

# **Gender Differences in Perceptions of Organizational Climate**

by

Trishna Gautam Patel

A thesis submitted to the Graduate Faculty of  
Auburn University  
in partial fulfillment of the  
requirements for the Degree of  
Master of Science

Auburn, Alabama  
December 13<sup>th</sup>, 2014

Keywords: Organizational climate, psychological contract, perceptions of discrimination, gender in workplace, gender equality, multiple group confirmatory factor analysis

Approved by

Daniel Svyantek, Chair, Professor and Program Director, Department of Psychology  
Jesse Michel, Associate Professor, Department of Psychology  
Alejandro Lazarte, Associate Professor, Department of Psychology

## Abstract

Organizations that have a progressive culture emphasize respect for people through fairness, equality, and support for all employees. Espoused organization values can endorse a progressive climate in theory; however, the pervasive climate that actually exists may not be experienced the same way by all members of the organization. When the perceived inequity targets a specific group, such as women, the result could be a substantial loss in productivity for the organization. Organizational climate is examined for two latent variables—*psychological contract maintenance* and *perceived discrimination*—that may be perceived differentially by men and women in the workplace. Remedying the perceived gap between espoused and practiced values of organizational culture may help that organization remain competitive and successful in its external business environment.

## Acknowledgments

Thank you to Bryan Aiken, Jaymi Patel, Carolyn Guerra, and Aayush Patel, for all the support you have given me in the pursuit of my degree. You constantly pushed me to keep going; your unfaltering and tenacious encouragement inspired me to the very end.

Thank you to Jesse Michel and Alejandro Lazarte for your invaluable feedback, and for working with me on this project. This work has become stronger with your involvement.

Finally, thank you to my advisor, Dan Svyantek, for all your infinite wisdom, patience, support, and creative ideas. Through your guidance, this project was a success. I will endeavor to continue with this trend under your tutelage.

## Table of Contents

Abstract.....	ii
Acknowledgments.....	iii
List of Tables.....	vi
List of Figures.....	vii
Gender Differences in Perceptions of Organizational Climate.....	1
Culture and Climate: Perception and Open versus Closed Climates.....	3
Perceptions of Psychological Contract Maintenance.....	5
Perceptions of Discrimination.....	8
Gender in the Workplace .....	10
Method.....	15
Participants.....	15
Measures.....	15
Procedure.....	16
Results.....	17
Preliminary Analysis.....	17
Multiple Group Confirmatory Factor Analysis.....	18
Step 1: Establish Model Fits for Both groups.....	19
Step 2: Establish a Baseline Model.....	19
Step 3: Test for Equality of Factor Loadings.....	20

Step 4: Test for Equality of Factor Intercepts.....	21
Step 5: Test for Partial Equality of Factor Intercepts.....	21
Step 6: Test for Latent Factor Mean.....	22
Post-Hoc Power Analysis.....	23
Model Identification.....	24
Discussion.....	24
Gender Differences.....	24
Practical and Theoretical Implications.....	26
Limitations and Future Research.....	29
Conclusion.....	32
References.....	33
Appendix A.....	63

## List of Tables

Table 1: <i>Descriptive Statistics for Males</i> .....	42
Table 2: <i>Descriptive Statistics for Females</i> .....	43
Table 3: <i>Model Fit Information</i> .....	44
Table 4: <i>Model Results for Men (Parameter Estimates)</i> .....	45
Table 5: <i>Model Results for Women (Parameter Estimates)</i> .....	46
Table 6: <i>Model Fit Information (Establishing a Baseline Model)</i> .....	47
Table 7: <i>Model Results (Parameter Estimates for Establishing a Baseline Model)</i> .....	48
Table 8: <i>Model Fit Information (Test for Equality of Factor Loadings)</i> .....	50
Table 9: <i>Model Results (Parameter Estimates for Test for Factor Loading Invariance)</i> .....	51
Table 10: <i>Model Fit Information (Test for Equality of Factor Intercepts)</i> .....	53
Table 11: <i>Model Results (Parameter Estimates for Factor Intercept Invariance)</i> .....	54
Table 12: <i>Model Fit Information (Test for Partial Equality of Factor Intercepts)</i> .....	56
Table 13: <i>Model Results (Parameter Estimates for Partial Equality of Factor Intercepts)</i> .....	57
Table 14: <i>Normalized Residuals for the Means/Intercepts/Thresholds</i> .....	59
Table 15: <i>Test for Equality of Latent Factor Means</i> .....	60
Table 16: <i>Item Correlations for Males</i> .....	61
Table 17: <i>Item Correlations for Females</i> .....	62

