



**HAL**  
open science

## The impact of gender-role-orientations on subjective career success: A multilevel study of 36 societies

Jane Terpstra-Tong, David Ralston, Len Treviño, Charlotte Karam, Olivier Furrer, Fabian Froese, Brian Tjemkes, Fidel León Darder, Malika Richards, Marina Dabic, et al.

### ► To cite this version:

Jane Terpstra-Tong, David Ralston, Len Treviño, Charlotte Karam, Olivier Furrer, et al.. The impact of gender-role-orientations on subjective career success: A multilevel study of 36 societies. *Journal of Vocational Behavior*, 2022, 138, pp.103773. 10.1016/j.jvb.2022.103773 . hal-03899844v1

**HAL Id: hal-03899844**

**<https://hal.science/hal-03899844v1>**

Submitted on 15 Dec 2022 (v1), last revised 23 May 2023 (v2)

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The impact of gender-role-orientations on subjective career success: A multilevel study of 36 societies

Jane Terpstra-Tong a,\* , David A. Ralston b , Len Treviño c , Charlotte Karam d,e , Olivier Furrer f , Fabian Froese g , Brian Tjemkes h , Fidel León Darder i , Malika Richards j , Marina Dabic k , Yongjuan Li l , Pingping Fu m , Mario Molteni n , Ian Palmer o , Zuzana Tuřcková p , Erna Szabo q , Gabrielle Poeschl r , Martin Hemmert s , Arif Butt t , Teresa de la Garza u , Dalia Susniene v , Satoko Suzuki w , Narasimhan Srinivasan x , Jamie Ruiz Gutierrez y , Antonin Ricard z , Zoltán Buzády aa , Luis Sigala Paparella ab , Oswaldo Morales ac , Vik Naidoo ad , Maria Kangasniemi-Haapala ae , Tefvik Dalgic af , Ruth Alas a,1 , Vojko Potocan ag , Ajantha S. Dharmasiri ah , Yongqing Fang ai , Calvin Burns aj , Marian Crowley-Henry ak (C. Karam), olivier.furrer@unifr.ch (O. Furrer), ffroese@uni-goettingen.de (F. Froese), b.v.tjemkes@vu.nl (B. Tjemkes), Fidel.Leon@uv.es (F.L. Darder), mur12@psu.edu (M. Richards), mdabic@efzg.hr (M. Dabic), liyj@psych.ac.cn (Y. Li), pingping.fu@nottingham.edu.cn (P. Fu), mario.molteni@unicatt.it (M. Molteni), ian.palmer@rmit.edu.au (I. Palmer), tuckova@utb.cz (Z. Tuřcková), erna.szabo@liwest.at (E. Szabo), gpoeschl@fpce.up.pt (G. Poeschl), mhemmert@korea.ac.kr (M. Hemmert), Arifb@lums.edu.pk (A. Butt), teresa.garza@itcelaya.edu.mx (T. de la Garza), dalia.susniene@panko.lt (D. Susniene), ssuzuki@ics.hub.hit-u.ac.jp (S. Suzuki), narasimhan.srinivasan@uconn.edu (N. Srinivasan), jar@adm.uniandes.edu.co (J.R. Gutierrez), antonin.ricard@iae-aix.com (A. Ricard), buzadyz@business.ceu.edu (Z. Buzády), lsigala@ucla.edu (L.S. Paparella), omorales@esan.edu.pe (O. Morales), vik.naidoo@sydney.edu.au (V. Naidoo), tdalgic@utdallas.edu (T. Dalgic), Ruth.Alas@ebs.ee (R. Alas), Vojko.Potocan@uni-mb.si (V. Potocan), ajantha@pim.sjp.ac.lk (A.S. Dharmasiri), Yongqing.Fang@canberra.edu.au (Y. Fang), calvin.burns@strath.ac.uk (C. Burns), marian.crowleyhenry@mu.ie (M. Crowley-Henry).

Keywords:

Gender-role-orientation

Conservation of resources

BEM sex role inventory (BSRI)

Hierarchical linear modeling (HLM)

Subject career success

Psychological androgyny

We investigate the relationships between gender-role-orientation (i.e., androgynous, masculine, feminine and undifferentiated) and subjective career success among business professionals from 36 societies. Drawing on the resource management perspective, we predict that androgynous individuals will report the highest subjective career success, followed by masculine, feminine, and undifferentiated individuals. We also postulate that meso-organizational culture and macro-societal values will have moderating effects on gender role's impact on subjective career success. The results of our hierarchical linear models support the hypothesized hierarchy of the relationships between gender-role-orientations and subjective career success. However, we found that ethical achievement values at the societal culture level was the only variable that had a positive moderating impact on the relationship between feminine orientation and subjective career success. Thus, our findings of minimal moderation effect suggest that meso- and macro-level environments may not play a significant role in determining an individual's perception of career success.

Subjective career success, an individual's idiosyncratic evaluation of accomplishments, and satisfaction in his/her career has drawn

increasing scholarly attention coupled with the growth of boundaryless careers, global mobility and the pursuit of meaningful jobs

(Arthur & Rousseau, 1996; Heslin, 2005; Ng & Feldman, 2014). To the current and future generation employees who will likely live

past 100 (Gratton & Scott, 2016) and work for 50 – 60 years before retirement (Schwartz et al., 2017), subjective career success would

be more relevant than objective career success in addressing the issues arising from people's extended career life, such as career breaks,

career transitions, and career resilience (cf Haenggli & Hirschi, 2020). That is, subjective career success focuses on the self-perceived

aspects of career outcomes, while objective career success emphasizes salary level and promotion.

One commonly used predictor of subjective career success is gender. Given the traditional gender divide in social roles, researchers

have been interested in identifying if men or women experience higher subjective career success (e.g., Abele, 2014; Frear et al., 2019;

Judge et al., 1995;). Behind the traditional divide is that gender is viewed as a contextual variable (Johns, 2017, 2018) that prescribes

constraints (shared norms, beliefs and expectations) to shape women's and men's attitudes and behaviors. In Lorber's (2008, p.1)

words, gender is a “ social institution. ” It has long served as a proxy for gender roles - the consensual roles of women and men (Eagly &

Karau, 2002). As such, women's preference for communal roles were attributed to be an underlying reason for: (1) the persistent under-

representation of women in managerial and leadership positions in societies (Eagly & Karau, 2002; World Economic Forum, 2022); (2)

lower pay for women in the workplace (Cook et al., 2019); (3) the perceptual and structural barriers to career advancement for women

(Ramaswami et al., 2010); and (4) the wage penalty experienced by married women after career interruptions, such as child rearing

(Bian & Wang, 2019).

On the surface, it would seem that these gender inequity findings would suggest that women should experience lower self-perceived

career success than men. However, empirical findings have been mixed. While some studies found that women experienced lower or

slightly less subjective career success than men (Frear et al., 2019; Judge et al., 1995; Ng et al., 2005), others found that women

actually experienced higher subjective career success than men (Ramaswami et al., 2010; Seibert et al., 2001). More notably, Ng and

Feldman's (2014) meta-analytic findings covering 216 studies reported no difference between women's and men's subjective career

success. This evidence presents a paradox between what the relationship should be between gender and subjective career success and

what the data report. Further, related developments on the increasing masculinity among women (Donnelly & Twenge, 2017) and the

sociological view that gender is non-binary (Helgeson, 2020) add to the intrigue of this paradox. To explain this paradox, we argue that

gender, as denoted by individuals' biological sex (male or female), may no longer be a reliable indicator to differentiate an individual's

1 Deceased.

gender role. In other words, it may not be a valid gender role differentiator. Instead, we posit that the amalgamation of masculinity and

femininity situated within each individual (Bem, 1974, 1981) is a more accurate predictor of career success than the binary indicator of

gender. Our study will examine this proposition using a global dataset of 36 societies.

Gender-binary has become the accepted term to describe the two-category (male or female) biological sex typology (Hyde et al., 2019), and hence we use it throughout the remainder of our paper. The prevailing gender-binary framework has been seriously challenged. Hyde (2005, 2014) proposed a gender similarities hypothesis and found empirical support that among the general population, women and men share non-significant differences in most of the psychological attributes. Among those attributes that had significant differences, the effect size was negligible. We argue that a gender similarities hypothesis may be present in subjective career success among business professionals because gender-binary is not a valid gender role differentiator. Hyde et al. (2019) further commented that the continual use of the gender-binary framework will likely limit our understanding of the psychological processes of people's behaviors. Furthermore, researchers' focus on gender-binary may prevent them from exploring the contribution of other components of gender to explain workplace phenomena. These would include, but are not limited to, gender identification, self's gender role expectations and others' gender role expectations.

Gender-role-orientation is a conceptualization of gender pioneered by Bem (1974, 1981). Her efforts to examine the complexity of gender roles focused not only on the exploration of masculinity and femininity of males and females, but also on the possibility of psychological androgyny. She concluded that masculinity and femininity are two separate, additive personality constructs instead of two ends of a continuum, and that individuals could possess both masculine and feminine characteristics. Using high and low scores of the two separate gender role scales that she developed, Bem formed a two-by-two matrix and derived four distinct gender-role-orientations, namely masculine (high masculinity/low femininity), feminine (low masculinity/high femininity), androgynous (high on both dimensions) and undifferentiated (low on both dimensions). Since then, numerous studies across a range of psychology and counselling fields have used Bem's taxonomy. However, her taxonomy has not been widely adopted in business and management research, albeit with a few exceptions (e.g., Gianakos, 1995; Kirchmeyer & Bullin, 1997; Korabik, 1990; Ngo et al., 2014; Sachs et al.,

1992; Scandura & Ragins, 1993). Gender-binary — not gender-role-orientation — continues to be the predictor or covariate used in

empirical studies in management, despite the inconsistent findings that it produces. Bem (1981) further noted that the masculine/

feminine characteristics that she identified resembled the agency/communion characteristics in the agentic-communal dichotomy.

These masculine characteristics have been described as independent, assertive, dominant and aggressive, in short, task-focused and

instrumental. Conversely, communal attributes include compassionate, affectionate, sensitive and tender, in short, expressively emotional

(see Appendix I for the items of the short form of Bem's Sex Role Inventory [BSRI]).

Individuals' gender role perceptions may be changing. A recent sex roles meta-analytic study on American university students by

Donnelly and Twenge (2017) reported that between 1974 and 2012, there was a significant increase in females' scores in androgyny

and masculinity but no change in femininity, and no significant increase of males' scores in masculinity, femininity or androgyny.<sup>2</sup> This

resulted in more females falling into the androgynous group. In other words, American females have become more masculine while

males remain the same in their masculinity and femininity. These findings support our proposition that gender-binary is not a

satisfactory proxy for gender roles in the contemporary world, and it is inappropriate to apply the gender-binary framework and split

individuals into two broad categories by their biological sex, when trying to understand gender differences at work.

Our study is also driven by the potential businessworld utility of its findings. As noted, gender-role-orientation is a personality trait

possessed by both women and men. If we find support for the precise impact of gender-role-orientation on career success, while

controlling for gender-binary, our findings can inform managers as to the extent to which gender-role-orientation can serve as a global

criterion to select, promote and develop talent. Further, joining the call for breaking the psychological barriers for gender equity, we

could use our findings to advise managers on how they can better shape women's self-expectations, so they can succeed and thrive.

Lastly, our findings could help to eradicate the prejudice against women who pursue elite leadership roles and who challenge

traditional gender norms (Eagly & Karau, 2002).

Thus, the purpose of our study is to examine the relationship between gender-role-orientation and subjective career success (SCS),

and how the contextual environment may impact this relationship. We examine these relationships and the moderating effects of

organizational culture and societal culture with a sample of 5171 business professionals from 36 societies. As individuals' gender-role-

orientation interacts with their work and societal environments, studying these contexts would deepen our understanding of the

nuisance associated with self-perceived gender roles (Abele, 2014). In doing so, we follow Korabik (1990) to operationalize gender-

role-orientations as internalized gender roles that individuals have developed through socialization since birth. Gender roles appear to

be akin to individual values in that the expression and impact of internalized gender role norms are subject to the influences of in-

dividuals' environments (Kristof-Brown et al., 2005).

We build our hypotheses of the gender-role-orientation effects on SCS using social role theory (Eagly & Wood, 1999, 2011) and the

contextual effects of person-environment fit theory (Fulmer et al., 2010; Kristof-Brown et al., 2005; Treviño et al., 2020) as our

theoretical foundation. Both theories are part of the resource management perspective of career success (Spurk et al., 2019). This

perspective conceptualizes career resources as “ any entity that helps people obtain personally valued objects or states ” (Spurk et al.,

2019, p.39). Following this perspective, we posit that career success is a valued outcome reflecting a successful confluence of key

personal (e.g., personal values) and contextual (i.e., those derived from work culture and societal culture) resources that individuals

have attained during their careers.

2 In Donnelly and Twenge (2017) study, undifferentiation was not measured.

J. Terpstra-Tong et al.

Through the resource management perspective of career success, our study contributes to the careers literature in three important

ways: First, we present evidence that gender-binary is, at best, a crude proxy for gender roles, and Bem's taxonomy — androgyny,

masculinity, femininity and undifferentiation — provides measures of higher content validity for gender roles. Second, the vast majority

of studies involving gender-role-orientation have used single-country samples (e.g., Ngo et al., 2014: China; Abele, 2014: Germany),

and none has used a large multi-country dataset. Our multi-society, multi-level study design provides more precise and generalizable

findings than those from prior single-country, single-level studies. Third, we examine the influence of meso-level organizational

culture and macro-level societal culture values on SCS. In so doing, we respond to the call for research to examine the impact of societal

culture, an under-explored macro-contextual variable, on career success (Spurk et al., 2019). As societal culture embeds organizational

culture, which in turn influences individuals' values and behaviors (Treviño et al., 2020), organizational culture may reinforce or

suppress certain gender role norms. Together, we posit that exploring the impact of cultures on career success will lead to novel in-

sights in the careers literature. Collectively, our study advances understanding of the impact of gender roles on SCS, and the degree to

which these findings are valid across the globe.

