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Article:

PERCEIVED OVERQUALIFICATION AND COLLECTIVISM ORIENTATION: IMPLICATIONS FOR WORK AND NON-WORK OUTCOMES

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ABSTRACT

In this research, we simultaneously examined the relative applicability of person-environment fit and relative deprivation theories in explaining the interactive effects of perceived overqualification and collectivism cultural orientations on positive outcomes. We hypothesized that the negative (positive) influence of perceived overqualification on person-environment fit (relative deprivation) will be weaker among employees with high collectivism cultural orientation. We also examined which of these two different mechanisms would explain the hypothesized interactive effects in predicting these workers' citizenship behavior, personal initiative, work engagement, and life satisfaction. We tested our hypotheses in two studies. In Study 1, we recruited professional staff (n = 852) and their coworkers (n = 301) from 95 universities and tested our hypotheses in a matched sample of 190 employees and their peers. The moderated mediation results supported the idea of person-environment fit (but not relative deprivation) as the mechanism explaining why collectivism orientations assuaged the negative effects of perceived overqualification on these outcomes. We constructively replicated these results in Study 2, which was a time-lagged design with full-time employees (n = 224). Study 2's results further supported the robustness of our model by testing alternative moderators, mediators, and outcomes.

Keywords: Perceived overqualification; collectivism orientation; person-environment fit; relative deprivation; positive outcomes

PERCEIVED OVERQUALIFICATION AND COLLECTIVISM ORIENTATION:

IMPLICATIONS FOR WORK AND NON-WORK OUTCOMES

In today's global workforce, approximately 20% of employees experience perceived overqualification (ILO, 2018), which refers to having more education, skills, and abilities than required for a job (Maynard, Joseph, & Maynard, 2006). Despite being in substandard employment, workers may experience their overqualification differently depending on their individual cultural orientations. Employees with individualistic values emphasize self-fulfillment (Gelfand, Bhawuk, Nishii, & Bechtold, 2004); as such, they may react to their overqualification particularly negatively due to a lack of such self-fulfillment. In contrast, workers with collectivistic values emphasize group harmony and mutual obligations (Gelfand et al., 2004), and may view their overqualification less negatively because they prioritize group (as opposed to individual) interests. Such different reactions to perceived overqualification by employees with different cultural orientations likely lead to different work and life experiences. To understand *why* these effects occur, our research simultaneously examines two theories – person-environment fit and relative deprivation – to ascertain their relative applicability in explaining the effects of perceived overqualification.

Researchers have conceptualized overqualification as *person-environment misfit* because these workers have more abilities than needed for a job, and their needs for a fulfilling job are poorly satisfied (e.g., Luksyte & Spitzmueller, 2016; Maynard et al., 2006). Person-environment fit captures employees' compatibility with various aspects of their environment such as their organization, job, supervisor, and peers (Kristof-Brown & Guay, 2011). Although distinct, these types of fit are interconnected (Oh et al., 2014); "gestalt perceptions of person-environment fit drive other more specific fit assessments" because people strive to hold coherent self-perceptions (Seong, Kristof-Brown, Park, Hong, & Shin, 2015: 1204). Based on this, we argue that misfit arising from perceptions of overqualification

can further influence employees' fit with not only their jobs but also their social environment.

As such, we focus on both person-job fit and person-group fit as specific indicators of overall

person-environment fit. Scholars have contended that perceived overqualification should be

related to *relative deprivation* because these workers perceive that they want, or are entitled

to, a better job than they hold (e.g., Erdogan, Tomás, Valls, & Gracia, 2018). Simultaneously

considering both theories allows us to shed light into which processes – *outwardly*-oriented

misfit perceptions or *inwardly*-directed deprivation – account for the effects of perceived

overqualification on outcomes. The knowledge about the relative applicability of these

theories helps identify other factors that may influence these effects. It will also inform

managers about where to direct their interventions. They could address misfit by turning their

attention to aspects of the work environment. Alternatively, they may address inwardly-

oriented deprivation by focusing on the affective experiences of the overqualified workers.

   We also propose that collectivism orientations, which refer to the individual

tendencies to prioritize their group's welfare, interests, and goals (Gelfand et al., 2004), will

shape the work and life experiences of overqualified employees. Collectivism orientations

capture the extent to which people strive to fit in, belong, and find commonalities with others

(Oyserman, 2017). Perceived overqualification has been related to lack of fit (Luksyte,

Spitzmueller, & Maynard, 2011) and lack of getting what one feels entitled to (Erdogan et al.,

2018). As such, collectivism orientations' focus on adapting and connecting may prove useful

in buffering the negative effects of experienced misfit and deprivation of overqualified

workers, and subsequent outcomes. We focus on behavioral and attitudinal outcomes, which,

extrapolating from research on positive organizational behavior, are indicators of positive

organizational life, wherein people engage in meaningful activities that help them utilize their

talents and experience full engagement both personally and professionally (Luthans &

Youssef, 2007). For overqualified employees, these indicators of positive organizational life

likely differ depending on collectivism orientations. We examine organizational citizenship behaviors (OCB; going above call of duty in promoting organization prosperity; Welbourne, Johnson, & Erez, 1998) and personal initiative (taking a proactive approach to work issues; Frese, Fay, Hilburger, Leng, & Tag, 1997) as behavioral indicators of positive organizational life. We examine work engagement, a positive state of fulfillment (Schaufeli, Bakker, & Salanova, 2006), and life satisfaction, a person's cognitive evaluation of life circumstances (Diener, Emmons, Larsen, & Griffin, 1985), as work and non-work attitudinal indicators of positive organizational life. These relationships represent a moderated mediation model with a first-stage moderation (Figure 1).

Insert Figure 1 about here

Our research strives to make several noteworthy contributions to the literature. First, we empirically test which of the two theories – person-environment fit or relative deprivation – accounts for the effects of perceived overqualification on positive outcomes. Researchers have used either one or the other theory to substantiate their proposed models in which they examined a variety of mediators (Erdogan, Karaeminogullari, Bauer, & Ellis, 2020; Hu et al., 2015; Liu, Luksyte, Zhou, Shi, & Wang, 2015; Simon, Bauer, Erdogan, & Shepherd, 2019). Even when considering these various mediators, their conceptual lens for the processes were either person-environment fit or relative deprivation. When scholars have directly measured either of these two mechanisms (Erdogan et al., 2018; Hu et al., 2015; Luksyte et al., 2011), they did not examine them simultaneously. This is a noteworthy gap because by "explicitly testing competing models we will sharpen our theoretical understanding" (Harari, Manapragada, & Viswesvaran, 2017: 44) of overqualification. By demonstrating that perceived overqualification influences outcomes because of *outwardly*-oriented *cognitive* comparisons between qualifications and aspects of their environment, we emphasize the role of the cognitive appraisal of one's environment in shaping perceptions of overqualification.

In contrast, relative deprivation is an *inward, affectively-laden* mechanism, wherein overqualified workers compare their qualifications with what they want, expect, and feel entitled to. By showing that these effects occur via inward comparisons (often accompanied by affective reactions) between the current and ideal job, we emphasize the role of internal attributions in perceived overqualification.

Second, our research explores *when* and *why* perceived overqualification is related to positive work and non-work outcomes. Studies have mainly examined its negative consequences such as withdrawal intentions and behaviors and unfavorable job attitudes (Debus, Gross, & Kleinmann, in press; Fine & Edward, 2017; Liu et al., 2015; Luksyte et al., 2011; Maynard & Parfyonova, 2013; Simon et al., 2019). Perceived overqualification is associated with creativity, proactivity, and OCB *only* under certain circumstances (Hu et al., 2015; Lin, Law, & Zhou, 2017; Luksyte & Spitzmueller, 2016; Zhang, Law, & Lin, 2016). We propose that overqualified employees with cultural values that emphasize other-orientation in the form of high collectivism will experience their person-environment misfit and relative deprivation less intensely than their counterparts whose cultural values highlight self-centric tendencies. Due to such a focus away from one's misfit and deprivation, overqualified workers may use their surplus qualifications for extra-role behaviors such as OCB and personal initiative. We also examine *how* and *why* overqualification is associated with positive attitudes in professional settings in the form of work engagement and outside of work in the form of life satisfaction. Researchers have only theorized that overqualified employees are likely to be disengaged at work (e.g., Liu & Wang, 2012). Studies linking life satisfaction to perceived overqualification are rare (e.g., Erdogan et al., 2018). Extending this scholarship, our research examines how collectivism orientations may shape whether overqualified employees direct their attention outwardly or inwardly when thinking about their misfit and relative deprivation, and subsequent positive work and non-work outcomes.

PERCEIVED OVERQUALIFICATION AND MECHANISMS

Person-Environment Fit

According to person-environment (P-E) fit theory (Kristof-Brown & Guay, 2011), overqualified employees have low job attitudes, high turnover intentions, and engage in counterproductive work behaviors (Harari et al., 2017) because of the mismatch between their qualifications and jobs and their unmet expectations (Luksyte et al., 2011; Maynard et al., 2006). We argue that misfit perceptions are an outward mechanism, wherein overqualified workers experience mismatch by turning their attention to aspects of their environment such as their organization, job, and peers. Although distinct, these types of fit are integrated into holistic person-environment fit perceptions (or lack thereof; Seong et al., 2015). We propose that misfit arising from perceived overqualification will color overall compatibility with their environment. We examine two indicators of person-environment fit: (a) *person-group fit* or interpersonal compatibility between individuals and their workgroups (Seong & Kristof-Brown, 2012), and (b) *person-job fit* or congruence between employees' characteristics, preferences, and their jobs (Kristof-Brown & Guay, 2011). Due to their surplus qualifications, overqualified workers may view themselves as misfits for their jobs as well as their social environment. Because the needs for meaningful work are poorly satisfied among those who feel overqualified (Luksyte & Spitzmueller, 2016; Maynard & Parfyonova, 2013), these workers will less focus on finding, cherishing, and building compatibility with group members (Oh et al., 2014). The poor match between their qualifications and jobs may contribute to worsening their misfit with the overall environment ("I do not belong here").

Hypothesis 1: Perceived overqualification is negatively related to P-E fit.

Relative Deprivation

Relative deprivation theory posits that a feeling of relative deprivation arises when someone perceives that reality is less desirable than the way it ought to be (Crosby, 1984).

