($F(1, 251) = 73.6, p < .001, \eta_p^2 = .227$). A plot of the means is shown in Figure 1 and simple effects analyses revealed that participants overclaimed to a significantly greater extent on both versions of the OCQ in the job application condition and, consistent with H2, that the difference was much larger for the job-relevant OCQ ($M_{\text{diff}} = 0.619, p < .001, \text{Cohen's } d = 0.75$) than it was for the job-irrelevant OCQ ($M_{\text{diff}} = 0.268, p < .001, \text{Cohen's } d = 0.43$).

<Figure 1 here>

Next, we investigated the relations of overclaiming on the job-relevant and job-irrelevant OCQs with the faking indicators. Overclaiming on the job-relevant OCQ in the job application condition was positively associated with RICS ($r = .39, p < .001$; supporting H3a), and negatively associated with the WPC ($r = -.42, p < .001$; supporting H3b). We then undertook tests of the significance of the differences in non-independent correlation coefficients (Lee & Preacher, 2013; Steiger, 1980) to ascertain whether these two correlations were larger than the analogous correlations with overclaiming on the job-irrelevant OCQ in the same condition. Supporting H4, the difference in correlations of job-relevant (J-R) and job-irrelevant (J-I) overclaiming with RICS was significant ($r_{J-R} = .39 \text{ vs. } r_{J-I} = .27, z = 2.59$).

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7 We also tested for interactions with the between-subjects counterbalance-order condition. Results are available in the supplemental materials; although order effects emerged, they did not materially affect the conclusions.
OVERCLAIMING AND FAKING BEHAVIOR

\( p = .005 \) as was also true of the analogous correlations with the WPC (\( r_{J,R} = -.42 \) vs. \( r_{J,I} = -.31, z = 2.48, p = .006 \)). Finally, in support of H5, we found that the correlations of job-relevant overclaiming from the job application conditions with the faking indicators were much larger than their honest condition counterparts (RICS: \( r_{JA} = .39 \) vs. \( r_{Hon.} = -.02, z = 6.12, p < .001 \); WPC: \( r_{JA} = -.42 \) vs. \( r_{Hon.} = .12, z = -8.21, p < .001 \)).

**Discussion**

Ziegler et al. (2011a) conceptualized faking as a behavior that involves misrepresentation of the self in a manner that is seen as instrumental to achieving a goal. Following this definition in the present study, one would thus expect faking to be most prominent in the high valence – high instrumentality condition. In the present study, we demonstrated that overclaiming scores were higher when: (1) there was positive valence associated with its outcome (i.e., being selected into a job), and (2) claiming the specific knowledge on an OCQ was likely perceived to be instrumental to achieving that outcome because the OCQ included job-relevant knowledge. This shows that overclaiming followed the expected pattern. Further, overclaiming job-relevant knowledge in the job application condition was positively associated with two indicators of personality assessment faking triggered by exposure to that condition, and significantly more strongly so than both overclaiming job-irrelevant knowledge and overclaiming job-relevant knowledge in honest conditions. Altogether, these results illustrate the value of employing principles of expectancy theory to explain the conditions under which the overclaiming technique would most successfully measure faking.

While this study, and Study 1, illustrate that overclaiming job-relevant knowledge can indicate faking in job application settings, three central issues remain. The first regards the criterion-based consequences of overclaiming. That is, if overclaiming job-related knowledge during a job application represents a real discrepancy between an applicant’s true and
apparent knowledge (Ziegler et al., 2011a), is this form of faking relevant to behavior after
being selected? Bing et al. (2011) showed that overclaiming was a ‘suppressor’ of the
personality scale-criterion correlation, and Levashina et al. (2009) found evidence that
endorsers of bogus items truly possessed less job knowledge and verbal ability than non-
endorsers. Together, these results suggest that overclaiming job-relevant knowledge is
indicative of a responding bias that undermines the construct validity of other self-report
assessments. Nonetheless, some (e.g., Hogan, 2005) have argued that faking is an adaptive
behavior that enables one to function in a civilized society and that, if anything, fakers should
outperform non-fakers. Our final study aims to investigate these competing views.

The second issue is one of generalizability. Transparent experimental manipulations
that trigger faking might be expected to yield exaggerated effects relative to those observed in
ture selection settings, where applicants must deal with the consequences of being hired
under false pretenses (e.g., Smith & Ellingson, 2002). To alleviate this concern in Study 3,
we evaluate overclaiming as a measure of faking by constructing a realistic operational
selection paradigm. Finally, in Study 3, we also directly measure the expectancy and
instrumentality mechanisms, whereas we could only infer them in Studies 1 and 2.