## List of Figures

Figure 1: Proposed MGCFA Model .....	18
--------------------------------------	----

## Gender Differences in Perceptions of Organizational Climate

The study of organizational climate and culture is one of the most broadly researched areas in psychology. Organizational culture has become key to understanding behavioral patterns in employees, because all behavior in a workplace occurs within an existing cultural context (Mason, 2004). Each organization has its own unique culture and climate that translates into how employees perceive and act within their given environment. There are many differing descriptions of organizational culture; Ravisi and Schultz (2006) have integrated these concepts into a comprehensive, elegant definition. They define organizational culture as “a set of shared mental assumptions that guide interpretation and action in organizations by defining appropriate behavior for various situations” (p. 437). In this view, culture can be seen as the mode through which employees can interpret the expectations in an environment, and that this interpretation guides the appropriate workplace behavior to fit those expectations.

Culture has been shown to manifest itself as six different levels within an organization, ranging from the CEO and executive level, to the departmental level, the divisional levels, geographic/local level, professional level, and issue-related level (Janson, 1994). Of interest to this study is the issue-related level, which can be viewed as a metaphorical level that is related to an important issue that permeates throughout the organization. For instance, cultures of safety or equality are generally viewed as important, and are existent at all functional levels of a company (Janson, 1994).

Within these levels, culture has been shown exist in three layers (Schein, 1985). The first layer is the most observable. It can include any identifiable artifacts, available technology, and/or behavior patterns within a given organization. This layer has been most closely identified as an organization’s climate. Although there has been debate about whether culture and climate should



be treated as separate concepts, no consensus on distinction has been reached and they are often viewed as interchangeable (Denison, 1996; Katz & Kahn, 1978; Payne, 2000; Schneider, 2000), or parts of the same whole. This study will provide reasoning for treating the concepts as interchangeable. The second layer is less observable, and is identified as the fundamental beliefs and assumptions of all members within an organization. These assumptions are ingrained in workers, and are largely taken for granted. In turn, this affects the other two layers of culture. The last layer of culture is identified as an individual's shared values. This is the basic tendency for individuals to have variable preferences that they share with members across the organization (Schein, 1985). Similarly, organizations also declare their own values. However, there is often a disconnect in the values an organization espouses through public claims and the true values that are actually in operation (Gundling, 2000). This translates as the gap between the strategy and governance intended by an organization and employees' overt, at times contrary, behavior.

For instance, most organizations claim to have an open or progressive culture, but often their practices do not reflect these ideals—at least, not uniformly. Employees often experience organizational climate differently based on their subgroup membership. Cultural aspects of an institution experienced by CEOs may not be what lower-level employees experience, and the same variability can exist for members of different ethnic groups, age groups, departments, or genders within an organization. The purpose of this study is to distinguish such possible differing perceptions of open organizational climate between genders within an organization, particularly in the academic environment, where there has been a history of gender inequality. Specifically, the goal is to delineate their differing perceptions of discrimination (based on their subgroup membership), and maintenance of the psychological contract within an organization that has espoused an open climate. In order to examine these differential experiences comprehensively, it

is important to first consider what is meant by an organizational climate, why the perception of discrimination can be detrimental, the importance of maintaining a psychological contract, and why gender is a significant subgroup of consequence in the workplace.