We argue that relative deprivation is an inward mechanism, wherein overqualified employees compare their current work situation with an ideal job based on some, often subjectively chosen, standard of comparison such as a previous job, their ideal self, or their desired work conditions (Luksyte & Spitzmueller, 2011). As such, scholars have theorized and empirically demonstrated that perceived overqualification is positively associated with relative deprivation because overqualified workers think they should have secured a better job than what they currently hold (Erdogan et al., 2018; Feldman, Leana, & Bolino, 2002). These workers may perceive that their expectations for their preferred working conditions have been violated based on their subjective, inwardly-oriented assessment of what type of job they should or could have, given their credentials. Overqualified workers feel deprived and thus angry (Liu et al., 2015) because they are unable to get a job that they want and/or feel they are entitled to given their level of education, skills, and abilities ("I deserve a better job").

Hypothesis 2: Perceived overqualification is positively related to relative deprivation.

Moderating Role of Collectivism Cultural Orientations

Collectivism cultural orientations capture the extent to which people prioritize belonging to a group, being accepted by others, fitting in, and finding commonalities as opposed to independence, self-reliance, personal achievement, and finding uniqueness (Gelfand et al., 2004; Gelfand, Erez, & Aycan, 2007). Cultural orientations also shape what features individuals direct their attention to, how they evaluate information, and whom they compare with, hence affecting how they react to stimuli around them (Oyserman, 2017). In the context of perceived overqualification, we argue that collectivism orientation will be particularly relevant because it captures how employees adapt and connect with each other. These interdependent tendencies may help overqualified workers direct their attention away from themselves, which in turn likely counteracts their experienced misfit, deprivation, and subsequent outcomes. We thus propose that the other-orientation of collectivism values will

shape whether overqualified employees focus on incompatibility with various aspects of their environment or their subjective feelings of deserving and being entitled to a better job.

Person-Environment Fit. We propose that the negative relationship between perceived overqualification and person-environment fit will be attenuated by high collectivism cultural orientations. Because collectivism orientations make individuals focus on others rather than on themselves (Gelfand et al., 2004), overqualified employees with high collectivistic orientations may be less absorbed with their inferior employment and more focused on finding similarities in other aspects of their environment such as peers, supervisors, or organizational values. The other-orientation of high collectivism values should make these workers direct their attention away from their surplus qualifications – thus reacting less negatively to perceived overqualification in terms of reduced person-environment fit. Further, given the centrality of group obligation and group loyalty for collectivism orientations (e.g., Oyserman, 2017), overqualified employees with these cultural orientations likely perceive that this is their duty to a group – to fit in, connect, and relate irrespective of their felt mismatch between their qualifications and their work situation.

In contrast, overqualified workers with low collectivism orientations, who emphasize personal satisfaction, achievement, independence, control, and agency (Gelfand et al., 2004; Hofstede, 2006), may be particularly focused on their own inferior job situation. They may view their overqualification as a personal failure to secure a job that is a good match to their qualifications because of their cultural belief that one is in charge of achieving success and avoiding setbacks. Accordingly, misfit, which is considered a substandard work condition for all employees (Kristof-Brown & Guay, 2011), will be particularly debilitating for overqualified employees with low collectivism cultural orientations.

Hypothesis 3: Collectivism cultural orientations moderate the negative relationship between perceived overqualification and person-environment fit such that this link is weaker for those individuals with high levels of collectivism orientations.

Relative Deprivation. High collectivism orientations may re-direct the attention of overqualified employees from the self to others, resulting in weakened relative deprivation. Collectivism orientations emphasize group awards and wellbeing (Yoo, Donthu, & Lenartowicz, 2011). As such, overqualified workers with these values may perceive that their wanting of or feeling entitled to another job is a person-centric desire, which may undermine group harmony by stirring feelings of injustice among their peers. As such, they may feel less deprived because their inwardly-oriented sense of entitlement and expectations of a personally fulfilling job may be dampened by prioritizing collective over personal interests.

In contrast, overqualified employees with low collectivism cultural orientations may experience heightened levels of relative deprivation. The referent comparison for these workers is likely to be the self because they are more concerned with finding uniqueness than commonality (Oyserman, 2017). They may evaluate their current work conditions with those that they either had in the past or those that they feel they should have, given their credentials. Because of this increased inward focus on the self, as opposed to others, overqualified workers with low collectivism cultural orientations will be particularly aware of and sensitive to their inability to be in a job that fully utilizes their skills.

Hypothesis 4: Collectivism cultural orientations moderate the positive relationship between perceived overqualification and relative deprivation such that this link is weaker for those individuals with high levels of collectivism orientations.

Person-Environment Fit and Outcomes

The favorable effects of person-environment fit, particularly manifested via person-group fit, can be explained by similarity-attraction theory (Byrne, 1971), wherein employees

feel more connected to peers with similar values. Such underlying similarity-attraction processes of person-environment fit are beneficial for a number of outcomes including *OCB* (Kristof-Brown, Li, & Schneider, 2018). Building on this, we argue that when workers feel compatible with aspects of their environment such as their jobs or peers, they will help others and foster social connections by promoting organizational welfare. Supporting our theorizing, research has shown a positive link between person-environment fit and OCB (Hu et al., 2015).

Employees who experience compatibility with their environment will also demonstrate *personal initiative*. When people feel they belong to a place with others who accept them and share similar values, they engage in actions that would benefit others. Personal initiative captures behaviors that are "characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming difficulties that arise in the pursuit of a goal" (Fay & Frese, 2001: 134). Taking initiative is a potentially risky behavior and thus employees should feel psychologically safe to demonstrate it (Deichmann & van den Ende, 2014). Good fit with one's work environment may represent such a context wherein employees feel comfortable initiating changes that benefit others who share their values.

We further posit that person-environment fit is beneficial for *work engagement* and *life satisfaction*. When workers feel well-adjusted with their peers in their work environments, they feel socially connected and that their values are shared, and they will be willing to reciprocate by being more dedicated to their work, more absorbed in activities, and perform their duties with greater vigor (Kivlighan, Li, & Gillis, 2015). Because affiliation needs are one of the fundamental human needs associated with general wellbeing (Van den Broeck, Ferris, Chang, & Rosen, 2016), a relational indicator of person-environment fit – person-group fit – will matter for life satisfaction. Further, "the role of fit may differ depending on which conceptualization is used" (Erdogan, Bauer, Truxillo, & Mansfield,

2012: 1056). We propose that a good match with one's job and peers will contribute to life satisfaction because of the centrality of experienced fit for subjective wellbeing.

Hypothesis 5: Person-environment fit is positively related to (a) OCB, (b) personal initiative, (c) work engagement, and (d) life satisfaction.

Relative Deprivation and Outcomes

We further argue that relative deprivation is negatively associated with the proposed outcomes. When people perceive they should have a better job than what they currently hold, they report anger, frustration, and resentment (Erdogan et al., 2018). Employees may direct these feelings toward an organization that failed to provide a job for which one feels entitled to given their credentials, resulting in reduced *OCB*. Additionally, the anger and resentment that deprived employees often feel may narrow their focus and attention (Gibson & Callister, 2010), which may make them less likely to take proactive action to change their situation. These workers may view such attempts as futile and may withdraw their efforts. As such, we expect a negative link between relative deprivation and *personal initiative*.

We also argue that relative deprivation will have detrimental effects on *work engagement* and *life satisfaction*. When employees feel they deserve or are entitled to a better job, they may lack enthusiasm and dedication for the type of work that they feel they should not have. Supporting this, research has shown a negative linkage between relative deprivation and work engagement in a sample of international teachers working in the USA (Ren, Yunlu, Shaffer, & Fodchuk, 2015). Finally, relative deprivation has recently been negatively linked to life satisfaction in a sample of Spanish college graduates (Erdogan et al., 2018). We aim to constructively replicate this finding by testing this relationship with employees who vary in their collectivism cultural orientations and with a different measure of relative deprivation.

Hypothesis 6: Relative deprivation is negatively related to (a) OCB, (b) personal initiative, (c) work engagement, and (d) life satisfaction.

An Integrated Moderated Mediation Model

Person-Environment Fit as a Mediator. The other-orientation of high collectivism values will help overqualified employees focus less on their under-utilized qualifications and instead focus more outwardly on aspects of their work environment. This will lead to cognitive re-appraisal of their person-environment misfit. The reduced misfit will lead to a weakened negative relationship between perceived overqualification and behavioral tendencies such as helping others and contributing to organizational prosperity as well as proactively looking for work solutions. Further, the negative indirect relationship between perceived overqualification and work engagement and life satisfaction will be attenuated for overqualified employees with cultural tendencies to prioritize collective interests over personal ones. By prioritizing group interests, they will cognitively re-appraise their misfit and direct their attention outwardly to other aspects of their environment, which should assuage their lack of work engagement and minimize their life dissatisfaction.

Hypothesis 7: The indirect negative effects of perceived overqualification on (a) OCB, (b) personal initiative, (c) work engagement, and (d) life satisfaction via reduced person-environment fit are moderated by collectivism orientations such that these negative effects are weaker for high levels of collectivism orientations.

Relative Deprivation as a Mediator. We propose that high collectivism values will alleviate the inwardly-oriented, affectively-laden feelings of relative deprivation in overqualified workers. Employees with less acute feelings of desire and entitlement for a better job may be more willing to benefit their group by performing OCB and taking proactive steps to solve issues that could benefit others. Reduced relative deprivation of overqualified employees with collectivism values may also minimize their work disengagement and assuage their poor overall assessment of their life circumstances.

Hypothesis 8: The indirect negative effects of perceived overqualification on (a) OCB, (b) personal initiative, (c) work engagement, and (d) life satisfaction via relative deprivation are moderated by collectivism orientations such that these negative indirect effects are weaker for high levels of collectivism orientations.

OVERVIEW OF STUDIES

We tested our model in two studies. In Study 1, we examined one aspect of person-environment fit theory (i.e., person-group fit) and relative deprivation as theoretically viable mechanisms underlying the interactive effects of perceived overqualification and collectivism values on positive work and non-work outcomes. In Study 2, we constructively replicated these findings by (a) examining person-job fit in addition to person-group fit and showing their relative applicability, (b) ruling out alternative mechanisms, and (c) testing our model with counterproductive work behavior and showing that it is more applicable to positive than negative outcomes. Methodologically, Study 1 utilizes a sample of university professional staff and their coworkers, who come from 95 universities in eight countries. To address a potential limitation of a single industry of Study 1, we recruited working adults from a variety of industries in Study 2 and surveyed them at three times.