In the following sections, we present the theoretical background of our study followed by our hypotheses. Then, we describe our

methods and present our findings. We conclude with a discussion of our findings and the associated implications, as well as the study's

limitations and future research directions.

## 1. Theoretical background and hypotheses

Multilevel models often require multiple perspectives to explain the relationships of the variables within each level and across

levels. Concerning career success, we ground our multi-level inquiry in the resource management perspective (Spurk et al., 2019).

Spurk et al. (2019) draw on the dynamic theory of Conservation of Resources (COR) (Hobfoll, 1989; Hobfoll et al., 2018) and used it to

predict career success. The key premises of COR is the behavioral tendency of human beings to strive to protect, retain and accumulate

the material and psychological resources that are instrumental in achieving higher-order goals or desired future states (Hobfoll et al.,

2018). Spurk et al. (2019) postulate that resources are critical to achieve career success, and that they exist at both personal and

contextual (i.e., organizational and societal) levels. Personal resources include personality traits, such as the Big-five and values, and



human capital variables, such as knowledge and experience. Contextual resources include societal culture, organizational policies,

supervisor support and labor market. Combined, these resources not only directly impact career success but also indirectly strengthen

or inhibit resource generation and application (Hobfoll et al., 2018).

In the subsequent sections, we discuss social role theory and person-environment fit theory, two sub-components of conservation of

resources theory. These are perspectives developed, respectively, to explain resource allocation problems within a society and between

individuals and the organization. Specifically, social role theory explains how a society collectively determines gender roles that

enable its members to survive and thrive in a resource-scarce environment, while person-environment fit theories explain how in-

dividuals cope with the resource depletion problems (e.g., loss of sleep, lack of motivation) resulting from environmental stress

(Edwards et al., 1998). We use social role theory as the foundation for our primary hypotheses and person-environment fit theory as the

foundation for our moderating hypotheses.

### 1.1. Social role theory: a resource management strategy

Social role theory posits that individuals tend to enact behaviors and pursue activities that are congruent with the gender role

expectations in their society (Eagly & Wood, 1999, 2011, 2013). Historically, because of human biology, males better fit the provider

role in societies, while females better fit the caregiver role. As such, in an industrialized society, the male role centers on work-related

activities and the female role focuses on family-related activities. Because of the efficacy of gender role differentiation, society

members impose psychological sanction on or judge negatively those members who fail to perform gender role-congruent behavior

(Eagly & Karau, 2002). Furthermore, society members internalize the gender role norms and use them as personal standards in de-

cision making. Thus, gender role norms are consistent with an individual's self-concept. In sum, individuals' gender role behaviors are

subject to two regulatory systems – first, the external (societal) regulatory system and second, an internal (cognitive) regulatory

system. An individual's gender norms are not only subject to societal influence but also to self-cognitive influences. These two

mechanisms work hand in hand to perpetuate gender role stereotypes, which are best described by the agentic-communal dichotomy

(Bakan, 1966; Eagly & Steffen, 1984). Males should be agentic (assertive, dominant and competent), while females should be

communal (benevolent, nurturing and expressive). Based on these stereotypical male-versus-female characteristics, careers re-

searchers articulated hypotheses using gender-binary as a predictor or covariate. They expected males to express masculine charac-

teristics of competition and aggressiveness, and females to display feminine characteristics of compassion and expressiveness (e.g.,

Ng et al., 2014; Ramaswami et al., 2010). However, support for these expectations is mixed.

### 1.1.1. Hypotheses for gender-role orientations and subjective career success

An individual's gender-role-orientation is represented by two separate sets of behavioral expectations, masculinity and femininity

(Bem, 1974), with masculinity being agentic and femininity being communal. Prior research using the BSRI or its variant provided

mixed findings, most of which suggest both masculinity and femininity could have a positive effect on subjective career success. Early

studies using U.S. samples have found both masculinity and femininity to be related to career outcomes, with femininity having less

consistent, positive findings. For example, Marshall and Wijting (1980) found masculinity to be positively associated with most of the

measures related to achievement motivation, career centeredness and career commitment among college women. Powell and Posner

(1989) found masculinity, but not femininity, to be associated with career commitment among mid-level managers, while Wong et al.

(1985) found masculinity predicted career achievement among women. Kirchmeyer (1998) identified gender-role-orientations as

having stronger positive associations with both subjective and objective measures of career success for women than for men. More

recently, in a study of Chinese employees, Ng and Feldman (2014) found that masculinity had a stronger effect on career satisfaction

than femininity. Abele (2014), in a German sample, found no difference in the direct impact of agency (masculine, instrumental

characteristics) between men and women, and a positive impact of communion via parenthood (feminine, expressive characteristics)

on subjective career success.

Over the last several decades, we have witnessed a shift from the traditional command-and-control leadership style to a more

people-centered leadership style, with feminine gender-role-orientation being seen as a more effective leadership style (Fondas, 1997;

Unt, 2021). This trend can be explained by the contemporary competitive landscape characterized by rapid change, global inter-

connectedness, and advanced technology (Tallman et al., 2018). To stay competitive, organizations need to adopt flatter structures and

more highly collaborative work teams to facilitate participative decision making, organizational learning (e.g., Reese, 2020; Senge,

1990) and continuous improvement (Vinodh et al., 2021). To address these needs, we argue that feminine leaders' people-centered

skills are crucial in achieving organizational success in the contemporary business world. This shift signals that feminine leader be-

haviors are needed and valued in today's organizations and hence associated with career success.

Thus, we posit that masculinity and femininity are both personal resources that organizations value and secure, which will allow

employees with either orientation to advance in their career (cf. Hobfoll et al., 2018; Spurk et al., 2019).

Hypothesis 1a. Masculinity will be positively associated with subjective career success.

Hypothesis 1b. Femininity will be positively associated with subjective career success.

Based on the logic that we developed for hypothesis 1, we propose that androgynous individuals, with high masculinity and high

femininity, will be associated with the highest SCS. This is because they possess the agentic attributes that enable them to stay self- and

career-focused, while at the same time, possessing the communal attributes that enable them to expend the necessary empathy,

compassion and positive affect to connect with others. The dual agentic/communal orientation suggests that androgynous individuals

may have higher potential for becoming effective leaders than either masculine or feminine individuals. As such, they will likely attract

greater organizational sponsorship (e.g., job offers, promotions), leading to a higher probability for career advancement (Ng et al.,

2005).

From the resource management perspective, androgynous individuals, being career-driven, are likely to capitalize on contextual (e.

g., external support and opportunities) and personal resources (e.g., motivation and energy) to develop their human capital (Ng & Feldman, 2014). This, in turn, allows them to generate high-quality connections and hence social capital (Seibert et al., 2001) and to build psychological capital (Luthans et al., 2007), all of which are essential for sustainable career development and career resilience (Seibert et al., 2016). Career resilient individuals tend to recover quickly from setbacks by altering their mindset to reconfigure their career path, putting them in a position to seize opportunities. As such, androgynous individuals may enjoy the compounding effect from their breadth of human, social and psychological capital, regarding their career development (cf Hobfoll et al., 2018).

Compared to androgynous individuals, masculine individuals, being high on masculinity only, would be seen as having fewer leadership qualities and lower total career capital, and hence fewer career resources to sustain a thriving career because they lack the compassionate component of the androgynous individual. Feminine individuals, being high on femininity only, would be seen as having fewer leadership qualities and lower total career capital, and hence fewer career resources to sustain a thriving career. Further, relative to masculine individuals, they would likely be perceived as less instrumental at work while accumulating lower total career capital over the career journey and eventually experiencing less career satisfaction. Moreover, multiple studies have demonstrated that a masculine gender orientation is associated with higher extrinsic career success, measured by income (Alewell, 2013; Schneider et al., 2010) and job hierarchy (Schrujjer, 2006; Weinberg et al., 2019). Hence, masculine, agentic values are more positively associated with career resources accumulation than feminine, communal values. Lastly, undifferentiated individuals, who place low priority on key agentic values (e.g., competing, achieving, instrumental), as well as placing low priority on communal values (e.g., expressive, nurturing and caring), will be the least career-driven. Undifferentiated individuals likely have the lowest motivation to invest in and develop their career resources in terms of human and social capital. Their lack of agency and lack of communion also make them less attractive as a work partner within an organization (Casciaro & Lobo, 2008) and hence they receive fewer opportu-

nities. Over time, undifferentiated individuals will likely accumulate the least total career capital, relative to the other three gender role groups.

In sum, androgynous individuals who place high values on agency and communion are more likely to accumulate the most total career resources, which facilitate their career goal achievement. The extent of capital accumulation will likely be lower for masculine individuals, followed by feminine individuals and, in turn, undifferentiated individuals. Collectively, we hypothesize:

Hypothesis 2. For subjective career success, androgynous individuals will score significantly higher than masculine individuals, who will score significantly higher than feminine individuals, who will score significantly higher than undifferentiated individuals.

## 1.2. Person-environment fit theory: matching personal resource and contextual resource

Person-environment (P-E) fit (Edwards et al., 1998; Kristof-Brown et al., 2005) represents another resource management

perspective, and it provides a foundation that allows us to conceptualize both our meso- and macro-level moderating variables. P-E fit

arises when personal attributes (e.g., needs, values) match the environment's attributes (e.g., supplies, values) (van Vianen, 2018).

Rooted in a need fulfillment process (Locke, 1976), P-E fit means that a person's needs are met when the environment provides a

resource to meet the resource needs of the individual (Kristof-Brown et al., 2005). One fundamental individual need is the need for

consensual validation of their perspectives, which can be met through interacting with similar others (van Vianen, 2000). Therefore,

individuals tend to prefer to work for organizations with which they share similar values. When individuals' needs are satisfied, they

develop positive attitudes, such as job satisfaction (Judge & Bretz, 1994) and organizational commitment (Hult, 2005), and hence they

experience optimal employee outcomes, including work adjustment (Dawis, 2005), job performance (Greguras & Diefendorff, 2009),

intention to stay (Tak, 2011) and objective career success (Judge & Bretz, 1994). Values congruence between individuals and their

organization allow individuals to experience positive outcomes, including job satisfaction, organizational identification and intention

to stay (Edwards & Cable, 2009), and it has been examined cross-culturally (Treviño et al., 2020). From the COR perspective (Hobfoll

et al., 2018), values congruence preserves individuals' mental resources by reducing their cognitive dissonance, strain and stress,

which allows them to deploy their energy to other productive activities (Ng & Feldman, 2014).

Fulmer et al. (2010) extended the P-E fit analysis from the meso, organizational level, to a macro, societal level, and found support

for their person-culture match hypothesis. They found that when an individual's personality matches the predominant personality of

other people in a societal culture, then that culture operates as an "important amplifier" of the positive effect of personality (p.1563). In

their 28-society study, they found that, because of shared perception of reality, experiences and similar mindedness, these individuals

received greater self-validation from their daily experiences and reactions to events. Consequently, they developed a sense of epistemic

competence, well-being and self-esteem, all important personal resources for career success.

In sum, working in a values-fit environment tends to enhance motivation and energy, while working in a values-misfit environment

tends to lead to stress (Bouckennooghe et al., 2005), cognitive dissonance (Hinojosa et al., 2017), lower self-esteem and well-being

(Fulmer et al., 2010), and hence a values-fit misalignment attenuated the prospects of optimal career outcomes (van Vianen, 2018).

Following these P-E fit/misfit insights, we posit that P-E fit (i.e., values congruence) between: (1) individual values and organi-

zational values, and (2) individual values and societal values will result in a stronger effect on the individual values — SCS relationship.

On the contrary, P-E misfit (i.e., values incongruence) will hinder the effect of individual values — SCS relationship.

### 1.2.1. Hypotheses for the moderating influence of organizational culture

Organizational culture represents the managerial values and assumptions that define how an organization conducts its business and

resolves its problems of external adaptation and internal integration (Schein, 2010). One of the popular typologies of organizational

culture was developed by Cameron and Quinn (2011). Along two continua of internal-external orientation versus flexibility-stability

focus, Cameron and Quinn (2011) conceptualized four types of organizational cultures: adhocracy, market, clan and hierarchy. An

adhocracy culture focuses on flexibility, freedom, risk taking, and innovation. A market culture encourages competition, achievement,

goal attainment and aggressiveness. A clan culture resembles an extended family that emphasizes trust, consensus, loyalty and concern

for people. Finally, a hierarchy culture places priority on structure and control and endorses conformity, stability and security.

Comparing the core values of the four different organizational culture types, we posit that adhocracy and market cultures are

congruent with individualistic values that are person-, self- and task-focused (cf Terpstra-Tong et al., 2020). Conversely, clan and

hierarchy cultures are congruent with collectivistic values that are social-, other- and people-focused. Therefore, we liken adhocracy

and market cultures to masculinity, and clan and hierarchy cultures to femininity. In line with this reasoning, androgynous individuals,

who score high on both the masculinity and femininity dimensions, would find an individualistic work environment more fulfilling

than a collectivistic work environment in terms of career success because it is a culture that would provide them more encouragement

to achieve and because these individuals would have the drive and people-skills to realize their career goals. Somewhat comparably,

individuals high on masculinity would find support for and endorsement of their values priority, while experiencing more validation

and less stress, in an adhocracy or market culture.

