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Who thinks they're a big fish in a small pond and why does it matter? A meta-analysis of perceived overqualification

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A B S T R A C T

We carried out a meta-analysis of perceived overqualification (POQ). Synthesizing twenty-five years of research ($k = 61$), we helped to clarify disparate and conflicting findings in the literature. Our results indicated that POQ was associated with job satisfaction ($\rho = -0.41$), organizational commitment ($\rho = -0.35$), turnover intentions ($\rho = 0.37$), job search behaviors ($\rho = 0.30$), and psychological wellbeing ($\rho = -0.26$). In terms of job performance, POQ was associated with CWB ($\rho = 0.16$) and self-ratings of OCB ($\rho = -0.25$), but not task ($\rho = 0.04$) or creative and innovative ($\rho = 0.04$) performance dimensions. Results further indicated that POQ was associated with education ($\rho = 0.08$), negative affectivity ($\rho = 0.11$), narcissism ($\rho = 0.09$), and objective overqualification ($\rho = 0.40$). Beyond providing estimates of population correlations, we addressed a number of important gaps in the literature, including the role of power distance as a moderator. Implications for research and practice are discussed.

Perceived overqualification (POQ) refers to the perception that one is working in a job that requires a lesser degree of education, experience, and/or knowledge, skills, and abilities (KSAs) than what one possess (Erdogan & Bauer, 2009; Johnson & Johnson, 2000). Due to changes in both the composition of the workforce and the economy, overqualification has become a common and important issue (Erdogan, Bauer, Peiro, & Truxillo, 2011; McKee-Ryan & Harvey, 2011). For example, research suggests that nearly half of U.S. college graduates hold a job that does not require a college education (Vedder, Denhart, & Robe, 2013). In a study of British employees, Battu and Sloane (2002) observed incidences of overqualification for 20–30% of the sample, depending on ethnicity. Incidences of overqualification appear to be even higher among immigrants; Chen, Smith, and Mustard (2010) found that over 50% of Canadian immigrants sampled were overqualified for their jobs. Indeed, concern over overqualification has become a global phenomenon (Buchel & Mertens, 2004). In light of this, understanding the psychological experience of working in a job for which one is overqualified has become a central concern in the literature (Erdogan & Bauer, 2009; Maynard & Parfyonova, 2013).

POQ, rather than objective overqualification, comprises the bulk of the management and industrial-organizational psychology literature (Feldman, 1996; Liu & Wang, 2012) for the following reasons. First, it is perception rather than reality that bears implications for psychological responses to overqualification (Hu et al., 2015), making POQ a more proximal determinant of relevant outcomes than objective overqualification (Maynard & Parfyonova, 2013). Indeed, objective measures are deficient for understanding psychological experiences of overqualified workers, in that they "ignore the complexity of overqualification as experienced by the person" (Erdogan et al., 2011, p. 218). Second, job content varies between jobs with the same title, and it is difficult for indices of objective overqualification to capture this variation (Maltarich, Reilly, & Nyberg, 2011). Thus, consistent with the bulk of the literature, we emphasize perceived instead of objective overqualification.

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A critical pursuit in the POQ literature has been to understand its determinants and implications. This involves more clearly mapping the construct's nomological network, developing a clearer understanding of its correlates (Hu et al., 2015; Liu, Luksyte, Zhou, Shi, & Wang, 2015; Luksyte & Spitzmueller, 2016; Maynard, Joseph, & Maynard, 2006). At present, there exists a large body of literature that seeks to explicate and test theoretical predictions concerning these effects (Erdogan & Bauer, 2009; Liu & Wang, 2012; Maynard & Parfyonova, 2013). Nonetheless, the literature examining POQ is vast, covering a large array of correlates with many studies reporting divergent conclusions (McKee-Ryan & Harvey, 2011). At this point in the development of the literature, a quantitative review is needed to provide a comprehensive summary of the state of extant findings.

Meta-analysis is the appropriate methodology for advancing our understanding of POQ at this point for the following reasons. First, as already noted, a substantial number of studies into the construct have been carried out. The literature has become so vast that it cannot be adequately interpreted through narrative reviews or other means often utilized (e.g., so-called "cognitive algebra" where readers attempt to mentally integrate findings from multiple studies; Valentine, Piggot, & Rothstein, 2010). More appropriate is to use psychometric meta-analysis to estimate precise values of population effect sizes and quantitatively index the variability that remains in relationships across studies once accounting for the effect of statistical artifacts (Ones, Viswesvaran, & Schmidt, 2017; Schmidt & Hunter, 2014; Viswesvaran, Ones, Schmidt, Le, & Oh, 2014).

Second, although it might appear that POQ's relationships with various correlates are consistent across studies, this is not the case (Liu & Wang, 2012; McKee-Ryan & Harvey, 2011). For example, findings related to job performance and wellbeing are incredibly mixed, varying in both direction and magnitude. The same can be said for individual differences in education, age, gender, and certain personality traits. Application of meta-analytic methods will allow us to account for the impact of statistical artifacts, generating a better understanding of population effects.

In order to evaluate theoretical models of POQ, predictions derived from these frameworks must be evaluated against empirical data. Clarifying mixed findings in the literature by accounting for statistical artifacts allows for a more robust test of said predictions and evaluation of competing frameworks. Finally, discussed in greater detail later, we utilize meta-analytic methods to address critical gaps in our understanding of POQ, including the testing of moderating effects. Study level moderators (e.g. the cultural dimension of power distance, discussed later) can be studied through a quantitative review, even if no primary study has examined the impact of that moderator. Indeed, even in instances where POQ's relations are in the same direction, substantial variability exists and the magnitude of these effects can vary across levels of untested moderators (Erdogan & Bauer, 2009; Erdogan et al., 2011). In short, our comprehensive meta-analysis of POQ correlates has important implications for the literature and advances existing narrative reviews (e.g., Liu & Wang, 2012).

1. Perceived overqualification

1.1. Theoretical frameworks

1.1.1. Relative deprivation

Much of the POQ literature has drawn upon relative deprivation theory (RDT; Feldman, Leana, & Turnley, 1997). As individuals pursue education, gain experience, and develop their knowledge and skills, they do so expecting that it will result in the attainment of a particular type of job; namely, one that utilizes that education, experience, knowledge, and/or skill (Rose, 2005; Vaisey, 2006). When the job that they ultimately hold fails to meet these expectations, the experience of deprivation (relative to their expectations and to those who are perceived as working in a job that matches their qualifications) and resulting frustration and anger leads to negative psychological consequences (Johnson & Johnson, 1996; Liu & Wang, 2012; Maynard et al., 2006). The RDT perspective suggests that variables associated with the development of knowledge and skills (e.g., education), objective circumstances (i.e., objective overqualification), and individual differences pertaining to perception of one's abilities and circumstances (e.g., negative affectivity, narcissism) can account for POQ. The RDT perspective also suggests that that the experienced anger and frustration directed at one's employer would lead to poor job attitudes.

1.1.2. Person-environment fit

Person-environment (P-E) fit speaks to the notion that beneficial psychological outcomes occur when employees' work situations are compatible with their needs and qualifications (Schneider, 2001). Particularly relevant is person-job fit, which falls under the larger umbrella of person-environment fit. Person-job fit speaks to a match between an employee's (a) KSAs and job requirements (i.e., demands-abilities fit) and (b) needs or preferences and their jobs (i.e., needs-supplies fit; Edwards, 1991). Because overqualification reflects an instance of poor demands-abilities fit, overqualified workers would be expected to experience negative attitudinal outcomes (e.g., poor job satisfaction, organizational commitment; Maynard et al., 2006). The poor fit could also lead employees to desire a stronger fit elsewhere, thus resulting in turnover intentions and job search behaviors (Maynard & Parfyonova, 2013).

1.1.3. Organizational justice theory

Organizational justice theory is built around the antecedents and implications of two types of subjective justice perceptions: *distributive justice* (i.e., fairness of distribution of outcomes) and *procedural justice* (i.e., fairness of processes used to distribute outcomes). POQ can be characterized as a distributive injustice. Distributive injustices are typically understood through equity theory (Greenberg, 1990). A distributive injustice exists when individuals believe there is a discrepancy between the ratio of their inputs (e.g., pay) to outputs (e.g., effort) and the perceived ratio of inputs to outputs of others (Adams, 1965). In relation to POQ, Liu and

Wang (2012) casted inputs as education, experience, and KSAs and outputs as opportunity to use one's education, experience, and KSAs. In comparison to employees who work in positions that match their qualifications, overqualified employees will likely perceive their circumstances as being unfair. When employees believe they are treated unfairly, they are likely to hold less favorable work attitudes (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Further, such employees would also be motivated to take action to restore balance (Adams, 1965), which could take the form of searching for other employment opportunities, withholding effort at work (lowering task performance), or engaging in counterproductive work behaviors.

1.1.4. Effort-reward imbalance theory

Effort-Reward Imbalance (ERI) theory is predicated on the notion that work serves an important role in fulfilling individual self-regulatory needs (Siegrist, Siegrist, & Weber, 1986). Employees invest effort at work and, based on principles of social exchange, expect rewards in return. When an imbalance between effort (e.g., job demands, obligations) and the reward structure of work (e.g., money, esteem, career opportunities) occurs, such that rewards are low in relation to efforts, a reciprocity deficit results. Because such a reciprocity deficit disrupts the fulfillment of self-regulatory needs, it acts as a stressor leading to strain reactions (Siegrist, 1996). Overqualification (and particularly perceptions thereof) represents a situation where rewards related to esteem and career advancement are perceived to be low. Because of this, self-regulatory needs are not fulfilled. In particular, ERI theory suggests that such a reciprocity deficit results in psychological distress, negative emotions, and activation of the sympathetic-andrenmedullary and pituitary-adrenal-cortical systems, which leads to the development of physical illnesses (van Vegchel, de Jong, Bosma, & Schaufeli, 2005; Weiner, 1992). Thus, according to this perspective, POQ should be associated with psychological distress and poor physical health.

1.2. POQ correlates

The correlates of POQ evaluated in the present study fall within the following categories: job attitudes, retention, wellbeing, job performance, demographic characteristics, individual differences, objective overqualification, and work-related variables. In the following sections, we review each of these variables in turn and describe the theoretical mechanisms relating them to POQ. We also review theoretical gaps and contradictions in the literature that we help to clarify in our study.