STUDY 1 - METHOD

We recruited professional staff ($n = 852$) and their coworkers ($n = 301$) from 95 universities across eight countries (i.e., Australia, Germany, Lithuania, Switzerland, Taiwan, Turkey, UK, and USA). Nonacademic university employees are often tied to a specific geographic area and thus are employed in jobs that are available, for which they often feel overqualified (McKee-Ryan & Harvey, 2011). We generated a comprehensive list of all the universities in each country. Using a random number generator, we selected 10 universities per country. We then recorded the contact information for all administrative employees for each randomly selected school by going through each university's website. To ensure

comparability of occupations, we chose specific departments to focus on in the entire sample (i.e., finance, human resources, informational technology, library, marketing, and student affairs). We contacted the professional staff generated through this procedure and invited them to complete a survey about their work. Of the 10,622 individuals we approached, 852 responded, resulting in a response rate of 8%, which is typical for web-based recruitment, which we utilized in our research (e.g., Toledano, Smith, Brook, Douglass, & Elliott, 2015).

Two weeks after the focal participants' survey completion, we e-mailed nominated coworkers an invitation to participate in a separate survey and to express their opinions about the focal participant's OCB and personal initiative. Out of 843 contacted coworkers, 301 responded, yielding a response rate of 36%. Because multiple coworkers, ranging from one to four ($M = 1.55$, $SD = .70$), rated OCB and personal initiative for focal participants, the final sample consisted of 190 participants for whom we had coworker data. We informed the participants that they would be included in a raffle to win a gift certificate or donate to a charity in that country. The majority of the participants were women (64%) with a mean age of 41.16 years ($SD = 11.44$). In terms of education, 37% had a Bachelor's degree, 28% had a Master's degree, followed by 16% with a PhD degree, and 6% with a high school diploma; 12% did not provide these data. The participants had 20.47 years of work experience ($SD = 11.91$), 12.43 years of industry experience ($SD = 9.68$), and had worked at their university for 8.35 years ($SD = 8.15$). The majority of coworkers were women (76%) with a mean age of 40.84 ($SD = 11.61$). They reported 20.05 years of work experience ($SD = 11.33$) and 12.27 years of industry experience ($SD = 10.16$); university tenure was 8.31 years ($SD = 7.45$).

Measures

Across two studies, all measures, if not indicated otherwise, were rated on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*). In Study 1, for countries in which English

was not the official language (i.e., Germany, Lithuania, Switzerland, Taiwan, and Turkey), all

measures were translated following established procedures (Brislin, 1986).

Employee-Rated Measures

     Perceived Overqualification. We measured perceived overqualification with a nine-

item scale (Maynard et al., 2006); a sample item is: "I have more abilities than I need in order

to do my job" ($\alpha = .90$).

     Collectivism Orientations. We measured collectivism orientations with a six-item

sub-scale of collectivism from the Individual Cultural Values scale (Yoo et al., 2011) – a

scale specifically designed to measure cultural orientations at the individual level. A sample

item is: "Group welfare is more important than individual rewards" ($\alpha = .84$).

     Person-Environment Fit. We measured person-environment fit with a three-item

scale of person-group fit (Seong & Kristof-Brown, 2012). A sample item is: "The things that

I value in life are very similar to the things that my team members value" ($\alpha = .90$).

     Relative Deprivation. We measured relative deprivation with a four-item scale

(Feldman et al., 2002); e.g., "I deserve a better job situation than my present one" ($\alpha = .91$).

     Work Engagement. We measured work engagement with the nine-item Utrecht

Work Engagement Scale (Schaufeli et al., 2006). It assesses the extent to which employees

experience vigor (e.g., "At my job, I feel strong and vigorous"), absorption ("I am immersed

in my work"), and dedication ("I am enthusiastic about my job") at their work. Based on

Schaufeli et al.'s (2006) recommendation and past research (e.g., Ren et al., 2015), we

computed an overall work engagement score ($\alpha = .89$), which we used in our analyses.

     Life Satisfaction. We measured life satisfaction with a five-item scale (Diener et al.,

1985). A sample item is: "In most ways my life is close to my ideal" ($\alpha = .87$).

     Control Variables. Across Studies 1 and 2, we used the same control variables -

gender, age, education, and organizational tenure - because of their potential to influence the

outcomes of overqualification (e.g., Deng et al., 2018; Zhang et al., 2016). Women and men who engage in OCB and personal initiative are viewed differently (Heilman, 2012). Older workers are also stereotypically perceived as lacking initiative and work engagement (Posthuma & Campion, 2009). As such, we controlled for participants' gender and age to account for this potential bias. Further, we controlled for education and organizational tenure to show that perceived overqualification does not serve as a proxy for these common correlates (Harari et al., 2017) and account for unique variance in outcomes. Notably, the significance of the results did not change with the inclusion of these control variables.

Coworker-Rated Measures

Organizational Citizenship Behavior (OCB). We measured OCB with a four-item scale of work behaviors that assesses the extent to which employees help their coworkers and promote organizational prosperity (Welbourne et al., 1998). A sample item is "[Coworker's name] does things that help others when it is not part of his/her job". Because several coworkers rated a focal employee's OCB, we aggregated their ratings and used them for computing alpha (α = .82). Using established formulas (Bliese, 2000), we calculated intraclass correlation coefficients [ICC(1)] and [ICC(2)] being .29 and .39, respectively. The relatively low ICC(2) statistics can be explained by the fact that ICC(2) represents the reliability of the group mean scores and varies as a function of ICC(1) and group size, such that large group sizes can result in high ICC(2) values, even if ICC(1) values are low (Bliese, 2000). The majority of the participants (56%) were rated by one coworker, followed by 33% who were rated by two coworkers, and 10% were rated by three coworkers; only one respondent was rated by four coworkers.

Personal Initiative. We measured personal initiative with a seven-item scale (Frese et al., 1997). We asked focal employees' coworkers to indicate the extent to which their peers engage in proactive problem solving (e.g., "[Coworker's name] takes initiative immediately

even when others don't"). Similar to the ratings of OCB, we aggregated coworkers' ratings of the focal employee's personal initiative ($\alpha = .91$); the ICC(1) was .27 and ICC(2) was .37.

Data Analysis

We first computed ICC(1) to determine whether the nested structure of the data (i.e., employees within universities/countries) would affect the results. The ICCs(1) for the outcomes based on university nesting were non-significant for work engagement (.02), life satisfaction (.06), OCB (.00), and personal initiative (.06). ICCs(1) for these outcomes based on country nesting were smaller and non-significant for work engagement (.06), life satisfaction (.01), OCB (.03), and personal initiative (.05). We used university as the nesting level because we had more units at this level. Due to the nested data structure, we used Structural Equation Modeling (SEM) with the Mplus code developed by Stride, Gardner, Catley, and Thomas (2015) for multilevel process models designed by Preacher, Rucker, and Hayes (2007), combined with the procedures for moderated mediation models. Because we modeled all our effects at Level 1, we tested a 1-1-1 model with the first-stage moderator at Level 1. We used design-based modeling as an alternative approach to analyze clustered data (Huang, 2016). Instead of differentiating and estimating effects at different levels, a design-based modeling approach "directly incorporates elements of the complex sampling design (e.g., cluster, stratification variables) in the computation of parameter and variance estimates" (Huang, 2016: 178). In essence it "takes the multilevel data or dependency into account by adjusting for parameter estimate standard errors based on the sampling design" (Wu & Kwok, 2012: 17). We used this approach to estimate our model and specified the type of analysis as 'complex and random' in Mplus to account for the nesting of the data.

STUDY 1 - RESULTS

Table 1 presents Study 1's descriptive statistics and correlations. First, we conducted a series of confirmatory factor analyses (CFA) for the self-reported variables –

overqualification, P-E fit, relative deprivation, collectivism orientations, work engagement, and life satisfaction – to ascertain their distinctiveness. We used all available data ($n = 852$) for these analyses. We treated items for these constructs as ordinal, categorical data because we measured them using a Likert-type scale and they may not be normally distributed (Muthen & Kaplan, 1985). To account for this, we used the WLSMV (Weighted Least Squares Means and Variance Adjusted) estimator in Mplus to analyze polychoric correlations among items in our measures. Prior studies have used this approach to conduct CFA with Likert-type data (e.g., Wu, Parker, Wu, & Lee, 2018).

Based on this approach and recommendations for suitable fit indexes (Hu & Bentler, 1999), the six-factor model consisting of all items of the six constructs showed good fit to the data (WLSMV-χ^2 = 1479.20; df = 579; Root Mean Square Error of Approximation (RMSEA) = .04, 90% confidence interval (CI) = [.04, .05]; comparative fit index (CFI) = .97; Tucker Lewis index (TLI) = .96). Perceived overqualification had a sizable correlation with relative deprivation ($r = .57$). As such, we estimated a five-factor model in which items for these two constructs were influenced by the same factor, whereas the other four constructs were indicated by their own items. This five-factor model also indicated good fit (WLSMV-χ^2 = 2083.82; df = 584; RMSEA = .06, 90% CI = [.05, .06]; CFI = .94; TLI = .94); however, it was not better than the six-factor model according to the chi-square test for difference testing for the WLSMV estimator ($\triangle\chi^2$ = 278.49, df = 5, p = .00). To ensure independence of the mediators, we also estimated a five-factor model in which items for person-group fit and relative deprivation were influenced by the same factor while having four factors for the rest of constructs indicated by their own items. This five-factor model also showed good fit (WLSMV-χ^2 = 2766.35; df = 584; RMSEA = .07, 90% CI = [.06, .07]; CFI = .92; TLI = .91), but it was not better than the six-factor model ($\triangle\chi^2$ = 453.12, df = 5, p = .00). Finally, to ascertain distinctiveness of the self-reported outcomes, we estimated a five-factor model

merging items for work engagement and life satisfaction into the same factor while having

four factors for the rest of constructs indicated by their own items. This five-factor model fit

well (WLSMV-χ^2 = 2795.22; df = 584; RMSEA = .07, 90% CI = [.06, .07]; CFI = .92; TLI =

.91), but it was not better than the six-factor model ($\triangle\chi^2$ = 482.62, df = 5, p = .00). We then

performed CFA for the coworker-reported variables, OCB and personal initiative, using the

sample of 190 participants for whom we had coworker data. We did not treat the scores of

these constructs as categorical variables because we averaged them across multiple

coworkers for each participant. We thus used the MLM (or Satorra-Bentler's maximum

likelihood mean adjusted) estimator, which is suitable for analyzing continuous variables in

small sample sizes (e.g., Tong & Bentler, 2013). We examined a two-factor model in which

items for OCB and personal initiative were influenced by two different factors. This model

showed good fit to the data (MLM-χ^2 = 88.35; df = 43; RMSEA = .08, 90% CI = [.05, .10];

CFI = .94; TLI = .92; SRMR = .04) and was better than a model using one factor to influence

all items (MLM-χ^2 = 116.45; df = 44; RMSEA = .09, 90% CI = [.07, .12]; CFI = .90; TLI =

.88; SRMR = .06; Satorra-Bentler Scaled Difference = 22.01, df = 1, p = .00). Taken together,

CFA results supported the distinctiveness of both self-reported and coworker-rated measures.