### **Culture and Climate: Perception and Open versus Closed Climates**

As mentioned previously, there has been debate about the distinction between organizational climate and culture, and whether such a distinction exists at all (Ashkanasy, Wilderom, & Peterson, 2000). There has been no conclusion that is agreed upon in literature. For example, James and Jones (1974) compared similarities and differences in the definitions of climate, concluding that organizational climate can be conceptualized as organizational attributes, main effects, and stimuli in present in the environment. Conversely, Schein (2000) described climate as an older, more technical, less exciting way to talk about culture. Climate can also be described as the cultural artifacts in an organization that result from its espoused values and shared assumptions; those artifacts represent a more direct attempt to convey culture (Schein, 1983). In this view, climate can be construed as the identifiable and observable aspect of organizational culture. When culture is viewed as those espoused beliefs, values, and attributions, both concepts are thought to cause one other (Schneider, 2000). Ashkanasy et al. (2000) diverged from this view and discussed climate as the attributes, feelings, and social processes experienced. However, even in their own evaluation, they maintained that the two concepts are not strongly different and represent overlapping interpretations of the same phenomenon. With these conclusions in mind, this study adheres to research that treats organizational climate and culture as interdependent parts to a greater whole.

Now that the rationale of interchangeability between culture and climate has been discussed, the focus is turned to the structure of organizational climate. Halpin (1966)

constructed the Organizational Climate Description Questionnaire (OCDQ) in order to make practical sense of the knowledge about nature of organizations. Through the questionnaire, he identified six organizational climates that exist on a continuum, ranging from 'open' to 'closed.' Open climates are described as energetic, forward-thinking, moving toward its goals, and one that provides satisfaction to members' social and task-related needs. Leaders emerge easily, and fairly, and the climate is seen as an authentic one. A closed climate, contrarily, involves a high degree of apathy in all members, low morale, lack of notable movement, inequity or inappropriateness in leader emergence, and member insecurity that their task or social needs are being met satisfactorily by the organization (Halpin, 1966; Rousell, 1974). The key is that the difference between open and closed climates is based on the perceptions and interpretations of the organizational members. The same experiences may be experienced differently by various individuals and sub-groups within an organization.

This study examines climate and its effects on the two primary sub-groups, defined by gender, within an organization. Most organizations claim to be on the progressive and equal end of the climate spectrum, when often the resulting climate is closer to a closed profile. The implications of this disparity in vision and execution are cause for concern, in terms of adhering to an overall organizational strategy. If an employee's expectations of an organization's culture are not met, or there is poor fit, consequences can negatively impact their job satisfaction and overall performance (Adkins & Caldwell, 2004; Svyantek & Bott, 2004). Culture and climate have also been related to organizational outcomes such as leadership effectiveness and organizational citizenship behaviors (Ashkanasy, Wilderom, & Peterson, 2000). Another notable impact of organizational culture is its role in the recruitment process; organizations recruit employees with similar values to their own. In turn, once hired, employees may not choose to

remain with an organization that does not exhibit compatibility to their values, which could result in employee turnover and loss of organizational investment in member training (Schneider, 1987). Loss of productivity is a significant consequence to organizations; for this reason, it is essential to bridge the gap between employee expectations and experiences.

Current measures of climate profiles administer an array of questions directed at assessing overall experiences and perceptions of climate within an organization. This study aims to dissect a climate questionnaire to uncover the effects of existent latent constructs, which may lead to perceptions of differential treatment between employees and their perception of this climate as open versus closed. The first latent construct of interest is the perception of a climate that maintains the employer/employee psychological contract. The second construct is the perception of a climate of discrimination. Alternately stated, this research believes that the existent organizational variable of Organizational Climate, actually has two latent constructs within it (Climate of Psychological Contract Maintenance and Climate of Perception of Discrimination), and that these constructs relate to males and females differently. Both of these phenomena are believed to be of importance in profiling perceptions of organizational climates; their differential experiences relative to subgroup membership of gender may result in important organizational implications.