Study 3

In this final study, we sought to resolve several unanswered questions about
overclaiming as an indicator of faking in job application settings. Participants first completed
a set of assessments, including an OCQ, under ‘research’ conditions. On a separate,
seemingly unrelated occasion, participants were then invited to apply for an opportunity to
complete a highly paid task (job) that required specialized knowledge. Those who applied for
the job then completed the same assessments as before, including a job-relevant OCQ. We
then ‘hired’ all of the applicants and asked them to complete the task, which then enabled us
to measure two criteria, namely deviant behavior and work quality. As Donovan et al. (2014)
explain, such a design is rare and difficult to implement in practice, but essential for testing important hypotheses about the presence and impact of faking behavior. Specifically, the research assessment condition provides a comparison for the job application assessment, and the criteria allow the investigation of the impact of faking on validity. In this study, consistent with expectancy theory and Study 2, we expected the job application condition, with its higher outcome valence, to trigger more overclaiming than the research assessment condition:

H6: Participants will overclaim to a greater extent when they are completing the OCQ for a job application than when completing it under research conditions.

Next, we investigated whether participants who held relatively higher expectancies with respect to their success in demonstrating job-relevant knowledge, and perceived greater instrumentality of appearing knowledgeable for being selected overclaimed to a greater extent in the job applicant condition. We hypothesized the following:

H7: Instrumentality (H7a) and expectancy (H7b) will be positively associated with job application overclaiming, after controlling for research condition overclaiming.

Finally, we investigated whether overclaiming during the job application was related to two criteria, after being hired. In line with a view that faking represents a criterion-irrelevant response set (Ziegler et al., 2011), we expected that participants who overclaimed more during the job application would be generally be less effective performers when hired than those who overclaimed less. Together, we hypothesized the following:

H8: The amount of overclaiming during the job application will be positively associated with deviant behavior (H8a) and negatively associated with quality of work (H8b).

Method

Collection and use of these data for research was approved by the UWA HREO under the project title, *Measuring Impression Management Behaviour on Personality Assessments in a Simulated Selection Situation* (protocol number RA/4/1/9002, amendment 7).
Procedure and Participants

This study was undertaken over three waves using MTurk (Litman, Robinson, & Abberbock, 2016). Full instructions, and details regarding the tasks and sample from all waves are provided in the online supplement; for brevity, Figure 2 provides a summary. In wave 1 (“research”), 500 MTurk workers participated in a research project entitled “Personality and Individual Differences” and completed a set of questionnaires, which included an OCQ with four topics: politics, religion, geography, and history (Dunlop et al., 2017) and a personality measure (not used in this study, except for validation; refer to the supplemental materials). Participants were unaware of the upcoming waves 2 and 3. Ninety-four participants were dropped from the study due to failure to pass one or more of four attention checks we included in the wave 1 survey, and two opted out of future contact. Three weeks later, in wave 2 (“job application”), we posted a second task on MTurk entitled “Application to complete a high-paying [task]”, paying $2.50. Although unbeknownst to them, only the 404 participants retained from wave 1 were eligible to apply, and 294 (72.8%) did so. They were informed that (a) the high-paying task would pay between $2-10, depending on how long was spent on the task, to an expected maximum of 20 minutes (this made for a very high pay rate for Mturk tasks; Keith, Tay, & Harms, 2017), (b) the task involved sharing opinions about political matters, (c) there would be a competitive selection process, and (d) that we were looking to select people who were knowledgeable about politics. Participants completed a set of online questionnaires, including a “Politics Knowledge Questionnaire” comprised of the politics items from wave 1’s OCQ (see Table 1), and a personality measure.

One week later, in wave 3, we advised all 294 participants from wave 2 that their application was successful, and they had been selected to complete the ‘sharing political...
opinions’ task, and 259 (88.1%) did so. This task measured two criteria: deviant behavior and opinion quality. Figure 2 shows the demographic characteristics of the final sample.  

**Measures**

**Overclaiming Politics Knowledge.** In waves 1 and 2, participants completed an OCQ developed and validated by Dunlop et al. (2017) that contained 12 targets and six foils relating to the topic of politics and political concepts (see Table 1 for examples). The response scale was slightly changed from that used in Study 2; namely, we added *OR I don’t know anything about this item or concept* to the first response option.  