Conversely, individuals high on femininity would find an adhocracy or market culture to be a misfit, as they would experiencing

more stress and find it to be a resource-draining environment. However, we argue that individuals high on femininity are likely to

experience higher fulfillment, more peer support and less strain in a clan or hierarchy culture, which would lead to them attaining

higher career satisfaction in either of these cultures. Finally, undifferentiated individuals, with low agentic values, may lack the

motivation to compete in an individualistic environment, while their low communal values may prevent them from building pro-

ductive work relationships within and beyond their organization. Thus, undifferentiated individuals may experience more stress in a

competitive environment and, as such, find an adhocracy or market environment resource-draining. While not ideal for them, un-

differentiated individuals may find it less stressful and experience higher success perception in a clan or hierarchy culture, as a high

femininity culture tends to be more forgiving of employees with low motivational goals (Sandage & Williamson, 2005). Thus, in terms

of impact on subjective career success, an individualistic (adhocracy or market) organizational culture would strengthen the impact of

psychological androgyny and masculinity, and weaken the impact of femininity and undifferentiation. Conversely, a collectivistic

(clan or hierarchy) organizational culture would weaken the impact of androgyny and masculinity while strengthening the impact of

femininity and undifferentiation. Therefore, we hypothesize:

Hypothesis 3. Adhocracy and/or market cultures will moderate the relationship between masculinity/femininity/androgyny/

undifferentiation and subjective career success (SCS) such that when adhocracy and/or market culture is higher,

H3a: the positive relationship between androgyny and SCS will be strengthened.

H3b: the positive relationship between masculinity and SCS will be strengthened.

H3c: the positive relationship between femininity and SCS will be weakened.

H3d: the positive relationship between undifferentiation and SCS will be weakened.

Hypothesis 4. Clan and/or hierarchy cultures will moderate the relationship between masculinity/femininity/androgyny/undif-

ferentiation and subjective career success (SCS) such that when clan and/or hierarchy culture is higher,

H4a: the positive relationship between androgyny and SCS will be weakened.

H4b: the positive relationship between masculinity and SCS will be weakened.

H4c: the positive relationship between femininity and SCS will be strengthened.

H4d: the positive relationship between undifferentiation and SCS will be strengthened.

#### 1.2.2. Hypotheses for the moderating influence of societal culture

P-E fit perspectives suggest that individuals, in the pursuit of life satisfaction and happiness, have an innate need to adapt to their

environment, so as to belong, take control of their lives, and reduce inconsistency and stress (van Vianen, 2018). In P-E fit situations

where societal and individual values are compatible, individuals receive natural validation in the form of societal support of their

intended behavior and hence higher motivational resources to pursue their intended actions (Fulmer et al., 2010).



Societal culture can be categorized as individualistic (person-focused, self-oriented) or collectivistic (social-focused, other-oriented) cultures. Ralston et al. (2018), using data from business professionals, derived five distinct business cultural dimensions

and theorized them to be relevant cultural dimensions that shape behaviors of the contemporary workforce. Their five business values

dimensions (BVD are: (1) ethical achievement, (2) power (3) globally responsible innovation (4) other-oriented and (5) universal

order. Among these five BVD dimensions, three (ethical achievement, power, globally responsible innovation) form a construct of

individualism, while the other-oriented dimension is consistent with the collectivism construct (See measures section for sample items

of each dimension). Similar to Hypotheses 3 and 4, we hypothesize that androgynous individuals would receive positive influence from

an individualistic societal environment, as it endorses achievement, power and innovation. In turn, masculine individuals will likely

thrive in an individualistic societal culture, while feminine individuals will not. Conversely, feminine individuals will likely experience

more career success in a collectivistic culture, while masculine individuals will not. Thus, masculine and feminine individuals will

experience higher SCS in their respective compatible societal environments. Finally, we posit that undifferentiated individuals will

likely experience higher social validation in a collectivistic societal environment because of the forgiving nature of such an envi-

ronment (Sandage & Williamson, 2005). Considering these arguments, we hypothesize:

Hypothesis 5. Individualistic cultures will moderate the relationships of androgyny, masculinity, femininity and undifferentiation

with subjective career success (SCS) such that when individualism is higher:

H5a: the positive relationship between androgyny and SCS will be strengthened.

H5b: the positive relationship between masculinity and SCS will be strengthened.

H5c: the positive relationship between femininity and SCS will be weakened.

H5d: the positive relationship between undifferentiation and SCS will be weakened.

Hypothesis 6. Collectivistic cultures will moderate the relationships of androgyny, masculinity, femininity and undifferentiation

with subjective career success (SCS) such that when collectivism is higher:

H6a: the positive relationship between androgyny and SCS will be weakened.

H6b: the positive relationship between masculinity and SCS will be weakened.

H6c: the positive relationship between femininity and SCS will be strengthened.

H6d: the positive relationship between undifferentiation and SCS will be strengthened.

## 2. Methods

### 2.1. Sample and procedures

We collected the data for this study from an original global dataset that consists of 8516 observations from 54 societies. Removing

observations with missing values in individual-level and societal-level variables left us with a sample of 5171 participants from 36

societies. Based on Ronen and Shenkar's (2013) 11-regional clusters of the world map, our sample societies represent nine clusters:

Confucian (China, Hong Kong, Japan, Singapore, South Korea, Taiwan), Eastern Europe (Croatia, Czech Republic, Estonia, Hungary,

Lithuania, Slovenia), Far East (India, Malaysia, Pakistan, Sri Lanka), Germanic (Germany, Austria, German-Switzerland), Latin

America (Colombia, Mexico, Peru, Venezuela), Latin Europe (France, French-Switzerland, Italy, Portugal, Spain), Near East (Turkey),

Nordic (Finland, Netherlands), and Anglo (Australia, New Zealand, U.K., U.S.). The only two clusters we did not sample are the Arab

and African clusters; however, we included Lebanon, which is not among Ronen and Shenkar's (2013) clusters. We differentiated the

data collected from German-speaking and French-speaking Swiss regions because prior literature repeatedly supports major cultural

and values differences between the two groups of Swiss (Chevrier, 2009). German-speaking Swiss are more like Germans while French-

speaking Swiss are more like French (Kopper, 1993). We collected data from two or more major cities in each country (except the

Netherlands), as within-country cultural variance has been found in prior studies (Ralston et al., 2006; Terpstra-Tong et al., 2014).

We followed the data collection and data management advice for cross-cultural studies from Karam and Ralston (2016).

Furthermore, we only retained participants who were born and raised (spent five years or more before the age of 15) in their respective

countries. Table 1 provides information for sample sizes and other demographic characteristics (age, gender, education attainment,

organizational tenure, company size and industry) for all societies.

We collected the data between 2014 and 2016 and we applied the same data collection process in all 36 societies. Local collab-

orators either hand-delivered or sent a paper questionnaire to participants' workplace by mail. All local collaborators were provided

with a set of instructions to ensure consistency in the data collections across societies; Appendix II provides an abridged version of this

list of instructions. Further, these collaborators included a pre-addressed and stamped envelope in the survey package for participants

to return the completed questionnaire, whether it was hand-delivered or mailed. All participation was voluntary. Moreover, partic-

ipants were instructed not to put their names on the questionnaire to ensure anonymity. Also, they were assured that there were no

right or wrong answers, as we were only interested in their opinions. The response rate ranged from 13 to 32 % across all samples.

## 2.2. Measures

We prepared the questionnaire for this study in English. The local collaborators followed standard translation and back-translation

procedures to convert the survey questionnaire from English into their respective native languages (Brislin, 1986). The exceptions are

India and Malaysia, where we used the original English questionnaire because English is widely spoken in the business communities

therein. We assessed all scales, except the BSRI, using a nine-point Likert scale (1 = strongly disagree; 9 = strongly agree).

### 2.2.1. Subjective career success

We measured SCS with the five-item career satisfaction scale developed by Greenhaus et al. (1990). Greenhaus et al.'s (1990) scale

assesses five extrinsic, intrinsic and overall aspects of SCS (income, advancement, development, success and overall career goals). This

scale had been used internationally and has been consistently found to be highly reliable, as measured by Cronbach's alpha (e.g., Park

et al., 2017; Xie et al., 2016). A sample item is, " I am satisfied with the progress I have made toward meeting my overall career goals. "

### 2.2.2. Gender-role-orientations

We used the short form (20-item) of the Bem Sex Role Inventory [BSRI] (1981) to measure gender-role-orientation. It consists of

two scales. Each scale contains 10 typical masculine and feminine characteristics. We asked respondents to rate the extent to which the

items were true about themselves, using the original rating anchors developed by Bem (1 = never true; 9 = always true). The sample

items in the masculinity scale include “independent,” “assertive” and “aggressive,” while those in the femininity scale include

“affectionate,” “sympathetic” and “warm.” In measuring psychological androgyny and undifferentiation, we used Heilbrun and

Schwartz (1982) method to form an androgyny-undifferentiation scale. To do so, we summed the masculinity and femininity scores

after subtracting the absolute difference of both scores (i.e.,  $M + F - |M - F|$ ). That resulted in a bipolar continuous variable with one

anchor indicating psychological androgyny and the other anchor indicating undifferentiation. Thus, we have three continua, high-low

masculinity, high-low femininity, and androgyny-differentiation. These continuous variables were used in testing hypotheses 1, 3, 4, 5

and 6.

For hypothesis 2, we formed a categorical variable with four groups. Using the BSRI scales, we followed Bem's (1981) manual by

identifying the raw score medians of each society and then used the median split as the dividing line for high (above the median) or low

(below the median) scores for that society. We then grouped respondents from each society into four gender-role-orientation cate-

gories: androgynous (high in both masculinity and femininity), masculine (high in masculinity and low in femininity), feminine (low in

masculinity and high in femininity), and undifferentiated (low in both masculinity and femininity). Therefore, each society's grouping

had a reference with its own mid-points (i.e., its own medians of masculinity and femininity).

### 2.2.3. Organizational culture

We assessed respondents' perceptions of their organization's culture with the Organizational Culture Assessment Instrument (OCAI;

Cameron & Quinn, 2011). The OCAI questionnaire has 24 short scenarios built around six dimensions of organizational effectiveness:

dominant organizational characteristics, organizational leadership style, management of employees, organizational glue, strategic

emphasis and criteria for success. The scores of each cultural dimension are the means of the relevant six items for clan, adhocracy,

market and hierarchy cultures, respectively. A sample scenario for clan culture is: “The organization is a very personal place. It is like

an extended family. People seem to share a lot of themselves.” For adhocracy culture, “ The leadership in the organization is generally considered to exemplify entrepreneurship, innovating or risk taking.” For market culture, “ The management style is characterized as hard-driving competitiveness, high demands and achievement.” For hierarchy culture, “ The glue that holds the organization together is formal rules and policies. Maintaining a smooth-running organization is important. ”

#### 2.2.4. Societal-level culture

We used the four relevant Business Values Dimensions (BVDs) for each society as societal moderators. The BVDs were drawn from a previous global values study (Ralston et al., 2018). We chose the BVD instead of other societal values dimensions, such as GLOBE because of the BVDs' validity and GLOBE's limitations.<sup>3</sup> All four BVDs have multiple indicators: ethical achievement (7 items; e.g., capable, responsible), power (6 items; e.g., authority, wealth), globally responsible innovation (6 items; e.g., curious, freedom), and other-orientation (10 items; e.g., helpful, obedient). According to Ralston et al. (2018), the first three BVDs can be grouped under the higher-order values dimension, individualism, while other-orientation, represents collectivism. In the global sample of Ralston et al. (2018), the Cronbach's alphas scores of the dimensions ranged from 0.71 to 0.78. We did not include the fifth values dimension, universal order (sample items: social order, a world at peace), as it is not part of either the individualism or collectivism constructs that we used in developing our hypotheses.

#### 2.2.5. Control variables

We controlled for demographic variables (age, educational attainment, organizational tenure, company size and industry). We did so even though age and organizational tenure were found to have no significant effect on SCS in Ng et al.'s (2005) meta-analysis, and

Table 1

Society sample demographic characteristics.