### **Perceptions of Psychological Contract Maintenance**

Rousseau (1995) conceptualizes a psychological contract as “individual beliefs, shaped by an organization regarding terms of an exchange agreement between individuals and their organization” (p. 9). It can largely be viewed as an output of social and economic exchange of an employer and employee relationship (Argyris, 1960; Schein, 1965). It should be stressed that a psychological contract between an employee and an organization differs from any other form

of agreement in that it is not written. The terms of the contract are a perception, mutually agreed upon by both parties; when they are working interdependently within the confines of the unspoken agreement, performance should be satisfactory for the organization and the employee. Psychological contracts are self-fulfilling to the extent that there is a mutual predictability of outcomes based on an understanding (Rousseau, 1995). These contracts are created based on promises in interviews, reliance on norms, acceptance of expectations, and the perception of mutuality in this understanding. An example of a psychological contract is an employee's belief that their employer will provide benefits, opportunities, or even basic experiences such as training. These are expectations that are not specified in a formal contract (Cangemi & Miller, 2007; Stirling, Kilpatrick, & Orpin, 2011).

Failure of an organization to meet these expectations is interpreted by the individual in varying degrees; they can interpret it as a breach (cognitive assessment of circumstances) or as a violation (emotional state caused by circumstances). Additionally, inability to meet these unwritten expectations can cause employee disengagement, decreased organizational or task commitment (Chiang et al., 2012; Robinson & Morrison, 2000), and reduction in productivity (Cangemi & Miller, 2007). Psychological contracts mediate the role between employee engagement and commitment (Bal, Kooil, & De Jong, 2013). Further, failure to maintain a psychological contract has also been linked to decisions influencing turnover (Botsford & King, 2012; Stirling, Kilpatrick, & Orpin, 2011).

These consequences highlight the importance of examining the perceived maintenance of a psychological contract in terms of organizational climate. Research has previously linked psychological contracts with several different types of organizational cultures. Richard, McMillan-Capehart, Bhuian, and Taylor (2009) found that hierarchical organizational cultures

(i.e., those that emphasize rules and increased power distance between managers and subordinates) negatively impacted perceptions of psychological contract, whereas clan cultures (i.e., those that emphasize internal cohesiveness) had a positive impact on them. Absence cultures (i.e., those that promote salience of the normative practices regarding appropriate instances of employee absenteeism) had a negative relationship with perceptions of psychological contract (Nicholson & Johns, 1985). A few studies have examined psychological contracts as they relate to perceptions of open organizational culture. Cangemi and Miller (2007) determined that formulation and maintenance of psychological contracts are effective processes that result in an open organizational climate as an outcome. Open organizational culture and the maintenance of psychological contracts have also been studied as joint antecedents that result in organizational effectiveness (Paull, 2000).

This paucity of research has amounted to no studies that have investigated the role of psychological contracts as a functioning component of organizational climate, or how this conceptualization may result in differential perceptions of organizational climate by subgroup membership. Suliman's (2002) view of psychological contracts as a dimension of their overall measure of Work Climate, has come closest to assessing this relationship in extant literature. Nonetheless, they did not elaborate on their use of psychological contracts—whether they have been maintained or breached—specifically, nor did they provide any conclusions about the use of viewing psychological contracts as a working element within the larger workplace climate. Considering the breadth of organizations claiming to have a fair and equitable workplace climate, the growing need to better understand its actual pervasiveness in the workplace is becoming evident. Relatedly, the effects of a perceived climate of psychological contract maintenance on different genders of employees working within an espoused progressive climate,

may provide valuable information about the broader context in which organizational culture operates.

This study aims to further explore the complexities of organizational culture, by investigating latent constructs that operate within its framework, and discussing potential implications of any observed differential functioning of these latent constructs. The importance of examining the first latent construct, a climate of psychological contract maintenance, has been discussed; in order to understand the role of the perception of discrimination within the context of organizational culture, it is necessary to first understand the nature and consequences of this phenomenon in the workplace.

### **Perceptions of Discrimination**

Banerjee (2008) defines perceived discrimination as the “situation in which an individual feels they have been treated unfairly because of their membership of a particular social category” (p. 384). The perception of discrimination can be just as damaging and consequential as the actual act of discrimination. Employees who perceive discriminatory behavior towards them, are actually experiencing treatment that is a deviation from the expected norm (Banerjee, 2008; Daldy, Poot, & Roskrug, 2013).

