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GENDER DISPARITY WITHIN THE IVORY TOWER:
DO PERCEIVED ORGANIZATIONAL SUPPORT AND
PROCEDURAL JUSTICE PREDICT SELF-DISCREPANT TIME ALLOCATION?

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Applied Psychology

by
Phoebe Xoxakos
August 2020

Accepted by:
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ABSTRACT

In the workplace, gender norms often affect women more negatively than men. Although women have demonstrated their abilities and competence in a variety of occupations and workplace settings, progress toward gender equity in academia is at a plateau. Using organizational support and organizational justice literature as a theoretical foundation, the purpose of the current study was to determine if two antecedents—perceived organizational support and procedural justice—influence how academics allocate their time spent on research, service, and teaching during the workweek and weekend. Ideal (i.e., preferred) time allocation and actual time allocation were examined. In addition, gender was proposed as a moderator of these relationships. Research on the potential antecedents of self-discrepant time allocation (i.e., the mismatch between ideal and actual time allocation) can enhance the understanding of how men and women faculty spend their time. To test hypotheses, time diary data was collected from faculty at a university in the southeastern U.S. Focal antecedent variables were collected in the first measurement wave. The second measurement wave, approximately one year later, assessed both ideal time allocation and actual time allocation. Although perceived organizational support and procedural justice did not predict research, service, and teaching self-discrepant time allocations, during the workweek and weekend, there were statistically significant findings when examining men and women’s research, service, and teaching during the workweek and weekend. The current study offers insight on academics’ time allocation and directions for future research, including improved measurement when categorizing daily activities. Overall, understanding discrepancies

between ideal time allocation and actual time allocation in research, teaching, and service between men and women faculty can potentially improve organizational climate and retention in academia.

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CHAPTER ONE

INTRODUCTION

The purpose of the proposed study is to determine if two antecedents, perceived organizational support (POS) and procedural justice (PJ), influence how academics allocate their time for research, teaching, and service during the workweek and weekend, and if these relationships are different for men and women. An academic is an individual who teaches, provides service, or conducts research at a college, university, or other institution of higher education. An academic can be a lecturer, instructor, assistant professor, associate professor, or full professor. Further, an academic can be on tenure track but not tenured, tenured, or not on tenure track. Further, the terms academic, professor, and faculty are used interchangeably—for clarity in this paper, the term academic is used exclusively.

The current study uniquely contributes to the literature in several different ways. First, how men and women academics allocate their time for research, service, and teaching is established in the literature; however, less is known on their self-discrepant time allocation (i.e., the mismatch between ideal and actual time allocation) between men and women. Second, there is little research on the POS and PJ of academics. Third, to the author's knowledge, there is no research on how academics allocate their time on the weekends. Thus, in examining these components together, it will be better understood how men and women academics differ in (a) POS and PJ, (b) how POS and PJ affect self-discrepant time allocation, (c) their self-discrepant time allocation in research, teaching,

and service during the workweek and weekend. Thus, I address gender differences broadly in academia, time allocation, self-discrepant time allocation, POS, and PJ.

Men and women are treated differently. One setting where this is especially apparent is the workplace. After World War II, 30% of women entered the workforce—this steadily increased during the Feminist Movement in the 1960s and 1970s to 50% (Toossi & Morisi, 2017). Jacobs and Winslow (2004) highlight the many “firsts” accomplished by women in the U.S., including the first Supreme Court Justice (1981), astronaut (1983), chief of police (1985), induction into the Rock and Roll Hall of Fame (1987), Ivy League university president (1994), Secretary of State (1997), CEO of a Fortune 500 company (1999), 4-star general in the U.S. Army (2008), Academy Award winner for best director (2010), and president of the New York Stock Exchange (2018). Thus, the talent pool of women has grown since the mid-twentieth century stereotypes (e.g., housewife, servant) to be pervasive and all-inclusive. The point is not that women have just started achieving key accomplishments in the workplace. Rather, within the last century women have fought through gender boundaries demonstrating their competence (see Fiske et al., 2002) in the workplace.

Although these advancements show promise for equality in the workplace, Jacobs and Winslow (2004) explain that this progress has hit a plateau, particularly in academia. In 2004, 30.29% of full professors at postsecondary institutions in the U.S. were women (National Center for Education Statistics [NCES], 2004). Thirteen years later, this number increased slightly to 33.94% (U.S. Department of Education, 2017); however, the statistics remain relatively stable. Regarding assistant professor and part-time positions,

Jacobs and Winslow (2004) found that men are underrepresented in these positions which are typically held by women with minimal pay. Although women have made advancements in academia, women are still considerably behind their male colleagues (Amason & Allen, 1997; Currie et al., 2001; Freeman, 1977; Gatta & Roos, 2004; Glazer-Raymo, 2001; Misra et al., 2012; Monroe et al., 2008; Romero-Hall et al., 2018; Valian, 1998).

Various factors may contribute to this disparity. Though one common explanation is that women earn fewer degrees than men, according to Hoyt (2010), National Center for Education Statistics (2019), and National Girls Collaborative Project (2018), women earn on average 50% of bachelor's, master's, and doctoral degrees. Thus, differences in degree attainment are not a plausible reason for gender disparity in academia. Academia is perceived as process-based, fair, and inclusive; however, several ostracizing norms (e.g., gender, cultural, institutional) are prevalent and reflect the true culture (Romero-Hall et al., 2018). VandenBos (2007) defines norm as "a standard or range of values that represents the typical performance of a group or of an individual... [in] which comparisons can be made" (p. 631). Norms present in academia are high workloads, women as caregivers (Halpern, 2008; Kaufman, 1999; Kossek et al., 2017; Misra et al., 2012), fulfilling service obligations (Misra et al., 2011), racial bias (Chisholm-Burns, 2016), sexism (Cheng et al., 2019; Fischer & Good, 1994), and men's disproportionate advantage (Valian, 1998), to name a few. Generally, these norms impact women more negatively than men.

Further, Romero-Hall and colleagues (2018) explain gender norms as deeply ingrained within individuals and society and that gender norms are “inescapable” for women in academia. For example, Treviño et al. (2018) found that women management professors are less likely than men management professors to be ranked as a professor and be rewarded for their scholarly achievements. In another example, Euben (2001) highlights that even with laws designed to prohibit discrimination based on sex (e.g., Equal Pay Act, Title VII), men are paid more than women. Although women are strongly disadvantaged by institutional norms in academia regardless of intent, not all norms are gendered (i.e., some norms are unfavorable for both men and women).

Academia as an institution tends to exploit employees with excessive workloads and incomparable pay (Euben, 2001; Jacobs & Winslow, 2004; Misra et al., 2012). Pay is particularly difficult to regulate because academic jobs are not as structured as non-academic jobs. In that, non-academic jobs do not have or have less ambiguous factors, requirements, and deadlines than academic jobs do. Factors such as merit, seniority (Euben, 2001), grants, awards, and publications are all considered in determining pay for academic jobs and the weight associated with these tasks are ambiguous and can vary across jobs (Misra et al., 2012). Further, differentiating accomplishments such as publications increases the difficulty because there are several subjective factors (e.g., importance of article, theoretical contribution) and objective factors (e.g., impact factor of the journal, authorship rank) that must be accounted for.

Within academia, specifically research institutions, research and publishing are weighted more heavily than teaching and service in the reward process. Thus, those who

publish more are more likely to be successful in the workplace (Bellas & Toutkoushian, 1999). In general, faculty with high publication rates are more valuable to the institution and are more likely to advance further through the tenure and promotion process. In a more recent study, Magua et al. (2017) found that the applications of men researchers are viewed significantly better than the applications of women researchers. Based on text analysis of the applications, Magua et al. (2017) found that men are described as “scientific leaders” with important, innovative, and novel research, whereas women are viewed as only having “expertise” in their field. Thus, Bellas and Toutkoushian’s (1999) assertion that the reward structure in academia will not substantially change in the “near future” and will worsen by becoming more restrictive appears to be accurate.

Time Allocation

As noted above, several factors affect gender disparity in academia. However, other factors, such as time use, is another area of inequality that should be explored.

VandenBos (2007) defined time as:

A concept by which events are ordered into past, present, and future and duration is measured... to mark the ubiquitous phenomenon of change. Through the observation of recurrent phenomena, such as the rotation of the earth, time is divided into periods and used to measure the duration of events and rates of change. (p. 942)

The construct of time is explained as a universal constraint (Dahm et al., 2015) that affects work and family because time is a finite resource—time spent in one category directly effects time spent in another (Rothbard & Edwards, 2003). For example, if an

accountant works late, the time regularly spent with one's family is reallocated to work-related tasks—this family time cannot be gained back. Thus, time can be viewed as a limited resource.