Country	Gender	Age	Education	Organizational Tenure	Company Size	Industry
N	Female (%)	Mean (year)	Mean	Mean (year)	Mean	(% service)
Australia	120	50.4 %	52.8	3.7	13.6	1.3 80.0 %
Austria	141	61.7 %	33.3	3.7	7.5	2.0 61.7 %

China 120 33.6 % 30.6 4.1 3.8 1.5 85.8 %  
Colombia 143 19.9 % 39.0 4.2 8.4 2.0 80.4 %  
Croatia 120 41.2 % 37.3 4.7 7.9 1.7 92.5 %  
Czech Republic 120 46.9 % 34.4 4.0 6.8 1.7 73.3 %  
Estonia 73 48.6 % 31.9 4.1 5.1 1.5 76.7 %  
Finland 139 56.1 % 41.6 4.0 8.3 1.6 76.3 %  
France 114 32.8 % 38.8 4.0 9.1 1.9 72.8 %  
Germany 131 54.5 % 42.1 5.0 8.1 2.2 45.0 %  
Hong Kong 125 61.7 % 43.9 3.6 11.3 1.9 84.0 %  
Hungary 123 35.0 % 39.0 4.6 8.3 2.0 95.9 %  
India 211 53.8 % 34.7 4.4 7.5 2.5 81.5 %  
Italy 132 59.4 % 43.8 4.8 10.1 2.1 83.3 %  
Japan 437 47.5 % 40.3 3.8 13.8 1.8 56.8 %  
Lebanon 167 37.1 % 26.7 4.5 3.6 1.8 82.6 %  
Lithuania 143 62.0 % 35.5 4.0 7.3 1.4 55.2 %  
Malaysia 106 47.1 % 35.6 3.8 7.7 2.0 89.6 %  
Mexico 145 55.1 % 34.6 4.5 5.8 2.3 75.2 %  
Netherlands 183 46.0 % 33.7 4.9 5.7 2.3 80.9 %  
New Zealand 121 37.9 % 41.2 4.3 4.8 1.9 83.5 %  
Pakistan 112 69.9 % 35.4 4.6 6.9 2.5 78.6 %  
Peru 116 49.6 % 32.3 4.0 4.7 2.3 78.4 %  
Portugal 140 41.3 % 37.2 3.5 9.2 1.3 56.4 %  
Singapore 106 13.4 % 32.1 3.8 4.3 2.1 69.8 %  
Slovenia 211 60.8 % 42.2 4.2 8.6 1.9 61.6 %  
South Korea 122 38.5 % 35.3 4.1 6.1 2.3 50.0 %  
Spain 119 62.9 % 40.7 3.8 10.5 1.9 84.9 %  
Sri Lanka 109 63.0 % 32.0 3.4 5.4 2.1 67.9 %  
Switzerland-French 142 40.6 % 50.4 3.3 15.7 1.7 76.1 %  
Switzerland-German 107 39.7 % 50.6 3.1 13.3 1.7 75.7 %  
Taiwan 129 39.4 % 29.6 4.3 3.6 1.6 85.3 %  
Turkey 200 45.0 % 35.4 3.6 7.0 1.9 78.5 %

U.K.	129	35.9 %	41.5	3.8	10.6	2.3	73.6 %
U.S.	140	15.7 %	41.2	3.7	8.6	2.0	61.4 %
Venezuela	175	50.5 %	35.4	4.1	6.6	1.7	62.3 %
Total	5171	44.5 %	37.9	4.0	8.3	1.9	72.9 %

Notes: Education level was coded as: 1 = 4 or fewer years completed; 2 = 5 – 8 years completed; 3 = 9 – 12 years completed, 4 = Bachelors degree, 5 =

Masters degree, and 6 = Doctorate degree; company size: 1 = < 100 employees, 2 = 100 – 1000 employees, and 3 = > 1000 employees.

3 GLOBE study has been the subject of fairly severe criticism, with its credibility being widely challenged (e.g., Peterson, 2004; Peterson & Castro,

2006; Taras, Steel, & Kirkman, 2010; Tung & Verbeke, 2010). See section 2.1.3 in Ralston et al. (2018) for a brief summary. In short GLOBE received

criticism on the scales' face, convergent and discriminant validities. It also ignored the within-culture diversity aspects in the data collection process.

These rendered GLOBE an unreliable cross-cultural values measure.

educational attainment was found to have a negligible positive impact on SCS in both meta-analyses by Ng et al. (2005; 2014). Because

our dataset incorporated several societies that are under-researched in the careers literature, (e.g., Colombia, Estonia, Lithuania, Sri

Lanka and Venezuela), we included those covariates to avoid possible confounding effects that may not have been incorporated in

previous meta-analyses. In addition, we controlled for company size because it was found to be positively associated with salaries

(Barth et al., 2018) and training opportunities (Benson, 1997), and industry as Spurk et al. (2015) found variance in conceptualizing

career success across four occupations. Lastly, we specifically included gender-binary, as it is a comparable variable to other gender

role variables in the present study.

### 2.3. Measurement model

To assess the measurement model fit, we conducted a series of confirmatory factor analyses using the maximum-likelihood esti-

mation method to examine the discriminant validity of the substantive individual-level constructs measured in our study. First, we

examined the omnibus measurement model that comprised masculinity, femininity, the four organizational culture dimensions and

the SCS scale for the pooled sample. Results of the proposed 7-factor structure demonstrated an acceptable fit (RMSEA < 0.08, CFI >

0.90; Hu & Bentler, 1999) with the data ( $\chi$

2

(1092) = 10,919.346,  $\chi$

2/df = 9.999, RMSEA = 0.042, CFI = 0.914, TLI = 0.907, SRMR =

0.041).

To assess common method variance of the measurement model, we ran a Harman's single-factor test by placing all SCS, masculinity,

femininity and organizational culture items into one common factor (Podsakoff et al., 2003). The one factor model was not acceptable,

with an RMSEA larger than 0.080 and an CFI lower than 0.90 ( $\chi$

2

(1113) = 52,940.73, RMSEA = 0.096, CFI = 0.547, TLI = 0.521, SRMR

= 0.114). We then proceeded with four theoretically possible measurement models (Table 2). All alternative measurement models had

fit indices inferior to those of the 7-factor model indicating the data did not fit the alternative measurement models as well as the 7-

factor model. In sum, these results led us to conclude that common method variance should not be a significant issue for these data.

### 2.3.1. Cross-societal measurement invariance

To assess cross-societal invariance of each organizational culture measure and the SCS measure, we first counter-weighted all

society samples to be of equal size and then conducted a series of nested multi-group CFAs (cf. Steenkamp & Baumgartner, 1998). We

applied the cutoff criteria for large-scale (over 10 cultures) international comparisons to determine successive model fit:  $\Delta$  CFI = 0.02,

and  $\Delta$  RMSEA = + 0.03 from configural to metric invariance model, and both  $\Delta$  CFI and  $\Delta$  RMSEA < 0.01 from metric to scalar

invariance model (Rutkowski & Svetina, 2014). Table 3 provides the goodness of fit indices of all multigroup CFA models. All SCS and

organizational culture measures achieved configural invariance (with no constraints and items exhibiting the same configuration of

loadings) in each of the 36 societies (SCS [ $\chi$

2



(144) = 578.706, RMSEA = 0.145, CFI = 0.972, TLI = 0.931, SRMR = 0.044]; clan [  $\chi$

2

(252) =

582.430, RMSEA = 0.096, CFI = 0.977, TLI = 0.951, SRMR = 0.035]; adhocracy [  $\chi$

2

(252) = 657.178, RMSEA = 0.106, CFI = 0.965, TLI

= 0.924, SRMR = 0.046]; market [  $\chi$

2

(252) = 588.219, RMSEA = 0.097, CFI = 0.969, TLI = 0.933, SRMR = 0.043]; hierarchy [  $\chi$

2

(252) =

604.16, RMSEA = 0.099, CFI = 0.950, TLI = 0.893, SRMR = 0.054]. The metric invariance models with factor loadings constrained

were not significantly different from configural models for SCS (  $\Delta$  CFI = -0.020;  $\Delta$  RMSEA = 0.009), clan (  $\Delta$  CFI = -0.012;  $\Delta$  RMSEA =

+ 0.005) and adhocracy cultures (  $\Delta$  CFI = -0.019;  $\Delta$  RMSEA = -0.005) but were significantly different from configural models for market

(  $\Delta$  CFI = -0.026) and hierarchy (  $\Delta$  CFI = -0.035), even though their  $\Delta$  RMSEA were below the threshold ( = + 0.004 and 0.000,

respectively). We explored partial metric invariance models for market and hierarchy. After setting free the parameters of one item

(leadership style) for 15 societies<sup>2</sup>, the resulting partial invariance model for the market subscale was not significantly different (  $\Delta$  CFI

= 0.020,  $\Delta$  RMSEA = -0.001). Similarly, for hierarchy culture, after setting free the parameters of the leadership item in 11 societies,<sup>4</sup>

we obtained a significantly indifferent partial metric model for hierarchy (  $\Delta$  CFI = 0.020,  $\Delta$  RMSEA = -0.007).

Table 2

Results of Confirmatory Factor Analyses.

Model Chi-square (  $\chi$

2 ) Degree of freedom (df)  $\chi$

2 /df RMSEA CFI TLI SRMR AIC BIC

7-factor 10,919.346 1092 9.999 0.042 0.914 0.907 0.041 917,235.539 918,421.959

6-factor 20,259.755 1098 18.452 0.059 0.832 0.821 0.066 926,563.948 927,711.256

4-factor	26,016.732	1107	23.502	0.067	0.782	0.769	0.074	932,302.925	933,391.563
3-factor	29,825.422	1110	26.870	0.072	0.749	0.734	0.076	936,105.615	937,174.697
2-factor	44,146.559	1112	39.700	0.088	0.624	0.602	0.108	950,422.752	951,478.796
1-factor	52,940.730	1113	47.566	0.096	0.547	0.521	0.114	959,214.927	960,264.453

Notes: 7 factors refer to SCS, Masculinity, femininity, clan, adhocracy, market and hierarchy as separate factors; 6 factors: Masculinity and femininity

combined as one factor with the rest remaining as separate factors; 4 factors: Masculinity and femininity combined as one factor, clan and hierarchy

combined as the second factor, adhocracy and hierarchy combined as the third factor and SCS as the last factor; 3-factors: SCS as one factor, gender

role scales as the second factor, all four organizational culture types as the third factor; 1-factor: all items combined as one factor. RMSEA: Root mean

squared error of approximation; AIC = Akaike's information criterion; BIC = Bayesian information criterion; CFI: Comparative fit index; TLI: Tucker-

Lewis index; SRMR: Standardized root mean squared residual.

4 The societies of which the parameter of the leadership item in the market culture scale were set free include: Croatia, Czech Republic, Finland,

France, Germany, India, Lebanon, Malaysia, New Zealand, Pakistan, Taiwan, Singapore, South Korea, Sri Lanka and Venezuela.

We further assessed the cross-cultural invariance of the two continuous BSRI masculinity and femininity scales. Based on the

modification indices and low factor loadings ( $< 0.30$ ) from single-country CFA results, we eliminated three items from the masculinity

scale (defend own belief, assertive and aggressive) and two items from the femininity scale (eager to sooth hurt feelings and sym-

pathetic). The reduced masculinity scale showed an acceptable configural invariance ( $\chi$

2

(432) = 978.88, RMSEA = 0.094, CFI = 0.944,

TLI = 0.901, SRMR = 0.055) and so did the reduced femininity scale ( $\chi$

2

(648) = 1722.249, RMSEA = 0.108, CFI = 0.931, TLI = 0.893,

SRMR = 0.059). Neither scale achieved metric invariance because the change of CFA from configural to metric model was larger than

the threshold of 0.02 (masculinity:  $\Delta$  CFI = -0.040; femininity:  $\Delta$  CFI = -0.026, respectively). After setting free three parameters for 10,

12, and 17 societies,<sup>5</sup> we achieved a significantly indifferent partial metric model for masculinity (  $\Delta$  CFI = -0.020,  $\Delta$  RMSEA = + 0.001).

Likewise, after setting free two parameters for 6 and 11 societies,<sup>6</sup> we obtained a significantly indifferent partial metric model for

femininity (  $\Delta$  CFI = -0.020,  $\Delta$  RMSEA = + 0.002).

The  $\Delta$  CFI of the scalar invariance models far exceeded the threshold of 0.01 for both  $\Delta$  CFI and  $\Delta$  RMSEA for the SCS scale, all

organizational culture subscales and the BSRI masculinity and femininity scales. Because our study focused on the association of

variables, instead of comparing mean values, we followed Boer et al. (2018) by continuing with HLM analyses with the metric

invariance models of the SCS measure, and the clan and adhocracy organizational culture subscales, with partial metric invariance of

the measurement models of the market, hierarchy, masculinity, and femininity subscales. Finally, we computed the organizational

culture, masculinity and femininity constructs by taking the average of their respective items and the SCS by forming a z-score of its

five items.

Table 4 presents the society categories of gender-role-orientation. Table 5 provides the society means, standard deviations and

Cronbach's alphas of SCS, the four organizational cultures, and the continuous variables of masculinity and femininity. The scale

Table 3

Results of Multigroup Confirmatory Factor Analyses.

Measure Invariance

model

Chi-

square

(  $\chi$

2 )

Degree of

freedom

(df)

$\chi$

2 / df RMSEA  $\Delta$  RMSEA from the

lower order

(configural/metric/  
partial metric) model

CFI  $\Delta$  CFI

from the lower

order (configural/

metric/partial

metric) model

TLI SRMR

Subjective

career

success

Configural 578.706 144 4.018 0.145 / 0.972 / 0.931 0.044

Metric 1035.643 284 3.647 0.136 -0.009 0.952 0.020 0.939 0.117

Scalar 2467.519 459 5.376 0.175 +0.039 0.872 0.080 0.900 0.309

Masculinity Configural 978.877 432 2.266 0.094 / 0.944 / 0.901 0.055

Metric 1571.923 642 2.450 0.101 +0.007 0.904 0.040 0.887 0.109

Partial

metric

1345.520 604 2.228 0.093 0.001 0.924 0.020 0.904 0.094

Scalar 5345.617 849 6.296 0.192 +0.099 0.537 0.387 0.587 0.401

Femininity Configural 1722.249 648 2.658 0.108 / 0.931 / 0.893 0.059

Metric 2382.705 893 2.668 0.108 +0.000 0.905 0.026 0.892 0.114

Partial

metric

2274.015 877 2.593 0.106 0.002 0.911 0.020 0.897 0.106

Scalar 5643.450 1157 4.878 0.165 +0.059 0.713 0.198 0.750 0.181

Clan Configural 582.430 252 2.311 0.096 / 0.977 / 0.951 0.035

Metric 932.059 427 2.182 0.091 0.005 0.965 0.012 0.956 0.087

Scalar 2347.361 637 3.685 0.137 +0.046 0.882 0.083 0.900 0.139

Adhocracy Configural 657.178 252 2.608 0.106 / 0.965 / 0.924 0.046

Metric 1046.633 427 2.451 0.101 0.005 0.946 0.019 0.932 0.099

Scalar 2334.411 637 3.665 0.137 +0.036 0.852 0.094 0.874 0.185

Market Configural 588.219 252 2.334 0.097 / 0.969 / 0.933 0.043

Metric 1041.438 427 2.439 0.101 +0.004 0.943 0.026 0.927 0.105

Partial

metric

955.912 412 2.320 0.096 0.001 0.949 0.020 0.933 0.096

Scalar 2512.970 622 4.040 0.146 +0.050 0.823 0.126 0.846 0.178

Hierarchy Configural 604.160 252 2.397 0.099 / 0.950 / 0.893 0.054

Metric 1024.080 427 2.400 0.099 +0.000 0.915 0.035 0.893 0.104

Partial

metric

918.009 416 2.207 0.092 0.007 0.930 0.020 0.909 0.098

Scalar 2255.205 626 3.603 0.136 +0.044 0.773 0.157 0.805 0.133

5 The societies of which the parameter of the leadership item in the hierarchy culture scale were set free include: French Switzerland, Venezuela,

Finland, Malaysia, Australia, the Netherlands, Portugal, Mexico, India, Taiwan, Croatia.