These perceptions of discrimination are so detrimental, because they can lead to conflict or feelings of alienation, which in turn can have organizational and personal consequences. For example, it has been shown to decrease productivity, organizational commitment, job satisfaction, and well-being by way of physical and psychological health (Bradley, 2010; Daldy et al., 2013; Ensher, Grant-Vallone, & Donaldson, 2001; Pavalko, Mossakowski, & Hamilton, 2003). It has also been shown to increase turnover intentions and the intent to file a claim for discrimination (Bradley, 2010; Jagusztyn, 2011).

A concern with the study of a perceived climate of discrimination, is that it tends to be under-reported (Kaiser & Major, 2006). The tendency to withhold its experience, along with the subjective nature of the cases that are recounted, has led to difficulties in the study of this phenomenon (Banerjee, 2008). Consequently, there have only been a few studies that have linked perceptions of discrimination to organizational cultures; even in those cases, the specific types of culture that have been examined are largely based on demographic attributes. For example, perceptions of discrimination have been negatively related to racial climate (i.e. a climate that encourages the comprehension of attitudes and behavior toward race and ethnicity) in a campus setting (Tynes, Rose, & Markoe , 2013). Another study found the joint effects of age diversity and perceived climate of age discrimination, to negatively relate to performance (Kunze, Boehm, & Bruch, 2011). An alternative study to the stream of research that focuses on demographic-based cultures has implied that lower levels of employees' perceived discrimination, in conjunction with an affirming culture, can lead to higher engagement and involvement (Chrobot-Mason & Button, 1999), but has not directly examined the relationship of these two variables.

There have been no studies in extant literature that have examined the perceptions of climate of discrimination as a functioning component of studying overall organizational cultures. Climates of perceived discrimination are in stark contrast to the values espoused by organizations that claim to advocate progressive climates—much to their detriment. The possible concurrence of these divergent climates provides further reasoning for examining perception of discrimination as a latent construct while assessing organizational climate questionnaires.

According to social identity theory, when a comparison group readily exists, and an individual feels that they have been treated unfairly because of their membership in a subgroup,



discrimination is perceived (Banerjee, 2008). Additionally, members who strongly identify with a subgroup that has been historically shown to be at a disadvantage perceive greater discrimination than their comparison group. A widely-known example of a historically disadvantaged subgroup is women in the workplace. It is critical to overview this history, in order to understand the need to look at gender as a subgroup that is at risk of experiencing an inequitable organizational climate.

### **Gender in the Workplace**

The disparity in employee experiences of climate—as they differ from the organization, or other subgroups within an organization—has been discussed with regard to the need of further examination of this phenomenon (Jagusztyn, 2011; Kaiser & Major, 2006; Stirling et al., 2011). Researchers are beginning to consider the significance of differences in perspective and experiences associated with different social groups (Berdahl & Anderson, 2005). Understanding these differential experiences could give valuable insight into predicting group norms, behavior, and preferences as they affect the workplace environment. In order to begin comprehension of the intricacies of perceptions of climate, it is critical to identify potential groups that may be experiencing or perceiving an imbalance. This study examines gender as a critical subgroup, one of particular importance in the workplace. Historically, women have been at a disadvantage of tremendous magnitude in the workplace (Bryan & Boring, 1947; Astin, 1972). As women gradually acquire more leadership positions in organizations, it becomes increasingly important to examine the nature and extent of the similarities and differences they experience in culture as compared to males (Eagly, Karau, & Makhijani, 1995).

This need for focusing on gender is especially necessary because of the particular historical adversities women have endured in the workplace. Examples of unfair treatment of

genders in organizations have been evident in a variety of settings, but the obstacles faced in academia have been particularly challenging (Astin, 1972; Pfafflin, 1984; Solmon, 1978). Traditionally, in academic settings, especially at the university level, women are reported to hold lower ranking positions (Astin, 1972; Bronstein, Black, Pfennig, & White, 1986), have less recognition for their work (Astin, 1972; Over, 1981), acquire less tenure (Astin, 1982; Pfafflin, 1984), have a lower rate of hiring and promotion (Teghtsoonian, 1974), and—perhaps the most consistent results over time—earn less salary (Astin, 1972; Bryan & Boring, 1947; Over, 1981; Pfafflin, 1984; Teghtsoonian, 1974) as compared to their male counterparts. Even when other qualifiers were equal—such as number of publications, level of degree earned, academic ranking, position held, and immobility—women still have been shown to earn lower salaries compared to men, have less of a chance for upward mobility, and have unequal stature within departments (Solmon, 1978).