Results for Main and Moderator Effects Hypotheses

        Table 2 presents the results of the SEM model with latent interactions that estimated

the main, moderator, and moderated mediation effects. Consistent with Hypothesis 1,

perceived overqualification was negatively related to person-environment fit (B = -.22, SE =

.03, t = -6.77, p = .00). As predicted by Hypothesis 2, perceived overqualification was

positively related to relative deprivation (B = .60, SE = .05, t = 11.91, p = .00). Hence,

Hypotheses 1 and 2 received support. As expected, collectivism orientations moderated the

relationship between perceived overqualification and P-E fit (B = .09, SE = .03, t = 2.75, p =

.01). To probe this interaction further, we conducted a simple slopes analysis. As shown in

Figure 2a, for low collectivism orientations (-1 *SD*), the negative linkage between perceived

overqualification and P-E fit was stronger (*B* = -.30, *p* = .00) than for high levels (+1 *SD*), for

which this link was weaker (*B* = -.13, *p* = .00). Thus, Hypothesis 3 received support.

The interaction between collectivism values and perceived overqualification was not

significant in predicting relative deprivation (*B* = -.06, *SE* = .04, *t* = -1.68, *p* = .09). Thus,

Hypothesis 4 did not receive support. After accounting for the effects of overqualification and

in the presence of relative deprivation (Table 2), the associations of P-E fit with OCB (*B* =

.18, *SE* = .07, *t* = 2.54, *p* = .01), personal initiative (*B* = .19, *SE* = .06, *t* = 2.98, *p* = .00), work

engagement (*B* = .22, *SE* = .05, *t* = 4.58, *p* = .00), and life satisfaction (*B* = .21, *SE* = .05, *t* =

4.22, *p* = .00) were all positive and significant. Hence, Hypothesis 5 (a-d) received support.

Hypothesis 6 predicted that relative deprivation is negatively related to OCB [H6a],

personal initiative [H6b], work engagement [H6c], and life satisfaction [H6d]. After

accounting for the effects of perceived overqualification and in the presence of P-E fit,

relative deprivation was not significantly related to either OCB (*B* = -.01, *SE* = .05, *t* = -.27, *p*

= .79) or personal initiative (*B* = -.02, *SE* = .06, *t* = -.31, *p* = .76). Yet, relative deprivation

was negatively related to both work engagement (*B* = -.17, *SE* = .04, *t* = -4.68, *p* = .00) and

life satisfaction (*B* = -.22, *SE* = .04, *t* = -5.11, *p* = .00). Thus, Hypothesis 6 received mixed

support, wherein H6 (a-b) was not supported and H6 (c-d) received support.

Moderated Mediation Results

As shown in Table 3, the moderated mediation indices revealed significant effects for

P-E fit as a mediator for personal initiative (*Index* = .02, 95% CI = [.00, .03]), work

engagement (*Index* = .02, 95% CI = [.00, .03]), and life satisfaction (*Index* = .02, 95% CI =

[.00, .03]), but not OCB (*Index* = -.02, 95% CI = [-.00, .03]), failing to support Hypothesis

7a. The negative indirect (via P-E fit) relationship between perceived overqualification and

personal initiative was stronger for low (*Estimate* = -.06, 95% CI = [-.10, -.01]) than for high

(*Estimate* = -.02, 95% CI = [-.05, .00]) collectivism values, thereby supporting Hypothesis 7b. Further, the negative indirect (via P-E fit) linkage between perceived overqualification and work engagement was stronger for low (*Estimate* = -.07, 95% CI = [-.10, -.03]) than for high (*Estimate* = -.03, 95% CI = [-.05, -.00]) collectivism values, supporting Hypothesis 7c. Finally, the negative indirect (via P-E fit) link between perceived overqualification and life satisfaction was stronger for low collectivism orientations (*Estimate* = -.06, 95% CI = [-.10, -.03]) than for high levels (*Estimate* = -.03, 95% CI = [-.05, -.01]), supporting Hypothesis 7d.

Contrary to Hypothesis 8 (a-b), the moderated mediation model was not supported for relative deprivation as a mediator for OCB (*Index* = -.00, 95% CI = [-.01, .01]), nor for personal initiative (*Index* = -.00, 95% CI = [-.01, .01]); it was supported for work engagement (*Index* = -.02, 95% CI = [-.03, -.00]) and life satisfaction (*Index* = -.02, 95% CI = [-.04, -.00]). The negative indirect (via relative deprivation) relationship between overqualification and work engagement was stronger for low (*Estimate* = -.11, 95% CI = [-.16, -.07]) than high (*Estimate* = -.09, 95% CI = [-.15, -.04]) collectivism values, thus supporting Hypothesis 8c. The negative indirect linkage (via relative deprivation) between overqualification and life satisfaction was stronger for low (*Estimate* = -.15, 95% CI = [-.21, -.09]) than high (*Estimate* = -.12, 95% CI = [-.18, -.06]) collectivism values, thereby supporting Hypothesis 8d.

Insert Tables 1-3 and Figure 2a about here

STUDY 1 – DISCUSSION

Study 1's results demonstrated that collectivism values buffered the negative effects of perceived overqualification on work and non-work outcomes because of its impact on outwardly-oriented cognitive appraisals of compatibility with one's environment. Yet, the other-orientation of collectivism values did not prove useful for shaping inwardly-oriented, affectively-laden relative deprivation of overqualified employees. Despite the informative

nature of Study 1's results, it is important to test the robustness of our model by considering additional moderators, mediators, and outcomes. First, we theorized and showed empirically that collectivism values played an important role in the proposed moderated mediation model. Yet, to ascertain the robustness of this cultural value, we need to consider the role of other cultural orientations that could impinge on the relationship between perceived overqualification and proposed mechanisms. We aim to test our model while controlling for individual *power distance values* because country-level power distance has been shown to shape organizational commitment of overqualified workers (Harari et al., 2017). Further, overqualified employees who uphold high *masculinity values* may experience their misfit and relative deprivation particularly intensely. People with these values prioritize material things over quality of life (Clugston, Howell, & Dorfman, 2000), and being in substandard employment may impede these goals. Thus, we aim to test masculinity as another moderator.

Second, in Study 1, we examined one aspect of person-environment fit, namely person-group fit, and showed its relative applicability over another theory-based mediator, relative deprivation. Recent meta-analytic evidence has demonstrated that "regardless of which dimension of PE fit is being considered, fit happens and high levels of fit lead to positive outcomes for both the person and the environment (employer)" (Oh et al., 2014: 141). Building on the importance of overall fit assessments, in Study 2, we examine another indicator of person-environment fit – *person-job fit*. We aim to show the relative applicability of outward, cognitive appraisals of one's compatibility with one's environment (and not inward, affectively-laden relative deprivation), irrespective of the type of fit. In doing so, we followed the recommendation to "include measures of specific types of fit, but also explore how these specific types correspond to holistic perceptions of compatibility" (Seong et al., 2015: 1204). Collectivism values help overqualified workers direct their attention to aspects

of their environment such as their peers (Study 1) or their jobs (as in Study 2). This may in turn alleviate the negative effects of overqualification on work and non-work outcomes.

Third, we argued that our moderated mediation model explains positive work and non-work outcomes. Given that one of the most frequently studied negative consequences of perceived overqualification is *counterproductive work behavior* (CWB; Fine & Edward, 2017; Liu et al., 2015; Luksyte et al., 2011), in Study 2, we sought to explore whether our proposed model likewise applies to CWB. Finally, we also examined other mediators that scholars have measured while using either person-environment fit or relative deprivation theories to conceptualize these alternative mechanisms – *anger toward employment situation* and *organization-based self-esteem* (OBSE; Liu et al., 2015), *cynicism* (Luksyte et al., 2011), and *social acceptance* (Deng et al., 2018). As such, we conducted Study 2 to test the robustness of our proposed moderated mediation model, which we empirically tested in Study 1. By fully exploring the alternative factors that may influence the proposed relationships, we address substantive potential confounding variables in the proposed model.

STUDY 2 – METHOD

We recruited full-time working adults using Amazon Mechanical Turk (Mturk), a crowdsourcing platform on which people residing in the USA participate in studies for a small remuneration. We specified that the qualified employees had previously participated in at least 100 research studies with an approval rate of 99% or higher. We used a time-lagged design wherein we contacted the same participants three times with a two-week interval between each data collection point. At Time 1, we recruited full-time employees ($N = 284$), 52% men, with a mean age of 37.95 years ($SD = 9.74$). They had 17.80 years of work experience ($SD = 9.83$) and 10.45 years of industry experience ($SD = 7.47$); they had worked for their organization for 7.35 years ($SD = 6.24$). In terms of education, 46% had a Bachelor's degree, 19% had a Master's degree, followed by 13% with Associate degree, 13% with a

High school diploma/GED college, 4% with a PhD, and 5% indicated 'other' (e.g., vocational training). After two weeks, we emailed the same participants and 235 responded to the Time 2 survey and at Time 3, there were 224 respondents, thus yielding a response rate of 79%.