**Valence, Instrumentality, and Expectancy.** After completing their applications, participants completed a short survey about the selection process. It included four items that captured valence (e.g., “The opportunity to do the MTurk job is a desirable one for me”; alpha = .78); 88% of the participants scored at least 4 out of 5, and the mean was 4.52 (*SD* = .53), indicating that the valence was generally extremely high. Two items captured expectancy (“I am confident that I could get a good score on the knowledge questionnaire if I tried hard”; alpha = .92), and two others captured instrumentality (“I can see how my answers on the knowledge questionnaire would affect whether I am hired”; alpha = .52). Responses were given on a 1 – *strongly disagree* to 5 – *strongly agree* scale.  

**Criteria.** We constructed a novel task for wave 3 that captured two criteria, namely deviant behavior (through two indicators), and opinion quality. This task was the ‘job’ that participants had applied for in wave 2. In completing the task, participants were informed that our research team needed to collect a set of well-informed and authentic opinions about eight political propositions and, accordingly, participants were instructed that they *must not look anything up* while completing the task. They had to tick a box to indicate they understood this.

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8 Attrition appeared not to be associated with any variable of interest in this study.
9 We made this change because we were concerned that participants in wave 2 might recall seeing an item from wave 1, and hence could argue that they *had* heard of that item/concept, even if they knew nothing about it.
instruction. The participants would then see the propositions, one at a time, and were instructed to indicate whether they were in favor of it, against it, or that they did not know enough about it to be able to answer. If they chose either “for” or “against”, a textbox appeared where the participants were instructed to write their reasoning, otherwise they would proceed to the next proposition. Participants were told that they would be paid a minimum of $2,\textsuperscript{10} and that they would be paid an extra $1 for each opinion they provided. Based on median response times, the effective hourly rate was approximately US$31.

The propositions were developed through consultation of data collected for another study (Dunlop et al., 2017) and tested in the pilot study of 30 independent participants who completed an identical task, but with a flat incentive (US$8; see the supplemental materials for details). The flat payment structure informed us on the base rates of knowledge of the propositions. The eight propositions included: three “distracters” that described commonly understood or intuitive notions, four that described very “obscure” ideas that required highly specific political knowledge, and one “bogus” proposition that described a nonsensical concept. Table 3 shows the full set and the percentage of respondents from the pilot (where compensation was not tied to providing a response) and main studies who provided opinions in relation to each.

<Table 3 here>

Providing an opinion about the bogus proposition was interpreted as a definitive sign of deviant behavior, because it is impossible to hold an informed opinion about a bogus proposition. Further, because participants were explicitly instructed not to look any proposition-relevant information up, a probabilistic measure of deviant behavior was derived by taking the count of the responses to the four obscure propositions. Indeed, the pilot study

\textsuperscript{10} We set a floor payment of $2 because we wanted to encourage all participants from wave 1 to apply at wave 2. Without a floor payment, participants who did not feel knowledgeable about politics may have self-selected out of the process as they might not see any value in applying to complete a performance-contingent task that they felt unlikely to be able to perform well.
revealed that few people showed knowledge about these topics. Using incentivized responses to bogus or highly obscure measures is common among studies of deviant behavior (Hershfield, Cohen, & Thompson, 2012; Kouchaki & Smith, 2013; Zettler et al., 2015).

Finally, because the ‘job’ merely incentivized the provision of opinions, to earn extra money participants could simply provide a poor-quality or irrelevant opinion to any proposition. In addition, if individuals were faking their knowledge, we would expect them to be less able to provide a high-quality opinion. Thus, we considered the quality of opinions provided to the four obscure propositions as a criterion variable. The quality of the opinions on the four obscure propositions was rated by six independent judges. After being trained on the propositions, the judges rated each opinion using the following scale: The opinion given seemed... irrelevant to the topic, poorly informed, was vague, or incoherent (coded as 0); somewhat relevant to the topic, informed, concrete, or coherent (1); and relevant to the topic, well informed, fairly concrete, and coherent (2).\[^{11}\] ICC(2, 6) consistencies of the judges’ ratings for the four propositions were very sound and ranged from .76 to .84. The mean judges’ ratings for each opinion were therefore used as a measure of opinion quality.

**Results**

Descriptive statistics and intercorrelations among the study variables are provided in the supplemental materials. We undertook a paired-samples \(t\)-test comparing the amount of overclaiming on the Politics OCQ in the job application phase to that in the research condition. This revealed that participants overclaimed to a significantly greater extent when ‘applying’ for the job (\(M_{\text{diff}} = .123, t(258) = 6.04, p <.001, \) Cohen’s \(d = .38\)), supporting H6.