Job autonomy varies across positions and occupations. In many work environments, employees have low autonomy—tasks and projects are assigned to them. Employees may spend their working time on task activities and contextual activities. Task activities refer to explicit components of employees' jobs that add immediate value to the organization (Boon et al., 2014). For example, a nurse is required to assess the patient's condition, evaluate the patient's needs, and communicate with the patient. Contextual activities are the implicit components of employees' jobs that gradually benefit the organization (Boon et al., 2014). For example, a nurse will benefit their organization long-term if their excellent communication skills result in patients returning to the facility. Thus, employees with more autonomous jobs (e.g., academics) have a greater choice in determining how to allocate their time between task and contextual activities.

Time allocation—the manner in which an individual divides their time—has consequences for the employee (Dahm et al., 2015; Yakura, 2002) and organization (Boon et al., 2014; Yakura, 2002). Employees' time allocations affect their ability to meet work goals, which indirectly affects their career success (Dahm et al., 2015). Employees may base their time allocation preferences on characteristics of their jobs such as job complexity, social interactions (Morgeson & Humphrey, 2006), and autonomy. Regardless of autonomy-level, all jobs contain tasks dictated by the organization (e.g.,

job structure) and tasks that are determined by oneself. Thus, a different issue emerges in the discrepancy between how employees would ideally spend their time versus how they actually spend their time.

Self-Discrepant Time Allocation

Self-discrepant time allocation evolved from self-discrepancy theory, which describes the self through different perspectives (Higgins, 1987; Higgins et al., 1986). The actual self is represented by how a person actually spends their time and the ideal self is represented by how a person prefers to spend their time (Dahm et al., 2015). Self-discrepant time allocation can be defined as a discrepancy or mismatch between how one would ideally spend their time versus how one actually spends their time (Dahm et al., 2015; Higgins et al., 1986). For example, a professor at a large research university prefers to spend 4 hours a week teaching; however, the professor actually spends 10 hours a week teaching. The self-discrepant teaching time allocation would be a difference between the ideal and actual time spent, -6 hours in this example.

In allocating time among tasks, the zero-sum nature of time is evident (Dahm et al., 2015). As one allocates time to one activity (e.g., teaching) this time is no longer available for other activities (e.g., research). When employees' actual time allocation is different than their ideal time allocation, additional measures or attempts cannot mend this discrepancy (Dahm et al., 2015); over time (pun intended) this can negatively affect career success and well-being. There is a greater chance for discrepancies between ideal time allocation and actual time allocation in academia due to the high level of autonomy compared to occupations with lower levels of autonomy.

Institutional structures and norms affect time allocation (Stewart & Barrick, 2000; Winslow, 2010). Time strains, as experienced by faculty, can in part be described as discretionary (Jacobs & Winslow, 2004) and some argue that professors willingly choose this lifestyle. It is important to note that these demands, whether self-imposed or not, are shaped by institutional norms and expectations from colleagues and other professionals in the field. Further, deciding what to work on poses an unseen difficulty. Deadlines for teaching, class preparation, grading, and service are clear; however, engaging in research does not always have clear deadlines and can be pushed down the to-do list even though research is valued most by organizations (Misra et al., 2012).

A common complaint among professors is that they are never caught up with their work, that the job demands are endless (Jacobs & Winslow, 2004). Regardless of rank (e.g., assistant, associate, full) professors generally work 50+ hour workweeks across all institution types (e.g., research, liberal arts; Jacobs & Winslow, 2004; Misra et al., 2012). Misra et al. (2012) found that men and women faculty worked 65-hour workweeks on average. According to Misra et al. (2012), women in associate ranks tend to put in the longest hours—102 hours per week on paid work (e.g., academic occupation) and unpaid work (e.g., care responsibilities). Further, Jacobs and Winslow (2004) found that individuals who work longer hours produce more publications. Thus, if longer work hours (e.g., 60+ hours) are necessary for publication productivity, unpaid overtime is an institutional requirement or norm. However, if faculty members are working 60-hour workweeks, it is not clear if they are accomplishing their work solely during the work week (i.e., Monday – Friday) or the throughout the week (i.e., Monday – Sunday).

In a 5-day workweek (Monday – Friday), there are 120 hours. According to Misra et al. (2012), faculty have an average of 65 working hours per week (13 hours per workday; $65 / 5 = 13$). This results in faculty having approximately 11 hours each workday to sleep, eat, commute, attend to personal needs, clean their living environment, socialize, exercise, take care of others (e.g., children, elderly family, spouse), and maybe have some leisure time. Thus, it is likely that academics work-time spills over into the weekend.

Research on academics' time allocation over the weekend is extremely limited, so limited that to the author's knowledge there has not been a specific research question or hypothesis regarding time allocation during the weekend. However, in one study weekend time allocation was measured. Misra et al. (2012) found that faculty who work long workweeks (i.e., 40+ hours) spend a considerable amount of time working during weekends, an average of 12 hours a weekend.

Research on gendered time allocations in academia is a relatively new phenomenon. Gender differences between men and women faculty were not examined until the 1980s, and the studies conducted at this time were limited (Yuker, 1984). In a study involving 1,243 tenured and tenure-track faculty, self-discrepant time allocation was negatively related to “work satisfaction [(e.g., Jacobs & Winslow, 2004)], psychological well-being, and physical well-being” (Dahm et al., 2015, p. 767). In addition, the current literature on time allocation in the workplace exhibits gender differences in the domains of research, service, and teaching.

Research. In academia, publishing research is important. For example, Misra et al. (2012) found that all faculty surveyed ($N = 349$) were aware that research productivity is valued the most, specifically within their institution, a large public university in the northeast region of the U.S. Notably, there are gender differences regarding research in academia, in part due to the disproportionately large number of women academics at teaching institutions rather than research institutions (Winslow, 2010). In particular, women conduct less research than men (Gardner et al., 2018; Misra et al., 2011) and on average women are publishing less than men (Breuning et al., 2005; Breuning & Sanders, 2007; Hesli & Lee, 2001; Long & Fox, 1995; Mathews & Andersen, 2001). According to Cole and Zuckerman (1984), men publish twice as much as women (as cited in Long & Fox, 1995). Thus, gender differences may exist in the discrepancy between how academics would ideally and actually spend their time conducting research. I propose the following hypothesis and research question (note, *H1* was confirmed in previous work by Winslow (2010)):

H1: Self-discrepant research time allocation will be greater for women than for men in academia during the workweek.

RQ1: Is there a difference in self-discrepant research time allocation between women and men in academia during the weekend?

Service. Service in academia typically includes committee meetings and committee work. There are mixed findings on the service hours completed by men and women (Bellas & Toutkoushian, 1999). However, on average, women engage in more service than men (Gardner et al., 2018; Hanasono et al., 2019; Misra et al., 2011; Turk,

1981; Turner, 2002). Hart and Cress (2008) found that women feel they are expected to provide more service than men. Mitchell and Hesli (2013) found that women are asked to provide more service and agree to provide service more than men. However, women are asked to engage in less prestigious service than men (Hanasono et al., 2019; Misra et al., 2012; Mitchell & Hesli, 2013). For example, Misra et al. (2011) found that men are less likely than women to be asked to provide service for undergraduate students and men are more likely to be asked to serve as department chairs and directors. When women are asked to provide more prestigious service, it sometimes is to increase diversity on committees (Schneider & Radhakrishnan, 2018). Thus, the service women are providing does little to advance their career, compared to their male counterparts (Mitchell & Hesli, 2013). Thus, gender differences may exist in the discrepancy between how academics would ideally spend their time and how they actually spend their time with respect to service. I propose the following hypothesis and research question:

H2: Self-discrepant service time allocation will be greater for women than for men in academia during the workweek.

RQ2: Is there a difference in self-discrepant service time allocation between women and men in academia during the weekend?

Teaching. Although teaching is a necessary component of an institution, on average, faculty prefer teaching over research (Berlinerblau, 2017). Bailey (1999) suggests that women are more motivated to teach than men; however, Winslow (2010) explains this may be due to institutional norms. She also found no significant mean difference in the preference for teaching between men and women (Winslow, 2010),

though on average, women teach more than men (Gardner et al., 2018; Link et al., 2008; Schuster & Finkelstein, 2006; Singell et al., 1996; Winslow, 2010). Interestingly, women report more stress induced by teaching and students compared to men (Hart & Cress, 2008). Thus, a gender difference may exist between how academics prefer to spend their time teaching and how they actually spend their time teaching. I propose the following hypothesis and research question:

H3: Self-discrepant teaching time allocation will be greater for women than for men in academia during the workweek.

RQ3: Is there a difference in self-discrepant teaching time allocation between women and men in academia during the weekend?

ANTECEDENTS OF SELF-DISCREPANT TIME ALLOCATION

I focus on two antecedents of self-discrepant time allocation. Conceptually, these antecedents—perceived organizational support and procedural justice—can be ascribed to both the individual (i.e., the employee) and the group (i.e., the employee's organization). I argue that these antecedents influence self-discrepant time allocation and the relationships are moderated by gender.