1.2.1. Job attitudes

Job attitudes reflect "feelings toward, beliefs about, and attachment to" one's current position, occupation, or employer (Judge & Kammeyer-Mueller, 2012, p. 434). The two most central constructs in the job attitude literature are job satisfaction and organizational commitment (e.g., Harrison, Newman, & Roth, 2006), both frequently examined as outcomes of POQ. *Job satisfaction* refers to an evaluation of the favorability of one's job (Spector, 1997), while *organizational commitment* refers to attachment to one's employer (Meyer & Allen, 1991; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). In terms of organizational commitment, research commonly employs the following three-dimensional model: affective (i.e., an emotional attachment to the organization), continuance (i.e., perceived costs of leaving an organization), and normative (i.e., feelings of obligation to remain with the organization).

RDT predicts a negative relationship between POQ and these variables. The anger and resentment stemming from the experience of relative deprivation (felt by overqualified employees) should be directed towards their job and employer (Crosby, 1976; Feldman et al., 1997). This would result in lower levels of job satisfaction and organizational commitment (Erdogan & Bauer, 2009).

The POQ-job attitude relationships are also predicted from P-E fit theory. Because there is a mismatch between overqualified employees' work situations and their needs and qualifications, they should experience negative attitudinal outcomes (Schneider, 2001). Thus, because overqualification reflects an instance of poor demands-abilities fit, we would anticipate that POQ would be negatively related to job attitudes due to demands-abilities misfit (Maynard et al., 2006). This effect can further be predicted by organizational justice theory. As described earlier, perceptions of distributive injustice have the effect of weakening job attitudes (Colquitt et al., 2001).

1.2.2. Retention

Under the category of retention, we include turnover intentions and job search behaviors. Turnover itself, in addition to being studied at too low of a frequency in the POQ literature to be included in our meta-analysis, has a low base rate. Because of this, parametric statistical procedures (such as correlational procedures) might not be a useful means of understanding population relationships between POQ and turnover (Hulin, 1991). Our emphasis on turnover intentions and job search behaviors in particular is warranted, as both are important determinants of turnover, are important variables in their own right, and have been studied extensively in the POQ literature (Griffeth, Hom, & Gaertner, 2000).

Models of turnover intentions and job search behaviors specify job attitudes as proximal determinants (Mobley, 1977). That is, when employees are dissatisfied with their jobs and organizations, they are motivated to find alternate employment elsewhere, leading to turnover intentions and job search behaviors (Tett & Meyer, 1993) and, ultimately, turnover itself (Griffeth et al., 2000). In terms of RDT, the anger and frustration resulting from experienced deprivation should foster unfavorable job attitudes, which would then cause overqualified employees to intend to leave their jobs.

P-E fit theory has also been used as a framework to understand turnover intentions and job search behaviors of overqualified workers. Indeed, as noted in Maynard et al. (2006), "It is reasonable to hypothesize that individuals in employment situations which they perceive to be insufficient may have plans to leave this situation" (p. 526). If overqualified workers do experience poor P-E fit, they should experience strong motivation to identify a more suitable employment situation. Thus, they should be likely to both intend

to leave their current job and engage in behaviors that would facilitate their exit (e.g., job search behaviors).

The organizational justice theory perspective also bears relevance for the POQ-turnover intentions and job search relationships. In comparison to employees who work in positions that match their qualifications, overqualified employees will likely perceive their circumstances as being unfair, leading them to take action to restore balance (Adams, 1965). Reducing one's level of qualification is not a feasible means of restoring equity. Rather, workers may have to look outside of their current organization to alternate employment opportunities in order to identify jobs that will utilize their education, experience, and KSAs. Considering the above discussion, we expect POQ to be positively related to both turnover intentions and job search behaviors.

1.2.3. Wellbeing

Broadly speaking, wellbeing is defined here as an absence of physical or psychological ailments. As specified in this broad definition, we consider in our study two distinct wellbeing-related outcomes: psychological and physical wellbeing. Physical wellbeing speaks to the absence of physical symptoms and evaluations of favorable physical health. Psychological wellbeing speaks to people's evaluation of their psychological health and lives in general (Steel, Schmidt, & Schultz, 2008). Although treated separately in our analyses, we dedicate a single section to discussion of physical and psychological wellbeing because we rely on the same theoretical framework to describe their link to POQ - ERI theory.

Based on ERI theory, we expect that workers who perceive themselves as being overqualified would experience a reciprocity deficit that acts as a stressor (Siegrist et al., 1986). This state activates a strain response, being associated with distress, negative emotions, and activation of sympathetic-andrenmedullary and pituitary-adrenal-cortical systems (Siegrist, 1996). Research has linked these proximal outcomes of a reciprocity deficit to poor psychological wellbeing (van Vegchel et al., 2005). We would therefore expect poor psychological wellbeing of overqualified workers. Further, these states are linked to poor physical wellbeing. This effect occurs both directly and indirectly though the effect on psychological wellbeing (Appels, Siegrist, & de Vos, 1997). Thus, POQ workers should experience poor physical wellbeing as well.

1.2.4. Job performance

Job performance refers to behaviors engaged in and outcomes brought about by employees that are linked with organizational goals (Viswesvaran & Ones, 2000). The relationship between job performance and POQ is potentially quite complex and could vary by performance dimension. In addition to overall job performance (Viswesvaran, Schmidt, & Ones, 2005), we consider the following four-dimensional model of job performance (Harari, Reaves, & Viswesvaran, 2016): task performance (i.e., the proficiency with which employees carry out the core requirements on the job), organizational citizenship behaviors (OCBs; i.e., discretionary behaviors that are not formally part of the job, but nonetheless contribute to organizational functioning), counterproductive work behaviors (CWBs; i.e., behaviors, such as deviance, absenteeism, and theft, which run counter to the organization's goals), and creative and innovative performance (CIP; i.e., behaviors related to developing and implementing novel ideas).

Research suggests that task performance occurs largely as a function of KSAs (Borman, Brantley, & Hanson, 2014). Because of their superior qualifications relative to the position's requirements, overqualified workers could perform well on the task performance dimension (Erdogan & Bauer, 2009). However, motivation is a crucial consideration as well (van Iddekinge, Aguinis, Mackey, & DeOrtentiis, 2017). As previously stated, equity theory suggests that overqualified workers seek to restore balance between their perceived inputs and outputs in comparison to others. In order to achieve a greater sense of equity, overqualified workers may perform at a level below their capacity (Feldman, 1996). In other words, overqualified workers may possess the ability to perform exceptionally well, but may lack the motivation.

On other dimensions of job performance, we could more readily anticipate poorer performance for overqualified workers. While task performance is determined largely by KSAs, attitudes are stronger predictors of OCBs (Borman et al., 2014; Organ & Konovsky, 1989; Organ & Ryan, 1995). Because overqualified workers are frustrated with their working conditions and experience anger and resentment directed at their employment situation, job, and employer, it is unlikely that they would be motivated to benefit the organization voluntarily through OCBs. In fact, it should be the case that the more overqualified a worker perceives him or herself to be (and thus, the greater sense of deprivation experienced), the less likely they would be to engage in OCBs. We would therefore anticipate a negative relationship.

The same mechanisms could make overqualified workers more likely to engage in CWB. That is, if such deprived workers do experience anger and resentment directed towards their employers, it is possible that these feelings would be expressed behaviorally through various forms of deviance and withdrawal. Thus, POQ should be positively related to CWB.

Finally, CIP is thought to occur as a function of creative processes, including information searching and coding, idea generation, and choosing among alternative ideas (Amabile, 1983; Shalley & Zhou, 2008). Engaging in such creative processes requires the use of one's finite attentional capacity (Kahneman, 1973) that is needed for performance in other aspects of one's job (e.g., task performance; Zhang & Bartol, 2010). Thus, workers who can most easily cope with their work-related responsibilities should engage in the greatest amount of creativity and innovation (Liu & Wang, 2012). Overqualified workers, as they possess surplus KSAs, could dedicate a lesser amount of cognitive resources towards carrying out the core requirements of their job, allowing for greater opportunities to engage in creative processes needed for CIP. Thus, we expect a positive association between POQ and CIP.

1.2.5. Demographic characteristics

A substantial body of research has been dedicated to explicating demographic correlates of POQ: gender, education, and age. This is an area where substantial variability in findings across studies exists. In terms of gender, women may be more likely than men to face overqualification (Feldman, 1996; Liu & Wang, 2012). Women are more likely to face career advancement barriers and gender

stereotypes that can harm career-related outcomes, limiting potential advancement opportunities. This could result in women working jobs that underutilize their skills. Further, Feldman (1996) argued that women could be at a greater risk for overqualification because, compared to men, women are more willing to accept lower paying positions (which tend to require a lesser degree of skills) that provide greater work-family balance. Although such contentions have been supported in a number of investigations (Benedict, Gayatridevi, & Velayudhan, 2009; Wu, Tian, Luksyte, & Spitzmueller, 2016), many studies have also found that males experience greater levels of POQ than females (Liu et al., 2015; Luksyte & Spitzmueller, 2016; Maynard & Parfyonova, 2013). Indeed, as noted in a recent review, "there is no clear conclusion regarding the relationship between gender and perceived overqualification" (Liu & Wang, 2012, p. 9).

In terms of education, despite the mixed and contradictory findings in the literature (McKee-Ryan & Harvey, 2011), we expect a positive association. One explanation for the rise in overqualification worldwide is that an increasing proportion of the population is pursuing higher levels of education (Peiro, Agust, & Grau, 2010). Although education levels have been increasing, employment opportunities that utilize that education have not necessarily been increasing at a commensurate rate (Bashshur, Hernandez, & Piero, 2011; Vedder et al., 2013). Although continued education can positively impact career success (Ng, Eby, Sorensen, & Feldman, 2005), it can also make it more likely that one will end up working in a job that does not require that attained level of education.