To test H7a, H7b, and H8a, we specified the path model shown in Figure 3 in Mplus 8.2. This model incorporates several paths, including: (a) the regressions of job application

\[^{11}\] There was a fourth rating option, *The person only included the definition of the topic*, but we combined this with option 0 because it reflected a poor-quality response, and was rarely used.
overclaiming on expectancy and instrumentality, and both (b) the binary logistic regression of whether a participant provided a response to the bogus proposition and (c) the Poisson regression of the count of the responses provided to the four obscure propositions, on job-application overclaiming and accuracy, all controlling for baseline overclaiming and accuracy from the research condition.\textsuperscript{12} In support of H7a but not H7b, instrumentality significantly predicted job-application overclaiming ($B = 0.056$, $p = .018$), whereas expectancy did not ($B = 0.023$, $p = .230$). In addition, participants who overclaimed more in the job application condition were more inclined to provide an opinion about the bogus item ($B = 1.30$, $p = .014$), and gave opinions about more of the obscure items ($B = .460$, $p < .001$). Further, those with higher accuracy scores (i.e., participants with relatively more knowledge of politics) were significantly less likely to provide an opinion on the bogus item ($B = -1.14$, $p = .003$), although accuracy was unrelated to obscure opinion count. Together, these results suggest that people who overclaimed more in the job application were more inclined to disobey the instruction to skip topics they did not know about to earn extra money. Truly knowledgeable participants were less inclined to respond to the bogus item. H8a was supported.

We also estimated the four specific indirect effects of instrumentality and expectancy on the two measures of deviant behavior, through job application overclaiming, and constructed 95\% bias-corrected confidence intervals derived from 10000 bootstrapped samples (Hayes, 2013). These results (Table 4) revealed that instrumentality was indirectly associated with both indicators of deviant behavior, whereas expectancy was not. That is, those who regarded obtaining a higher score on the knowledge test as instrumental to being selected were more likely to overclaim, and then to engage in deviant behavior once ‘hired’.

\textsuperscript{12} Conventional fit indices cannot be computed in Mplus when a path model includes count or categorical outcome variables. Running the same model, but treating the deviant behavior dependent variables as continuous suggested that any mis-specification is likely to be trivial ($\chi^2 (6, N = 259) = 8.94$, $p = .177$; CFI = .995, RMSEA = .043., SRMR = .033).
Finally, to evaluate H8b, we specified three multilevel models in Mplus 8.2 (see Table 5). The units of analysis were the mean ratings of the opinion quality in relation to the four propositions, nested within participants. 201 (78%) participants provided at least one opinion on the four obscure propositions (471 opinions in total). We first derived the intraclass correlation of the ratings (Model 1), and it showed that about half of the variance in opinion quality was between-person (ICC(1) = .523). In Model 2, we regressed opinion quality on a set of binary dummy-codes that represented the four propositions, thus controlling for differences in quality ratings between propositions. In Model 3, we added overclaiming and accuracy in both the research and job application conditions as between-person predictors. The only statistically significant predictor was accuracy in the job application condition ($B = 0.250, p < .001$), suggesting that more knowledgeable participants provided opinions rated as higher in quality. Overclaiming was a very weak predictor of opinion quality ($B = -0.009, p = .926$), hence H8b was not supported.

<Figures 2, 3, and Tables 4 and 5 here>

**Discussion**

In this study, we used a novel research design with both research and job application assessment contexts, to investigate whether overclaiming on a job-relevant OCQ in was prompted by a job application setting and if it predicted two work-related criteria. Specifically, we determined whether those who overclaimed more to secure a desired position also tended to engage in deviant behaviors and in poorer performance on a task they were hired for. This study revealed that those who overclaimed more during their job applications were more deviant when hired, after controlling for overclaiming in the research assessment. Thus, the deviant behavior was related to the additional overclaiming triggered by the job application conditions. Further, we found that those who perceived claiming to know about politics as instrumental to being offered the position overclaimed more and, were
more likely to be deviant. Expectancy was not a predictor of job application overclaiming after controlling for research condition overclaiming, though it did correlate positively with overclaiming in both conditions. It appears, therefore that having a high or low expectancy regarding knowledge did not drive additional overclaiming in a job application. Although being relatively more prone to engaging in incentivized deviant behavior, we did not find that overclaimers provided poorer quality opinions than non-overclaimers; instead, it appeared that poorer opinions were observed among those who the politics-themed OCQ revealed to be less knowledgeable about politics through its accuracy ($d'$) index. This result suggests that the judges were indeed detecting true differences in political knowledge in evaluating the opinions and also indicates that the accuracy scores on OCQs may be useful predictors for selection (see also Paulhus & Dubois, 2014; Paulhus & Harms, 2004).