Perceived Organizational Support

Perceived organizational support (POS) includes employees' comprehensive beliefs or perceptions regarding how much their organization values them and their work, supports and cares about them, and rewards their behavior (Eisenberger et al., 1990, 1987, 1986). POS has a strong theoretical foundation in organizational support theory (Eisenberger et al., 1986; Eisenberger & Stinglhamber, 2011; Kurtessis et al., 2017), the

norm of reciprocity (Blau, 2017, 1964), self-enhancement (Kurtessis et al., 2017), and social exchange theory (Gouldner, 1960). Social exchange theory implies that when employees give to the organization, they trust the organization to give back in return (Eisenberger et al., 1986; Kurtessis et al., 2017; Settoon et al., 1996; Spoor & Hoyer, 2014).

POS is not achieved in a single situation, but rather through a series of interactions between an organization and employee (Eisenberger et al., 1986). For example, if an employee is confident that their organization values their work, the employee will produce good work, and the organization will reward the employee in return, creating a cyclical process. Eisenberger et al. (1986) explain that some factors in this cyclical process may be the organization's reaction to employees' illnesses, the organization's distribution of funds in terms of fair pay, and the emphasis the organization places on employees' exemplary performances. Thus, if the organization creates an environment in which employees actually perceive organizational support, employees will be less likely to leave their organization (Eisenberger et al., 1986).

Several meta-analyses have been conducted that examine the antecedents and outcomes of POS. In a meta-analysis of 73 studies, Rhoades and Eisenberger (2002) found the outcomes of POS to be "job satisfaction, positive [affect]..., affective commitment, performance, and lessened withdrawal behavior" (p. 698). Riggle et al. (2009) confirmed the outcomes of Rhoades and Eisenberger's (2002) meta-analysis in their meta-analysis consisting of 167 studies. In Kurtessis et al.'s (2017) meta-analysis of 558 studies, they found antecedents of POS to be "leadership, employee-organization

context, human resource practices, and working conditions, [and outcomes to be] employees' orientation toward [their] organization and work, employee performance, and their well-being" (p. 1854).

Understanding how the antecedents and outcomes of POS can influence academics' time allocation may improve faculty's experiences in the workplace—especially for women who are continually disadvantaged by institutional norms and other oppressive systems. However, the literature on these variables is limited. Thus, I extend the following examples to academia and time allocation practices to bridge this gap in the literature.

Kurtessis et al. (2017) explain POS is “assumed” to fill socioemotional needs such as approval and affiliation. Varma and Russell (2016) emphasize the role of POS in employees' beliefs regarding their value to their employer. Faculty are viewed favorably for working 40+ hour workweeks, extending their unpaid work hours to meet explicit and implicit job expectations. Thus, if a professor works on average 65 hours a week to obtain approval from their organization, this may affect how one allocates their time and perceives organizational support.

POS positively relates to work-life/family balance and negatively relates to work-family conflict (Kurtessis et al., 2017). Work-life/family balance is a pertinent aspect of academics' lives to maintain a healthy relationship with one's work and with one's family. Thus, it is important that academics are provided a positive work environment that allows them to best allocate their time to be an effective member of both the academy and family.

Varma and Russell (2016) found POS to be exclusive across contexts, situations, and gender. Although men and women alike can perceive support from their organizations, there is little research on POS gender differences. As an exception, Amason and Allen (1997) explain, “If conditions in an organization are discriminatory toward women, gender differences should exist in perceived organizational support” (p. 960). Further, Amason and Allen (1997) argue that if women experience discrimination in the workplace then they might report lower POS, negatively affecting the individual and the organization.

Amason and Allen (1997) found POS in the academy to be significantly lower than POS in applied settings (e.g., engineering firms). In another male-dominated environment, a sports organization, Spoor and Hoye (2014) found that employees in organizations with more women in top leadership positions reported higher levels of POS. Varma and Russell (2016) explored POS as an antecedent for the continued gender imbalance in employee selection for expatriate assignments (i.e., work assignments outside one’s country of residence) and found that POS does impact women’s participation and selection for expatriate assignments.

In another study, Singh et al. (2018) found that tangible support (e.g., equipment, funding) positively influences POS. Thus, the resources provided to faculty can influence POS (see Massachusetts Institute of Technology, 1999). Further, if groups (e.g., men and women) receive different tangible support, employees’ time allocation may vary. Thus, it is important to understand how POS may impact academic’s self-discrepant time allocation and to further examine if this relationship is different for men and women.

Thus, I propose the following hypotheses and research question (see Figure 1 in Appendix A):

H4a: POS will be negatively related to self-discrepant research time allocation during the workweek and this relationship will be stronger for women than men.

H4b: POS will be negatively related to self-discrepant service time allocation during the workweek and this relationship will be stronger for women than men.

H4c: POS will be negatively related to self-discrepant teaching time allocation during the workweek and this relationship will be stronger for women than men.

H4d: POS will be negatively related to self-discrepant research time allocation during the weekend and this relationship will be stronger for women than men.

H4e: POS will be negatively related to self-discrepant service time allocation during the weekend and this relationship will be stronger for women than men.

H4f: POS will be negatively related to self-discrepant teaching time allocation during the weekend and this relationship will be stronger for women than men.

RQ4: Is there a gender difference in POS?

Procedural Justice

Procedural justice (PJ) originated from Thibaut and Walker's (1975) courtroom observations in which two components were identified—process control and decision control. Thibaut and Walker (1975) found individuals would relinquish decision control so long as they had control over the process (i.e., control over their narrative). PJ is the perceived fairness of decision-making processes in an organization (sometimes referred to as procedural fairness; Cropanzano et al., 2007; Leventhal, 1980; Leventhal et al.,

1980; Pignata et al., 2016; Thibaut & Walker, 1975). Colquitt et al. (2001) presented the six criteria of Leventhal's (1980) PJ theory that must be met to declare a procedure as fair. According to their recommendations, a procedure must:

- (a) Be applied consistently across people and... time, (b) be free from bias..., (c) ensure that accurate information is collected and used in making decisions, (d) have some mechanism to correct flawed or inaccurate decisions, (e) conform to... prevailing standards of ethics or morality, and (f) ensure that the opinions of [all] groups affected by the decision have been taken into account. (p. 426)

According to Colquitt (2001) PJ is one of four factors that comprise organizational justice, along with distributive justice, interpersonal justice, and informational justice. Previously, the different subfactors of organizational justice have been collapsed for data analysis (Colquitt, 2001). However, keeping the factors distinct is beneficial and necessary because each factor relates to different work-related outcomes and managerial actions (Cropanzano et al., 2007). PJ was first explored in workplace settings by Leventhal and colleagues (Leventhal, 1980; Leventhal et al., 1980). Colquitt et al. (2001) found in a meta-analysis that the Leventhal criteria had the strongest relationship with perceptions of procedural fairness. Colquitt (2001) then created a more robust measure of organizational justice in which each of the four factors were subscales. For the PJ subscale, Colquitt (2001) included items from Leventhal (1980) and Thibaut and Walker (1975) that demonstrate construct validity, content validity, predictive or criterion-related validity, and discriminant validity.

Justice is a socially constructed idea—an act is considered just if a majority of the employees perceive it as such (Colquitt et al., 2001; Cropanzano & Greenberg, 1997). The relationships between employees and their organizations is affected by PJ (Folger & Cropanzano, 1998; Kausto et al., 2005). In fact, PJ promotes several organizational goals (Diekmann et al., 2007). For example, Cloutier et al. (2018) found that employees gauge how much their organizations value and appreciate them through PJ, which in turn may impact employees' involvement and commitment.

Employees perceive the fairness of organizations before (Cropanzano & Schminke, 2001) and throughout employment, specifically through decision-making processes (Cloutier et al., 2018; Greenberg, 1994; Lind & Tyler, 1988)—this tendency holds true for academia. For example, within a university, faculty are subjected to decisions that have already been made such as salaries, teams, and settings in which to appear in (e.g., classrooms, offices, meeting) and the consequences of these decisions are imperative (Colquitt, 2001). In an examination of organizational justice among university instructors, there was a positive relationship between PJ and organizational commitment (Cropanzano et al., 2007). However, there is little PJ research on faculty. Thus, the following examples are extended to academia.

Cloutier et al. (2018) found PJ to directly impact psychological distress, which reduces employees' job performance (Lerner & Henke, 2008; Motowidlo et al., 1986). For faculty, if their job performance suffers due to PJ, PJ may also influence how faculty allocate their time (i.e., how they allocate their time to complete job tasks, influencing their performance). In another example, Cropanzano et al. (2007) explain that the more

just processes are, the more willing employees are to act in ways that benefit the organization. When employees deem allocation procedures as unfair, they believe that their organization does not value them (Cloutier et al., 2018; Colquitt et al., 2005; Cropanzano & Greenberg, 1997; Lind & Tyler, 1998). Further, Thibaut and Walker (1975) found that unfair procedures can lead to a feeling of a lack of control. Additionally, in a meta-analysis, Joshi et al. (2015) examined gender differences regarding rewards (e.g., salary) and performance evaluations. Joshi et al. (2015) found that reward differences favoring men were not explained by the performance evaluations (i.e., men and women did not differ in performance evaluations, but men received significantly more rewards than women). Note, in the findings of Joshi et al. (2015), the more men in an organization and the more complex the job is, the larger the performance-reward gap between men and women. Thus, in academia, if resources are allocated differently to men and women, and this is deemed unfair, self-discrepant time allocation between men and women may differ.