In terms of age, it is possible that overqualification would be higher for younger workers. When workers are new to the labor market, they may have to take jobs below their skill or education level in order to gain entry into the workforce (Tam, 2010). Consistent with this notion, a number of investigations have identified negative relationships between age and POQ (Maynard & Parfyonova, 2013; Maynard, Brondolo, Connelly, & Sauer, 2015; Triana, Trzebiatowski, & Byun, 2016; Wald, Eatough, Dumani, Way, & Roman, 2016). However, it is also possible that older workers are more likely to face discrimination in hiring decisions, as hiring managers could perceive them as less competent than younger workers, resulting in the need to accept positions below their actual skill level (Feldman, 1996; McKee-Ryan & Harvey, 2011). Support for this contention has also been observed in a number of studies (Guerro & Hatala, 2015; Wu et al., 2016; Yang, Guan, Lai, She, & Lockwood, 2015). At present, it is not clear what this effect is due to mixed findings reported in the literature.

1.2.6. Individual differences

Two individual differences in particular bear relevance as correlates of POQ: negative affectivity and narcissism. *Negative affectivity* (NA) refers to a tendency to experience negative moods across time and situations, resulting in a tendency to view the world and one's circumstances in a negative light (Watson & Clark, 1984). Individuals who are high in NA form judgments that are predominated by negative versus positive experiences (Sinclair & Mark, 1991). An individual who is high in NA is likely to emphasize aspects of their job that are below their qualifications when forming overall judgments of overqualification. Along these lines, research suggests that individuals who are high in NA perceive their job characteristics as being less favorable than those who are low in NA (Judge, Bono, & Locke, 2000; Levin & Stokes, 1989), presumably because their judgments are predominated by the negative characteristics of their jobs. We anticipate that this tendency would be similarly manifested as greater levels of POQ as a function of NA (Liu & Wang, 2012).

Perceptions of overqualification emerge because individuals notice a discrepancy when comparing their current levels of qualification to that which is required by the job. Individual characteristics that result in inflated perceptions of one's own qualifications should result in greater levels of POQ. Narcissism – a trait characterized by an inflated sense of one's self-importance – is one such variable (Morf & Rhodewalt, 2001). Because of a tendency to view themselves in an excessively favorable light, narcissistic individuals have inflated views of their own qualifications and expertise and tend to discount information to the contrary. Since narcissistic individuals have an inflated sense of their own qualifications, they would be more likely to believe that their qualifications exceed the requirements of the job.

1.2.7. Objective overqualification

The extant research suggests that perceived and objective overqualification, while overlapping, are distinct constructs (Maltarich et al., 2011). We expect that objective overqualification will be a particularly robust predictor of POQ. Note that objective overqualification is not a pre-requisite for POQ. For example, as just noted, individuals who are narcissistic would be more likely to consider themselves overqualified for their jobs even if they objectively are not. Nonetheless, being objectively overqualified for one's job should be a potent condition for spurring perceptions of overqualification (Liu & Wang, 2012).

1.2.8. Work-related variables

In terms of work-related variables, we consider the relationship between POQ and organizational tenure, job tenure, income, and hours worked per week. Although a number of studies have examined relationships between POQ and each of these variables, much of the literature reports mixed findings. Further, little theoretical attention has been paid to these variables, as they have often been included as covariates. We do not convey a priori expectations for these relationships and evaluate them on an exploratory basis.

1.3. Unresolved issues in the POQ literature

1.3.1. Moderators — the role of power distance

Statistical artifacts could account for mixed findings in the POQ literature. However, observed correlations could also differ from one another because different studies are tapping into different population correlations due to moderators that vary across studies. Indeed, much of the POQ literature has examined main effects, while boundary conditions are being explored only recently

(Erdogan & Bauer, 2009). Developing an understanding of such boundary conditions is becoming a major initiative in this literature (Erdogan et al., 2011). Particularly for our study, as research into POQ has been carried out worldwide, we propose that variation in a theoretically-relevant cultural dimension – power distance – accounts for variation in findings across studies.

Power distance speaks to the expectation and acceptance of unequal distribution of power in a society (Hofstede, Hofstede, & Minkov, 2010). In high power distance cultures, individuals accept inequality and their place in established hierarchies. However, in low power distance cultures, inequalities are sought to be equalized or at least justified. The potential effect of power distance on relationships examined here can be understood through the various theoretical frameworks described earlier.

If unequal distribution of power is accepted and expected, even when perceiving themselves as overqualified for their jobs, employees in high power distance cultures should experience lower levels of deprivation. When individuals in high power distance cultures pursue education and develop skills, they might not do so expecting that this would result in advancement in society (i.e., to a more advanced position that would utilize those more advanced qualifications). For example, individuals in high power distance cultures report that they should have few desires and should not aspire beyond their rank (Hofstede & Hofstede, 2005). Because utilization of advanced qualifications might not be expected, deprivation experienced should be lower.

In terms of organizational justice theory, as described earlier, POQ involves a distributive injustice. Perceived overqualified employees would evaluate that the ratio of their inputs (e.g., education, skills) to outputs (e.g., opportunity to use inputs) differs from that of other employees who are working in a job where the outputs match their inputs. In high power distance cultures, such discrepancies are more likely accepted (Hofstede et al., 2010). For this reason, organizational justice theory has less explanatory value in high power distance cultures as compared to low power distance cultures (Elamin & Alomaim, 2011). This would also suggest that negative effects of POQ might be less pronounced in high vs. lower power distance cultures.

1.3.2. Methodological issues — the third variable problem

We described earlier that NA can spur perceptions of overqualification. Because of this, as noted in Liu and Wang (2012), it is possible "that perceived overqualification is merely a reflection of one's negative emotional tendency" (p. 32). Indeed, as noted in Watson, Pennebaker, and Folger (1987), high NA individuals "are more highly disposed than others to respond negatively to almost any kind of questionnaire item" (p. 142). A predisposition to view their circumstances negatively could impact reports of job attitudes, work characteristics, wellbeing, and other variables of high NA individuals (Burke, Brief, & George, 1993; Chen & Spector, 1991).

Watson et al. (1987) noted that various self-report measures could all be tapping into NA to a degree and this shared influence of NA could account for relationships between these variables. For our purposes, it is possible that the shared influence of NA on POQ and various correlates examined (e.g., attitudes, well-being) could account for the relationships between POQ and those variables. That is to say, NA may be a third variable that causes both POQ and a number of its correlates, and these relationships could therefore be spurious (Burke et al., 1993).

As noted in Liu and Wang (2012), research could help to address this issue by controlling for NA in analyses. To evaluate the extent to which relationships observed here could be spurious due to the shared influence of NA, we estimate relationships between POQ and its correlates controlling for NA. We compute partial correlations (with NA partialed out) and compute the variance reduction rate to evaluate the effect of removing NA (Chen & Spector, 1991).

Note, however, that shared relationships with NA does not necessarily reflect a confound. POQ is a perceptual variable. To the extent that NA legitimately influences perceptions of the environment, leading to perceptions of overqualification and its correlates, NA would play a substantive role in these relations and should therefore not be partialed out (Spector, Zapf, Chen, & Frese, 2000). For this reason, our analyses controlling for NA reflect an upper bounds estimate for a biasing effect of NA. If controlling for NA has a negligible impact, then concerns over the spurious nature of these effects are unwarranted. If the effect is more meaningful, this would suggest the need for further work to evaluate competing causal models.

1.3.3. Direct vs. indirect effects on turnover intentions

One existing issue in the POQ literature concerns the causal relationships between POQ and variables that are often construed as its outcomes, namely job satisfaction, organizational commitment, and turnover intentions (Liu & Wang, 2012). Specifically, the extent to which POQ informs our understanding of turnover intentions is unclear in that its effect on these variables could be fully mediated through job satisfaction and organizational commitment – both well-established determinants of turnover intentions (Tett & Meyer, 1993). If the relationship between POQ and turnover intention is fully mediated through these two variables, then POQ has relevance for the turnover literature only as a determinant of job satisfaction and organizational commitment (i.e., as a distal predictor). However, if the relationship is only partially mediated, models of turnover intention should place greater emphasis on the role of POQ, as POQ could therefore be a more proximal predictor.

Indeed, POQ has strong theoretical ties to turnover intentions beyond its role as a determinant of job satisfaction and organizational commitment. Although affective models of turnover have predominated (Mobley, 1977), other models highlight the role of controlled cognitive processing mechanisms (Lee & Mitchell, 1994). As POQ reflects a mismatch between person and job, to the extent that employees are motivated to seek a better fit, turnover intentions should spur not only through the effect of job attitudes, but as a self-selection process into a situation where person-job fit is stronger (Kristof-Brown, Zimmerman, & Johnson, 2005; Wheeler, Buckley, Halbesleben, Brouer, & Ferris, 2005). Using a true score correlation matrix, we evaluate a model whereby the POQ-turnover intention relationship is mediated through job satisfaction and organizational commitment and evaluate the magnitude of the direct effect once the mediators are taken into account. Such analyses will illuminate our understanding of POQ specifically and person-job fit more broadly in models of turnover intentions.

1.4. Present study

In summary, the purpose of the present study is to advance our understanding of POQ. By carrying out a comprehensive quantitative review of the literature, we can attempt to glean generalizable conclusions from the extant disparate literature. Further, through moderator analysis, evaluation of NA as a third variable, and mediation tests, we advance the POQ literature in a number of meaningful ways beyond summarizing point estimates of population correlations (an important end in-and-of itself).

2. Method

2.1. Literature search

To identify potentially relevant studies for our meta-analysis, we searched ProQuest and ProQuest Dissertations and Theses for articles that included, anywhere in the article, the terms "perceived overqualification" OR "subjective overqualification" OR "perceived underemployment" OR "subjective underemployment" OR "perceived overeducation" OR "subjective overeducation." Although several of these terms do not map onto our operational definition of POQ, our interest was in the construct underlying measures used in available studies, not what the constructs were referred to by the studies' authors. For example, studies into subjective underemployment often use measures that include a subscale that maps onto POQ (e.g., Johnson & Johnson, 1999), though the term "perceived overqualification" is not often used. Failing to include terms such as "subjective underemployment" in our search would have caused us to miss studies that evaluated POQ as a dimension of underemployment. Our search yielded 284 journal articles, dissertations, and theses. Based on a review of the abstracts, the first author identified 111 potentially relevant papers among the original 284.