In contrast to Donovan et al.’s (2014) field study with a similar design, we found that faking levels in this sample, as captured by the overclaiming technique, were low, with relatively few participants reporting knowledge of the foils in either the low-stakes or job application conditions. Perhaps the elimination of non-attentive participants after wave 1 resulted in the retention of mainly authentic MTurk workers (Peer, Vosgerau, & Acquisti, 2014). Nonetheless, despite this, we still observed relations of overclaiming with our deviant behavior criteria. Furthermore, though it was important to design a task that would yield objective indicators of deviant behavior, we also recognize that, in contrast to Donovan et al.’s study, our study was limited in that the job on offer was a one-shot highly paid task. Nonetheless, the participants generally reported that they found the opportunity to complete the task highly desirable (i.e., very high valence scores). Together, the results of this study

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13 We acknowledge that the single item used to capture opinion quality will have reduced the scope to assess quality of the opinions in relation to different dimensions, but we were reassured by the sound observed inter-rater reliability.
suggest that overclaiming on a job-relevant OCQ is indeed an indicator of faking, which is in turn associated with engagement in incentivized deviant behavior.

**General Discussion**

This investigation is the first known attempt at using a guiding theory to investigate the conditions under which the overclaiming technique can function effectively as a measure of faking behavior on self-report assessments in personnel selection contexts. Whereas two previous studies that examined overclaiming as a measure of faking in selection yielded conflicting results (Bing et al., 2011; Feeney & Goffin, 2015), the studies presented here reconciled those differences by highlighting the importance of the assessment context and the content of the OCQ used to capture overclaiming. Our first study showed that overclaiming on an OCQ that was content matched to the occupation was associated with other indicators that are known to be sensitive to situations that are known to trigger faking. Our second study provided further support for the instrumentality and valence mechanisms of expectancy theory in understanding overclaiming (Ellingson & McFarland, 2011) by directly comparing the application of the overclaiming technique using a job-relevant OCQ (high instrumentality) to that of a job-irrelevant OCQ (low instrumentality) under conditions of high versus low valence. It revealed that overclaiming on a job-relevant OCQ was more sensitive than overclaiming on the job-irrelevant OCQ to the valence associated with the assessment conditions and relatively more strongly correlated with faking indicators. Our third study showed that the overclaiming technique can be applied to capture faking behavior in an actual application assessment, that overclaiming is correlated with deviant behavior among selected candidates, and that perceived instrumentality was positively associated overclaiming in the job application.

**Psychological Processes in Overclaiming**
Study 2 represented the first known systematic test of the interaction between an assessment context and OCQ content on the prevalence of overclaiming, and Study 3 contrasted assessments conducted for research with those conducted for selection. These experiments provided insight into the psychological processes involved in overclaiming. Paulhus et al. (2003) suggested initially that overclaiming may be a form of self-deceptive ego defense and Dunlop et al. (2017) concluded that overclaiming likely emerges as a product of ‘misfiring’ memory traces; that is, genuinely held, but misguided beliefs that a novel stimulus (a foil) is familiar. In Studies 2 and 3, we observed low levels of overclaiming in relatively low-stakes assessment conditions and on an academically themed OCQ (in Study 2) in both honest and simulated selection conditions, and hence we suspect these two mechanisms are still at play. Importantly, however, we demonstrated that under conditions where there is a desired goal (i.e., to obtain a job; high valence), and a clear relation of the OCQ’s content with the job (i.e., job-relevance; high instrumentality), overclaiming emerges to a greater extent (Bing et al., 2011; Paulhus, 2011), even after controlling for baseline overclaiming. Thus, under these circumstances, there appears to be additional drivers of overclaiming behavior that are not observable in classic studies of overclaiming.

Furthermore, the finding from Study 3 that overclaiming in the job-application assessment was associated with deviant behavior reinforces that this overclaiming may be an important indicator for employers wishing to avoid employees who are prone to deviance.