Gender differences in PJ literature are minimal and inconsistent (Jepsen & Rodwell, 2012; Kausto et al., 2005); thus, the need for additional research on PJ gender differences is vital. Sweeney and McFarlin (1997) found PJ to impact organizational commitment and job satisfaction more for women than men. Thus, it is important to better understand if and how PJ affects workplace outcomes, such as self-discrepant time allocation, to improve working conditions. As a result, I propose the following research questions (see Figure 1 in Appendix A):

RQ5a: PJ will be negatively related to self-discrepant research time allocation during the workweek and this relationship will be stronger for women than men.

RQ5b: PJ will be negatively related to self-discrepant service time allocation during the workweek and this relationship will be stronger for women than men.

RQ5c: PJ will be negatively related to self-discrepant teaching time allocation during the workweek and this relationship will be stronger for women than men.

RQ5d: PJ will be negatively related to self-discrepant research time allocation during the weekend and this relationship will be stronger for women than men.

RQ5e: PJ will be negatively related to self-discrepant service time allocation during the weekend and this relationship will be stronger for women than men.

RQ5f: PJ will be negatively related to self-discrepant teaching time allocation during the weekend and this relationship will be stronger for women than men.

RQ6: Is there a gender difference in perceived PJ?

CHAPTER TWO

METHOD

Participants

The current study contains survey and time diary data from an ongoing study involving academics at a large university in the southeastern U.S. Forty six participants agreed to participate in the study; however, ten participants did not complete Phase 2, one participant did not complete Phase 1, one participant could not be matched from Phase 1 to Phase 2, one participant withdrew from the study, and one participant did not report their gender. Thus, 32 participants (25 women, 7 men, $M_{\text{age}} = 39.84$, age range: 29-54, $SD_{\text{age}} = 6.36$) were included in the current study. Most of the participants self-reported as White ($n = 27$, 84.38%), followed by Hispanic ($n = 3$, 9.38%), Black ($n = 1$, 3.13%), and Asian¹ ($n = 1$, 3.13%). Most of the participants were married ($n = 22$, 68.75%), followed by single or never married ($n = 6$; 18.75%), living with someone in a marriage-like relationship ($n = 3$, 9.38%), and separated or divorced ($n = 1$, 3.13%).

The highest degree earned by most participants was a doctoral degree (e.g., Ph.D., Ed.D.; $n = 26$, 81.25%), followed by master's degree ($n = 5$, 15.63%), and first professional degree (e.g., M.D., D.O., J.D.; $n = 1$, 3.13%). Almost half of the participants are ranked as assistant professors ($n = 15$, 46.88%), lecturers ($n = 7$, 21.88%), associate professors ($n = 5$, 15.63%), full professors ($n = 3$, 9.38%), and two participants held another title (6.25%). Almost half of the participants were on tenure track but not tenured

¹ All participants had the ability to self-select more than one race that they identify with; one participant selected two races and one participant chose not to identify their race.

($n = 15$; 46.88%), followed by not on tenure track ($n = 9$, 28.13%), and tenured ($n = 8$, 25.00%). Most of the participants were in a science, technology, engineering, and mathematics (STEM) field ($n = 27$; 84.38%) and the remaining five participants (15.63%) were not in a STEM field.

Procedure

Data for the current study were collected in two phases. Participants received an email to participate in a voluntary online survey, followed by several follow-up email reminders. Phase 1 was collected in August of 2017 and January of 2019²; Phase 2 was collected in February of 2019. Participants did not receive compensation for participating in the current, as compensation was not provided for partial completion; however, participants who completed the larger study were compensated with a \$400 gift card. Further, participants were informed that completion of the survey may have benefits at the individual level (e.g., personal and professional development) and at the organizational level (e.g., transform institutional culture). All participants were assured of confidentiality and anonymity and provided consent prior to completing both phases. To ensure anonymity, a unique identifier was used to match data from Phase 1 and Phase 2.

Phase 1

Participants' characteristics, attitudes, and behaviors, including perceived organizational support (POS), procedural justice (PJ), and demographics were assessed. The following measures were also included in this phase but are not included in the

² Twenty one participants (65.63%) completed Phase 1 in January of 2019 and 11 participants (34.38%) completed Phase 1 in August of 2017.

proposed study: Burnout at Work, Cohesion, Concern about Discrimination, Gender Differences in STEM, Inclusion Climate, Job Satisfaction, Leader-Member Exchange, Mentor Support, Modern Sexism, Need to Belong, Neosexism, Organizational Identification, Perceived Coworker Support, Personal Agency, Stylized Time Use (e.g., percentage of time spent on activities), and Views of [Organization].

Phase 2

Two time diaries were completed during this phase. The first time diary was utilized to log participants' ideal time allocation during the workweek and weekend. The ideal time diary was a *Microsoft Excel* file that contained eight premade "sheets." The first sheet contained instructions and unique identifier questions. The following seven sheets were identical, except the label (e.g., Monday, Tuesday), in which participants logged their ideal time allocation in 10-minute increments, 24 hours/day, for the 7-day week. The week started with Monday and ended with Sunday on the presumption that work that is not completed during the five-day workweek spills over into the weekend; this spillover effect is typical in academia. Each of the seven-day sheets contained an identical key of codes that participants were instructed to use. Example code categories were household, leisure, personal, research, service, teaching, and travel (see Appendix B for complete codebook). For example, if on Monday a participant preferred to do research from 08:00-10:00, for each ten-minute increment (e.g., 08:00, 08:10, 08:20), the participant would type "research" in each cell.

The second time diary was utilized to log participants' actual time allocation during the workweek and weekend; the actual time diary was web-based. Participants

were encouraged to complete the actual time diary as the day unfolded; however, this was not always practical. Thus, participants had the ability to log their actual time allocation from Day 1 on either Day 1, Day 2, or Day 3, but not on Day 4. For example, participants could log their Monday actual time allocation on either Monday, Tuesday, or Wednesday, but not Thursday. Participants were aware of these instructions prior to starting the actual time diary and logged activities performed with start and end times. The activity codes provided were identical to the codes provided in the preferred time diary (Phase 1; see Appendix B for complete codebook). For example, a participant might indicate that on Monday, from 07:00-07:20 they ate breakfast; from 07:21-07:45 they cleaned up around the house; from 07:46-08:15 they drove to work. Although a third time diary (an actual time diary) was collected during March and April of 2019, it is not included in the current study.

Measures

Two multi-item measures from Phase 1 and the measure of self-discrepant time allocation from Phase 2 are described below.

Perceived Organizational Support

The POS scale (Eisenberger et al., 1986), administered in Phase 1, measures participants' perceptions of how supportive they believe their organization is. To reduce survey administration time, six items from the 36-item POS measure were used that had large factor loadings from previous validation studies. The POS scale is a Likert-type scale with a 7-point response scale (1 = *Strongly Disagree* and 7 = *Strongly Agree*) calculated using the mean in which higher scores indicate greater POS. Sample items

include, “[Organization] is willing to extend itself in order to help me perform my job to the best of my ability” and “[Organization] really cares about my well-being” (see Appendix C for complete measure). Internal consistency reliability was $\alpha = 0.92$.

Procedural Justice

The PJ scale (Colquitt, 2001), administered in Phase 1, measures participants’ perceptions of how fair or just procedures and policies are in their organization. The PJ scale is a 7-item frequency scale with a 7-point response scale (1 = *Never* and 7 = *Always*) calculated using the mean in which higher scores indicate greater perceived PJ. Sample items include, “Have [Organization’s] procedures been applied consistently?” and “Have [Organization’s] procedures been based on accurate information?” (see Appendix D for complete measure). Internal consistency reliability was $\alpha = 0.79$.

Self-Discrepant Time Allocation

Self-discrepant time allocation (i.e., time allocation mismatch), assessed in Phase 2, was calculated for three areas in which academics are evaluated—research, service, and teaching. Self-discrepant time allocation was calculated using the difference score by subtracting one’s actual time allocation from one’s ideal time allocation (Winslow, 2010) in hours for each of the code categories (see Appendix B for complete codebook). Thus, the range for self-discrepant time allocation is -24 to 24. For example, if a participant indicates their ideal time allocation for research on Monday is 4 hours and their actual time allocation for research on Monday is 2 hours the difference score is 2. “A positive mismatch indicates that [one] prefers to spend more time on that activity than [one] currently does; a negative mismatch indicates that [one] prefers to spend less time on that

activity [than one currently does]” (Winslow, 2010, p. 775). A mismatch would not exist if an ideal time allocation and an actual time allocation were the same. For example, if an ideal time allocation for teaching on Monday is 1 hour and an actual time allocation for Monday is 1 hour, a difference does not exist. There is no mismatch.