Measures

We used the same measures as in Study 1. All continuous measures showed acceptable reliabilities (α) in Study 2's data: (1) Time 1 measures (independent variables): .90 for perceived overqualification, .90 for collectivism orientations; (2) Time 2 measures (mediators): .94 for PE (person-group) fit, .91 for relative deprivation; and (3) Time 3 measures (outcomes): .94 for work engagement, .93 for life satisfaction, .86 for OCB, and .90 for personal initiative. Below we describe the measures of additional variables.

Power Distance and Masculinity Orientations. At Time 1, we measured power distance with a six-item scale; e.g., "Managers should make most decisions without consulting subordinates"; α = .72; and masculinity with five items (Clugston et al., 2000); e.g., "It is preferable to have a man in a high level position rather than a woman"; α = .91.

Person-Environment Fit. At Time 2, we measured P-E fit with a six-item scale of person-job fit (Cable & DeRue, 2002). It has two dimensions: (a) *demands-abilities* fit, or how well employees' skills and abilities are congruent with the job requirements (e.g., "The match is very good between the demands of my job and my personal skills"; α = .90), and (b) *needs-supplies* fit, or how well a job satisfies individual work desires (e.g., "There is a good fit between what my job offers me and what I am looking for in a job"; α = .91).

Alternative Mediators. At Time 2, we measured *anger toward employment situation* with a three-item scale (Chen & Spector, 1992); e.g., "I feel angry about my current job status"; α = .88. We measured *OBSE* with a 10-item scale (Pierce, Gardner, Cummings, & Dunham, 1989); e.g., "I can make a difference"; α = .92. Following Deng et al.'s (2018) research, we measured *social acceptance* with an eight-item scale of employees' popularity at

work (Scott & Judge, 2009); e.g., "I am socially visible"; $\alpha = .91$. We measured *cynicism* with an eight-item scale of cynicism (Demerouti, Mostert, & Bakker, 2010); e.g., "It happens more and more often that I talk about my work in a negative way"; $\alpha = .89$.

Counterproductive Work Behavior (CWB). At Time 3, we measured CWB with a 10-item scale (Spector, Bauer, & Fox, 2010); e.g., "I stayed home from work and said I was sick when I was not"; $\alpha = .82$). Participants reported how often they engaged in these behaviors in the last month using a frequency scale ranging from 1 = *never* to 5 = *every day*.

STUDY 2 – RESULTS AND DISCUSSION

Table 4 presents descriptive statistics and correlations. Although we used a time-lagged design, we measured all our variables with self-reports. We conducted a series of CFAs to ascertain their conceptual distinctiveness. We treated all items as categorical variables and used the WLSMV estimator in Mplus. The 11-factor model that includes our key variables loaded onto their respective factors (i.e., overqualification, collectivism orientations, power distance, person-group fit, demands-abilities fit, needs-supplies fit, relative deprivation, work engagement, life satisfaction, OCB, personal initiative) indicated good fit to the data (WLSMV-χ^2 = 2453.01; df = 1598; RMSEA = .04; 90% CI = [.04, .05]; CFI = .97; TLI = .97). This model was significantly better than a nine-factor model in which person-group fit, demands-abilities fit and needs-supplies fit were combined into one factor (WLSMV-χ^2 = 2990.14; df = 1617; RMSEA = .06; 90% CI = [.05, .06]; CFI = .95; TLI = .95; $\triangle\chi^2$ = 313.41, df = 19, p = .00) and a three-factor model in which variables measured at the same time were combined into respective factors (WLSMV-χ^2 = 5670.54; df = 1650; RMSEA = .09; 90% CI = [.09, .10]; CFI = .86; TLI = .86; $\triangle\chi2$ = 1086.01, df = 52, p = .00).

Main and Moderator Hypotheses Testing

As in Study 1, we used SEM for testing our moderated mediation model. We specified the type of analyses to be 'general and random' because, unlike Study 1, the data

for Study 2 were not nested. Table 5 presents the results of the SEM model that estimated the main, moderator, and moderated mediation effects. Consistent with Hypothesis 1, perceived overqualification was negatively related to all aspects of P-E fit, including person-group fit (B = -.27, SE = .06, t = -4.65, p = .00), demands-abilities fit (B = -.63, SE = .08, t = -7.84, p = .00) and needs-supplies fit (b = -.64, SE = .08, t = -7.77, p = .00). Supporting Hypothesis 2, perceived overqualification was positively associated with relative deprivation (B = .55, SE = .08, t = 6.72, p = .00). Collectivism cultural orientation moderated the link between perceived overqualification and demands-abilities fit (B = .30, SE = .07, t = 4.32, p = .00) and needs-supplies fit (B = .28, SE = .07, t = 3.87, p = .00), but not person-group fit (B = .09, SE = .06, t = 1.58, p = .11). For low levels of collectivism values, the negative link between perceived overqualification and demands-abilities fit (B = -.93, p = .00; Figure S1 available in online Supplemental materials) and needs-supplies fit (B = -.92, p = .00; Figure 2b) was stronger than for high levels (B = -.33, p = .00 and B = -.36, p = .00, respectively). Thus, Hypothesis 3 received partial support. Contrary to Hypothesis 4, collectivism values did not moderate the link between overqualification and relative deprivation (B = -.04, SE = .07, t = -.54, p = .59).

Hypothesis 5 predicted main effects between P-E fit and outcomes. As predicted, needs-supplies fit was positively related to OCB (B = .24, SE = .05, t = 4.31, p = .00), personal initiative (B = .22, SE = .08, t = 2.94, p = .00), work engagement (B = .49, SE = .08, t = 6.42, p = .00), but not life satisfaction (B = .23, SE = .12, t = 1.86, p = .06). Demands-abilities fit was positively associated with OCB (B = .12, SE = .05, t = 2.71, p = .01) and work engagement (B = .17, SE = .06, t = 2.77, p = .01), but not personal initiative (B = .12, SE = .06, t = 1.87, p = .06) or life satisfaction (B = .11, SE = .10, t = 1.03, p = .30). Person-group fit was positively related to life satisfaction (B = .23, SE = .12, t = 2.00, p = .045), but not to OCB (B = .09, SE = .05, t = 1.72, p = .09), personal initiative (B = .11, SE = .07, t = 1.55, p = .12) or work engagement (B = .07, SE = .07, t = 1.05, p = .30). Hence, Hypothesis 5

received partial support. Relative deprivation was related to life satisfaction ($B = -.20$, $SE = .10$, $t = -1.99$, $p = .046$), supporting Hypothesis 6d; however, it was not related to OCB ($B = .02$, $SE = .04$, $t = .52$, $p = .61$), personal initiative ($b = .01$, $SE = .06$, $t = .08$, $p = .94$), or work engagement ($b = -.10$, $SE = .06$, $t = -1.79$, $p = .07$), thus failing to support Hypothesis 6a-c.

Moderated Mediation Model Results

As shown in Table 6, the moderated mediation model was supported for P-E (needs-supplies) fit as a mediator for OCB (*Index* = .07, 95% CI = [.02, .11]), personal initiative (*Index* = .06, 95% CI = [.01, .11]), work engagement (*Index* = .14, 95% CI = [.06, .22]), but not life satisfaction (*Index* = .06, 95% CI = [-.01, .14]). The negative indirect (via needs-supplies fit) linkage between overqualification and OCB was stronger for low (*Estimate* = -.22, 95% CI = [-.33, -.10]) than for high (*Estimate* = -.09, 95% CI = [-.14, -.03]) collectivism orientations. Further, the negative indirect (via needs-supplies fit) relationship between overqualification and personal initiative was stronger for low (*Estimate* = -.20, 95% CI = [-.35, -.06]) than for high (*Estimate* = -.08, 95% CI = [-.15, -.01]) collectivism values. The negative indirect (via needs-supplies fit) linkage between overqualification and work engagement was stronger for low (*Estimate* = -.45, 95% CI = [-.63, -.28]) than for high (*Estimate* = -.18, 95% CI = [-.28, -.07]) collectivism orientations. We obtained similar results for P-E (demands-abilities) fit, wherein the model held for all outcomes except personal initiative and life satisfaction. The moderated mediation model was not supported for P-E (person-group) fit for OCB (*Index* = .01, 95% CI = [-.01, .02]), personal initiative (*Index* = .01, 95% CI = [-.01, .03]), work engagement (*Index* = .01, 95% CI = [-.01, .02]), or life satisfaction (*Index* = .02, 95% CI = [-.01, .05]). Hence, Hypothesis 7 received partial support because it was supported for person-job fit (with the exception of life satisfaction as the outcome), but not person-group fit as indicators of P-E fit. For relative deprivation as the mediator, the moderated mediation (Hypothesis 8) was not supported for either outcome.

Insert Tables 4-6 and Figure 2b about here

Supplemental Analyses to Test Alternative Moderators, Mediators, and Outcomes

To increase the robustness of our model, we examined it with additional factors such as: (a) masculinity values as a moderator, (b) anger toward employment situation, OBSE, cynicism, and social acceptance as mediators, and (c) CWB as an outcome. Tables S1-S2 (which are in the Supplemental Material available online) summarize the results of our alternative models tested via the Process macro in SPSS (Model 9) created by Hayes (2012). This approach employs bootstrapping to assess the statistical significance of moderated mediation models with two moderators and multiple mediators (Preacher et al., 2007). In the presence of other moderators and mediators, our proposed model held. First, as an indicator of P-E fit, person-job fit (demands-abilities and needs-supplies fit) surfaced as a significant mediator for the interactive effects of collectivism orientations and overqualification in predicting positive outcomes. Second, collectivism orientations moderated the proposed relationships in the presence of masculinity. Finally, our model did not predict CWB.

GENERAL DISCUSSION

In this research, we simultaneously examined the relative applicability of two theories – person-environment fit (Kristof-Brown & Guay, 2011) and relative deprivation (Crosby, 1984) – in explaining how collectivism orientations may shape the negative effects of perceived overqualification on behavioral and attitudinal work and non-work outcomes. Across two studies, we demonstrated that person-environment fit (and not relative deprivation) explains why collectivism values assuaged the negative effects of perceived overqualification on positively connoted outcomes such as OCB, personal initiative, work engagement, and life satisfaction. To increase the robustness of our proposed model, in Study 2 we tested alternative factors that might impinge on the proposed relationships. In general,

our proposed model held after accounting for the potential influence of these other

moderators and mediators and did not generalize to negative outcomes, such as CWB.