The Implications of The Overclaiming Technique as a Measure of Faking Behavior

Users of self-report assessments in personnel selection setting have long grappled with the issue of faking, due to its potential adverse effects on the quality of selection decisions (Mueller-Hanson et al., 2003). While it would clearly be useful to somehow quantify the amount of faking an individual has engaged in while completing a self-report assessment, devising measures to detect faking in practice has been difficult (Burns &
Christiansen, 2011). In this, we believe the results of the present study represent a promising avenue for solving this critical problem. The overclaiming technique offers practitioners involved in personnel selection a brief standalone self-report strategy that is: (1) sensitive to job application assessments, (2) correlated with other known measures of faking, and (3) is associated with deviant behaviors. In addition, the accuracy index that can be derived from an OCQ predicts performance. However, our results show that OCQs will not all be equally useful in all settings. When first investigating the OCQ as a measure of faking, Bing et al. (2011) noted that, in contrast to bogus items which must be tailored for every job, the OCQ might act as a more generalized test of knowledge that would be relevant to many jobs. While we agree with the claim that the overclaiming technique might lend itself better for generating generalizable measures of faking than job-specific bogus items, the results of our studies show that consideration of the context of the job may be important when considering the nature of an OCQ. That is, perhaps it is possible to develop OCQs that would be appropriate for many jobs within job families (e.g., professional or office jobs, blue collar jobs), rather than having to develop a specific OCQ for every job. Accordingly, it may be fruitful to design specialized OCQs for use for selection into different job families. However, one potential limitation is that as the items of an OCQ are deployed to a wider population, coaching may be a problem (Hausknecht, Halpert, Di Paolo, & Moriarty Gerrard, 2007). To combat this, we encourage generating large pools of foils and targets, updating OCQs regularly, and regularly revisit foils to ensure that they indeed remain bogus items.

**Limitations and Directions for Future Research**

Several limitations of the present investigations must be noted. Although we propose that the instrumentality and valence mechanisms of expectancy theory are critical for understanding when the overclaiming technique would provide an indicator of faking, we did not directly measure the perceived instrumentality of overclaiming knowledge in Studies 1 or
2. We were concerned that asking participants about the extent to which they saw overclaiming knowledge of a domain as instrumental would trigger demand characteristic effects when exposed to a job application assessment condition. Instead, in Study 2, we relied on a comparison of the perceived relevance of the topics of the two OCQs as an indirect assessment of instrumentality. We did, however, test the role of instrumentality more directly in Study 3. Additionally, we did not experimentally investigate the expectancy component in Study 2, and suggest that future researchers could consider manipulations such as presenting warnings (which have been shown to be effective for reducing faking on other types of assessments; Dwight & Donovan, 2003) against overclaiming or varying the obscurity of the OCQ content. Expectancy was measured in Study 3, however, and it appeared not to influence overclaiming in the job application beyond that observed in the research condition.

Furthermore, although we incorporated a large set of indicators of self-presentation behavior as criteria for validating the OCQ, we note that our set of indicators was not exhaustive. Indeed, researchers have considered alternative indicators including response patterns to personality items that are ambiguous in valence (Kuncel & Borneman, 2007), response times (Fine & Pirak, 2016; Holden, Kroner, Fekken, & Popham, 1992), and gaze patterns (Van Hooft & Born, 2012). Further, the RICS used in Study 2, being based on difference scores, may be at risk of low reliability (Edwards, 1995, 2001). We encourage researchers in the future to investigate alternative indicators as additional criteria in validating a tailored overclaiming technique.

Conclusion

The present paper provided strong evidence that the overclaiming technique can be adapted to provide an indicator of faking behavior in personnel selection assessments, both in laboratory simulations and in the field. The key to successfully adapting it in this manner lies in matching the content of an OCQ to the target job. These findings inform theory around the
overclaiming technique to explain the processes underlying overclaiming behavior, and the results provide strong practical implications for handling a problem in the field of assessment and selection.
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Table 1.

*Topics and Sample Items from the Customized Job-Relevant Overclaiming Questionnaires Used in Studies 1, 2, and 3.*

<table>
<thead>
<tr>
<th>Study</th>
<th>Topic</th>
<th>Sample Target</th>
<th>Sample Foil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Firefighting and personnel management</td>
<td>Direct firefighting techniques</td>
<td>Three-component task prioritization system</td>
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<tr>
<td></td>
<td>Firefighting tools and equipment</td>
<td>Anemometer</td>
<td>Square-sided drill</td>
</tr>
<tr>
<td></td>
<td>Household tools and equipment</td>
<td>Biscuit joiner</td>
<td>Jackson pulley</td>
</tr>
<tr>
<td>2</td>
<td>Workplace techniques, strategies, and business terms</td>
<td>Key performance indicators</td>
<td>Solvency matrices</td>
</tr>
<tr>
<td></td>
<td>Equipment, software, and hardware</td>
<td>Acrobat Reader</td>
<td>Mozilla Lightstream</td>
</tr>
<tr>
<td></td>
<td>Computing and technology</td>
<td>Randomized digital arrays</td>
<td>Crowd sourcing</td>
</tr>
<tr>
<td>3</td>
<td>Politics and political concepts</td>
<td>Gerrymandering</td>
<td>Non-delegation privilege</td>
</tr>
</tbody>
</table>
Table 2.