To help to ensure that we captured all potentially relevant articles, we augmented this search with the following strategies. First, we carried out a Google Scholar search. Because Google Scholar searches a wide variety of databases and this was intended only as a supplementary search, we used a less expansive set of search terms than our main search. Specifically, we searched for articles that contained "perceived overqualification" anywhere in the article. This search yielded 426 articles, 42 of which were determined to be potentially relevant and non-redundant with articles identified in the initial ProQuest search. This brought the total number of potentially relevant studies to 153. Second, we used the "cited by" feature on Google Scholar to review all studies that cited the following papers that, based on our review of the literature, were commonly cited in POQ studies: Johnson and Johnson (1996), Johnson, Morrow, & Johnson (2002), and Maynard et al. (2006). This search yielded an additional 13 potentially relevant studies that were non-redundant with those identified in earlier stages. Thus, our total number of potentially relevant studies was 166.

2.2. Inclusion criteria

To be included in our meta-analysis the study had to meet the following criteria. First, POQ had to be measured consistent with the operational definition that guided the present study (i.e., the judgement that one's qualifications exceed those required by their job). Many studies measured a construct that was a composite of POQ and limited growth opportunities (e.g., Bolino & Feldman, 2000) – often referred to as *perceived underemployment*. These studies were excluded. Second, the study had to report a zero-order correlations or statistics that can be converted into correlations. Finally, the study had to report correlations that were independent from those reported in other studies. If multiple papers were published from the same data set and duplicate correlations were reported, we included correlations only from the study with the largest sample size.

A total of 48 studies met these criteria and were included in our meta-analysis. In an effort to capture additional studies from the grey literature (beyond Dissertations and Theses), at this point, we searched through past Society for Industrial and Organizational Psychology (SIOP) conference programs (2012–2016) and Academy of Management conference programs (2015 and 2016) using our original search terms (i.e., "perceived overqualification," "subjective overqualification", "perceived underemployment," "subjective underemployment," "perceived overeducation," "subjective overeducation"). We included conference papers in an effort to provide a more comprehensive review and to account for the potential impact of publication bias. This search revealed 5 additional studies, resulting in a total of 53 studies and 61 independent samples being included in our meta-analysis. Among the 53 studies, 57% were published and 43% were unpublished.

2.3. Coding procedure

The first and second authors independently coded all studies. Studies were coded for correlations, sample size, and coefficient alphas. We also coded the country in which the data were collected and the corresponding power distance score from Hofstede et al. (2010). Following conventional procedures (e.g., Choi, Oh, & Colbert, 2015), countries with power distance scores lower than 50 were classified as low power distance, while countries with scores > 50 were classified as high power distance. Where participants from multiple countries were sampled, we coded the study as high vs. low power distance only if all countries represented were under or over 50.

Where a study reported multiple dependent correlations (for example, between a measure of POQ and dimensions of job satisfaction), composites were formed using the methods outlined in Schmidt and Hunter (2014). Where the data needed to form composites were not available, we formed composites by averaging. Reliabilities of composites were calculated using the formulas offered in Mosier (1943). If a study did not report a coefficient alpha but reported the intercorrelations between scale items,

reliability was calculated using the Spearman-Brown formula. Where a study artificially dichotomized a continuous variable, we restored the correlation to its original magnitude using the procedures outlined in Hunter and Schmidt (1990). As such procedures increased sampling error, we calculated the appropriate sample size that reflects that increase. Agreement between the two authors was initially 98% and discrepancies were resolved between the authors, resulting in 100% agreement.

2.4. Analyses

Analyses were carried out using the psychometric meta-analysis procedures described in Schmidt and Hunter (2014). For each relationship examined, we began by estimating the sample size-weighted mean correlation. Following this, because we are interested in estimating population relationships (ρ), we corrected the sample size-weighted mean correlations for measurement error using artifact distributions. The artifact means are listed in Appendix A.

Next, for each relationship examined, we calculated indices of variability. We calculated σ_ρ – the standard deviation of population correlations. Following this, we estimated the percentage of variability across correlations that could be accounted for by sampling error (%Var). We also calculated 80% credibility intervals, which signify the range in which multiple population correlations underlying our estimated effect are likely to fall. Finally, we computed 95% confidence intervals, which index the amount of uncertainty in our point estimate of ρ due to remaining sampling error. For our moderator analyses, we carried out the above procedures within each level of the moderator. Moderator analyses were carried out as long as $k = 3$ studies were available at each level of the moderator.

To evaluate the role of NA as a potential third variable, we identified true score correlations between NA and correlates of interest reported in published meta-analyses. We used these values along with the values computed in our meta-analysis to compute partial correlations (i.e., with NA partialed out). We evaluated the percentage reduction in explained variance using the variance reduction rate approach (Chen & Spector, 1991); we took the difference between the squared zero-order correlation and the squared partial correlation and divided this value by the squared zero-order correlation.

To evaluate the path model linking POQ to turnover intentions through job satisfaction and organizational commitment, we built a true score correlation matrix using values derived from our meta-analysis and values from Tett and Meyer's (1993) turnover intention meta-analysis. The true score correlation matrix is reported in Appendix B. The sample size used in these analyses was the harmonic mean across cells in the matrix (Viswesvaran & Ones, 1995; $N = 7235$).

We specified three regression models (Baron & Kenny, 1986). First, we regressed job satisfaction onto POQ (i.e., model 1). Second, we regressed organizational commitment onto POQ (i.e., model 2). Third, we regressed turnover intentions onto POQ, job satisfaction, and organizational commitment. The a paths are the paths from POQ to job satisfaction (a_1; derived from model 1) and organizational commitment (a_2; derived from model 2). The b paths are the paths from job satisfaction (b_1) and organizational commitment (b_2) to turnover intentions (derived from model 3). The c path is the path from POQ to turnover intention (derived from model 3). The indirect effects of POQ on turnover intention through job satisfaction and organizational commitment are taken as the products of the a and b paths (i.e., $a_1 b_1$ for job satisfaction and $a_2 b_2$ for organizational commitment).

We evaluated the statistical significance of the indirect effects by relying on the joint significance test. The joint significance test is our preferred approach as (1) simulation studies indicate that it outperforms most other approaches in that it offers the best balance of type 1 error rates and statistical power and (2) we cannot use bootstrapping procedures to estimate standard errors because we are not making use of primary data (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Following this approach, a significant indirect effect is observed if both respective a and b paths are statistically significant.

A statistically significant c path would support partial mediation; that the effect of POQ on turnover intentions is not fully accounted for by a mediated effect through job attitudes (Baron & Kenny, 1986; Zhao, Lynch, & Chen, 2010). Conversely, if we fail to detect a significant c path, this would suggest that the effect of POQ is fully mediated through job satisfaction and organizational commitment. Given that our analyses are based on a pooled sample size of $N = 7235$, a null finding would not be due to low statistical power.

To evaluate the impact of publication bias on our findings, we carried out cumulative meta-analysis (CMA) procedures. CMA involves carrying out meta-analytic calculations in an iterative manner, beginning by reporting the correlation derived from the study with the largest sample size, then adding the study with the second largest sample size and carrying out meta-analytic calculations with those two studies, then adding the study with the third largest sample size, etc. (Kepes, Banks, McDaniel, & Whetzel, 2012). The procedure is repeated until all studies have been added. Publication bias would be evidenced by a positive drift. The largest sample size studies are those least likely to be affected by publication bias as they are less affected by sampling error (i.e., they represent the more accurate estimates of population effects). Publication bias would be evidenced by suppression of null findings in studies with less precision and would be observed in our study if a positive drift in population correlation estimates occurs as smaller sample size studies are added.

3. Results

3.1. Job attitudes

Results of our meta-analyses involving job attitudes are reported in Table 1. In terms of job satisfaction, we estimated a population correlation of $\rho = -0.41$. This relationship was non-zero as the 95% confidence intervals ranged from -0.46 to -0.37. Although the point estimate was larger in low power distance culture ($\rho = -0.42$) vs. high power distance culture ($\rho = -0.29$), due to overlap

Table 1
Meta-analysis of POQ-job attitude, -retention, and -wellbeing correlations.

	k	N	r	ρ	σ_ρ	%Var	CV_L	CV_U	CI_L	CI_U
				Job attitudes						
Job satisfaction	28	6961	−0.36	−0.41	0.10	30.75%	−0.54	−0.28	−0.46	−0.37
Low PD	21	5413	−0.36	−0.42	0.10	32.72%	−0.54	−0.30	−0.47	−0.37
High PD	5	820	−0.25	−0.29	0.10	41.49%	−0.42	−0.16	−0.41	−0.17
Organizational commitment	15	3928	−0.30	−0.35	0.11	26.93%	−0.50	−0.21	−0.42	−0.29
Low PD	11	3159	−0.33	−0.39	0.06	49.74%	−0.47	−0.31	−0.44	−0.34
High PD	3	489	−0.08	−0.09	0.00	100.00%	−0.09	−0.09	−0.19	0.01
Affective	14	3645	−0.32	−0.38	0.07	48.58%	−0.47	−0.29	−0.43	−0.33
Continuance	3	515	0.13	0.15	0.14	29.74%	−0.02	0.33	−0.04	0.34
Normative	5	734	−0.10	−0.12	0.00	100.00%	−0.12	−0.12	−0.20	−0.03
				Retention						
Turnover intentions	15	3309	0.33	0.37	0.09	36.57%	0.26	0.49	0.31	0.43
Low PD	12	2718	0.34	0.38	0.09	36.83%	0.27	0.50	0.32	0.45
High PD	3	591	0.29	0.33	0.09	42.53%	0.22	0.44	0.20	0.46
Job search behavior	6	1262	0.27	0.30	0.11	29.37%	0.16	0.45	0.20	0.41
				Wellbeing						
Psychological	16	4129	−0.23	−0.26	0.14	19.76%	−0.44	−0.09	−0.34	−0.19
Strain	8	2152	−0.27	−0.31	0.08	42.96%	−0.41	−0.22	−0.38	−0.24
Stress	4	949	−0.15	−0.18	0.22	9.97%	−0.46	0.11	−0.41	0.06
Positive mood	6	1519	−0.19	−0.23	0.08	43.69%	−0.33	−0.12	−0.31	−0.14
Physical	4	741	−0.08	−0.09	0.11	35.11%	−0.24	0.05	−0.23	0.05

Note. K = number of independent samples included in analysis, N = pooled sample size, r = observed sample size-weighted correlation, ρ = sample size-weighted corrected correlation, σ_ρ = standard deviation of ρ, %Var = percent variance accounted for in correlations by statistical artifacts (i.e., sampling error, measurement error), CV = 80% credibility intervals, CI = 95% confidence intervals, PD = power distance.

in the 95% confidence intervals, we cannot conclude that these relationships differed. However, both differed from zero, suggesting that POQ is negatively associated with job satisfaction in both low and high power distance cultures.