CHAPTER THREE

RESULTS

The data were analyzed using *IBM SPSS Version 26* and *RStudio Version 3.6.1*. For all analyses, the Type I error rate was set at 0.05. See Table 3.1 for *H1 – H3* and *RQ1 – RQ3* with accompanying data analyses. See Table 3.2 for *H4a – H4f* and *RQ4* with accompanying data analyses. See Table 3.3 for *RQ5a – RQ5f* and *RQ6* with accompanying data analyses. See Table 3.4 for the means, standard deviations, and intercorrelations among study variables (i.e., POS, PJ, and ideal and actual time allocation). Below are the results for independent sample *t*-tests, multilevel modeling analyses, and supplemental analyses.

Independent Sample *t*-Tests

The results for *H1*, *H2*, *H3*, *RQ1*, *RQ2*, *RQ3*, *RQ4*, and *RQ6* can be found in Table 3.5. For *H1*, an independent sample *t*-test was conducted on self-discrepant research time allocation during the workweek. There was not a significant difference between men and women. Thus, *H1* was not supported.

For *H2*, an independent sample *t*-test was conducted on self-discrepant service time allocation during the workweek. There was not a significant difference between men and women. Thus, *H2* was not supported.

For *H3*, an independent sample *t*-test was conducted on self-discrepant teaching time allocation during the workweek. There was not a significant difference between men and women. Thus, *H3* was not supported.

For *RQ1*, an independent sample *t*-test was conducted on self-discrepant research time allocation during the weekend. There was not a significant difference between men and women.

For *RQ2*, an independent sample *t*-test was conducted on self-discrepant service time allocation during the weekend. There was not a significant difference between men and women.

For *RQ3*, an independent sample *t*-test was conducted on self-discrepant teaching time allocation during the weekend. There was not a significant difference between men and women.

For *RQ4*, an independent sample *t*-test was conducted on perceived organizational support. There was not a significant difference between men and women.

For *RQ6*, an independent sample *t*-test was conducted on procedural justice. There was not a significant difference between men and women.

Multilevel Modeling

The intraclass correlation (ICC; Shrout & Fleiss, 1979) or cluster effect (Raudenbush & Bryk, 2002; Snijders & Bosker, 2003) of the participants in the current study was 0.32, which indicates a moderate amount of clustering. Thus, multilevel modeling, using the restricted maximum likelihood estimation approach, was more appropriate than moderated multiple regression to analyze the hypotheses and research questions. The results for *H4a – H4f* and *RQ5a – RQ5f* can be found in Table 3.6. Note, for all analyses, tenure was controlled for, and gender, tenure, POS, PJ, and the interaction terms (POS \times gender and PJ \times gender) were treated as fixed effects.

Participants were treated as a random effect, resulting in random intercepts for participants.

Perceived Organizational Support (POS)

To test *H4a*, that POS (*X*) predicts self-discrepant research time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4a* was not supported.

To test *H4b*, that POS (*X*) predicts self-discrepant service time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4b* was not supported.

To test *H4c*, that POS (*X*) predicts self-discrepant teaching time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4c* was not supported.

To test *H4d*, that POS (*X*) predicts self-discrepant research time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and

tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4d* was not supported.

To test *H4e*, that POS (*X*) predicts self-discrepant service time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4e* was not supported.

To test *H4f*, that POS (*X*) predicts self-discrepant teaching time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, POS, gender, and tenure were not significant. Further, the interaction term between POS and gender was not significant. Thus, *H4f* was not supported.

Procedural Justice (PJ)

To test *RQ5a*, that PJ (*X*) predicts self-discrepant research time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and tenure were not significant. Further, the interaction term between PJ and gender was not significant.

To test *RQ5b*, that PJ (*X*) predicts self-discrepant service time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and

tenure were not significant. Further, the interaction term between PJ and gender was not significant.

To test *RQ5c*, that PJ (*X*) predicts self-discrepant teaching time allocation (*Y*) during the workweek, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and tenure were not significant. Further, the interaction term between PJ and gender was not significant.

To test *RQ5d*, that PJ (*X*) predicts self-discrepant research time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and tenure were not significant. Further, the interaction term between PJ and gender was not significant.

To test *RQ5e*, that PJ (*X*) predicts self-discrepant service time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and tenure were not significant. Further, the interaction term between PJ and gender was not significant.

To test *RQ5f*, that PJ (*X*) predicts self-discrepant teaching time allocation (*Y*) during the weekend, and that this relationship will be stronger for women than men, multilevel modeling was used. While controlling for all other variables, PJ, gender, and tenure were not significant. Further, the interaction term between PJ and gender was not significant.

Supplemental Analyses

Because all hypotheses and research questions were not supported, supplemental analyses or one-sample *t*-tests were conducted to determine if academics' research, service, and teaching self-discrepant time allocations were significantly different than zero (i.e., no difference). One-sample *t*-tests were conducted on self-discrepant research (*SA1*, *SA7*), service (*SA2*, *SA8*), and teaching (*SA3*, *SA9*) during the workweek and weekend, respectively, for men. One-sample *t*-tests were conducted on self-discrepant research (*SA4*, *SA10*), service (*SA5*, *SA11*), and teaching (*SA6*, *SA12*) during the workweek and weekend, respectively, for women. The results for *SA1* – *SA12* can be found in Table 3.7.

To test *SA3*, that men's self-discrepant teaching time allocation during the workweek will differ from zero, a one sample *t*-test was conducted. There was a significant difference. The mean self-discrepant teaching time allocation for men was greater than zero, indicating that men spent significantly less time on teaching during the workweek than they preferred. Thus, *SA3* was supported.

To test *SA4*, that women's self-discrepant research time allocation during the workweek will differ from zero, a one sample *t*-test was conducted. There was a significant difference. The mean self-discrepant research time allocation for women was greater than zero, indicating that women spent significantly less time on research during the workweek than they preferred. Thus, *SA4* was supported.

To test *SA6*, that women's self-discrepant teaching time allocation during the workweek will differ from zero, a one sample *t*-test was conducted. There was a

significant difference. The mean self-discrepant teaching time allocation for women was greater than zero, indicating that women spent significantly less time on teaching during the workweek than they preferred. Thus, *SA6* was supported.

To test *SA11*, that women's self-discrepant service time allocation during the weekend will differ from zero, a one sample *t*-test was conducted. There was a significant difference. The mean self-discrepant service time allocation for women was less than zero, indicating that women spent significantly more time conducting service over the weekend than they preferred. Thus, *SA11* was supported.

To test *SA12*, that women's self-discrepant teaching time allocation during the weekend will differ from zero, a one sample *t*-test was conducted. There was a significant difference. The mean self-discrepant teaching time allocation for women was less than zero, indicating that women spent significantly more time on teaching over the weekend than they preferred. Thus, *SA12* was supported. All other supplemental analyses (*SA1*, *SA2*, *SA5*, *SA7* – *SA10*) were insignificant and, thus, not supported.

CHAPTER FOUR

DISCUSSION

The purpose of the current study was to examine gender differences among academics regarding their research, service, and teaching self-discrepant time allocation during the workweek and weekend and to determine if perceived organizational support (POS) and procedural justice (PJ) predict these relationships.

Discussion of Hypotheses, Research Questions, and Results

In the current study, I tested the hypotheses that self-discrepant research (*H1*), service (*H2*), and teaching (*H3*) time allocation would be greater for women than for men in academia during the workweek. The hypotheses were not supported by the results; men and women did not differ in their self-discrepant time allocation for research, service, and teaching during the workweek.

Further, in the current study I tested the research questions that self-discrepant research (*RQ1*), service (*RQ2*), and teaching (*RQ3*) time allocation would be greater for women than for men in academia during the weekend. The research questions were not supported by the results; men and women did not differ in their self-discrepant time allocation for research, service, and teaching during the weekend.

Although previous research indicates that men and women differ in the research (Breuning et al., 2005; Breuning & Sanders, 2007; Cole & Zuckerman, 1984; Gardner et al., 2018; Hesli & Lee, 2001; Long & Fox, 1995; Mathews & Andersen, 2001; Misra et al., 2011), service (Gardner et al., 2018; Hanasono et al., 2019; Misra et al., 2011; Turk, 1981; Turner, 2002), and teaching (Gardner et al., 2018; Link et al., 2008; Schuster &

Finkelstein, 2006; Singell et al., 1996; Winslow, 2010) that they conduct, in the current study, men and women academics did not differ in the mismatch between how they would ideally and how they actually spent their time on research, teaching, and service. Thus, it might be that the current sample, men and women alike, do allocate and actually spend their time as they would ideally spend their time.