Theoretical Implications

Our first contribution is based on the concurrent examination of the two predominant

theories – person-environment fit and relative deprivation (Debus et al., in press; Erdogan et

al., 2020; Erdogan et al., 2018; Liu et al., 2015; Luksyte et al., 2011; Simon et al., 2019). In

doing so, we shed light into whether overqualified workers direct their attention *outwardly* or

inwardly when assessing their suboptimal work situation. Models of the dual processes

suggest that human behavior is influenced by both cognitive, controlled and affective,

impulsive systems (Liu et al., 2015). Extending these models, our research unpacked not just

the co-existence of such systems in the overqualification domain, but their relative

applicability in the presence of each other. The non-significant effects of relative deprivation

in the presence of P-E fit further highlighted the importance of considering these two

mechanisms simultaneously. Although significant, negative (positive) relationships between

perceived overqualification and person-environment fit (relative deprivation) were consistent

with prior research (Erdogan et al., 2018; Luksyte et al., 2011), their simultaneous

examination extended this scholarship. Our research demonstrated that their relative

applicability depends on the other-orientation of collectivism values, which proved useful in

influencing overqualified employees' views of "I do not belong here". Yet, their views of "I

deserve a better job" were left unaffected by the interdependent tendencies of collectivism

values. This may be because collectivism values are deeply ingrained cognitive structures of

shared patterns of thinking and stimulus responses (Gelfand et al., 2004). As such, they are

likely to be thematically closer to cognitive appraisals of misfit than relative deprivation,

which are accompanied by affective reactions of anger and frustration. The other-orientation

of collectivism values are thematically aligned with misfit, which overqualified workers form

by looking *outwards* in search of compatibility with aspects of their environment. In contrast, these values are thematically misaligned with relative deprivation, wherein overqualified workers focus *inwardly* on their entitlement to and deservingness of a better job – self-centric feelings that are misaligned with prioritizing group interests. Prior research indirectly supported our results by showing the buffering effects of career centrality, a person-centric moderator, on the relationship between perceived overqualification and relative deprivation (Erdogan et al., 2018). Future research could explore the role of other factors such as trait anger (Harari et al., 2017), which is thematically aligned with affectively-laden, inwardly-directed feelings of entitlement to a better job of overqualified employees.

In addition to simultaneously examining P-E fit and relative deprivation, we delved deeper into the nature of the former as a mechanism for the effects of perceived overqualification. In Study 2, we examined both person-group fit and person-job fit as indicators of P-E fit. Study 1's results suggest that overqualified employees whose cultural orientations prioritize collective interests, goals, and wellbeing might direct their attention away from their own inferior job situation, thus making them react less negatively in terms of reduced person-group fit. Study 2's results demonstrated the same pattern for person-job fit as another type of P-E fit in the work context. In examining the simultaneous impact of these two types of fit on the work and life experience of overqualified employees with different cultural values, we advanced our knowledge about P-E fit (Kristof-Brown et al., 2018) and in particular its applicability across different cultural values (Oh et al., 2014). Extending the general trend of this research about the importance of fit (irrespective of its type) to the overqualification domain, we unpacked the buffering effects of collectivism orientations for the negative effects of perceived overqualification on both person-group fit (Study 1) and person-job fit (Study 2). Importantly, the results of both Studies 1 and 2 revealed that outwardly-oriented P-E fit (and not inwardly-directed relative deprivation) explained how the

other-orientation of collectivism values may help re-direct the attention of overqualified employees from their substandard employment to aspects of their environment.

Our second contribution lies in examining *when* and *why* perceived overqualification may be less negatively related to positive outcomes – a noteworthy focus, given the preponderance of negative consequences in this domain (Harari et al., 2017). We examined personal initiative and work engagement – outcomes that have not been linked to this phenomenon thus far – as well as OCB and life satisfaction, two outcomes that have been understudied (Erdogan et al., 2018; Hu et al., 2015; Lin et al., 2017). Our research uncovered which of the two theories accounts for the proposed relationships. The findings of the two studies demonstrated that the other-orientation of high collectivism values buffered the negative indirect effects of perceived overqualification on the outcomes via P-E misfit (but not relative deprivation). These findings are noteworthy because of multiple calls to "relate various fit dimensions to various performance criteria," and particularly for employees with different cultural orientations (Oh et al., 2014: 138). Responding to these calls, our research highlighted the importance of fit with coworkers (Study 1) and jobs (Study 2) in assuaging the negative effects of perceived overqualification on behavioral and attitudinal indicators of positive organizational life. In showing the positive link between aspects of P-E fit and life satisfaction, we addressed a noteworthy gap in that "few studies examined the role of person–environment fit, and more research on this topic would be beneficial" (Erdogan et al., 2012: 1056). Theoretically, these findings support the underlying processes of similarity-attraction (Byrne, 1971), wherein P-E fit can manifest differently either via compatibility with peers (Study 1) or congruence between skills and job requirements (Study 2). As our findings demonstrated, such a fit between overqualified employees' qualifications and aspects of their environment (either job or a group) are important for these outcomes.

Finally, our research identified collectivism orientation as a key moderator for the indirect negative relationships (via P-E misfit) between perceived overqualification and the outcomes. In Study 2, we demonstrated the robustness of our model, which held after controlling for power distance and including masculinity values as an alternative moderator. Our research thus contributes to a better understanding of the effects of perceived overqualification by highlighting the importance of collectivism values in influencing outward cognitive appraisal of misfit rather than inward, affectively-laden relative deprivation. Our findings thus help explain the heterogeneous effect sizes between perceived overqualification and its outcomes as shown meta-analytically (Harari et al., 2017). From a theory-developing perspective, such an approach appears particularly fruitful – Harari et al. (2017: 33) recently noted that "developing an understanding of such boundary conditions is becoming a major initiative" in research on perceived overqualification.

Implications for Practice

Our results suggest that, first, managers should be aware that being overqualified represents suboptimal work conditions in that employees report being deprived and perceive poor fit with their peers and jobs. They also need to know that these negative effects are mitigated if employees hold high collectivism values. Although cultural orientations can be considered stable individual differences, some research suggests that collectivism values are dynamic and malleable (Taras, Steel, & Kirkman, 2012) and that people can be primed with either collectivistic or individualistic mindsets (Arieli & Sagiv, 2018). Given this, managers could take steps to instill collectivism orientations among overqualified workers. They can do so by implementing group-based rewards, initiating team-based activities, and structuring more interdependent tasks. Second, given the beneficial role of P-E fit, managers could implement strategies that proved useful in encouraging both person-job and person-group fit. They could emphasize how overqualified employees could use their qualifications for helping

teammates by, for example, mentoring less experienced peers (e.g, Luksyte & Spitzmueller, 2016) – likely a particularly fruitful strategy for those with high collectivism values.

Limitations and Future Research

Despite the methodological strengths of our research (i.e., multisource data and time-lagged design), we should note several potential limitations. First, we focused on collectivism as an individual cultural value (as opposed to a country-level characteristic). Meta-analytic evidence has suggested that the effects of cultural values at the individual level can be different from those at the country level (Taras et al., 2012). As such, it is unclear whether the same pattern of results would have emerged if we had considered collectivism as a country-level characteristic. In Study 1, we had data from eight countries only and thus could not test the applicability of our model across different countries. This is because proper estimation of country-level effects requires a higher number of countries (Maas & Hox, 2005) than we had in Study 1. Second, in Study 1, we collected our data from support personnel within higher education and it is unclear how well one can generalize our findings to other industries. Our participants occupied a variety of roles such as librarians, informational technology specialists, and administrative support; thus, there was sufficient variation in their work roles despite them being employed in a single industry. We constructively replicated Study 1's findings using a sample of employees from various industries in Study 2; we also controlled for gender, age, education, and tenure to account for their potential influence on outcomes.

Third, to minimize common method variance in Study 1, we measured independent and dependent variables with self and coworker ratings, respectively. Yet, we used self-ratings to capture independent, moderator, and mediator variables, introducing the possibility of inflated relationships. Future research could replicate our findings using other-ratings of the mediators (e.g., from supervisors). In Study 2, we measured all variables with self-reports, introducing the possibility of common method variance here as well. To minimize it,

we used a time-lagged design to temporally separate predictors, mediators, and outcomes. Finally, Study 2 may be underpowered given its small sample size relative to the number of variables included. Using a small sample size may also lead to overfitting (Harrell, 2001) and limit the generalizability of findings because our results could reflect idiosyncratic sample characteristics. Yet, across the two studies using samples from different countries and survey designs, we consistently found that person-environment fit (and not relative deprivation) explained the proposed interactive effects. These findings held without control variables, suggesting that our results were unaffected by having more variables in the analyses.

We offer several avenues for future research. First, future research could explore the possibility of conceptualizing perceived overqualification as being part of the person-job fit, given that, in our research, person-job fit emerges as the significant mediator in the presence of multiple alternative mediators. Second, we tested two theories that have dominated research on perceived overqualification; yet, other theories might be likewise helpful. Self-determination theory may prove relevant here because it discusses the importance of satisfying needs for competence, autonomy, and relatedness and what happens when these needs are frustrated (Van den Broeck et al., 2016). Overqualified employees may feel their competence needs are unfulfilled due to person-environment misfit. Conceivably, collectivism orientations may buffer these effects by directing attention to other needs. Third, researchers could adopt a contextual, macro-economic perspective for identifying and testing moderators for the effects of perceived overqualification. For example, the regional unemployment rate could influence the work and life experiences of overqualified employees. They could react less negatively to their employment predicament if they reside within a region that has a relatively high unemployment rate – suggesting that there might be limited alternative employment opportunities available to them. Scholars could examine these and other future research possibilities.