In terms of overall organizational commitment, we observed a population correlation of $\rho = -0.35$. This value was non-zero, as the 95% confidence intervals ranged from -0.42 to -0.29. In terms of the role of power distance, we did observe a meaningful effect. In low power distance cultures, we observed a non-zero population correlation of $\rho = -0.39$. In high power distance cultures, we observed a population correlation of $\rho = -0.09$, which could not be differentiated from zero. Further the relationships estimated at the different levels of this moderator differed significantly from one another, as the 95% confidence intervals around the population correlation point estimates did not overlap.

In terms of affective commitment, we observed a medium-to-large population correlation of -0.38. This value was non-zero as the 95% confidence intervals ranged from -0.43 to -0.33. In terms of continuance commitment, we observed a population correlation of $\rho = 0.15$. However, we cannot conclude that this value is non-zero, as the 95% confidence intervals include zero (-0.04 to 0.34). Note that this analysis is based on only 3 independent samples and a pooled sample size of only 515. More research is needed into the relationship between POQ and continuance commitment. Finally, in terms of normative commitment, we observed a population correlation of -0.12. Although this value was small in magnitude, it was non-zero, with 95% confidence intervals ranging from -0.20 to -0.03.

3.2. Retention

We now turn to our analyses involving retention-related variables: turnover intentions and job search behaviors. In terms of turnover intentions, we estimated a population correlation of $\rho = 0.37$. This value was non-zero, as the 95% confidence intervals ranged from 0.31 to 0.43. This relationship generalized across levels of the power distance moderator, as findings did not vary between low ($\rho = 0.38$) and high ($\rho = 0.33$) power distance subgroups. In terms of job search behaviors, we observed a population correlation of $\rho = 0.30$. The 95% confidence intervals ranged from 0.20 to 0.41, indicating that this relationship is non-zero.

3.3. Wellbeing

For psychological wellbeing, we estimated a population correlation of $\rho = -0.26$ with POQ. This value was non-zero, as the 95% confidence intervals ranged from -0.34 to -0.19. To provide a more fine-grained analysis, we also carried out subgroup analyses for different indicators of psychological wellbeing, namely, strain ($\rho = -0.31$), stress ($\rho = -0.18$), and positive affect ($\rho = -0.23$). None of these correlations differed significantly from one another. However, the POQ-stress correlation could not be differentiated from zero.

We also examined the relationship between POQ and physical wellbeing. We estimated a population correlation between POQ and physical wellbeing of $\rho = -0.09$. Thus, the correlation was in the anticipated direction. However, the magnitude of this relationship was very small and, since the 95% confidence intervals included zero (95% CI = -0.23 to 0.05), we cannot conclude that

Table 2
Meta-analysis of POQ-job performance correlations.

	k	N	r	ρ	σ_ρ	%Var	CV_L	CV_U	CI_L	CI_U
Overall	23	5898	−0.04	−0.05	0.16	15.98%	−0.26	0.16	−0.12	0.03
Low PD	11	2607	−0.07	−0.08	0.21	11.36%	−0.34	0.19	−0.21	0.05
High PD	11	2846	−0.01	−0.01	0.12	26.10%	−0.17	0.14	−0.10	0.07
Supervisor	10	2471	0.01	0.02	0.10	34.53%	−0.11	0.14	−0.06	0.09
Self	14	3599	−0.08	−0.10	0.18	13.83%	−0.33	0.13	−0.20	0.01
Low PD	10	2532	−0.06	−0.08	0.20	10.34%	−0.35	0.20	−0.22	0.07
High PD	3	622	−0.02	−0.02	0.18	17.60%	−0.25	0.21	−0.24	0.20
Task	8	2389	0.03	0.04	0.13	19.94%	−0.13	0.21	−0.06	0.14
Supervisor	5	1178	0.04	0.05	0.03	86.08%	0.01	0.08	−0.02	0.12
Self	3	1094	0.03	0.03	0.20	8.64%	−0.23	0.29	−0.21	0.27
OCB	9	1901	−0.05	−0.06	0.16	18.68%	−0.27	0.15	−0.18	0.06
Supervisor	5	1310	0.02	0.03	0.09	39.69%	−0.09	0.14	−0.07	0.12
Self	4	591	−0.22	−0.25	0.13	30.85%	−0.42	−0.08	−0.41	−0.09
CWB	8	2024	0.13	0.16	0.12	28.28%	0.004	0.31	0.06	0.26
Self	7	1741	0.13	0.16	0.13	26.27%	−0.01	0.33	0.05	0.27
CIP	8	1916	0.03	0.04	0.04	72.86%	−0.02	0.10	−0.02	0.10
Supervisor	6	1463	0.03	0.04	0.05	71.10%	−0.02	0.10	−0.03	0.11

Note. K = number of independent samples included in analysis, N = pooled sample size, r = observed sample size-weighted correlation, ρ = sample size-weighted corrected correlation, σ_ρ = standard deviation of ρ, %Var = percent variance accounted for in correlations by statistical artifacts (i.e., sampling error, measurement error), CV = 80% credibility intervals, CI = 95% confidence intervals, PD = power distance, OCB = organizational citizenship behaviors, CWB = counterproductive work behaviors, CIP = creative and innovative performance.

this correlation differs from zero. However, we discussed how the effect of POQ on physical wellbeing could occur through psychological wellbeing (Appels et al., 1997). The absence of a significant POQ-physical wellbeing relationships does not preclude the indirect effect (Zhao et al., 2010).

3.4. Job performance

Results of POQ-job performance meta-analyses are reported in Table 2. Overall, we observed no meaningful relationship between POQ and job performance ($\rho = -0.05$, 95% CI = −0.12 to 0.03). The null relationship was consistent between low ($\rho = -0.08$) and high ($\rho = -0.01$) power distance cultures. A null relationship was also observed for both supervisory ratings ($\rho = 0.02$, 95% CI = −0.06 to 0.09) and self-ratings of job performance ($\rho = -0.10$, 95% CI = −0.20 to 0.01). We were able to evaluate power distance as a moderator for self-ratings only, however, we did not observe a meaningful effect. We expected that relationships between POQ and job performance would vary as a function of performance dimensions. We now turn to the results these analyses.

In terms of task performance, across rating sources, we observed a population correlation of $\rho = 0.04$. This effect could not be differentiated from zero (95% CI = −0.06 to 0.14). The relationship between POQ and task performance did not vary as a function of rating source. The relationships were equivalent (and null) for both supervisory ratings ($\rho = 0.05$; 95% CI = −0.02 to 0.12) and self-ratings ($\rho = 0.03$; 95% CI = −0.21 to 0.27) of task performance.

In terms of OCB, we expected a negative relationship with POQ. Overall, we estimated a population correlation of $\rho = -0.06$. Although in the anticipated direction, as the 95% confidence intervals overlapped with zero (95% CI = −0.18 to 0.06), we cannot conclude that this correlation was significantly different from zero. Findings varied significantly as a function of rating source. When OCB was measured using supervisory ratings, we observed a null relationship with POQ ($\rho = 0.03$, 95% CI = −0.07 to 0.12). However, when OCB was measured using self-ratings, we observed a negative, non-zero correlation of $\rho = -0.25$ (95% CI = −0.41 to −0.09).

In terms of CWB, we anticipated a positive relationship with POQ, which was supported in our analyses ($\rho = 0.16$, 95% CI = 0.06 to 0.26). When including only those studies that assessed CWB using self-ratings, the findings were parallel: $\rho = 0.16$, 95% CI = 0.05 to 0.27. Only two samples included in our study assessed CWB using supervisory ratings and we therefore do not report findings for that rating source.

Finally, we turn our attention to our analysis of the POQ-CIP relationship. Overall, we observed a population correlation of $\rho = 0.04$ between POQ and CIP. This relationship could not be differentiated from zero (95% CI = −0.02 to 0.10). A majority of these studies assessed CIP using supervisory rather than self-ratings, and therefore, we do not present analyses involving self-ratings of CIP. When CIP was assessed using supervisory ratings, findings were parallel; we observed a POQ-CIP population correlation of $\rho = 0.04$ and this value could not be differentiated from zero (95% CI = −0.03 to 0.11).