6 For the masculinity BSRI scale, we set free the following societies for three characteristics; (1) “ forceful ” - Australia, Estonia, Finland, France,

Hong Kong, Hungary, Lithuania, Malaysia, Portugal, South Korea, Switzerland-French and Switzerland-German; (2) “ has leadership capability ” -

Australia, Czech Republic, Estonia, France, Italy, Lebanon, Lithuania, Malaysia, New Zealand, Pakistan, Peru, Portugal, Slovenia, Singapore, Sri

Lanka, Turkey, and the U.S.; (3) “ dominant ” - France, India, Italy, Hungary, Lebanon, New Zealand, Pakistan, Peru, Portugal and Taiwan.

reliability (Cronbach alphas) of the total sample for SCS was 0.91 (range of 0.76 to 0.96), for masculinity.83 (range of 0.65 to 0.87), for

femininity 0.85 (range of 0.76 to 0.94), for clan culture 0.88 (range of 0.68 to 0.93), for adhocracy culture 0.86 (range of 0.69 to 0.90),

for market culture 0.85 (range of 0.75 to 0.89), for hierarchy culture 0.76 (range of 0.46 to 0.88).

With the exception of Hungary in

hierarchy culture (  $\alpha= 0.46$ ), all alphas met the acceptable range for cross-cultural research (Fu & Yukl, 2000). Nonetheless, subsidiary

analyses involving hierarchy as a moderator, which were conducted including and excluding Hungary, showed very similar results;

therefore, all 36 societies were retained in the analyses.

#### 2.4. Analyses

We analyzed our two-level data using the hierarchical linear modeling method (Raudenbush & Bryk, 2002). To determine if there

was sufficient between-group variance to use HLM analyses, we computed the intraclass correlation coefficients (ICCs) for the null

model of SCS. The ICC indicated 13.3 % of variance of the SCS could be explained by factors at the societal-level, which represented a

medium-sized group effect according to Hox (2010). Further, our multilevel sample of 5171 respondents in 36 societies (average 166

per society [S.D. = 87.73] ranging from 75 to 437) easily exceeded the 30 – 30 rule that prescribes 30 upper-level units with at least 30

lower-level entities. Therefore, the power to detect significant differences is supported (Kreft & De Leeuw, 1998). We used STATA

version 16 for all statistical computations and adopted a p-value of 0.01 to determine statistical significance to reduce the likelihood of

committing Type 1 errors in the conclusions drawn about the effects of the variables in a large sample. We group mean-centered all

continuous predictors at the individual level and grand mean-centered the values dimensions at the societal level (Raudenbush & Bryk,

2002).

First, we estimated a model with only covariates at the individual level. Then, we added the independent variables, which were

followed by models that tested the individual-level moderating effect of each organizational culture type and cross-level moderating

effect of each societal values dimension. For Hypothesis 2, because there were four gender-role-orientation groups for this categorical

variable, we used three different gender roles as the baseline group in each model that involved gender-role-orientation as the pre-

dictor. For Hypotheses 3 to 6, to illustrate significant moderating results, we plotted relationships at high and low (+ / - 1 SD) levels of

Table 4

Gender-role-orientations by society.

Androgynous

(%)

Masculine

(%)

Feminine

(%)

Undifferentiated (%)

Australia 30.8 20.8 20.0 28.3

Austria 29.1 24.1 23.4 23.4

China 38.3 15.8 15.0 30.8

Colombia 29.4 25.2 21.0 24.5

Croatia 29.2 25.8 22.5 22.5

Czech Republic 31.7 18.3 20.0 30.0

Estonia 30.1 20.6 24.7 24.7

Finland 33.8 19.4 20.1 26.6

France 27.2 23.7 22.8 26.3

Germany 29.8 24.4 22.9 22.9

Hong Kong 31.2 25.6 20.0 23.2

Hungary 34.2 16.3 20.3 29.3

India 31.3 23.2 23.7 21.8

Italy 25.8 30.3 28.8 15.2

Japan 30.7 22.7 19.9 26.8

Lebanon 31.7 19.8 22.8 25.8

Lithuania 31.5 23.1 21.0 24.5

Malaysia 32.1 18.9 17.9 31.1

Mexico 34.5 17.9 15.9 31.7

Netherlands 28.4 28.4 23.0 20.2

New Zealand 33.9 21.5 16.5 28.1

Pakistan 33.9 19.6 17.0 29.5

Peru 37.1 12.9 22.4 27.6

Portugal 34.3 19.3 22.1 24.3

Singapore 33.0 20.8 17.9 28.3

Slovenia 25.6 26.1 27.0 21.3

South Korea 28.7 22.1 23.0 26.2

Spain 31.9 20.2 18.5 29.4  
 Sri Lanka 35.8 17.4 20.2 26.6  
 Switzerland-French 27.5 27.5 22.5 22.5  
 Switzerland-German 30.8 20.6 23.4 25.2  
 Taiwan 22.5 29.5 28.7 19.4  
 Turkey 32.0 20.5 18.5 29.0  
 U.K. 23.3 31.0 27.1 18.6  
 U.S. 37.1 13.6 16.4 32.9  
 Venezuela 30.3 21.1 21.1 27.4  
 Total 30.9 22.1 21.4 25.6

Table 5

Individual-level Study Variables: Means, Standard Deviations and Cronbach's Alphas by Society.

Society	Subjective Career Success		Masculinity		Femininity		Clan		Hierarchy		Adhocracy		Market				
	Mean	S.D.	α	Mean	S.D.	α	Mean	S.D.	α	Mean	S.D.	α	Mean	S.D.	α		
Australia	7.37	1.06	0.82	6.67	0.98	0.78	6.96	1.00	0.86	6.76	1.59	0.9	6.02	1.33	0.75	5.27	1.60
Austria	6.78	1.34	0.87	6.33	1.16	0.81	6.58	1.12	0.87	5.83	1.63	0.86	6.4	1.26	0.73	5.52	1.50
China	5.40	1.59	0.89	6.28	1.19	0.82	7.12	1.17	0.87	6.63	1.15	0.79	6.35	0.99	0.63	5.82	1.24
Colombia	7.15	1.22	0.84	7.22	0.87	0.65	7.22	1.06	0.82	6.23	1.72	0.88	6.53	1.41	0.79	5.99	1.55
Croatia	5.97	1.78	0.92	6.33	1.14	0.82	6.76	1.20	0.91	5.16	2.14	0.93	5.77	1.31	0.60	4.55	1.87
Czech Republic	6.21	1.34	0.80	6.23	1.14	0.81	6.76	1.13	0.87	5.84	1.59	0.88	5.84	1.25	0.70	5.45	1.33
Estonia	6.83	1.08	0.76	6.59	1.07	0.83	6.58	0.97	0.80	6.12	1.63	0.86	6.04	1.36	0.71	5.28	1.55
Finland	6.74	1.49	0.86	6.56	1.00	0.80	6.54	0.97	0.82	5.74	1.52	0.85	5.55	1.15	0.66	5.44	1.34
France	6.24	1.72	0.88	6.46	1.16	0.80	6.81	1.03	0.83	5.5	1.87	0.86	5.9	1.37	0.68	5.02	1.80
Germany	5.85	1.75	0.86	6.14	1.17	0.80	6.22	1.36	0.91	4.47	1.82	0.87	4.84	1.64	0.77	4.20	1.74



Hong Kong 5.81 1.52 0.91 5.94 1.12 0.83 6.71 1.21 0.91 5.64 1.45 0.86 5.94 1.31 0.82 5.03  
1.48 0.86 5.64 1.55 0.87

Hungary 6.03 1.96 0.93 6.39 1.21 0.85 6.96 1.25 0.91 5.30 1.73 0.86 5.3 1.18 0.46 4.48 1.67  
0.86 4.58 1.54 0.77

India 6.25 1.62 0.89 6.50 1.00 0.72 7.17 1.00 0.85 6.31 1.63 0.88 6.49 1.17 0.72 5.75 1.65  
0.88 6.48 1.2 0.79

Italy 6.23 1.6 0.89 6.65 1.05 0.83 6.78 1.04 0.85 5.64 1.93 0.93 5.38 1.41 0.76 5.46 1.79  
0.89 5.73 1.63 0.88

Japan 4.32 1.56 0.90 4.38 1.06 0.71 5.83 1.05 0.87 5.10 1.43 0.84 5.59 1.17 0.73 3.82 1.32  
0.82 4.71 1.33 0.80

Lebanon 6.31 1.77 0.90 6.98 1.17 0.77 6.85 1.20 0.80 6.32 1.8 0.88 6.38 1.51 0.80 5.96 1.68  
0.83 6.44 1.57 0.85

Lithuania 6.56 1.53 0.86 6.88 1.10 0.85 6.81 1.07 0.83 6.09 1.7 0.89 6.27 1.33 0.73 5.74 1.44  
0.79 6.26 1.35 0.77

Malaysia 6.13 1.49 0.92 6.21 1.04 0.77 6.50 1.00 0.82 6.25 1.44 0.87 6.36 1.11 0.74 5.85  
1.15 0.75 6.48 1.21 0.82

Mexico 7.50 1.31 0.91 7.33 0.91 0.76 7.11 0.92 0.76 5.63 1.87 0.88 6.03 1.67 0.84 5.65 1.84  
0.89 6.09 1.77 0.87

Netherlands 6.73 1.42 0.89 6.73 0.98 0.82 6.50 0.89 0.79 5.67 1.42 0.83 5.77 1.42 0.77 5.14  
1.58 0.84 6.04 1.61 0.87

New Zealand 6.34 1.24 0.8 6.36 1.03 0.70 6.65 0.99 0.80 6.05 1.29 0.79 6.33 0.97 0.62 5.45  
1.47 0.85 6.06 1.17 0.72

Pakistan 6.28 1.61 0.91 6.63 1.00 0.78 6.98 0.95 0.83 5.79 1.72 0.90 6.06 1.38 0.77 5.28  
1.63 0.85 5.97 1.54 0.85

Peru 6.62 1.45 0.91 7.00 0.95 0.78 6.95 0.87 0.79 5.61 1.76 0.91 5.82 1.47 0.81 5.53 1.60  
0.86 6.13 1.40 0.81

Portugal 6.24 1.69 0.91 6.51 1.14 0.80 6.81 1.04 0.82 5.67 1.87 0.92 5.79 1.49 0.79 5.62  
1.46 0.79 6.15 1.38 0.79

Singapore 5.99 1.48 0.90 6.41 0.91 0.71 6.60 0.91 0.81 5.64 1.58 0.90 6.07 1.21 0.79 5.10  
1.45 0.85 5.78 1.28 0.82

Slovenia 5.99 1.51 0.84 6.4 1.16 0.81 6.83 0.89 0.79 5.64 1.52 0.86 6.07 1.00 0.56 5.25 1.40  
0.82 5.49 1.31 0.77

South Korea 5.75 1.25 0.89 5.13 1.03 0.80 6.36 0.99 0.90 5.21 1.22 0.80 5.69 1.09 0.77 4.82  
1.30 0.85 6.00 1.20 0.83

Spain 6.34 1.48 0.91 6.07 1.25 0.81 6.76 0.9 0.77 5.13 1.88 0.90 5.50 1.42 0.76 4.74 1.78  
0.86 5.23 1.69 0.84

Sri Lanka 6.19 1.48 0.90 6.72 1.02 0.81 6.90 1.01 0.83 5.62 1.75 0.90 5.73 1.36 0.77 5.12  
1.58 0.88 5.68 1.44 0.84

Switzerland-French 6.84 1.38 0.89 6.71 1.04 0.78 7.05 0.95 0.83 6.34 1.59 0.86 6.03 1.42 0.76  
5.55 1.72 0.87 5.67 1.84 0.88

Switzerland-German 6.67 1.57 0.88 6.26 1.24 0.83 6.56 1.06 0.81 5.62 1.90 0.90 5.89 1.30  
0.69 5.23 1.46 0.77 5.69 1.56 0.83

Taiwan 5.63 1.20 0.84 5.96 1.17 0.83 6.08 1.18 0.90 5.66 1.04 0.68 6.29 1.02 0.67 5.58 1.08  
0.69 6.46 1.17 0.84

Turkey 6.24 1.75 0.88 6.63 1.18 0.74 7.31 1.08 0.81 6.59 1.47 0.81 6.57 1.40 0.76 6.14 1.59  
0.85 6.34 1.54 0.84

U.K. 6.98 1.32 0.90 6.37 0.98 0.74 6.68 1.01 0.86 6.09 1.48 0.85 6.38 1.20 0.74 5.29 1.57  
0.83 6.39 1.55 0.88

U.S. 6.39 1.97 0.96 6.44 1.28 0.87 6.89 1.30 0.94 5.98 1.71 0.93 6.37 1.35 0.85 5.79 1.62  
0.90 6.39 1.47 0.89

Venezuela 7.58 1.44 0.90 7.31 0.98 0.71 7.14 1.01 0.78 6.58 1.94 0.88 6.56 1.96 0.88 6.20  
1.91 0.85 6.78 1.83 0.87

Total 6.24 1.70 0.91 6.34 1.29 0.83 6.72 1.12 0.85 5.8 1.71 0.88 6.00 1.38 0.76 5.28 1.67  
0.86 5.84 1.61 0.85

Table 6

Descriptive statistics and correlations of the study variables of the pooled sample.