Decades later, contemporary studies are still finding similar results in terms of gender inequity. A study on culture and gender in medical schools found that the medical schools employ an average of 43 women compared to 192 men; in these institutions, male career advancement was also reported to be faster than female career advancement (Pololi, Civian, Brennan, Dottolo, & Krupat, 2012). The study concludes that medical schools have failed to create a workplace environment that supports and fully accepts female employees (Pololi et al., 2012). A lack of feeling acceptance and inclusion is not uncommon for females in academia; even when they hold higher ranking positions, they experience higher rates of exclusion from doctoral committees, group grants, decision making processes, and departmental discussions of research or promotions (Martano & Griffin, 2011). Other studies have reported female employees having increased feelings of isolation from their male peers (Schroen, Brownstein, &

Sheldon, 2004), and lower rates of academic productivity, available time to spend on research, and overall support received (Kaplan et al., 1996). Females still receive less salary, positions of tenure, leadership, rank, promotions, and opportunities for advancement compared to their male counterparts (Foster, McMurray, Linzer, Leavitt, Rosenberg, & Carnes, 2000; Kaplan et al., 1996; Polpli et al., 2012; Touchton, Musil, & Campbell, 2008; Wright et al., 2003). The need to focus on the experiences of this subgroup is evident.

Research on these discriminatory practices against women in academic settings has attempted to provide insight into the challenges they may face, justifications that have been previously used to propel such disparate treatment, and consequences of this inequity. For instance, females have been reported to hold greater non-tenure track positions and lower positions of governance processes in academic institutions; however, even if they are on a track to tenure, they are more likely to face barriers in actually obtaining tenure and/or advancement to leadership positions (Bilimoria, Joy, & Liang, 2008; Eagly et al., 1995; Furumoto & Scarborough, 1986), and encounter more negative experiences than their male counterparts. A historical explanation of this transpiration purports that women are not preferred in top level positions because they have been viewed as being less prestigious than men (Boring, 1951). Another reason for their lower academic advancement is that in the past, women have been believed to be less productive than men (Guyer & Fidell, 1973). Even successful female leaders have been viewed as less effective in their positions than males; this negative perception leads to discriminatory treatment (Guyer & Fidell, 1973).

Bilimoria et al. (2008) administered a climate survey to several universities, at the micro and macro level, with the goal of obtaining knowledge and direction to break down barriers for women's participation and effectiveness within those existent organizational climates. They

found that women have been perceiving the internal climate of their respective universities to be more disrespectful, noncollegial, sexist, competitive, non-supportive, intolerant of diversity, and non-egalitarian than males. Discouraging as these results may seem, their study has provided valuable insight into what female employees at universities have been experiencing, on a large scale.

The cause of these negative climate perceptions is difficult to determine. One possible explanation could be attributed to social role theory (Eagly et al., 1995). With regard to this situation, social role theory states that members have implicit social expectations for different gender roles in the workplace. If females act consistently to these gender-based expectations (i.e. are interpersonal and supportive), no negative consequences arise. However, if they act inconsistently to social expectations of feminine behavior (i.e., are authoritative or directive), negative perceptions surface regarding their effectiveness, especially at the leader level, and they experience role conflict. If females continue to challenge the expected norms by exhibiting traits expected from males, they amplify their role conflict, increase chances of receiving negative evaluations, and increase feelings of devaluation (Eagly et al., 1995; Pratch & Jacobowitz, 1996). In turn, they are likely to further experience a more negative perception of organizational climate; this has been shown to lower self-confidence, which is related to lower performance (Eagly et al., 1995). Similarly, expectations of female employees also could potentially play a part in explaining their negative perceptions of organizational climate in academic settings. Through the prevalent culture of an organization, if women have expectations of an existent glass-ceiling, they may be less likely to apply for leadership positions than equally qualified males (Eagly et al., 1995), potentially resulting in a self-fulfilling prophecy of low levels of advancement.