3.5. Demographic characteristics

Results of our meta-analytic calculations of demographic correlates of POQ are reported in Table 3. In terms of education, we identified a non-zero, though small, relationship. Our results indicated a population correlation of $\rho = 0.08$ between POQ and education (95% CI = 0.001 to 0.15). Consistent with our expectations, increasing levels of education were associated with increasing

Table 3

Meta-analysis of POQ-demographic, -individual differences, -objective overqualification, and -work-related variable correlations.

	k	N	r	ρ	σ_ρ	%Var	CV_L	CV_U	CI_L	CI_U
				Demographics						
Education	20	4424	0.07	0.08	0.15	18.53%	−0.12	0.27	0.001	0.15
Low PD	9	1826	−0.04	−0.04	0.14	22.26%	−0.22	0.14	−0.14	0.07
High PD	11	2598	0.14	0.15	0.10	32.01%	0.03	0.28	0.08	0.23
Age	30	8027	−0.04	−0.05	0.13	21.40%	−0.21	0.11	−0.10	0.004
Low PD	20	5606	−0.09	−0.09	0.10	29.66%	−0.22	0.03	−0.15	−0.04
High PD	9	2308	0.06	0.07	0.12	24.55%	−0.08	0.22	−0.02	0.16
Gender	23	6641	−0.02	−0.02	0.07	43.62%	−0.12	0.07	−0.06	0.02
Low PD	14	4421	−0.03	−0.03	0.06	48.11%	−0.11	0.05	−0.08	0.01
High PD	9	2216	0.00	0.00	0.08	40.41%	−0.11	0.11	−0.07	0.07
				Individual differences						
Negative affectivity	7	1776	0.09	0.11	0.07	54.41%	0.03	0.20	0.04	0.19
Low PD	3	767	0.10	0.12	0.00	100.00%	0.12	0.12	0.07	0.16
High PD	4	1009	0.09	0.11	0.10	33.37%	−0.03	0.24	−0.02	0.23
Narcissism	4	1606	0.08	0.09	0.05	62.00%	0.04	0.15	0.02	0.17
				Objective overqualification						
Objective overqualification	5	1126	0.37	0.40	0.14	17.83%	0.22	0.57	0.26	0.53
				Work-related variables						
Organizational tenure	11	2832	−0.002	−0.002	0.14	19.56%	−0.18	0.17	−0.09	0.09
Low PD	4	989	−0.12	−0.13	0.06	57.13%	−0.20	−0.05	−0.21	−0.04
High PD	7	1843	0.06	0.06	0.12	23.34%	−0.09	0.22	−0.04	0.17
Job tenure	10	2121	−0.13	−0.14	0.04	72.79%	−0.20	−0.08	−0.20	−0.09
Salary	11	2089	−0.17	−0.18	0.17	17.45%	−0.40	0.03	−0.29	−0.07
Low PD	8	1427	−0.18	−0.20	0.20	13.56%	−0.45	0.06	−0.34	−0.05
High PD	3	662	−0.15	−0.16	0.04	77.21%	−0.21	−0.11	−0.25	−0.06
Hours per week	7	1456	0.06	0.07	0.16	17.21%	−0.14	0.28	−0.07	0.20

Note. K = number of independent samples included in analysis, N = pooled sample size, r = observed sample size-weighted correlation, ρ = sample size-weighted corrected correlation, σ_ρ = standard deviation of ρ, %Var = percent variance accounted for in correlations by statistical artifacts (i.e., sampling error, measurement error), CV = 80% credibility intervals, CI = 95% confidence intervals, PD = power distance.

levels of POQ. However, our power distance moderator analyses revealed that the effect was only non-zero in high power distance cultures. Specifically, in low power distance cultures, the POQ-education correlation was null ($\rho = -0.04$; 95% CI $= -0.14$ to 0.07), while, in high power distance cultures, the relationship was positive ($\rho = 0.15$, 95% CI $= 0.08$ to 0.23).

In terms of age, overall, we did not detect a meaningful effect. The population correlation was $\rho = -0.05$ and the 95% confidence intervals included zero (-0.10 to 0.004). Thus, we did not observe any evidence suggesting that age was associated with POQ. However, this relationship was moderated by power distance. In low power distance cultures, POQ and age were negatively associated ($\rho = -0.09$, 95% CI $= -0.15$ to -0.04), while, in high power distance cultures, the POQ-age relationship was null ($\rho = 0.07$, 95% CI $= -0.02$ to 0.16). The 95% confidence intervals around the POQ-age correlation in each culture did not overlap, suggesting that these effects are significantly different from one another.

Finally, in terms of gender, we observed no evidence suggesting a meaningful association with POQ. Across 23 samples and a pooled sample size of 6641, we estimated a population correlation of $\rho = -0.02$ between gender and POQ. This value did not differ meaningfully from zero, as the 95% confidence intervals included zero (-0.06 to 0.02). Further, findings were consistent between low ($\rho = -0.03$) and high ($\rho = 0.00$) power distance cultures.

3.6. Individual differences

We considered the effect of two personality characteristics as predictors of POQ: NA and narcissism. Results are reported in Table 3. In terms of NA, we estimated a population correlation of $\rho = 0.11$ with POQ. This value was non-zero as the 95% confidence intervals ranged from 0.04 to 0.19. This relationship was consistent between low ($\rho = 0.12$) and high ($\rho = 0.11$) power distance cultures. In terms of narcissism, we also observed a non-zero relationship with POQ. We estimated a population correlation of $\rho = 0.09$, with 95% confidence intervals ranging from 0.02 to 0.17.

3.7. Objective overqualification

We now turn to the effect of objective overqualification on POQ, which we expected to be positive. Consistent with our expectations, we observed a population correlation of $\rho = 0.40$ between objective overqualification and POQ. Importantly, and also consistent with our expectations, although objective overqualification was a particularly robust correlate of POQ, the relationship was not so large as to suggest that these variables are redundant. Indeed, the upper bound of the 95% confidence interval extended to 0.53, not 1.0 (which is what we would expect to observe if these variables were in fact redundant).

Table 4

Comparison of zero-order and partial correlations controlling for NA.

Correlate	ρ_{NA}	ρ_{NA} source	ρ_{XY}	ρ_p	Variance reduction rate
Job satisfaction	−0.37	Thoresen, Kaplan, Barsky, Warren, and de Chermont (2003)	−0.41	−0.40	0.05
Organizational commitment	−0.19	Choi et al. (2015)	−0.35	−0.34	0.06
Turnover intentions	0.24	Thoresen et al. (2003)	0.37	0.36	0.05
Strain	−0.52[a]	Thoresen et al. (2003)	−0.31	−0.30	0.06
Positive mood	−0.40[b]	Steel et al. (2008)	−0.23	−0.20	0.24
CWB	0.30	Kaplan, Bradley, Luchman, and Haynes (2009)	0.16	0.13	0.34

Note. ρ_{NA} = true score correlation between negative affectivity and correlate, ρ_{NA} Source = study from which ρ_{NA} was derived, ρ_{XY} = true score correlation between POQ and correlate from the present study, ρ_p = true score correlation between POQ and correlate with negative affectivity partialed out.

[a] Reverse coded to be consistent with interpretation as wellbeing.

[b] Average of true score correlations involving positive affect and life satisfaction.

3.8. Work-related variables

We now turn towards the results of our analyses involving POQ and work-related correlates, reported in Table 3. In terms of organizational tenure, we observed a population correlation of virtually zero (ρ = −0.002, 95% CI = −0.09 to 0.09). Thus, we observed no evidence suggesting that POQ varies as a function of organizational tenure. However, our power distance moderator analyses revealed a meaningful effect. In low power distance cultures, we observed a non-zero population correlation of ρ = −0.13 (95% CI = −0.21 to −0.04). Conversely, the relationship in high power distance cultures could not be differentiated from zero (ρ = 0.06, 95% CI = −0.04 to 0.17). In terms of job tenure, we observed a non-zero negative relationship (ρ = −0.14, 95% CI = −0.20 to −0.09).

In terms of salary, we observed a population correlation of ρ = −0.18. This value was non-zero as the 95% confidence intervals extended from −0.29 to −0.07. Power distance did not have a meaningful effect, as we observed negative, non-zero population correlations in both low (ρ = −0.20, 95% CI = −0.34 to −0.05) and high (ρ = −0.16, 95% CI = −0.25 to −0.06) power distance cultures. Finally, for hours worked per week (referred to as *hours* in Table 3), results indicated a population correlation of ρ = 0.07, with the 95% confidence intervals ranging from −0.07 to 0.20. Thus, we did not detect any evidence of a relationship.

3.9. The third variable problem — NA

To evaluate the upper bounds of NA's influence as a third variable on POQ's correlations, we evaluate the impact of partialing out NA. These findings are reported in Table 4. In this Table, we also report the source from which population correlations between NA and each of the correlates of interest were derived. We carry out these analyses only for variables where (a) our overall analyses supported a non-zero relationship with POQ and (b) the correlation between the variable in question and both POQ and NA are in the same direction. For example, NA and job search behaviors share a negative correlation (Kanfer, Wanberg, & Kantrowitz, 2001), while POQ and job search behaviors share a positive correlation. Controlling for NA in this scenario would actually increase the correlation.

For job satisfaction, controlling for NA reduced the population correlation from ρ = −0.41 to ρ = −0.40, a reduction of 5% of the variance. The effect was similar for organizational commitment, where the population correlation of ρ = −0.35 was reduced to ρ = −0.34 (variance reduction rate = 6%). Similarly, for turnover intentions, the relationship of ρ = 0.37 was reduced to ρ = 0.36 when controlling for NA (variance reduction rate = 5%).

For wellbeing, since the relationship between POQ and stress could not be differentiated from zero, instead of carrying out analyses for overall wellbeing, we carried out analyses for strain and positive mood. When partialing out NA, the POQ-strain relationship (ρ = −0.31) was reduced to ρ = −0.30, a 6% variance reduction rate. Larger variance reduction rates were observed for positive mood and CWB. For positive mood, the population correlation with POQ (ρ = −0.23) was reduced to ρ = −0.20 (variance reduction rate = 24%) when partialing out NA. Finally, the POQ-CWB population correlation of ρ = 0.16 was reduced to ρ = 0.13 when NA was partialed out (variance reduction rate = 34%).

3.10. Direct and indirect effects on turnover intentions

Results of our regression models are reported in Table 5. All three regression models were statistically significant. Both path a_1 and b_1 were statistically significant, supporting an indirect effect of POQ on turnover intentions through job satisfaction (a_1b_1 = −0.14). Further, both path a_2 and b_2 were statistically significant, supporting an indirect effect of POQ on turnover intentions through organizational commitment (a_2b_2 = 0.09). However, in addition to the mediated effects through job attitudes, we observed a significant direct path from POQ to turnover intentions, as the *c* path (0.14) was statistically significant.

3.11. Publication bias

Results of our CMA procedures are reported in Table 6. As can be seen by inspecting the values, by-and-large, we did not observe any positive drift. Positive drifts were observed for NA, job search behaviors, and objective overqualification only. In terms of NA,

Table 5
Coefficients from path model linking POQ to turnover intentions through job satisfaction and organizational commitment.