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Table 1
Means, Standard Deviations, and Correlations among All Variables in Study 1

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	.64	.48	--											
2. Age	41.16	11.44	-.12**	--										
3. Education	2.63	.86	.01	.06	--									
4. Organizational tenure	8.35	8.15	-.05	.57**	-.03	--								
5. Perceived overqualification	2.90	.86	-.01	-.13**	.02	-.14**	(.90)							
6. P-E (person-group) fit	3.35	.82	.06	.04	.09*	.01	-.23**	(.90)						
7. Relative deprivation	3.16	1.02	-.06	-.14**	-.07	-.10**	.57**	-.31**	(.91)					
8. Collectivism orientations	3.32	.66	-.20**	.05	-.03	.02	-.09*	.12**	-.03	(.84)				
9. Work engagement	3.68	.65	.00	.13**	.01	.05	-.30**	.33**	-.32**	.17**	(.89)			
10. Life satisfaction	3.50	.77	.07	.03	-.02	.06	-.26**	.25**	-.32**	.02	.33**	(.87)		
11. OCB	4.36	.52	.00	-.01	.08	.08	.01	.19**	-.04	.02	.08	.03	(.81)	
12. Personal initiative	4.17	.60	.09	-.12	.09	-.06	-.05	.20**	-.06	.10	.15*	.05	.73**	(.91)

Note. $N = 852$ for employee-rated variables; $N = 190$ for employee- and coworker-rated variables. Gender: 0 = male, 1 = female; OCB = organizational citizenship behavior. *$p < .05$. **$p < .01$. Alpha reliabilities are reported in parentheses along the diagonal.

Table 2

Moderated Mediation Results for Study 1

	Mediators			Dependent Variables		
	P-E fit	Relative deprivation	OCB	Personal initiative	Work engagement	Life satisfaction
Gender	.11* (.05)	-.12 (.07)	.00 (.10)	.07 (.11)	-.07 (.05)	.05 (.05)
Age	.00 (.00)	-.01* (.00)	-.00 (.00)	-.01 (.01)	.01** (.00)	-.00 (.00)
Education	.08** (.03)	-.07 (.04)	.05 (.04)	.09 (.06)	-.02 (.03)	-.06 (.04)
Tenure	-.00 (.00)	.00 (.01)	.01 (.00)	.00 (.01)	-.01 (.00)	.01 (.00)
POQ	-.22** (.03)	.60** (.05)	.08 (.07)	.03 (.05)	-.13** (.04)	-.09* (.04)
CCO	.08* (.03)	.00 (.04)				
POQ x CCO	.09** (.03)	-.06 (.04)				
P-E fit			.18* (.07)	.19** (.06)	.22** (.05)	.21** (.05)
Relative deprivation			-.01 (.05)	-.02 (.06)	-.17** (.04)	-.22** (.04)
R^2	.12**	.37**	.07	.08*	.25**	.17**

Note. $N = 852$ for employee-rated variables; $N = 190$ for employee- and coworker-rated variables. Coefficients are unstandardized and values in parentheses are standard errors. Tenure = organizational tenure; POQ = perceived overqualification; CCO = collectivism cultural orientations; OCB = organizational citizenship behavior; $^*p < .05$. $^{**}p < .01$.

Table 3

Conditional Indirect Effects of Perceived Overqualification on Outcomes in Study 1

	OCB	Personal initiative	Work engagement	Life satisfaction
Conditional Indirect Effects via **Person-Environment Fit**				
POQ, Low CCO	**-.05 [-.10, -.01]**	**-.06 [-.10, -.01]**	**-.07 [-.10, -.03]**	**-.06 [-.10, -.03]**
POQ, Mean CCO	**-.04 [-.07, -.01]**	**-.04 [-.07, -.01]**	**-.05 [-.07, -.02]**	**-.05 [-.07, -.02]**
POQ, High CCO	-.02 [-.05, .00]	-.02 [-.05, .00]	**-.03 [-.05, -.00]**	**-.03 [-.05, -.01]**
MMI	.02 [-.00, .03]	**.02 [.00, .03]**	**.02 [.00, .03]**	**.02 [.00, .03]**
Conditional Indirect Effects via **Relative Deprivation**				
POQ, Low CCO	-.01 [-.08, .06]	-.01 [-.08, .06]	**-.11 [-.16, -.07]**	**-.15 [-.21, -.09]**
POQ, Mean CCO	-.01 [-.07, .05]	-.01 [-.07, .05]	**-.10 [-.15, -.06]**	**-.13 [-.19, -.07]**
POQ, High CCO	-.01 [-.06, .05]	-.01 [-.07, .05]	**-.09 [-.15, -.04]**	**-.12 [-.18, -.06]**
MMI	-.00 [-.01, .01]	-.00 [-.01, .01]	**-.02 [-.03, -.00]**	**-.02 [-.04, -.00]**

Note. N = 852 for employee-rated variables; N = 190 for employee- and coworker-rated variables. POQ = perceived overqualification; CCO = collectivism cultural orientations; MMI = moderated mediation index; 95% Confidence intervals are in brackets, values in boldface do not overlap with zero. Conditional indirect effects are presented at range of values of collectivism cultural orientations from Low (-1*SD*) to High (+1*SD*).

Table 4

Means, Standard Deviations, and Correlations among All Variables in Study 2

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. T1 Gender	.48	.50	--								
2. T1 Age	37.95	9.74	.15*	--							
3. T1 Education	3.80	1.12	-.02	-.03	--						
4. T1 Organizational tenure	7.35	6.24	.13*	.55**	.00	--					
5. T1 Perceived overqualification	3.18	.91	.00	-.01	-.02	-.15*	--				
6. T1 Collectivism cultural orientation	3.31	.81	-.04	.08	-.09	.04	-.11	--			
7. T1 Power distance	2.21	.60	-.04	-.01	-.07	-.00	.04	.05	--		
8. T1 Masculinity	1.87	.85	-.30**	-.07	.02	.00	-.02	.03	.46**	--	
9. T2 P-E (person-group) fit	3.65	.76	.11	.13*	-.09	.08	-.26**	.22**	-.15*	-.13*	--
10. T2 P-E (demands-abilities) fit	3.75	.99	.02	.13	-.07	.11	-.51**	.31**	-.11	-.05	.49**
11. T2 P-E (needs-supplies) fit	3.30	1.08	.08	.08	.02	.10	-.47**	.21**	-.07	-.02	.59**
12. T2 Relative deprivation	2.71	1.09	-.10	-.21**	.04	-.20**	.44**	-.28**	.03	.04	-.45**
13. T2 Anger toward employment	1.99	.98	-.06	-.23**	-.01	-.17**	.22**	-.18**	.11	.12	-.46**
14. T2 Organization-based self-esteem	3.89	.87	.04	.02	-.08	.08	-.23**	.21**	-.18**	-.09	.49**
15. T2 Cynicism	2.74	.90	-.08	-.15*	-.03	-.10	.46**	-.19**	.10	.06	-.50**
16. T2 Social acceptance	3.86	.66	.05	.11	-.15*	.14*	-.15*	.12	-.17**	-.07	.50**
17. T3 Organizational citizenship behavior	3.86	.72	.20**	.09	-.12	.12	-.22**	.26**	-.11	-.12	.46**
18. T3 Personal initiative	3.82	.69	.16*	.11	-.10	.12	-.19**	.22**	-.14*	-.15*	.39**
19. T3 Work engagement	3.42	.84	.10	.13	.03	.12	-.35**	.24**	-.06	-.06	.50**
20. T3 Life satisfaction	3.36	.99	.06	.07	.10	.11	-.22**	.16*	-.17*	-.04	.41**
21. T3 Counterproductive work behavior	1.33	.41	-.08	-.06	.11	-.03	.16*	-.16*	.21**	.13*	-.30**

Note. N = 283-224. Gender: 0 = male, 1 = female; organizational tenure is expressed in years; *p < .05. **p < .01.

Table 4

Continued

Variable	10	11	12	13	14	15	16	17	18	19	20	21
1. T1 Gender												
2. T1 Age												
3. T1 Education												
4. T1 Organizational tenure												
5. T1 Perceived overqualification												
6. T1 Collectivism cultural orientation												
7. T1 Power distance												
8. T1 Masculinity												
9. T2 P-E (person-group) fit												
10. T2 P-E (demands-abilities) fit	--											
11. T2 P-E (needs-supplies) fit	.74**											
12. T2 Relative deprivation	-.54**	-.67**	--									
13. T2 Anger toward employment	-.58**	-.62**	.66**	--								
14. T2 Organization-based self-esteem	.50**	.53**	-.37**	-.48**	--							
15. T2 Cynicism	-.67**	-.83**	.71**	.68**	-.53**	--						
16. T2 Social acceptance	.36**	.41**	-.36**	-.44**	.65**	-.44**	--					
17. T3 Organizational citizenship behavior	.55**	.57**	-.37**	-.50**	.56**	-.55**	.44**	--				
18. T3 Personal initiative	.44**	.46**	-.31**	-.47**	.56**	-.49**	.48**	.73**	--			
19. T3 Work engagement	.65**	.74**	-.56**	-.61**	.58**	-.80**	.45**	.61**	.69**	--		
20. T3 Life satisfaction	.40**	.48**	-.41**	-.35**	.39**	-.45**	.42**	.32**	.44**	.56**	--	
21. T3 Counterproductive work behavior	-.30**	-.37**	.31**	.47**	-.35**	.42**	-.31**	-.48**	-.37**	-.41**	-.24**	--

Note. N = 283-224. Gender: 0 = male, 1 = female; $^{*}p < .05.$ $^{**}p < .01.$

Table 5

Moderated Mediation Results for Study 2

	Mediators				Dependent Variables			
	P-E (PG) fit	P-E (DA) fit	P-E (NS) fit	Relative deprivation	OCB	Personal initiative	Work engagement	Life satisfaction
Gender	.12 (.09)	-.01 (.10)	.10 (.10)	-.11 (.11)	.13* (.05)	.15* (.07)	.05 (.07)	-.01 (.12)
Age	.01 (.01)	.01 (.01)	.01 (.01)	-.02* (.01)	-.00 (.00)	.00 (.01)	.00 (.01)	-.00 (.01)
Education	-.04 (.04)	-.03 (.05)	.05 (.05)	.00 (.05)	-.05 (.03)	-.06 (.04)	.05 (.03)	.12* (.06)
Tenure	-.00 (.01)	-.00 (.01)	.00 (.01)	-.01 (.01)	.00 (.01)	.00 (.01)	-.00 (.01)	.01 (.01)
Power distance	-.22* (.09)	-.27* (.11)	-.17 (.11)	.08 (.11)	-.05 (.05)	-.13 (.08)	.02 (.07)	-.26* (.13)
POQ	-.27** (.06)	-.63** (.08)	-.64** (.08)	.55** (.08)	.09* (.04)	.07 (.06)	.08 (.06)	.04 (.10)
CCO	.15** (.05)	.30** (.06)	.22** (.06)	-.26** (.06)				
POQ x CCO	.09 (.06)	.30** (.07)	.28** (.07)	-.04 (.07)				
P-E (PG) fit					.09 (.05)	.11 (.07)	.07 (.07)	.23* (.12)
P-E (DA) fit					.12* (.05)	.12 (.05)	.17* (.06)	.11 (.10)
P-E (NS) fit					.24** (.05)	.22** (.08)	.49** (.08)	.23 (.12)
Relative deprivation					.02 (.04)	.01 (.06)	-.10 (.06)	-.20* (.10)
R^2	.24**	.54**	.47**	.40**	.46**	.31**	.63**	.28**

Note. $N = 224$. Coefficients are unstandardized. Standard errors are in parentheses. Tenure = organizational tenure; POQ = perceived overqualification; CCO = collectivism cultural orientations; PG = person-group; DA = demands-abilities; NS = needs-supplies; OCB = organizational citizenship behavior; $^*p < .05$. $^{**}p < .01$.