Means, Standard Deviations, and Intercorrelations among Overclaiming Indices, Faking Indicators, Personality, and Demographics in Study 1

| Variable                                      | Mean | SD  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------------------------------------------------|------|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1. Overclaiming (c)                            | -0.38| 0.42|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
| 2. Accuracy (d')                               | 1.09 | 0.47| .15|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
| 3. Knowledge of targets                        | 1.12 | 0.30| .88| .57|   |   |   |   |   |   |   |   |    |    |    |    |    |    |
| 4. Knowledge of foils                          | 0.37 | 0.28| .83| -.39| .49|   |   |   |   |   |   |   |    |    |    |    |    |    |
| 5. Participant is female                       | 7%   | --  | -.14| -.19| -.19| -.03|   |   |   |   |   |   |    |    |    |    |    |    |
| 6. Age                                         | 29.61| 5.94| .07| .11| .01| .06|   |   |   |   |   |   |    |    |    |    |    |    |
| 7. Social desirability scale                   | 3.91 | 0.45| .24| .24| .18| -.03| -.02|   |   |   |   |   |    |    |    |    |    |    |
| 8. Extreme response count                      | 38.76| 30.84| .23| .15| .26| .11| .02| -.01| .66|   |   |   |    |    |    |    |    |    |
| 9. Interviewer-rated self-presentation         | 2.74 | 0.62| .21| .06| .20| .19| -.13| -.01| -.02|(.91)|   |   |    |    |    |    |    |    |
| 10. Honesty-humility                           | 4.08 | 0.37| .10| .06| .12| .04| .08| .07| .56| .65| -.13| (.87)|   |    |    |    |    |    |
| 11. Emotionality                               | 2.67 | 0.34| -.15| -.10| -.18| -.08| .04| .05| -.41| -.42| -.06| -.25| (.83)|   |    |    |    |    |
| 12. Extraversion                               | 4.00 | 0.35| .25| .18| .30| -.08| -.05| .51| .71| .15| .32| -.30| (.90)|   |    |    |    |    |
| 13. Agreeableness                              | 3.65 | 0.40| .15| .07| .15| .10| -.09| -.09| .55| .56| -.02| .47| -.25| .40| (.89)|   |    |    |
| 14. Conscientiousness                          | 3.97 | 0.35| .21| .14| .26| .11| -.03| .05| .65| .70| .11| .47| -.27| .56| .44| (.89)|   |    |
| 15. Openness                                   | 3.36 | 0.43| .15| .07| .16| .12| .01| .01| .22| .34| -.11| .12| .06| .31| .24| .29| (.89)|   |

Notes.

For variable 9, N = 136, and for all |r| ≥ .17, p < .05 and for all |r| ≥ .23, p < .01. For all other variables, N = 519, and for all |r| ≥ .10, p < .05 and for all |r| ≥ .15, p < .01.

Cronbach’s alpha internal coefficients are provided along the diagonal in parentheses.
Table 3.

*Propositions used as Stimuli in Study 3 with the Percentage of the Pilot and Main Study Samples Providing an Opinion.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Text</th>
<th>% Opinions Pilot</th>
<th>% Opinions Main</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distracter 1</td>
<td>People should have to show their ID before they can be allowed to vote.</td>
<td>90%</td>
<td>98%</td>
</tr>
<tr>
<td>Distracter 2</td>
<td>Private corporations should be free to influence political decision making.</td>
<td>80%</td>
<td>94%</td>
</tr>
<tr>
<td>Distracter 3</td>
<td>Wealthy citizens have too much political power in the United States.</td>
<td>93%</td>
<td>96%</td>
</tr>
<tr>
<td>Obscure 1</td>
<td>The Republican and Democratic Parties should work harder at applying syncretic politics.</td>
<td>17%</td>
<td>62%</td>
</tr>
<tr>
<td>Obscure 2</td>
<td>Syndicalism is undermining democracy in America.</td>
<td>3%</td>
<td>36%</td>
</tr>
<tr>
<td>Obscure 3</td>
<td>Medicaid financing should be shifted from a federal-state match to a state block grant or per capita allotment.</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>Obscure 4</td>
<td>Senators should no longer be allowed to apply the Byrd rule to pass legislation.</td>
<td>3%</td>
<td>33%</td>
</tr>
<tr>
<td>Bogus</td>
<td>The introduction of comprehensive sortition oversight would improve the functioning of democracy in America.</td>
<td>5%</td>
<td>27%</td>
</tr>
</tbody>
</table>

*Notes.* % Opinions represents the percentage of the sample that provided an opinion on the proposition in each study. The Pilot Study paid a flat rate, whereas the Main study paid per opinion provided. Pilot study $n = 30$; Main study $n = 259$. 
Table 4.