Individual-level a Mean S.D. 1 2 3 4 5 6 7 9 9 10 11 12

1. Career Satisfaction 6.239 1.701

2. Masculinity 6.182 1.181 0.392

3. Femininity 6.682 1.102 0.231 0.285

4. Clan 5.801 1.707 0.347 0.195 0.240

5. Hierarchy 5.998 1.384 0.227 0.170 0.167 0.473

6. Adhocracy 5.283 1.670 0.346 0.291 0.221 0.685 0.413

7. Market 5.837 1.613 0.251 0.260 0.171 0.385 0.567 0.646

8. Gender 0.555 0.497 0.019 0.055 0.101 0.038 0.042 0.044 0.067

9. Age 37.912 11.114 0.109 0.002 0.031 0.009 0.023 0.018 0.085 0.113

10. Education 4.048 0.974 0.064 0.095 0.013 0.047 0.081 0.027 0.036 0.009 0.068

11. Organizational tenure 8.269 8.305 0.035 0.053 0.007 0.013 0.011 0.041 0.054 0.105  
0.633 0.136

12. Company size 1.916 0.820 0.015 0.017 0.008 0.114 0.100 0.068 0.107 0.070 0.052 0.131  
0.005

13. Industry category 0.729 0.444 0.026 0.056 0.073 0.009 0.014 0.042 0.049 0.124 0.063  
0.056 0.082 0.015

Societal level b Mean S.D. 1 2 3

1. BVD ethical achievement 4.992 0.172

2. BVD power 3.170 0.256 0.548

3. BVD innovation 4.250 0.221 0.522 0.468

4. BVD others 3.685 0.307 0.194 0.259 0.509

a Individual-level N = 5171. Categorical variables coded as follows: gender: 0 = female, 1 = male; education level was coded as: 1 = 4 or fewer years completed; 2 = 5 – 8 years completed; 3 = 9 – 12 years

completed, 4 = Bachelors degree, 5 = Masters degree, and 6 = Doctorate degree); company size: 1 = < 100 employees, 2 = 100 – 1000 employees, and 3 = > 1000 employees; industry category: 0 = manufacturing, 1 = services. Correlations  $r \geq |0.037|$  significant at  $p < .01$  level.

b Societal-level N = 36. All correlations significant at  $p < .001$  level.

Table 7

Hierarchical linear modeling analyses.

Model 1 Model 2 Model 3a Model 3b Model 3c Model 4 Model 5 Model 6 Model 7

Intercept 0.572\*\*\* 0.445\*\*\* 0.747\*\*\* 0.596\*\*\* 0.419\*\*\* 0.565\*\*\* 0.605\*\*\* 0.456\*\*\*  
0.483\*\*\*

Level 1 variables

Age 0.009\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\* 0.008\*\*\*

Education 0.062\*\*\* 0.049\*\*\* 0.056\*\*\* 0.056\*\*\* 0.056\*\*\* 0.057\*\*\* 0.063\*\*\* 0.050\*\*\*  
0.052\*\*\*

Gender 0.026 0.016 0.019 0.019 0.019 0.014 0.001 0.018 0.028

Company tenure 0.005 0.003 0.004 0.004 0.004 0.002 0.002 0.003 0.003

Company size 0.003 0.003 0.002 0.002 0.002 0.031 0.030 0.004 0.003

Industry 0.001 0.009 0.005 0.005 0.005 0.016 0.021 0.009 0.001

Masculinity 0.181\*\*\* 0.143\*\*\* 0.182\*\*\*

Femininity 0.085\*\* 0.037 0.085\*\*\*

Androgyny 0.068\*\*\* 0.101\*\*\*

Gender-role-orientation

# From 1 to 2 0.151\*\*\*

From 1 to 3 0.328\*\*\*

From 1 to 4 0.469\*\*\*

From 2 to 3 0.177\*\*\*

From 2 to 4 0.309\*\*\*

From 3 to 4 0.144\*\*\*

Level 1 moderators

Clan 0.139 0.138

Adhocracy 0.041\*\*\* 0.043\*\*\*

Market 0.019 0.019

Hierarchy 0.041\*\*\* 0.045\*\*\*

Level 1 interaction

Masculinity \* Clan 0.006

Masculinity \* Adhocracy 0.001

Masculinity \* Market 0.013

Masculinity \* Hierarchy 0.002

Femininity \* Clan 0.030

Femininity \* Adhocracy 0.018

Femininity \* Market 0.041

Femininity \* Hierarchy 0.015

Androgyny \* Clan 0.001

Androgyny \* Adhocracy 0.006

Androgyny \* Market 0.004

Androgyny \* Hierarchy 0.011

Level 2 moderator

Ethical Achievement 0.719 0.720

Power 0.155 0.155

Innovation 0.133 0.129

Other-oriented 0.161 0.158

Cross-level interaction

Masculinity \* Ethical

Achievement

0.104

Masculinity \* Power 0.050

Masculinity \* Innovation 0.078

Masculinity \* Others-  
oriented

0.028

Femininity \* Ethical

Achievement

0.274\*\*

Femininity \* Power 0.035

Femininity \* Innovation 0.117

Femininity \* Others-

oriented

0.008

Androgyny \* Ethical

Achievement

0.046

Androgyny \* Power 0.025

Androgyny \* Innovation 0.017

Androgyny \* Others-

oriented

0.017

Degree of freedom 9 13 12 12 12 25 19 23 18

$\Delta$  Degree of freedom (vs

Model 1)

4 3 3 3 16 10 14 9

AIC 13,136.37 12,773.22 12,922.79 12,922.79 12,922.79 12,281.80 12,353.25 12,780.13  
12,866.47

BIC 13,195.33 12,858.38 13,001.40 13,001.40 13,001.40 12,445.57 12,477.71 12,930.80  
12,984.39

Deviance (  $-2 \log$

likelihood)

13,118.37 12,747.22 12,898.79 12,898.79 12,898.79 12,231.80 12,315.25 12,734.13 12,830.47

Deviance difference (vs

Model 1)

371.16\*\*\* 219.58\*\*\* 219.58\*\*\* 219.58\*\*\* 886.58\*\*\* 803.13\*\*\* 384.25\*\*\* 287.90\*\*\*

variables (Cohen et al., 2013). Finally, we assessed the incremental model fit by the reduction in deviance, which is equal to  $-2(\log$

likelihood of model 2 minus log likelihood of model 1), for the nested HLM models. Better model fits are indicated by smaller deviance

values with significant difference in deviance values between nested models.

### 3. Results

We provide descriptive statistics and correlations for the individual-level and societal-level variables of the pooled sample in

Table 6. We present the HLM findings of our models in Table 7. Only age and education were significant co-variables in all models of the

analyses, while others, including gender-binary, were not significant across all models. Our findings in Model 2 provided support for

Hypotheses 1a and 1b, which stated that masculinity and femininity, respectively, were positively associated with SCS (masculinity;  $\gamma$

$= 0.181, p < .001$ ; femininity;  $\gamma = 0.085, p < .001$ ). We also found support for Hypothesis 2, in which we proposed that there was a

hierarchy of the impact that the four gender-role-orientation groups had on SCS. Our findings in Models 3a-3c indicated that the SCS

score of androgynous gender-role-orientation was significantly higher than that of masculine gender-role-orientation ( $\gamma = 0.144, p <$

$.001$ ), feminine gender-role-orientation ( $\gamma = 0.309, p < .001$ ) and undifferentiated gender-role-orientation ( $\gamma = 0.469, p < .001$ ).

Similarly, masculine gender-role-orientation scored significantly higher than feminine gender-role-orientation ( $\gamma = 0.177, p < .001$ )

and undifferentiated gender-role-orientation ( $\gamma = 0.328, p < .001$ ), and finally, feminine gender-role-orientation scored higher than

undifferentiated gender-role-orientation ( $\gamma = 0.151, p < .001$ ).

HLM results showed that none of the four organizational culture dimensions had moderating effects on the relationship between

SCS and androgyny-undifferentiation, masculinity, and femininity. Therefore, neither of the organizational culture hypotheses (H3/

H4) was supported. Further, at the societal-level, only the ethical achievement values BVD dimension (Model 4) had a significant

moderating effect on the femininity-SCS relationship. However, the effect was in the opposite direction to that which we hypothesized

(H5c). As shown in Model 6 (Table 7), ethical achievement values had a positive interaction with femininity ( $\gamma = 0.274, p < .001$ ). That

suggests, when a society's achievement values were stronger, the positive relationship between femininity and SCS was also stronger.

Therefore, neither of the societal culture hypotheses (H5/H6) was supported. (See Fig. 1).

#### 4. Discussion

##### 4.1. Findings and theoretical implications

We began this paper by asking: Do gender roles matter, and in particular, does gender-role-orientation matter to an individual's

subjective career success? To answer this question, our study goes beyond the usual gender variable, gender-binary, to shed a different

Notes: The predictor, gender-role-orientation is a categorical variable for Models 3a, 3b and 3c. It is coded 1 for undifferentiated, 2 for feminine, 3 for

masculine, and 4 for androgynous. # The interpretation.

of the statistical finding is that from the base group to the comparison group, there is an increase (if coefficient is positive) or a decrease (if coefficient

is negative) of the value of the dependent variable, subjective.

career success (SCS). For example, In Model 3c, the interpretation should be – comparing Group 3 (masculine) to Group 4 (androgynous), there was a

significant increase of SCS value in androgynous gender-role-orientation.

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

Fig. 1. Moderating Effect of Ethical Achievement (Societal Culture) on the Relationship between Femininity and Subjective Career Success.

light on how gender roles impact subjective career success. Specifically, we focused on the relationships of the four categories of

gender-role-orientation (androgynous, masculine, feminine and undifferentiated) and SCS, and proposed that their relationships

present a hierarchy, where androgynous gender-role-orientation was ranked the highest, followed by masculine, feminine and un-

differentiated gender-role-orientations. We reasoned that androgynous individuals who embraced both high masculine (agentive) and

feminine (communal) values, would experience the highest subjective career success of the four gender-role-orientation groups. To test

our core hypothesis, we drew on the resource management perspective and posited that androgynous individuals would accumulate

the most career capital, including being capable of building an upward spiral of career resources. Moreover, androgynous individuals

share desirable leadership characteristics that organizations need to excel, and hence are likely to be sponsored by their organizations

more than employees who have different gender-role-orientations. These push- and pull-factors lead androgynous individuals,

regardless of their gender-binary, to experience more successful career outcomes than others, and the data supported our core

proposition. Furthermore, in all of our multilevel models, we controlled for gender-binary and found that it was not a significant

covariate. Hence, the hierarchy we proposed (androgyny > masculinity > femininity > undifferentiated for subjective career success)

is both universal and independent of gender-binary. This important finding is further supported by our finding that gender-binary was

not a significant covariate across all HLM models. In sum, these findings support our proposition that gender role is a complex concept,

but not one that is binary. They also support our gender similarities proposition in relation to subjective career success. Accordingly,

gender-binary is not nearly as useful a construct to assess one's gender role as is the gender-role-orientation construct.

To further examine the contextual influence on the individual values-SCS relationship, we followed P-E fit theories (Fulmer et al.,

2010; Kristof-Brown et al., 2005) to hypothesize that meso-level, organizational values, and macro-level, societal values, would have

moderating effects. Interestingly, our findings indicated no contextual influence at the organizational level and minimal contextual

influence at the societal level. The only significant moderator was the ethical achievement societal value that had a magnifying effect

on the relationship between femininity and SCS.

The absence of a moderating effect for organizational culture was surprising. One possible reason is that gender-role-orientation is

such a strong trait that the general organizational context did not make a difference (cf Terpstra-Tong et al., 2020). Another possible

explanation for the absence of a moderating effect comes from the combined perspectives of conservation of resources and the con-

strual level theory (Trope & Liberman, 2010). For our hypotheses, we proposed that the organizational context provided social and



normative support. That is, it is an organizational resource that is transmitted to employees when employees' values aligned with the organization's values. Logically, the higher the P-E fit, the more support employees receive and the more career success they might achieve. However, COR does not consider the extent of the impact of contextual resource. This is where construal level theory comes in.

It provides a perspective to help identify the potential impact of contextual resources. Accordingly, people's mental construal process works at a more concrete level when the perceived psychological distance of the influence is low. When the construal level is more concrete, perceivers can relate to the stimuli with stronger feelings and thoughts and hence, more confidence for action and more clarity of goals. Our interpretation is that the resources provided by the four organizational cultures were relatively distal stimuli compared to other interpersonal contexts that exist in organizations. Those contexts include gender composition of an organization (male or female gendered organization) (Ramaswami et al., 2010), and gender composition at the same job level or at a higher level (cf Arvate et al., 2018; Chen & Houser, 2019; Gilardi, 2015). Support from the peers and the immediate team and job levels is more directly experienced by and psychologically proximal to the perceivers. As career strategies often lead to psychologically distant goals, the relevant and closer contextual influence would provide more certainty of an employee's direction and cues as to whether he/she is on the right track. For example, Ramaswami et al. (2010) identified senior-male mentor as being best able to help female protégés to attain the most career satisfaction in a male-gendered organization. The interpersonal dynamics in the proximal work context will likely provide a stronger impact, and hence they function as a higher-impact support to an employee. While it is beyond the scope of this study to investigate the exact strength of the different contextual influences through the lens of construal level theory, we see this as a promising research avenue.