Norms within an organization, such as a university, do affect time allocation (Stewart & Barrick, 2000; Winslow, 2010) during the workweek and weekend. However, it could be that the usual oppressive norms in the workplace (see Cheng et al., 2019; Chisholm-Burns, 2016; Fischer & Good, 1994; Halpern, 2008; Kaufman, 1999; Kossek et al., 2017; Misra et al., 2012, 2011; Valian, 1998) are not present or salient in the current context. It is also possible that because employees work an average of 50+ hours a week (Jacobs & Winslow, 2004; Misra et al., 2012), academics might be better at allocating their time because they work more than the standard of 40 hours in a five-day workweek.

Perceived Organizational Support

Additionally, in the current study I tested the hypotheses that POS would be negatively related to self-discrepant research (*H4a*), service (*H4b*), and teaching (*H4c*) time allocation during the workweek and this relationship would be stronger for women than men. These hypotheses were not supported by the results; POS did not influence self-discrepant research, service, and teaching time allocation during the workweek and there was not a difference between men and women.

Moreover, in the current study, I tested the hypotheses that POS would be negatively related to self-discrepant research (*H4d*), service (*H4e*), and teaching (*H4f*) time allocation during the weekend and this relationship would be stronger for women than men. These hypotheses were not supported by the results; POS did not influence self-discrepant research, service, and teaching time allocation during the weekend and there was not a difference between men and women. I also predicted that there would be a gender difference in POS (*RQ4*). This research question was not supported by the results; men and women do not differ in POS.

The lack of significance for *H4a-H4f* and *RQ4* indicates that there are no underlying differences in POS between men and women in the current study. An important factor of POS is that an organization values employee's work (Eisenberger et al., 1990, 1987, 1986). Because universities place high value on academics' work (e.g., research, service, and teaching; Misra et al., 2012), it is possible that men and women alike perceive organizational support equally, as both men and women conduct research, service, and teaching, even though the contributions may differ (e.g., men academics conducting more research than women academics; Breuning et al., 2005; Breuning & Sanders, 2007; Cole & Zuckerman, 1984; Gardner et al., 2018; Hesli & Lee, 2001; Long & Fox, 1995; Mathews & Andersen, 2001; Misra et al., 2011). Further, Eisenberger et al. (1986) explained that POS is achieved through several interactions between a university and its academics. Because majority of the participants were on tenure track or already tenured, this may indicate that academics have worked at the university for a decent

period of time. Thus, if the university has consistently provided support to men and women overtime, this may explain the similarity of reported POS.

Procedural Justice

Furthermore, in the current study, I tested the research questions that PJ would be negatively related to self-discrepant research (*RQ5a*), service (*RQ5b*), and teaching (*RQ5c*) time allocation during the workweek and this relationship would be stronger for women than men. These hypotheses were not supported by the results; PJ did not influence self-discrepant research, service, and teaching time allocation during the workweek and there was not a difference between men and women.

Finally, in the current study, I tested the hypotheses that PJ would be negatively related to self-discrepant research (*RQ5d*), service (*RQ5e*), and teaching (*RQ5f*) time allocation during the weekend and this relationship would be stronger for women than men. These hypotheses were not supported by the results; PJ did not influence self-discrepant research, service, and teaching time allocation during the weekend and there was not a difference between men and women. I also predicted that there would be a gender difference in perceived PJ (*RQ6*). This research question was not supported by the results; men and women do not differ in perceived PJ.

The lack of significance for *RQ5a-RQ5f* and *RQ6* indicates that there are no underlying differences in PJ between men and women in this particular context (a large university in the southeastern U.S.). Although sexism, a norm in academia (Cheng et al., 2019; Fischer & Good, 1994), can and does contribute to PJ, it is possible that sexism is not perceived in this context. PJ does impact the relationship between academics and the

university in which they are employed (Folger & Cropanzano, 1998; Kausto et al., 2005). Thus, if men and women are in fact treated equally within the current context, the PJ perceived by the participants will likely be the same, as found in the current study. Further, PJ does promote goals within the organization (Diekmann et al., 2007). Thus, because the perceived PJ was the same for men and women in the current study, it is likely that the self-discrepant time allocation was also the same, as men and women allocated their time equally to achieve the standard goals (i.e., research, teaching, and service goals/requirements) set by the university. Further, the findings might also indicate that PJ may impact the components of self-discrepant time allocation rather than self-discrepant time allocation, itself. Although the PJ research questions were not supported, understanding the PJ within an organization or within academia is important to improve employees' experiences and maintain a positive climate (Pignata et al., 2016).

Discussion of Supplemental Analyses and Results

Majority of the supplemental analyses (*SA1, SA2, SA5, SA7 – SA10*) were insignificant. However, five supplemental analyses were significant (*SA3, SA4, SA6, SA11, SA12*). Men's self-discrepant teaching time allocation during the workweek (*SA3*) was significantly greater than zero. This indicates that men did not spend as much time teaching during the workweek as they wanted to. It is interesting that men did not spend as much actual time teaching as they indicated they preferred. Further, women's self-discrepant research (*SA4*) and teaching (*SA6*) time allocation during the workweek was significantly greater than zero. This indicates that women did not spend as much time on teaching and research during the workweek as they wanted to. Previous research

indicates that women conduct less research than men (Breuning et al., 2005; Breuning & Sanders, 2007; Cole & Zuckerman, 1984; Gardner et al., 2018; Hesli & Lee, 2001; Long & Fox, 1995; Mathews & Andersen, 2001; Misra et al., 2011). Thus, the current research might support this in that women did not spend as much time on research as they wanted. In addition, because women's work time was less than they preferred, this could be indicative of a work-family conflict issue (see Dahm et al., 2015). Further, women's self-discrepant service time allocation during the weekend (*SA11*) was significantly less than zero. This suggests that women spent more time on service over the weekend than they preferred. Previous research indicates that women engage in more service than men (Gardner et al., 2018; Hanasono et al., 2019; Misra et al., 2011; Turk, 1981; Turner, 2002). Thus, women might be conducting more service during the weekend than they had planned to in order to prepare for service activities during the week. Further, it might be that service was pushed back to Sunday, the last day of the workweek, because service does little to advance the careers of women (Mitchell & Hesli, 2013). Finally, women's self-discrepant teaching time allocation during the weekend (*SA12*) was significantly less than zero. This indicates that women spent more time teaching over the weekend than they preferred, as they were "making up" time they were not able to spend on teaching during the workweek. This could be a result of women preferring to teach the least (Berlinerblau, 2017) and, thus, pushing teaching back to the end of the week (i.e., the weekend).

Limitations and Directions for Future Research

One limitation of the current study was the sample size. As discussed in the participants section, 14 participants were unable to be included in analyses, leaving only 32 participants for analyses. Further, of the participants that were included in analyses, almost 80% were women. This may have posed a problem, as all hypotheses and research questions within the current study involved gender differences between men and women. Although all hypotheses and research questions within the current study were not significant, there is not enough evidence due to the restricted sample size and imbalance of men to women to determine that the hypotheses and research questions do not hold merit. Thus, it is pertinent that future researchers obtain more participants and a more equal sample of men and women.

A second limitation of the current study was that different methods to obtain participants' time allocations were used in Phases 1 and 2. In Phase 1, participants were instructed to record their time allocation in 10 minute increments in a *Microsoft Excel* file whereas in Phase 2, participants were not instructed to record their time using specific time increments in a web-based format. Thus, in Phase 2, participants could record doing a task for 13 minutes, this same task would likely be recorded as a 10-minute task in Phase 1. As a result, the difference recorded between the ideal and actual time allocations (i.e., self-discrepant time allocation) may be less than accurate (e.g., inflated, deflated), which could have skewed the results. Thus, future researchers should use an identical time allocation recording device for all time allocation collection phases in order to obtain a more accurate data to ensure that the difference between ideal and actual time

allocation is a true representation of the individual's time and not skewed by measurement devices.

A third limitation to the current study involves the free response option in Phase 2 in which participants were able to type what they were doing. Unfortunately, this led to time allocation excerpts that were uncategorizable in terms of research, service, and teaching. For example, a common response was "email for work." It is possible that an email could be research-, service-, or teaching-related. Thus, this may have skewed the self-discrepant time allocations as one may have recorded service work for one hour in Phase 1 as their ideal time allocation but included this specific excerpt of "email for work" in Phase 2 as part of their actual time allocation, which cannot be matched to Phase 1. Other examples of excerpts that were uncategorizable were "other work with/for students", "professional conversations with other faculty, other collegial behaviors (e.g., research/teaching assistance for colleague)", "mentoring faculty", and "professional development activities." Due to the ambiguous responses, again, the self-discrepant time allocation may be less than accurate, which could have skewed the results. Future researchers should use clear and unambiguous codes in order to better quantify time allocations for research, service, or teaching, or another category relevant to one's research. This would allow future researchers to better categorize individuals' time allocations to obtain more accurate data, which would lead to better hypothesis testing.