Model	DV	IV	Path	β	R^2
1	Job satisfaction	POQ	a_1	-0.41^*	0.17^*
2	Organizational commitment	POQ	a_2	-0.35^*	0.12^*
3	Turnover intention	Job satisfaction	b_1	-0.35^*	0.39^*
		Organizational commitment	b_2	-0.25^*	
		POQ	c	0.14^*	

Note. DV = dependent variables, IV = independent variable, POQ = perceived overqualification.
 * $p < 0.05$.

this drift was not due to publication bias. The population correlation between POQ and NA in unpublished studies ($\rho = 0.15$) was actually larger than the value from published studies ($\rho = 0.09$) — a pattern of findings not consistent with publication bias. The same could be said for job search behaviors, where the population correlation was also larger in unpublished ($\rho = 0.33$) as compared to published ($\rho = 0.25$) studies. In terms of objective overqualification, the finding might be due to publication bias. The population correlation estimated in unpublished studies ($\rho = 0.34$), although not significantly so, was smaller than the population correlation estimated in published studies ($\rho = 0.43$). Because there was heterogeneity in POQ-objective overqualification correlations, it is not clear if our findings were due to publication bias or variation in moderators across studies. Taken as a whole, however, we observed very little evidence suggesting that our findings were impacted by publication bias.

4. Discussion

Overqualification has become an important area of inquiry in the organizational sciences (Erdogan et al., 2011; McKee-Ryan & Harvey, 2011). Over the past two decades, research has amassed that advances our understanding of POQ, clarifying the factors that can account for POQ as well as its implications. A sizeable literature has emerged; however, due to the large number of investigations and contradictory findings, implications of the research carried out to date have remained unclear. In the present study, we addressed this issue, carrying out a comprehensive meta-analytic review of the POQ literature, cumulating findings across over two decades of research, 53 studies, and 61 independent samples. Our findings have important implications for both theory and practice, as we provide important evidence pertaining to the correlates of POQ, advancing the literature considerably.

4.1. Implications

A substantial body of research, both primary studies and narrative reviews, has helped to lay theoretical groundwork for the POQ literature (e.g., Erdogan & Bauer, 2009; Feldman, 1996; Feldman et al., 1997; Hu et al., 2015; Johnson & Johnson, 1995; Liu et al., 2015; Liu & Wang, 2012; Maynard et al., 2006). We have complemented these studies by providing a comprehensive overview of the state of extant findings. Indeed, our meta-analysis has helped to clarify confusion faced in the POQ literature. By providing better estimates of population correlations, we enable better evaluation of theoretical predictions. Beyond this important aim, we advanced the literature further by addressing three unresolved issues: (1) power distance as a moderator, (2) the influence of NA as a third variable, and (3) implications of POQ for models of turnover intentions. We describe some of the key implications of our meta-analysis in this section.

In light of our (null) finding, the suspected POQ-task performance relationship has to be rethought. Task performance occurs as a function of KSAs, however, having surplus KSAs would not necessarily translate into superior performance. For example, advanced knowledge of a particular subject matter may be sufficient for an employee to believe that he or she is overqualified, but if the knowledge is not relevant to the job, it will not benefit task performance. Also, someone who has an advanced skill set would not necessarily outperform someone with a more basic skill set if only the basic skill set is needed to perform the job. Note that, although POQ was not positively related to task performance, it was also not negatively related to task performance. The contention that overqualified workers would perform more poorly was not substantiated.

The particular manner of overqualification might have relevance for predicting task performance. For example, excess education might be less relevant, particularly if the education is in a field unrelated to the job. However, cognitive overqualification (i.e., possessing a greater level of cognitive ability than is required by the job) might bear a meaningful, positive relationship. When it comes to task performance, more nuance is needed in understanding the particular form of POQ (e.g., education, experience, skills, cognitive ability).

In terms of CIP, we believed that overqualified employees, due to their greater capacity to perform the core requirements of their jobs, would have greater resources available to engage in creative processes, which would result in higher levels of CIP for over-qualified workers. However, this was not the case, as the effect of POQ on CIP was null. CIP involves both generating and implementing novel ideas (Harari et al., 2016). Research suggests that the implementation stage involves social capital, which is often built through OCBs (Bolino, Turnley, & Bloodgood, 2002; Xerri & Brunetto, 2013). Because employees who are high in POQ engage in a lower amount of OCBs (according to self-reports), even if they do generate novel ideas, they may lack the social capital needed to implement them. This can be evaluated in future research by testing the effect of CIP on idea generation and idea implementation separately.

Table 6
Results of cumulative meta-analyses.

#	JS	OC	TI	JSB	WB_1	WB_2	JP	TP	OCB	CWB	CIP	Ed	A	G	NA	N	OO	OT	JT	S	H
1	−0.50	−0.46	0.44	0.17	−0.45	−0.30	0.02	0.02	0.07	0.08	−0.05	0.03	−0.16	0.05	0.05	0.19	0.28	0.08	−0.06	−0.23	−0.01
2	−0.51	−0.44	0.45	0.22	−0.40	−0.15	−0.01	0.04	−0.03	0.10	0.06	0.12	−0.13	−0.03	0.07	0.12	0.26	0.18	−0.13	−0.09	0.05
3	−0.51	−0.44	0.41	0.26	−0.31	−0.12	0.01	0.03	0.03	0.10	0.02	0.11	−0.14	−0.06	0.04	0.10	0.32	0.09	−0.15	−0.18	0.00
4	−0.49	−0.43	0.41	0.30	−0.24	−0.09	0.01	0.05	0.01	0.18	0.01	0.12	−0.12	−0.04	0.07	0.09	0.38	0.07	−0.15	−0.16	0.09
5	−0.47	−0.42	0.39	0.32	−0.25		0.04	0.04	−0.06	0.19	0.03	0.07	−0.12	−0.04	0.09		0.40	0.03	−0.15	−0.17	0.10
6	−0.47	−0.39	0.40	0.30	−0.28		0.02	0.04	−0.04	0.19	0.03	0.09	−0.09	−0.04	0.09			0.02	−0.17	−0.21	0.08
7	−0.44	−0.39	0.37		−0.28		0.00	0.01	−0.05	0.16	0.04	0.10	−0.06	−0.03	0.11			−0.01	−0.15	−0.19	0.07
8	−0.44	−0.39	0.38		−0.27		−0.01	0.04	−0.07	0.16	0.04	0.05	−0.06	−0.03				−0.01	−0.14	−0.18	
9	−0.44	−0.38	0.38		−0.27		0.00		−0.06			0.06	−0.05	−0.02				−0.01	−0.14	−0.17	
10	−0.43	−0.38	0.38		−0.27		0.00					0.06	−0.06	−0.03				0.00		−0.18	
11	−0.42	−0.37	0.37		−0.28		−0.03					0.06	−0.06	−0.03						−0.18	
12	−0.42	−0.36	0.37		−0.27		−0.04					0.05	−0.04	−0.03							
13	−0.42	−0.36	0.37		−0.27		−0.05					0.06	−0.06	−0.04							
14	−0.43	−0.35	0.37		−0.27		−0.04					0.06	−0.06	−0.04							
15	−0.43	−0.35	0.37		−0.26		−0.04					0.07	−0.06	−0.04							
16	−0.44				−0.26		−0.06					0.06	−0.06	−0.03							
17	−0.44						−0.05					0.06	−0.05	−0.03							
18	−0.44						−0.05					0.07	−0.06	−0.03							
19	−0.43						−0.06					0.07	−0.05	−0.03							
20	−0.43						−0.05					0.08	−0.05	−0.03							
21	−0.43						−0.05						−0.06	−0.03							
22	−0.42						−0.05						−0.06	−0.02							
23	−0.42						−0.05						−0.05	−0.02							
24	−0.41												−0.05								
25	−0.41												−0.05								
26	−0.41												−0.05								
27	−0.41												−0.05								
28	−0.41												−0.05								

Note. # = number of studies included in iteration, JS = job satisfaction, OC = organizational commitment, TI = turnover intention, JSB = job search behavior, WB_1 = psychological wellbeing, WB_2 = physical wellbeing, JP = job performance, TP = task performance, Ed = education, A = age, G = gender, N = narcissism, OO = objective overqualification, OT = organizational tenure, JT = job tenure, S = salary, H = hours worked per week. Correlations are corrected for measurement error in predictor and criterion measures using artifact distributions.

Interestingly, in terms of gender, we did not identify a meaningful relationship with POQ. Despite the frameworks offered by various scholars suggesting relationships between these variables (e.g., Feldman, 1996), the effect sizes estimated in our meta-analysis could not be differentiated from zero. This null effect was consistent across low and high power distance cultures.

Note that our findings involving gender do not bear implications for overqualification when objectively evaluated. Rather, our results suggest that there are no gender or age differences overall in the *perception* that one is overqualified. It is possible that the relationship between gender and overqualification differs depending on whether overqualification is being measured using objective or subjective indices. We consider this within the context of RDT.

Relative deprivation requires a discrepancy between one's present circumstance and some standard. Feldman et al. (1997) argued that individuals are likely to use members of their own demographic groups as that standard. To the extent that females are in fact more likely to be objectively overqualified than men (Feldman, 1996), this may not be reflected in POQ scores because women would be comparing their employment circumstances to that of other women, who would also be more likely to be overqualified. Thus, we might anticipate divergent findings between measures of perceived and objective overqualification when it comes to the relationship with gender.

Variation in findings between measures of perceived and objective overqualification would only occur if these two are in fact empirically distinct constructs. Results from our meta-analysis of POQ-objective overqualification correlations supported this distinction. As expected, POQ and objective overqualification are correlated and, in fact, against standard rules-of-thumb for evaluating effect sizes, the relationship would be considered medium-to-large in magnitude (Cohen, 1992). Nonetheless, the overlap was not so large as the suggest redundancy. Although related constructs, the literature derived from the objective overqualification literature cannot necessarily inform the POQ literature.

Many relationships examined in our meta-analysis, consistent with our expectations, varied across levels of the power distance moderator. In terms of job attitudes, POQ was only associated with organizational commitment in low power distance cultures; in high power distance cultures, POQ had no bearing. However, a significant moderating effect was not observed for job satisfaction. It is worth noting, however, that the effect was in the anticipated direction. The point estimate of the POQ-job satisfaction relationship was much larger in low ($\rho = -0.42$) vs. high ($\rho = -0.29$) power distance cultures. Thus, the role of power distance here was mixed but, in our interpretation of the data, tended to be consistent with our expectations.

In high power distance cultures, workers are more accepting of their circumstances and would experience less anger and frustration directed towards their employers in response to POQ as compared to their low power distance counterparts. However, this does not mean that workers in high power distance cultures intend to continue in those circumstances. Indeed, POQ was meaningfully associated with turnover intentions at both levels of the power distance moderator.