Regarding the limited moderating effect of societal culture, we apply the same distal/proximal explanation. Nonetheless, the significant finding is intriguing. When we developed our hypothesis, we focused on the supplementary fit logic instead of the com-

plementary fit logic of the P-E relationship, and predicted individuals should experience higher success in a values-congruent environment. This finding suggests the possibility of complementary fit where the environment could fill in what feminine individuals inherently miss for career success, namely instrumentality and drive. Our data suggest that achievement cultures encourage feminine individuals to exert more effort on career, and hence they experience higher self-perceived success. Another explanation could be that femininity is valued higher in achievement cultures, where communal skills matter in organizational success, which was in turn reflected in self-perceived success.

Apart from this moderating effect, the impact of androgyny-undifferentiation, masculinity and femininity remained stable in response to different societal cultures, supporting the global nature of gender-role-orientation as a stable and strong personality construct. However, further research is warranted. For instance, our HLM models only tested the direct effect of gender-role-orientation and career success. Future studies could consider applying a more complex model to explore the mechanism through which gender-role-orientation exerts its impact (e.g., Ng & Feldman, 2014) and how the mechanism may be affected by different organizational cultures. That is, future research could design and test a multilevel moderated mediation model. Another possible explanation might be related to individuals' resilience. Resilience is viewed as a part of psychological capital (Luthans et al., 2007), and closely related to adaptation (Hartmann et al., 2020; Seibert et al., 2016). As such, it is likely that resilient individuals strive to survive and thrive even in organizational environments in which they are not totally comfortable. Thus, even with less validation from the environment, these individuals can still achieve their career goals and feel satisfied. As we did not measure resilience, we cannot provide direct statistical support; thus, this assertion remains hypothetical and grounds for future exploration. A more fine-grained research model could provide further evidence as to whether gender-role-orientation is a sufficiently strong trait to transcend organizational and societal cultures.

#### 4.2. Limitations and future research directions

Our study's limitations provide additional future research directions. First, like most large-scale cross-national studies, we used cross-sectional data. Ideally, to establish causality, longitudinal or experimental research methods are preferred. Specifically, to further study the impact of gender-role-orientation on career success, researchers could consider an experimental design to assess employers' perceptions of promotability of candidates of different gender-role-orientations. Such a study could be helpful in explaining our significant and non-significant findings. Second, the generalizability of our findings is limited to business professionals, since we did not collect a nation-wide representative sample, as some large-scale social sciences surveys do (e.g., World Values Survey). Moreover, the response rates were not as high as we would have liked, and there could possibly be some non-response bias. Nonetheless, because our data were drawn from a large original global dataset, with several work-related outcome variables, any non-response bias would unlikely be specific to the variables in the present study. Third, we specified gender-role-orientation as a personality trait. Thus, a related question might be the extent to which gender-role-orientation explains subjective career success above and beyond the robust Big five personality traits (Noller et al., 1987). Fourth, we measure organizational culture as organizational culture perceptions at the individual level, instead of measuring it at the organizational level. Future research could consider expanding our two-level data collection to three-levels by adding the organizational level. While being resource-intensive, this refined research design could provide statistics on the variances explained at the organizational and/or societal level. Fifth, our findings also heighten the need to further examine the complexity of SCS as a construct. Greenhaus et al.'s (1990) developed the SCS to be short and easy to administer. Nonetheless, it has received validation in several different cultural settings. Its conceptualization, however, is limited to one item for each of its five career satisfaction domains. Thus, in our study, as in many that preceded it, the SCS has been commonly conceptualized as a unidimensional measure, even though subject career success is considered a multifaceted construct. Future research could adopt other multidimensional scales, such as Gattiker and Larwood's (1986) scale that measures five distinct

types of self-perceived career success (job, interpersonal, financial, hierarchical and life) to cross-validate our findings. Lastly, we

controlled for industry by service versus non-service industries. We did not control for gendered industries or gendered occupations.

Prior studies have indicated that male-dominated industries (e.g., IT) or male-dominated occupations (e.g., pilots) provide more

challenges for women to progress in their careers (Germain et al., 2012; Smith, 2013). Ramaswami et al. (2010) also found that the

mentoring impact of senior-male on female protégés' career outcomes is stronger in male-dominated industries than that in female-

dominated or mixed-gender industries. Therefore, controlling for these specific gendered work contexts could reveal more precise

findings.

#### 4.3. Managerial and practical implications

Our finding that gender-binary was not related to subject career success, while gender-role-orientation was significantly related to

subject career success, provides further support that gender-binary is not a valid indicator of gender role differences. This finding also

suggests that managers must look beyond one's gender when assessing employees' leadership potential and promotability. Nonetheless, it

is easy to commit to role incongruity prejudices. As Eagly and Karau (2002) documented, female leaders experience a double prejudice.

They face disapproval when they exhibit masculinity because that is gender-incongruent behavior, and they face disapproval when they

exhibit femininity because that is leader-incongruent behavior. Actually, these prejudices are so deeply ingrained in the subconscious that

they become part of the mental programming without the individual (e.g., manager) even being aware of it. Our findings provide further

evidence for the need to consciously break these unconscious biases, while concomitantly initiating inclusive leadership training.

In our global business sample, about 30 % of respondents (30.1 % women and 29.9 % men) belonged to the androgenous group; 22

% (18.1 % women and 25.6 % men) to the masculine group; 21 % (26.7 % women and 18.3 % men) to the feminine group; and 26 %

(25.1 % women and 26.2 % men) to the undifferentiated group. Given that worldwide gender differences in femininity and masculinity

have been decreasing over the last five decades (Hsu et al., 2021), our findings update the status of the association of gender-binary and

gender-role-orientation. There are slightly more women than men who are feminine and more men than women who are masculine.

More notably, there are equal percentages of men and women who are androgynous in the global business community. Our findings

support the reality that women and men can be psychologically androgynous, masculine, feminine or undifferentiated. While our

findings identify approximately one-third of the business community as androgynous, the concept of psychological androgyny has not

been widely accepted as a universal personality trait. Many women (men) are reluctant to admit that they have masculine (feminine)

characteristics. A quote by the current prime minister of New Zealand, Jacinda Ardern (n.d.) exemplifies the challenge of being an

androgynous individual:

“ One of the criticisms I've faced over the years is that I'm not aggressive enough or assertive enough, or maybe somehow because

I'm empathetic, it means I'm weak. I totally rebel against that. I refuse to believe that you cannot be both compassionate and

strong. ”

The statistics, as well as the unconscious prejudice, which we have previously discussed, heighten the need for increased efforts to

promote gender equity. To accelerate the process of closing the gender gap, we would encourage managers in charge of hiring to place

more emphasis on communal characteristics, which are typically ascribed to women and to place less emphasis on agentic charac-

teristics, which are typically ascribed to men. As such, women should experience reduced prejudice and increased recognition of their

effectiveness. In turn, ambitious women would have a better chance to succeed, as they should be perceived to be more congruent with

leadership roles.

Previous literature and our data conclude that the androgynous gender orientation is the most organizationally effective and

personally satisfying typology. Accordingly, we argue that leadership development managers should design training programs to

assess the development gaps of emerging leaders and to design programs to support their growth by focusing on their gender-role-

orientation. With gender-role-orientation profiles, training managers could customize development programs that target the needs

of individual employees to address their missing masculinity or femininity traits that could allow the individual to become a more well-

rounded (psychologically androgynous) and effective employee. For feminine women or men, they need more training or mentoring in

strategic competencies, such as strategic thinking, quality management and project management. Thus, a senior masculine manager

could serve as a mentor (Ramaswami et al., 2010). For masculine women or men, they need to strengthen their people-related

competencies in terms of empathy, compassion and warmth. For these individuals, a feminine mentor would likely be the better

choice.

Lastly, our study's findings have implications for individuals' self - leadership strategies. Specifically related to personal branding

(others' perceptions of oneself), both women and men should balance their workplace image in terms of masculinity (being agentic)

and femininity (being communal) to project an androgynous self. Their enacted values may help them succeed objectively and sub-

jectively as branding matters for career progression (Rangarajan et al., 2017). They also need inclusive leadership training to enhance

their awareness of unconscious bias, as well as and their self-esteem. As individuals, women and men should accept the possibility that

they have psychological characteristics of the other gender, and that the appropriate mix of both makes them more effective and

satisfied employees. The taxonomy used in this study highlight alternative gender variables for self-categorization and answers a

fundamental question – who am I? A realization of the idea that individuals have both a masculine and a feminine side could free these

individuals from society's gender stereotypes.

## 5. Conclusion

To the best of our knowledge, ours is the first multi-level, multi-society study to examine the impact of gender-role-orientations on

career success. While gender-role-orientation data require more effort to obtain than gender-binary data, the findings of this 36-society

study provide solid evidence that the gender-role-orientation approach provides useable, useful results for both researchers and

practicing managers, while the gender-binary approach does not. For researchers, gender-role-orientations explain the variance of

subjective career success, while gender-binary cannot. For practitioners, consciously recognizing that gender-role-orientations vary

between women and men can help talent identification and development. Therefore, we encourage future researchers of gender

behavior to seriously consider investing the energy necessary to obtain the relevant gender-role-orientation data for their studies.

## References

- Abele, A. E. (2014). How gender influences objective career success and subjective career satisfaction: The impact of self-concept and of parenthood. In *Gender differences in aspirations and attainment: A life course perspective* (pp. 412 – 426).
- Alewell, D. (2013). Be successful – Be male and masculine? In T. In Lange, & H. R. M. Evidence-based (Eds.), *On the influence of gender roles on objective career success* (pp. 147 – 168). A Global Forum for Empirical: Scholarship. Emerald Group Publishing Limited.
- Ardern, n.d. Ardern, J. (n.d.). BrainyQuote.com. [https://www.brainyquote.com/quotes/jacinda\\_ardern\\_954467](https://www.brainyquote.com/quotes/jacinda_ardern_954467).
- Arthur, M. B., & Rousseau, D. M. (1996). The boundaryless career as a new employment principle. In M. G. Arthur, & D. M. Rousseau (Eds.), *The boundaryless career* (pp. 3 – 20). Oxford University Press.
- Arvate, P. R., Galilea, G. W., & Todescat, I. (2018). The queen bee: A myth? The effect of top-level female leadership on subordinate females. *The Leadership Quarterly*, 29(5), 533 – 548.
- Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Rand McNally.
- Barth, E., Davis, J., & Freeman, R. B. (2018). Augmenting the human capital earnings equation with measures of where people work. *Journal of Labor Economics*, 36(S1), 71 – 97.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155 – 162.
- Bem, S. L. (1981). *Bem sex role inventory: Manual, instrument and scoring guide*. Mind Garden, Inc.
- Benson, G. (1997). Informal training takes off. *Training & Development*, 51(5), 93 – 95.
- Bian, X., & Wang, J. (2019). Women's career interruptions: An integrative review. *European Journal of Training and Development*, 43(9), 801 – 820.
- Boer, D., Hanke, K., & He, J. (2018). On detecting systematic measurement error in cross-cultural research: A review and critical reflection on equivalence and

invariance tests. *Journal of Cross-Cultural Psychology*, 49(5), 713 – 734.

Bouckenooghe, D., Buelens, M., Fontaine, J., & Vanderheyden, K. (2005). The prediction of stress by values and value conflict. *The Journal of Psychology*, 139(4),

369 – 384.

Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner, & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137 – 164).

SAGE Publications.

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* ((3rd ed.)). Jossey Bass.

Casciaro, T., & Lobo, M. S. (2008). When competence is irrelevant: The role of interpersonal affect in task-related ties. *Administrative Science Quarterly*, 53(4), 655 – 684.

Chen, J., & Houser, D. (2019). When are women willing to lead? The effect of team gender composition and gendered tasks. *The Leadership Quarterly*, 30(6), Article

101340.

Chevrier, S. (2009). Is national culture still relevant to management in a global context? The case of Switzerland. *International Journal of Cross Cultural Management*, 9

(2), 169 – 183.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.

Cook, A., Ingersoll, A. R., & Glass, C. (2019). Gender gaps at the top: Does board composition affect executive compensation? *Human Relations*, 72(8), 1292 – 1314.

Dawis, R. V. (2005). The Minnesota theory of work adjustment. *Career Development*, 1.

Donnelly, K., & Twenge, J. M. (2017). Masculine and feminine traits on the Bem sex-role inventory, 1993 – 2012: A cross-temporal meta-analysis. *Sex Roles*, 76(9),

556 – 565.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573 – 598.

Eagly, A. H., & Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology*, 46

(4), 735 – 754.

Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, 54(6), 408 – 423.

Eagly, A. H., & Wood, W. (2011). Feminism and the evolution of sex differences and similarities. *Sex Roles*, 64(9 – 10), 758 – 767.

Eagly, A. H., & Wood, W. (2013). The nature – nurture debates: 25 years of challenges in understanding the psychology of gender. *Perspectives on Psychological Science*, 8



(3), 340 – 357.

Edwards, J. R., & Cable, D. M. (2009). The value of values congruence. *Journal of Applied Psychology*, 94(3), 654 – 677.

Edwards, J. R., Caplan, R. D., & Harrison, R. V. (1998). Person-environment fit theory. Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 28 – 67). Oxford University Press.

Fondas, N. (1997). Feminization unveiled: Management qualities in contemporary writings. *Academy of Management Review*, 22, 257 – 282.

Frear, K. A., Paustian-Underdahl, S. C., Heggstad, E. D., & Walker, L. S. (2019). Gender and career success: A typology and analysis of dual paradigms. *Journal of Organizational Behavior*, 40(4), 400 – 416.

Fu, P. P., & Yukl, G. (2000). Perceived effectiveness of influence tactics in the United States and China. *The Leadership Quarterly*, 11(2), 251 – 266.