A fourth limitation to the current study is that the attitudinal perceptions of POS and PJ were measured at two different times. Specifically, approximately 35% of participants completed Phase 1 (including POS and PJ measures) in August of 2017,

almost 1.5 years prior to completing the time diaries. Thus, it might be that too much time had passed between when participants recorded their organizational views (e.g., POS and PJ) and time allocation diaries. It is possible that participants' attitudes about their organization had changed resulting in inaccurate representations of the participants' *current* attitudes of their organization, potentially altering the impact of the independent variables (POS and PJ) on the dependent variable (self-discrepant time allocation). Thus, future researchers should administer attitudinal measures closer to the assessment of their dependent variables.

Future researchers may want to examine other possible antecedents of self-discrepant time allocation that may influence gender differences, such as institutional structures and norms such as the wage gap (e.g., Euben, 2001) or excessive workload (e.g., Jacobs & Winslow, 2004; Misra et al., 2012). In addition, future researchers may want to examine family-life and responsibilities as an antecedent to gender differences in self-discrepant time allocation within academia as family-life and excessive work demands may and do look different for men and women (Winslow, 2010). Finally, future researchers should examine individuals' satisfaction levels regarding their self-discrepant time allocation. Knowing how satisfied or dissatisfied one is with their positive, negative, or neutral (i.e., no discrepancy) self-discrepant time allocation will help researchers better understand and react. For example, a faculty member might have a high score (+6 hours) on self-discrepant time allocation for research on a Tuesday. However, dependent on how satisfied or dissatisfied the individual is with the time discrepancy can shape how the individual, researcher, and organization, should respond.

Conclusion

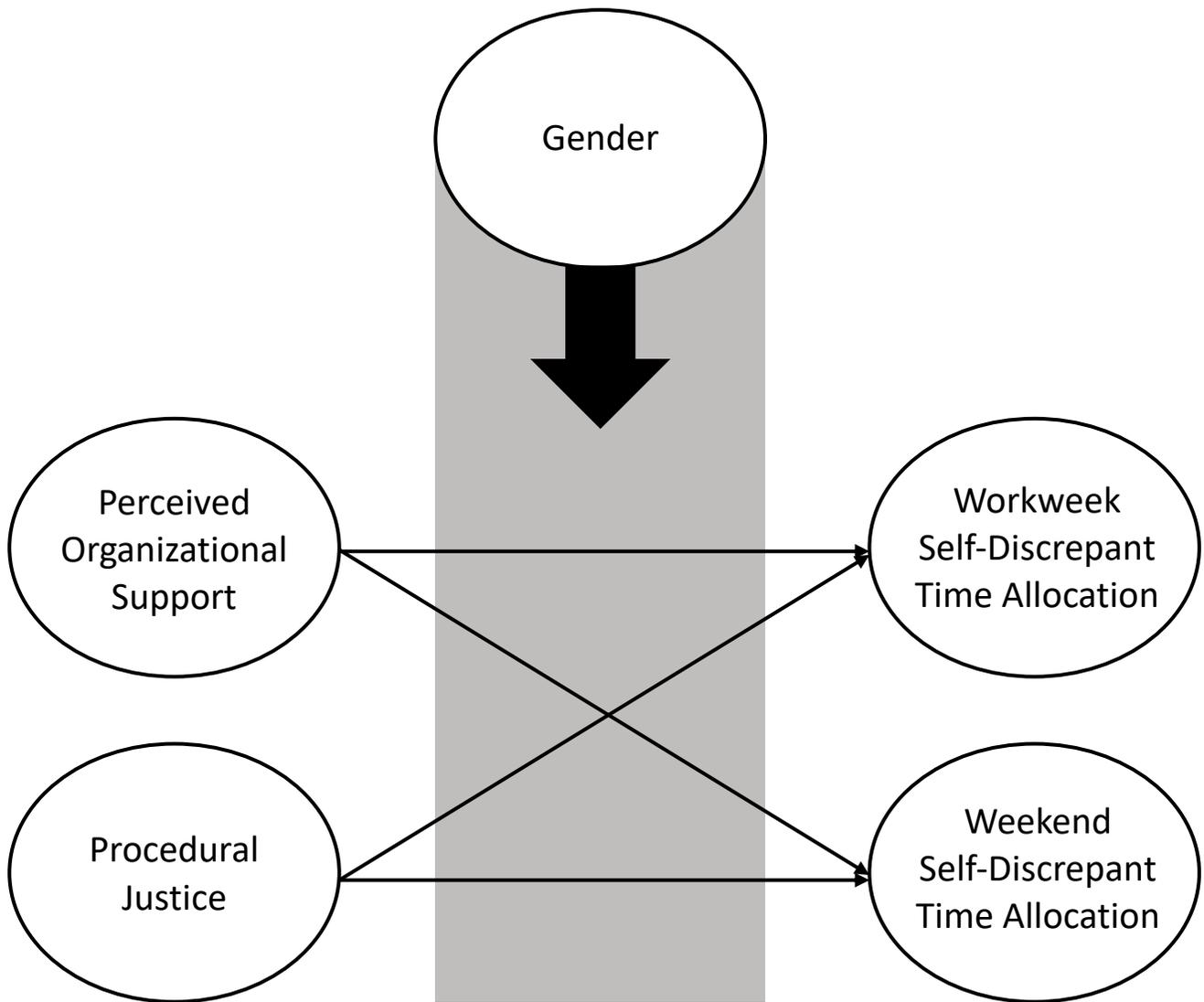
Research, service, and teaching are fundamental parts of academics' roles at universities and other institutions of higher education. Executing these fundamental roles takes a considerable amount of time. Thus, understanding how academics ideally and actually allocate their time along with their self-discrepant time allocation is important to better the workplace. Although the hypotheses in the current study were not supported, this does not suggest that the results were unimportant. By improving measurement (e.g., in time-diary applications), better operationalizing constructs (e.g., self-discrepant time allocation), and better timed administration of measures (e.g., POS), future research may help to provide a positive climate and promote gender equity in the workplace.

APPENDICES

Appendix A

Figure 1

Hypothesized Model of the Relationships between Perceived Organizational Support, Procedural Justice, Workweek Self-Discrepant Time Allocation, and Weekend Self-Discrepant Time Allocation, Moderated by Gender



Appendix B

Codebook for Ideal and Actual Time Allocation

Codes were provided for the participants to use for the ideal and actual time diaries. The codes were either identical to or based on the items in the American Time Use Survey Questionnaire (U.S. Department of Labor, 2017) and the National Study of Postsecondary Faculty (NSOPF; NCES, 1999). These codes were refined through a pilot study conducted in the academic semesters Summer 2016 through Spring 2017. Further the code categories of household, research, service, and teaching were similar to that of Misra et al. (2012).

- Diary includes time spent on the time diary.
- Eat includes eating and/or drinking (non-work-related).
- Household includes cleaning and general housework; cooking and shopping (for the household); home repairs and maintenance; household management, budgeting, and planning; childcare and activities with/for child; care for other loved one; and other household and family work.
- Leisure includes hobbies, arts, sports, and exercise; shopping for pleasure; socializing (face-to-face, via skype and/or phone); social networking and online and electronic use; listening to music, listening to the radio, listening to one's iPod, and listening to other audio content (e.g., podcast); watching TV, DVDs, and downloads; reading (non-work-related material); volunteering; religious activities; did nothing; and other leisure activity.
- Office³ includes office hours.
- Other includes other activities not provided.
- Personal includes personal care and sleeping and resting.
- Research includes reading for background research; designing research and collecting data; writing; collaborating with others; preparing performance or creative work; and other research/scholarship activities.
- Service includes committee meeting, committee work, and other service activities.
- Student³ includes meeting with undergraduate students, supervising/advising graduate students, and other work with/for students.
- Teaching³ includes teaching a class, class preparation, grading, and other teaching activities.
- Travel includes commuting to or from work, personal travel, or waiting.
- Work includes work-related travel; email; administrative activities; mentoring faculty; professional conversations; work meal or event; professional development; professional service, consulting, and/or outreach; and other work activities.

³ Office, student, and teaching were aggregated to form the single category, teaching, for the proposed study.

Appendix C

Measure of Perceived Organizational Support

Please indicate the extent to which you agree or disagree with the following statements about your organization.

- 1 = Strongly Disagree
- 2 = Moderately Disagree
- 3 = Somewhat Disagree
- 4 = Neither Agree Nor Disagree
- 5 = Somewhat Agree
- 6 = Moderately Agree
- 7 = Strongly Agree

1. [Organization] values both my contribution to its well-being.
2. [Organization] really cares about my well-being.
3. [Organization] takes pride in my accomplishments at work.
4. [Organization] cares about my general satisfaction at work.
5. [Organization] tries to make my job as interesting as possible.
6. [Organization] is willing to extend itself in order to help me perform my job to the best of my ability.