*Indirect Effects of Expectancy and Instrumentality on Deviant Behavior, through Job Application Overclaiming, Controlling for Overclaiming in Research Conditions*

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>95% BC CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectancy → Overclaiming → Obscure</td>
<td>0.011</td>
<td>-0.005, 0.037</td>
</tr>
<tr>
<td>Instrumentality → Overclaiming → Obscure</td>
<td>0.026*</td>
<td>0.005, 0.060</td>
</tr>
<tr>
<td>Expectancy → Overclaiming → Bogus</td>
<td>0.031</td>
<td>-0.015, 0.114</td>
</tr>
<tr>
<td>Instrumentality → Overclaiming → Bogus</td>
<td>0.073*</td>
<td>0.008, 0.193</td>
</tr>
</tbody>
</table>

Notes.

n = 259; 95% BC CI = 95% bias-corrected confidence intervals.

Estimates were derived from 10000 bootstrapped samples. Obscure refers to the count of responses to the obscure propositions and Bogus refers to whether the participant responded to the bogus proposition.

*confidence interval excludes 0
Table 5.

*Multilevel Regression of Opinion Quality on Overclaiming Indices*

<table>
<thead>
<tr>
<th>Source</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.169** (.033)</td>
<td>1.198** (.053)</td>
<td>1.196** (.052)</td>
</tr>
<tr>
<td>Prop. 1 “Syncretic politics”</td>
<td>-0.083 (.054)</td>
<td>-0.083 (.054)</td>
<td></td>
</tr>
<tr>
<td>Prop. 2 “Syndicalism”</td>
<td>-0.141* (.060)</td>
<td>-0.139* (.061)</td>
<td></td>
</tr>
<tr>
<td>Prop. 3 “Medicaid block grant”</td>
<td>0.091 (.056)</td>
<td>0.080 (.056)</td>
<td></td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research condition accuracy (d’)</td>
<td></td>
<td>0.047 (.079)</td>
<td></td>
</tr>
<tr>
<td>Research condition overclaiming (c)</td>
<td></td>
<td>-0.160 (.101)</td>
<td></td>
</tr>
<tr>
<td>Job application accuracy (d’)</td>
<td></td>
<td>0.250** (.072)</td>
<td></td>
</tr>
<tr>
<td>Job application overclaiming (c)</td>
<td></td>
<td>-0.009 (.098)</td>
<td></td>
</tr>
<tr>
<td><strong>Variance Estimates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.145** (.019)</td>
<td>0.148** (.019)</td>
<td>0.118** (.015)</td>
</tr>
<tr>
<td>Residual</td>
<td>0.133** (.013)</td>
<td>0.123** (.012)</td>
<td>0.124** (.012)</td>
</tr>
<tr>
<td><strong>Model Fit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2 Log likelihood</td>
<td>-314.091</td>
<td>-302.25</td>
<td>-845.21</td>
</tr>
<tr>
<td>Scaling Correction Factor for MLR</td>
<td>1.039</td>
<td>1.026</td>
<td>1.26</td>
</tr>
<tr>
<td>Parameters Estimated</td>
<td>3</td>
<td>6</td>
<td>24</td>
</tr>
</tbody>
</table>

*Notes.*

N = 471 observations nested within 201 individuals. Prop. 4 “Byrd rule” is the reference item. Slope variances were fixed to zero. Level 2 predictors were all grand mean centered. Prop. = proposition.

*p < .05, **p < .01
Figure 1.

Interaction between assessment condition and OCQ type on the amount of overclaiming observed. Error bars represent 95% confidence intervals.
Figure 2.

Three-wave design of Study 3, with remuneration rates, attrition rates, sample demographics, and details regarding sample sizes, and tasks completed in each wave.
Figure 3.

Path model evaluating the indirect effects of expectancy and instrumentality on the count of responses to obscure propositions (‘obscure’) and whether a response was given to the bogus proposition (‘bogus’) through job application overclaiming and accuracy. Path coefficients are unstandardized. Covariances are reported in raw terms, and in standardized terms (i.e., correlations) in parentheses.

*p < .05, **p < .01, ***p < .001