Interestingly, age was negatively related to POQ, but only in low power distance cultures. In high power distance cultures, there was no association. We reviewed two competing perspectives that would account for an age-POQ relationship. Our findings were consistent with the perspective that (at least in low power distance cultures) younger workers, who are new to the labor market, have to accept positions below their skill or education level to gain entry to the workforce (Tam, 2010). These findings also dovetail with sponsored-mobility perspectives to career advancement. Accordingly, career advancement occurs as a function of sponsorship from elites in the organization. The likelihood of gaining sponsorship would increase with age, because sponsorship would be likely to be extended to more experienced workers (Ng et al., 2005). Ending up in more advanced positions would naturally reduce the likelihood of POQ.

In fact, if this were the case, we would also expect that POQ would be negatively associated with organizational tenure and job tenure as well. Spending longer periods of time in an organization and/or job would provide opportunity for greater development of skills as well as institutional knowledge, which could lead to sponsorship into more advanced positions (Ng et al., 2005). In low power distance cultures, POQ and organizational tenure were negatively related (the effect was null in high power distance cultures). In fact, it is in low power distance cultures, where established hierarchies are less accepted, where we might expect predictors of career success to have greatest explanatory value. We also observed a negative relationship between POQ and job tenure (most of these studies were carried out in low power distance cultures). Thus, rather than tenure within one's organization and job making POQ more likely due to greater skill development, it appears to make POQ less likely, perhaps because the increase in skills and institutional knowledge can lead to promotion opportunities (in low power distance cultures).

Although we did observe an overall positive and non-zero relationship between POQ and education, our moderator analyses revealed that this effect was actually only positive and non-zero in high power distance cultures. In such cultures, advanced qualifications would provide less opportunity to advance through rigid and well-accepted hierarchies. In fact, individuals in high power distance cultures might not even aspire to advance. In summarizing the body of work carried out into power distance at the time, Hofstede and Hofstede (2005) noted that, in high power distance cultures, "ordinary people like students felt they should not have aspirations beyond their rank" (p. 47). This can explain why education is associated with POQ in such cultures. Conversely, in low power distance cultures, where inequalities are sought to be reduced, there was no such positive effect. In short, the findings reviewed above provide compelling evidence for the role of power distance in many relationships examined here and advance our understanding of POQ.

In their literature review, Liu and Wang (2012) noted the possibility that POQ could merely be a reflection of "one's negative emotional tendency" (p. 32) and that POQ could therefore be spuriously related the outcome variables through the shared effect of NA. If so, further study of POQ would have limited applicability, as it would not tell us much about employee experiences beyond NA. Our analyses controlling for the influence of NA on POQ's relationships ruled out this possibility. Generally, controlling for NA reduced explained variance by only a small amount. Even in instances where the variance reduction rate was larger (up to 34%), the partial correlation itself was not different enough from the zero-order correlation as to alter conclusions. Indeed, the largest variance

reduction rate of 34% involved a correlation of ρ = 0.16 being reduced to ρ = 0.13. Thus, it is clear that the relationships between POQ and variables under study are not merely a reflection of the shared influence of NA.

Mobley's (1977) turnover model is grounded in hot affective-based mechanisms. Poor job attitudes associated with undesirable work characteristics (e.g., overqualification) makes workers wish to leave their jobs. Although we found that the POQ-turnover intentions relationship was mediated through job attitudes, it was not fully mediated. Indeed, we observed a significant direct path from POQ to turnover intentions, which could reflect cold cognitive processing mechanisms.

Although Mobley's (1977) turnover model has predominated, other work emphasizes such controlled cognitive processing mechanisms in turnover decisions in addition to the affective-based mechanisms that operate through job attitudes (Lee & Mitchell, 1994). As noted in Wheeler et al. (2005), perceptions of misfit result in a decision-making process whereby, if individuals determine that they are not willing to adapt to the misfit, turnover intentions result. Thus, with respect to POQ, we suspect that a desire to work in a job that provides a stronger fit with one's qualifications would account for the direct path to turnover intentions. That is, the direct path reflects, rather than an affective reaction to overqualification, a deliberated decision to identify and move on to greener pastures (Maynard & Parfyonova, 2013).

4.2. Limitations and future directions

Our meta-analysis included zero-order correlations derived from largely cross-sectional studies. We cannot make any claims pertaining to causality, due to the potential for reverse causality and the third variable problem. Although we did carry out analyses controlling for NA, NA is but one potential third variable and beyond this, reverse causality is still possible. Having established relationships between POQ and many of the correlates included in our study, future research is needed to address this limitation by implementing longitudinal designs to allow for more robust conclusions to be rendered concerning causality.

Some of our overall analyses and moderator analyses were based upon relatively small number of independent correlations. Sampling error is reduced in meta-analysis because sampling error associated with each correlation is cancelled out by being averaged across all correlations included (Schmidt & Hunter, 2014). To the extent that sample sizes are small and sampling error is not given the opportunity to cancel out, findings are impacted by second-order sampling error (i.e., sampling error still remaining in the sample size-weighted mean correlation). Thus, a limitation of our study is that several correlations estimated here are still affected by sampling error. Note, however, that even among our analyses involving only 3 correlations, the smallest pooled sample size was $N = 489$; a value that is still large by primary study standards. Although larger numbers of independent correlations are always desirable, the point estimates reported in our meta-analysis represent the absolute best estimates of population correlations available and help to inform our understanding of POQ considerably.

A critical aim in the POQ literature has been to identify moderating variables. We made important strides in this area through power distance moderator analyses. Although our results yielded many significant insights and made important contributions, we were not able to evaluate power distance as a moderator of all relationships due to limited k values at a given level of the moderator for some correlates. For example, we would predict that power distance would moderate the POQ-CWB relationship, such that the effect is weaker in high vs. low power distance cultures. We encourage primary research that can fill these gaps, building upon our findings.

Because POQ has implications for psychological wellbeing, research is needed to develop interventions to help employees to cope with this set of circumstances. Johnson and Johnson (1997) observed evidence suggesting that negative implications of POQ were reduced for workers who received emotional support, both from their families and from their organizations. If organizations intend to help their workforce to cope with POQ, they should seek to foster a supportive climate. However, research is needed to explicitly develop, administer, and evaluate the effectiveness of interventions along these lines before recommendations for practice can be made.

Research is also needed to develop an understanding of what situational characteristics might blunt the deprivation experienced by overqualified workers so that other negative consequences of POQ (e.g., CWB, turnover intentions, job dissatisfaction, etc.) are not realized. Understanding situational moderators is critical for advancing theory and practice. Some work along these lines is beginning to take place. For example, Erdogan and Bauer (2009) found that when psychological empowerment was high, the negative consequences of POQ (e.g., job dissatisfaction) were not observed. Having established key findings from the past twenty-five years of empirical research via our comprehensive quantitative review and evaluating a cultural characteristic as a moderator, research is needed to build on our results by explicating more nuanced relationships, considering the impact of theoretically-relevant moderators.

POQ has been examined as a predictor of important organizational variables in isolation. Theoretical models exist that explicate determinants of job attitudes, turnover intentions, job search behaviors, CWB, etc. Where does POQ fit within these models and does POQ account for variance in these outcomes when controlling for established predictors? We looked at this issue for turnover intentions. However, much more work along these lines needs to be conducted. For example, what does POQ tell us about job attitudes that existing theoretical treatments do not; does POQ account for job attitudes beyond related job characteristics such as (low) task variety? How does POQ inform our understanding of psychological wellbeing in the workplace beyond what is accounted for by existing models? As is apparent from our findings, the literature that exists to date provides impressive evidence concerning the relationship between POQ and key variables. Integrating POQ into established theoretical models and testing its role in these models will help to advance this literature.

More work is also needed to test competing mechanisms accounting for the relationships between POQ and variables that are often conceived of as its outcomes. For example, does POQ predict job satisfaction through anger and frustration resulting from

relative deprivation? Or is the effect due to person-job mismatch? Further still, is the effect actually transmitted through perceptions of injustice? As many theoretical frameworks have been applied to POQ, research is needed to explicitly test competing models to sharpen our theoretical understanding.

5. Conclusion

POQ has emerged as a central issue in the literature (Erdogan et al., 2011). Over the past twenty-five years, a large literature into POQ's antecedents, correlates, and outcomes has developed. Due to the volume of research and the varied and contradictory findings reported, the implications of this literature for theory and practice have been unclear. Addressing these issues, we carried out a comprehensive meta-analytic review of the literature, spanning over twenty-five years of research and 61 independent samples. Beyond clarifying relationships, we identified that (a) findings often varied according to power distance, (b) the effects examined here were not spurious due to a shared influence of NA, and (c) POQ has an important role in models of turnover intentions. Indeed, our study has advanced our understanding of POQ considerably, bearing implications for both research and practice alike.

Appendix A. Artifact means for all variables included in the meta-analysis

Variable	α	Variable	α
POQ	0.85	Narcissism	0.85
Job satisfaction	0.87	Job performance	0.89
Organizational commitment	0.85	Supervisor	0.92
Affective commitment	0.85	Self	0.85
Continuance commitment	0.81	Task performance	0.90
Normative commitment	0.86	Supervisor	0.92
Turnover intentions	0.92	Self	0.82
Job search behaviors	0.94	OCB	0.90
Psychological wellbeing	0.88	Supervisor	0.90
Strain	0.88	Self	0.91
Stress	0.87	CWB	0.84
Positive mood	0.87	Self	0.82
Physical wellbeing	0.88	CIP	0.91
Negative affectivity	0.84	Supervisor	0.91

Note. POQ = perceived overqualification, OCB = organizational citizenship behavior, CWB = counterproductive work behavior, and CIP = creative and innovative performance.

Appendix B. True score correlation matrix used for path model linking POQ to turnover intentions

		1	2	3
1	POQ	1		
2	Job satisfaction	−0.41 (6961)	1	
3	Organizational commitment	−0.35 (3928)	0.70[a] (35,282)	1
4	Turnover intention	0.37 (3309)	−0.58[a] (35,494)	−0.54[a] (13,829)

[a] Correlations derived from Tett and Meyer (1993). Pooled sample sizes appear in parentheses. POQ = perceived overqualification.

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