Appendix D

Measure of Procedural Justice

Please indicate the frequency of which these experiences happened to you.

- 1 = Never
- 2 = Once in a While
- 3 = Sometimes
- 4 = Fairly Often
- 5 = Often
- 6 = Constantly
- 7 = Always

1. Have you been able to express your views and feelings regarding [Organization's] procedures?
2. Have you had influence over [procedural outcomes]?
3. Have [Organization's] procedures been applied constantly?
4. Have [Organization's] procedures been free of bias?
5. Have [Organization's] procedures been based on accurate information?
6. Have you been able to appeal the outcome(s) of [Organization's] procedures?
7. Have those procedures upheld [moral] and [ethical] standards?

Table 3.1

Hypotheses, Research Questions, and Data Analyses Involving Gender Differences

Hypotheses	Data Analysis
1. Self-discrepant research time allocation will be greater for women than for men in academia during the workweek.	<i>t</i> -test
2. Self-discrepant service time allocation will be greater for women than for men in academia during the workweek.	<i>t</i> -test
3. Self-discrepant teaching time allocation will be greater for women than for men in academia during the workweek.	<i>t</i> -test
Research Question 1. Is there a difference in self-discrepant research time allocation between women and men in academia during the weekend?	<i>t</i> -test
Research Question 2. Is there a difference in self-discrepant service time allocation between women and men in academia during the weekend?	<i>t</i> -test
Research Question 3. Is there a difference in self-discrepant teaching time allocation between women and men in academia during the weekend?	<i>t</i> -test

Table 3.2

Hypotheses, Research Question, and Data Analyses for Perceived Organizational Support (POS)

Hypotheses	Data Analysis
4a. POS will be negatively related to self-discrepant research time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
4b. POS will be negatively related to self-discrepant service time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
4c. POS will be negatively related to self-discrepant teaching time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
4d. POS will be negatively related to self-discrepant research time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
4e. POS will be negatively related to self-discrepant service time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
4f. POS will be negatively related to self-discrepant teaching time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
RQ 4. Is there a gender difference in POS?	<i>t</i> -test

Table 3.3

Research Questions and Data Analyses for Procedural Justice (PJ)

Research Questions	Data Analysis
5a. PJ will be negatively related to self-discrepant research time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
5b. PJ will be negatively related to self-discrepant service time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
5c. PJ will be negatively related to self-discrepant teaching time allocation during the workweek and this relationship will be stronger for women than men.	Multilevel Modeling
5d. PJ will be negatively related to self-discrepant research time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
5e. PJ will be negatively related to self-discrepant service time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
5f. PJ will be negatively related to self-discrepant teaching time allocation during the weekend and this relationship will be stronger for women than men.	Multilevel Modeling
6. Is there a gender difference in perceived PJ?	<i>t</i> -test

Table 3.4

Intercorrelations of POS, PJ, Ideal and Actual Self-Discrepant Time Allocation

Measures	1	2	3	4	5	6	7	8
1. POS	--							
2. PJ	0.43*	--						
Ideal S-D TA								
3. Research	-0.11	-0.19	--					
4. Service	-0.17	-0.16	-0.07	--				
5. Teaching	0.10	0.25	-0.32	-0.27	--			
Actual S-D TA								
6. Research	0.06	-0.14	0.66**	0.06	-0.26	--		
7. Service	-0.15	-0.24	0.44*	0.15	-0.09	0.19	--	
8. Teaching	0.07	0.12	-0.22	-0.45*	0.64**	-0.17	-0.29	--
<i>M</i>	3.63	3.84	13.56	2.42	16.69	10.46	4.02	12.29
<i>SD</i>	1.35	0.99	9.14	2.58	6.23	8.86	5.82	9.50

Note. $N = 33$. POS = perceived organizational support; PJ = procedural justice; S-D TA =

self-discrepant time allocation; *M* = mean; *SD* = standard deviation. The units

representing ideal and actual time allocation (e.g., research, service, teaching) are in

hours for the seven-day week.

*Two-tailed $p < .01$; **two-tailed $p < .001$.

Table 3.5

Hypothesis Testing: Means and Standard Deviations on Study Variables by Gender

	Gender				<i>t</i> (30)	<i>p</i>
	Men (<i>n</i> = 7)		Women (<i>n</i> = 25)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Self-Discrepant Workweek TA						
Research	8.78	13.52	6.48	10.19	-0.49	.63
Service	-0.40	4.73	-1.10	6.63	-0.26	.80
Teaching	6.69	6.09	5.33	6.30	-0.51	.62
Self-discrepant Weekend TA						
Research	-0.69	4.25	-0.74	3.62	-0.03	.98
Service	-0.61	1.43	-0.45	1.10	0.31	.76
Teaching	-1.76	3.42	-1.21	2.72	0.45	.66
Perceived Organizational Support	3.86	1.29	3.50	1.36	-0.62	.54
Procedural Justice	3.90	0.96	3.73	0.93	-0.42	.68

Note. *n* = sample size within condition; *M* = mean; *SD* = standard deviation; TA = time

allocation. Self-discrepant time allocation was calculated by subtracting actual time

allocation from ideal time allocation. Units for time allocation are in hours.

Table 3.6

Hypothesis Testing: Multilevel Modeling Results for Perceived Organizational Support and Procedural Justice

Variable	Workweek			Weekend		
	<i>SE</i>	Wald	<i>p</i>	<i>SE</i>	Wald	<i>p</i>
Perceived Organizational Support (POS)						
Research Time Allocation						
POS	0.19	-0.57	.57	0.32	0.56	.58
Gender	1.61	1.20	.24	2.71	-0.28	.78
Tenure	0.56	1.13	.27	0.94	-1.13	.27
POS × Gender	0.41	-1.27	.22	0.69	0.30	.77
Service Time Allocation						
POS	0.22	-0.66	.51	0.10	-0.52	.61
Gender	1.83	-0.67	.51	0.84	-1.16	.25
Tenure	0.63	-0.63	.54	0.29	1.83	.08
POS × Gender	0.47	0.94	.36	0.21	0.98	.34
Teaching Time Allocation						
POS	0.22	-0.61	.55	0.25	0.43	.67
Gender	1.83	-0.77	.45	2.09	-0.54	.59
Tenure	0.63	0.39	.70	0.72	-1.15	.26
POS × Gender	0.47	0.90	.38	0.53	0.47	.64
Procedural Justice (PJ)						
Research Time Allocation						
PJ	0.29	0.24	.82	0.45	1.18	.25
Gender	2.35	0.72	.48	3.70	-0.07	.95
Tenure	0.58	0.86	.40	0.92	-0.79	.44
PJ × Gender	0.61	-0.77	.45	0.96	0.03	.98
Service Time Allocation						
PJ	0.30	-1.06	.30	0.14	0.69	.50
Gender	2.49	-1.30	.21	1.15	-0.98	.33
Tenure	0.62	-1.17	.25	0.29	1.74	.09
PJ × Gender	0.65	1.50	.14	0.30	0.77	.45
Teaching Time Allocation						
PJ	0.30	-0.85	.40	0.35	1.14	.27
Gender	2.43	-1.82	.08	2.83	1.28	.21
Tenure	0.60	-0.20	.84	0.70	-0.46	.65
PJ × Gender	0.63	1.92	.07	0.74	-1.39	.18

Note. $N = 32$. *SE* = standard error.

Table 3.7

Supplemental Analyses: Means and Standard Deviations on Self-Discrepant Time Allocation by Gender

	Gender							
	Men (<i>n</i> = 7)				Women (<i>n</i> = 25)			
	<i>M</i>	<i>SD</i>	<i>t</i> (6)	<i>p</i>	<i>M</i>	<i>SD</i>	<i>t</i> (24)	<i>p</i>
Workweek S-D TA								
Research	8.78	13.52	1.72	.137	6.48	10.19	3.18	.004**
Service	-0.40	4.73	-0.22	.831	-1.10	6.63	-0.83	.416
Teaching	6.69	6.09	2.91	.027*	5.33	6.30	4.23	.001***
Weekend S-D TA								
Research	-0.69	4.25	-0.43	.681	-0.74	3.62	-1.02	.316
Service	-0.61	1.43	-1.12	.305	-0.45	1.10	-2.05	.052*
Teaching	-1.76	3.42	-1.36	.222	-1.21	2.72	-2.22	.036*

Note. *n* = sample size within condition; *M* = mean; *SD* = standard deviation; S-D TA =

self-discrepant time allocation. Self-discrepant time allocation was calculated by

subtracting actual time allocation from ideal time allocation. Units for time allocation are

in hours.

*Two-tailed $p \leq .05$; **two-tailed $p < .01$; ***two-tailed $p < .001$.

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