Fulmer, C. A., Gelfand, M. J., Kruglanski, A. W., Kim-Prieto, C., Diener, E., Pierro, A., & Higgins, E. T. (2010). On “feeling right” in cultural contexts: How person-culture match affects self-esteem and subjective well-being. *Psychological Science*, 21(11), 1563 – 1569.

Gattiker, U. E., & Larwood, L. (1986). Subjective career success: A study of managers and support personnel. *Journal of Business and Psychology*, 1(2), 78 – 94.

Germain, M. L., Herzog, M. J. R., & Hamilton, P. R. (2012). Women employed in male-dominated industries: Lessons learned from female aircraft pilots, pilots-in-training and mixed-gender flight instructors. *Human Resource Development International*, 15(4), 435 – 453.

Gianakos, I. (1995). The relation of sex role identity to career decision-making self-efficacy. *Journal of Vocational Behavior*, 46(2), 131 – 143.

Gilardi, F. (2015). The temporary importance of role models for women's political representation. *American Journal of Political Science*, 59(4), 957 – 970.

Gratton, L., & Scott, A. J. (2016). *The 100-year life: Living and working in an age of longevity*. Bloomsbury Publishing.

Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance, evaluations, and career outcomes. *Academy of Management Journal*, 33, 64 – 86.

Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person-environment fit to employee commitment and performance using self-determination theory. *Journal of Applied Psychology*, 94(2), 465 – 477.

Haenggli, M., & Hirschi, A. (2020). Career adaptability and career success in the context of a broader career resources framework. *Journal of Vocational Behavior*, 119,

Article 103414.

Hartmann, S., Weiss, M., Newman, A., & Hoegl, M. (2020). Resilience in the workplace: A multilevel review and synthesis. *Applied Psychology*, 69(3), 913 – 959.

Heilbrun, A. B., & Schwartz, H. L. (1982). Sex-gender differences in level of androgyny. *Sex Roles*, 8(2), 201 – 214.

Helgeson, V. S. (2020). *Psychology of gender*. Routledge.

Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and*

*Organizational Psychology and Behavior*, 26(2), 113 – 136.

Hinojosa, A. S., Gardner, W. L., Walker, H. J., Coglisier, C., & Gullifor, D. (2017). A review of cognitive dissonance theory in management research: Opportunities for

further development. *Journal of Management*, 43(1), 170 – 199.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513 – 524.

Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their

consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103 – 128.

Hox, J. (2010). *Multilevel analysis: Techniques and applications* (2nd ed.). Routledge Academics.

Hsu, N., Badura, K. L., Newman, D. A., & Speech, M. E. P. (2021). Gender, “ masculinity ” , and “ femininity ” : A meta-analytic review of gender differences in agency and

communion. *Psychological Bulletin*, 147(10), 987 – 1011.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation*

*Modeling: A Multidisciplinary Journal*, 6(1), 1 – 55.

Hult, C. (2005). Organizational commitment and person-environment fit in six western countries. *Organization Studies*, 26(2), 249 – 270.

Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist*, 60(6), 581 – 592.

Hyde, J. S. (2014). Gender similarities and differences. *Annual Review of Psychology*, 65, 373 – 398.

Hyde, J. S., Bigler, R. S., Joel, D., Tate, C. C., & van Anders, S. M. (2019). The future of sex and gender in psychology: Five challenges to the gender binary. *American*

*Johns*, G. (2017). Reflections on the 2016 decade award: Incorporating context in organizational research. *Academy of Management Review*, 42(4), 577 – 595.

Johns, G. (2018). Advances in the treatment of context in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 21 – 46.

Judge, T. A., & Bretz, R. D., Jr. (1994). Political influence behavior and career success. *Journal of Management*, 20(1), 43 – 65.

Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48, 485 – 519.

Karam, C. M., & Ralston, D. A. (2016). A failure before analysis: The soup to nuts of preparing for multicountry analyses. *Cross Cultural & Strategic Management*, 23(4), 590 – 612.

Kirchmeyer, C. (1998). Determinants of managerial career success: Evidence and explanation of male/female differences. *Journal of Management*, 24(6), 673 – 692.

Kirchmeyer, C., & Bullin, C. (1997). Gender roles in a traditionally female occupation: A study of emergency, operating, intensive care, and psychiatric nurses. *Journal of Vocational Behavior*, 50(1), 78 – 95.

Kopper, E. (1993). Swiss and Germans: Similarities and differences in work-related values, attitudes, and behavior. *International Journal of Intercultural Relations*, 17(2), 167 – 184.

Korabik, K. (1990). Androgyny and leadership style. *Journal of Business Ethics*, 9(4 – 5), 283 – 292.

Kreft, I. G., & De Leeuw, J. (1998). *Introducing multilevel modeling*. SAGE Publications.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individual's fit at work: A meta-analysis of person – job, person – organization, person – group, and person – supervisor fit. *Personnel Psychology*, 58, 281 – 342.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 1297 – 1343). Rand

McNally.

Lorber, J. (2008). *Paradoxes of gender*. In *Paradoxes of gender*. Yale University Press.

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). Psychological capital: Investing and developing positive organizational behavior. *Positive Organizational Behavior*, 1(2), 9 – 24.

Marshall, S. J., & Wijting, J. P. (1980). Relationships of achievement motivation and sex-role identity to college women's career orientation. *Journal of Vocational Behavior*, 16(3), 299 – 311.

Ng, T. W., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, 58(2),

367 – 408.

Ng, T. W., & Feldman, D. C. (2014). Subjective career success: A meta-analytic review. *Journal of Vocational Behavior, 85*(2), 169 – 179.

Ngo, H. Y., Foley, S., Ji, M. S., & Loi, R. (2014). Linking gender role orientation to subjective career success: The mediating role of psychological capital. *Journal of Career Assessment, 22*(2), 290 – 303.

Noller, P., Law, H., & Comrey, A. L. (1987). Cattell, comrey, and eysenck personality factors compared: More evidence for the five robust factors. *Journal of Personality and Social Psychology, 53*(4), 775 – 782.

Park, S. G., Kang, H. J. A., Lee, H. R., & Kim, S. J. (2017). The effects of LMX on gender discrimination and subjective career success. *Asia Pacific Journal of Human Resources, 55*(1), 127 – 148.

Peterson, M. F. (2004). Reviewed work: Culture, leadership and organizations: The GLOBE study of 62 societies by Robert J. House, Paul J. Hanges, Mansour Javidan, Peter W. Dorfman, Vipin Gupta. *Administrative Science Quarterly, 49*(4), 641 – 647. <https://www.jstor.org/stable/4131493>.

Peterson, M. F., & Castro, S. L. (2006). Measurement metrics at aggregate levels of analysis: Implications for organization culture research and the GLOBE project. *The Leadership Quarterly, 17*(5), 506 – 521.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879 – 903.

Powell, G. N., & Posner, B. Z. (1989). Commitment to career versus family/home life: Effects of sex, sex-role identity, and family status. *Psychological Reports, 64*(3), 695 – 698.

Ralston, D. A., Pounder, J., Lo, C. W., Wong, Y. Y., Egri, C. P., & Stauffer, J. (2006). Stability and change in managerial work values: A longitudinal study of China, Hong Kong, and the US. *Management and Organization Review, 2*(1), 67 – 94.

Ralston, D. A., Russell, C. J., & Egri, C. P. (2018). Business values dimensions: A cross-culturally developed measure of workforce values. *International Business Review, 27*(6), 1189 – 1199.

Ramaswami, A., Dreher, G. F., Bretz, R., & Wiethoff, C. (2010). Gender, mentoring, and career success: The importance of organizational context. *Personnel Psychology, 63*(2), 385 – 405.

Rangarajan, D., Gelb, B. D., & Vandaveer, A. (2017). Strategic personal branding — And how it pays off. *Business Horizons, 60*(5), 657 – 666.

- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). SAGE Publications.
- Reese, S. (2020). Taking the learning organization mainstream and beyond the organizational level: An interview with Peter Senge. *The Learning Organization*, 27(1), 6 – 16.
- Ronen, S., & Shenkar, O. (2013). Mapping world cultures: Cluster formation, sources and implications. *Journal of International Business Studies*, 44(9), 867 – 897.
- Rutkowski, L., & Svetina, D. (2014). Assessing the hypothesis of measurement invariance in the context of large-scale international surveys. *Educational and Psychological Measurement*, 74(1), 31 – 57.
- Sachs, R., Chrisler, J. C., & Devlin, A. S. (1992). Biographic and personal characteristics of women in management. *Journal of Vocational Behavior*, 41(1), 89 – 100.
- Sandage, S. J., & Williamson, I. (2005). *Forgiveness in cultural context*. In *Handbook of forgiveness*. Routledge.
- Scandura, T. A., & Ragins, B. R. (1993). The effects of sex and gender role orientation on mentorship in male-dominated occupations. *Journal of Vocational Behavior*, 43(3), 251 – 265.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
- Schneidhofer, T. M., Schiffinger, M., & Mayrhofer, W. (2010). Mind the (gender) gap. Gender, gender role types, and their effects on objective career success over time. *Management Revue*, 21(4), 437.
- Schruijer, S. G. (2006). Do women want to break the glass ceiling? A study of their career orientations and gender identity in the Netherlands. *Management Revue*, 17(2), 143 – 154.
- Schwartz, J., Monahan, K., Hatfield, S., & Anderson, S. (2017). No place to retire. A Deloitte Collection of the Future of Work. Retrieved from [https://www2.deloitte.com/content/dam/insights/us/articles/4773\\_Worker-longevity/4773\\_Workforce-longevity.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/4773_Worker-longevity/4773_Workforce-longevity.pdf).
- Seibert, S. E., Kraimer, M. L., & Heslin, P. A. (2016). Developing career resilience and adaptability. *Organizational Dynamics*, 45(3), 245 – 257.
- Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, 44(2), 219 – 237.
- Senge, P. M. (1990). *The art and practice of the learning organization*. New York: Doubleday.
- Smith, L. (2013). Working hard with gender: Gendered labour for women in male dominated occupations of manual trades and information technology (IT). *Equality, Diversity and Inclusion: An International Journal*, 32(6), 592 – 603.

- Spurk, D., Abele, A. E., & Volmer, J. (2015). The career satisfaction scale in context: A test for measurement invariance across four occupational groups. *Journal of Career Assessment, 23*(2), 191 – 209.
- Spurk, D., Hirschi, A., & Dries, N. (2019). Antecedents and outcomes of objective versus subjective career success: Competing perspectives and future directions. *Journal of Management, 45*(1), 35 – 69.
- Steenkamp, J. B. E., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research, 25*(1), 78 – 90.
- Tak, J. (2011). Relationships between various person – environment fit types and employee withdrawal behavior: A longitudinal study. *Journal of Vocational Behavior, 78*(2), 315 – 320.
- Tallman, S., Luo, Y., & Buckley, P. J. (2018). Business models in global competition. *Global Strategy Journal, 8*(4), 517 – 535.
- Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of Culture ' s consequences: a three-decade, multilevel, meta-analytic review of Hofstede ' s cultural value dimensions. *Journal of Applied Psychology, 95*(3), 405.
- Terpstra-Tong, J., Ralston, D. A., Trevi ~ no, L. J., Naoumova, I., de la Garza Carranza, M. T., Furrer, O. Darder, F. L., ... (2020). The quality of leader-member exchange (LMX): A multilevel analysis of individual-level, organizational-level and societal-level antecedents. *Journal of International Management, 26*(3), Article 100760.
- Terpstra-Tong, J. L., Terpstra, R. H., & Tee, D. D. (2014). Convergence and divergence of individual-level values: A study of Malaysian managers. *Asian Journal of Social Psychology, 17*(3), 236 – 243.
- Trevi ~ no, L. J., Egri, C. P., Ralston, D. A., Naoumova, I., Li, Y., Darder, F. L., de la Garza Carranza, M. T., & Furrer, O. (2020). A cross-cultural examination of person-organization fit: Is PO fit congruent with or contingent on societal Values? *Management International Review, 60*(2), 287 – 314.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review, 117*(2), 440 – 463.
- Tung, R. L., & Verbeke, A. (2010). Beyond Hofstede and GLOBE: Improving the quality of cross-cultural research. *Journal of International Business Studies, 41*(8), 1259 – 1274.
- Unt, E. (2021). Leadership conversion: From command-and-control to people-centered approach. Unpublished dissertation.
- van Vianen, A. E. (2000). Person-organization fit: The match between newcomers; and recruiters ' preferences for organizational cultures. *Personnel Psychology, 53*(1),

113 – 149.

van Vianen, A. E. (2018). Person – environment fit: A review of its basic tenets. *Annual Review of Organizational Psychology and Organizational Behavior*, 5(1), 75 – 101.

Vinodh, S., Antony, J., Agrawal, R., & Douglas, J. A. (2021). Integration of continuous improvement strategies with industry 4.0: A systematic review and agenda for further research. *The TQM Journal*, 33(2), 441 – 472.

Weinberg, F. J., Treviño, L. J., & Cleveland, A. O. (2019). Gendered communication and career outcomes: A construct validation and prediction of hierarchical advancement and non-hierarchical rewards. *Communication Research*, 46(4), 456 – 502.

Wong, P. T., Kettlewell, G., & Sproule, C. F. (1985). On the importance of being masculine: Sex role, attribution, and women's career achievement. *Sex Roles*, 12(7), 757 – 769.

World Economic Forum. (2022). Global gender gap report 2021. Retrieved from <https://www.weforum.org/reports/global-gender-gap-report-2021>.

Xie, B., Xia, M., Xin, X., & Zhou, W. (2016). Linking calling to work engagement and subjective career success: The perspective of career construction theory. *Journal of Vocational Behavior*, 94, 70 – 78.

J. Terpstra-Tong et al.