Table 6

Conditional Indirect Effects of Perceived Overqualification on Outcomes in Study 2

	OCB	Personal initiative	Work engagement	Life satisfaction
Conditional Indirect Effects via **P-E (Person-Group) Fit**				
POQ, Low CCO	-.03 [-.07, .01]	-.04 [-.09, .01]	-.03 [-.07, .02]	-.08 [-.17, .01]
POQ, Mean CCO	-.02 [-.05, .01]	-.03 [-.07, .01]	-.02 [-.06, .02]	-.06 [-.13, .00]
POQ, High CCO	-.02 [-.04, .01]	-.02 [-.05, .01]	-.01 [-.04, .01]	-.04 [-.09, .01]
MMI	.01 [-.01, .02]	.01 [-.01, .03]	.01 [-.01, .02]	.02 [-.01, .05]
Conditional Indirect Effects via **P-E (Demands-Abilities) Fit**				
POQ, Low CCO	**-.11 [-.20, -.03]**	-.11 [-.23, .01]	**-.16 [-.27, -.04]**	-.10 [-.29, .09]
POQ, Mean CCO	**-.08 [-.14, -.02]**	-.07 [-.15, .01]	**-.11 [-.19, -.03]**	-.07 [-.20, .06]
POQ, High CCO	**-.04 [-.08, -.00]**	-.04 [-.09, .01]	**-.06 [-.11, -.01]**	-.04 [-.11, .04]
MMI	**.04 [.01, .07]**	.04 [-.01, .08]	**.05 [.01, .09]**	.03 [-.03, .09]
Conditional Indirect Effects via **P-E (Needs-Supplies) Fit**				
POQ, Low CCO	**-.22 [-.33, -.10]**	**-.20 [-.35, -.06]**	**-.45 [-.63, -.28]**	-.21 [-.44, .02]
POQ, Mean CCO	**-.15 [-.23, -.07]**	**-.14 [-.24, -.04]**	**-.31 [-.44, -.19]**	-.15 [-.30, .01]
POQ, High CCO	**-.09 [-.14, -.03]**	**-.08 [-.15, -.01]**	**-.18 [-.28, -.07]**	-.08 [-.18, .02]
MMI	**.07 [.02, .11]**	**.06 [.01, .11]**	**.14 [.06, .22]**	.06 [-.01, .14]
Conditional Indirect Effects via **Relative Deprivation**				
POQ, Low CCO	.01 [-.04, .06]	.00 [-.07, .07]	-.06 [-.13, .01]	-.11 [-.23, .00]
POQ, Mean CCO	.01 [-.03, .06]	.00 [-.06, .07]	-.06 [-.12, .01]	-.11 [-.22, .00]
POQ, High CCO	.01 [-.03, .05]	.00 [-.06, .06]	-.05 [-.11, .01]	-.10 [-.21, .01]
MMI	-.00 [-.01, .00]	.00 [-.01, .00]	.00 [-.01, .02]	.01 [-.02, .04]

Note. $N = 224$. 95% Confidence intervals are in brackets, values in boldface do not overlap with zero. POQ = perceived overqualification; CCO = collectivism cultural orientations; MMI = moderated mediation index; Conditional indirect effects are presented at range of values of collectivism cultural orientations from Low (-1*SD*) to High (+1*SD*).

Figure 1

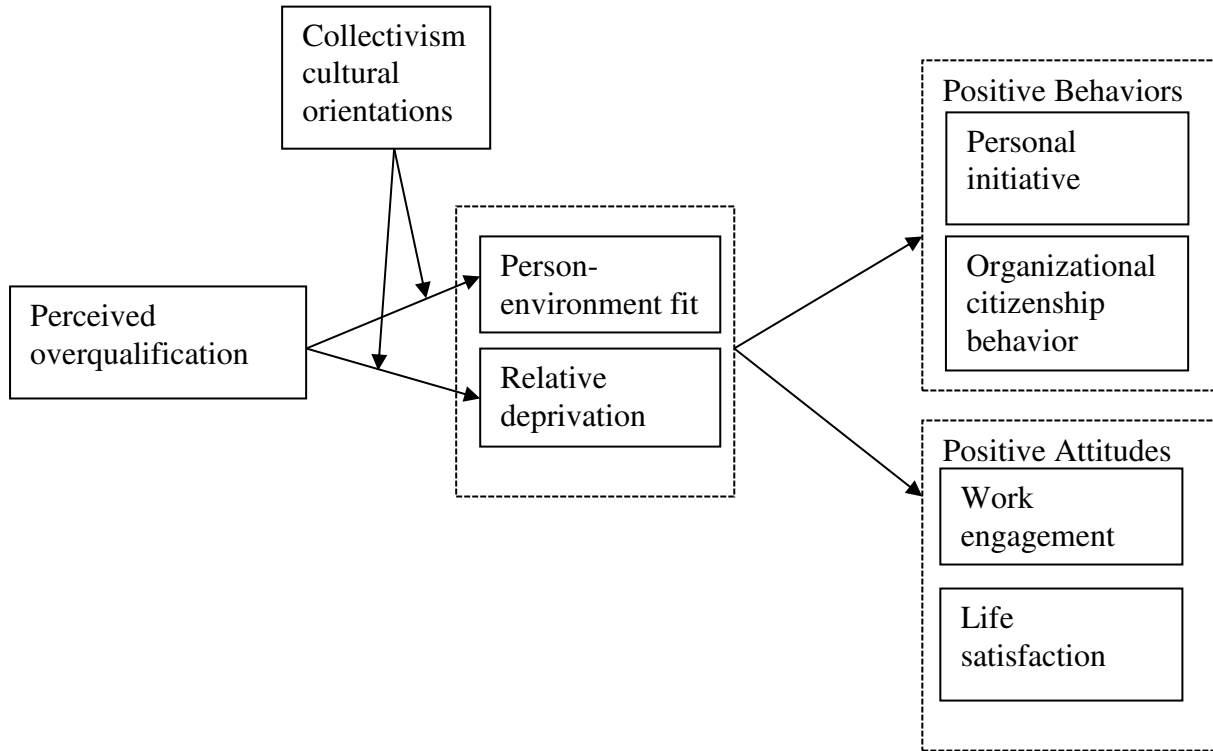The proposed hypothesized model of our research

Figure 2a

Interactive effects of perceived overqualification and collectivism cultural orientations in predicting P-E (person-group) fit in Study 1
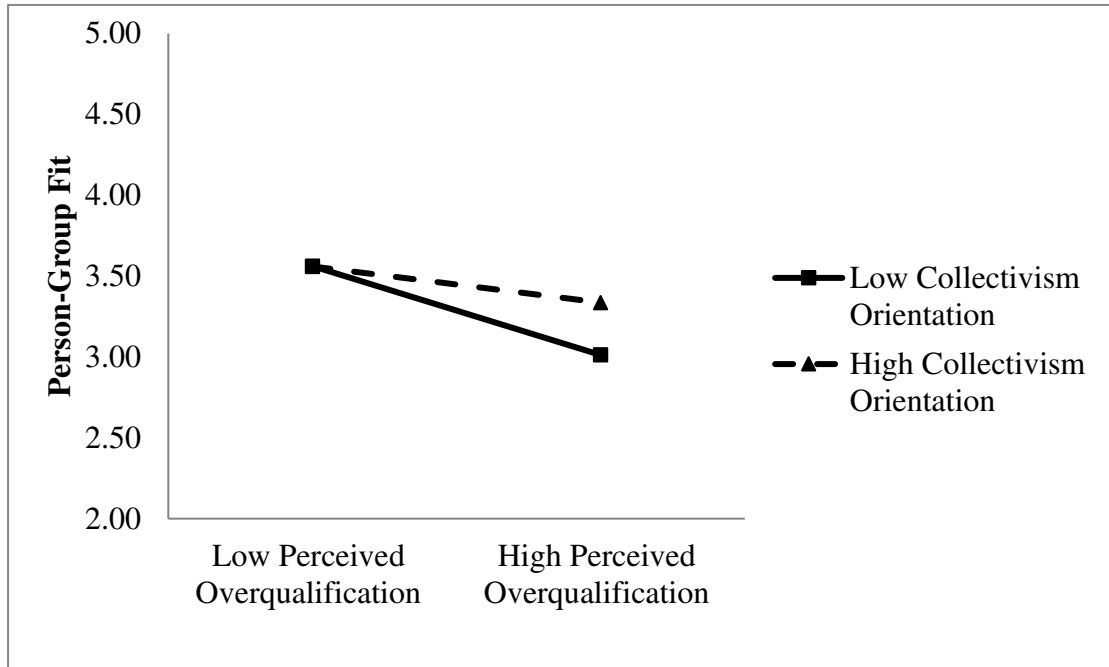

Figure 2b

Interactive effects of perceived overqualification and collectivism cultural orientations in predicting P-E (needs-supplies) fit in Study 2