The negative outcomes of gender-related social expectations are examples of perceived discrimination. This is a problem for organizations because in certain settings—especially in educational organizations—males performed slightly worse than females in leadership effectiveness (Eagly et al., 1995; Martell & DeSmet, 2001). In more “masculine” settings, such as the military, males perform more effectively in leadership positions; female leaders are underrepresented and associated with stereotypes of more emotion-based attributes (i.e., cheerfulness, understanding, friendly, etc.) that are not as valued at higher levels (Looney, Robinson Kurpius, & Lucart, 2004). These gender stereotypes are often translated into discriminatory behavior—such as mistreatment and unequal hiring decisions—that adversely affects female employees (Davison & Burke, 2000; Martell & DeSmet, 2001).

Compared to the historic treatment of women in academia, contemporary views recognize their significance as a resource in the workplace, and are steadily acquiring more leadership positions. However, there is still a notable amount of inequity in their treatment and utility. The evidence of incongruous treatment of female employees in the workplace, especially in academia, is indisputable and plentiful. Holding this in consideration, there is reason to believe that gender subgroups experience perceptions of organizational climate differentially. This study aims to examine this differential perception by identifying and analyzing two latent constructs of organizational climate perceptions—climate of psychological contract maintenance and perceptions of a climate of discrimination based on subgroup membership—in hopes of better understanding the nature of how organizational culture manifests. The results are expected to be consistent with literature on gender discrimination.

Hypothesis 1: Male employees will have an increased perception of an organizational climate that reflects psychological contract maintenance as compared to female employees.

Hypothesis 2: Male employees will have a decreased perception of an organizational climate that reflects discriminatory practices as compared to female employees.

## **Method**

### **Participants**

The data for this study was archival, and was collected from a large southeastern university. An assessment was performed at the university level, and a uniformly distributed to all faculty members electronically. The sample consisted of 268 faculty members; 130 female and 138 male. Of the participants, 208 were Caucasian/European, 13 were African American, 11 were Asian/Pacific Islander, 6 were Latin/Hispanic, 2 were Native American/American Indian, 3 were Multiracial, and 25 participants did not indicate race or ethnicity. Participants were selected from various colleges and departments within the university to capture variation in differing climates.

### **Measures**

*Organizational Climate.* A climate questionnaire based on the Harvard Collaborative on Academic Careers in Higher Education (COACHE, 2007) was modified and administered to assess perception of an organizational climate. The COACHE survey initially polled faculty members to compile and compare trends between public and private institutions of higher education. Specifically, they examined pre-tenure faculty satisfaction with key elements of their work lives and workplace climate (Ponjuan, Conley, & Trower, 2011). They examined several workplace outcomes. The initial survey assessed various aspects of climate: clarity and

reasonableness of the expectations for tenure; support for teaching and research; support for family and personal life; climate, culture, and collegiality; policies and practices; and compensation and benefits (Benson & Trower, 2012; Trower, 2009). Unfortunately, regarding climate, culture, and collegiality, results did not differ dramatically between departments (Gallagher, 2007). For this reason, the survey was shortened and modified to fit the current university setting in an attempt to assess an organizational climate profile showing differential perceptions by gender. Items of this modified questionnaire assessed differing climate perceptions with respect to morale, discrimination, fairness, accountability, assistance, discrimination, and leadership. Items are statements which the subject must rate using their judgment. The overall scale consists of eight items. Each item is measured with a 5-point, Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). (Values coded as 6= n/a; these items were recoded as missing and removed). Items are provided in Appendix A.

### **Procedure**

As discussed, this research is interested in studying a variable (Organizational Climate) that has two latent constructs within it (Perceptions of a Psychological Contract Maintenance Climate and Perceptions of a Discrimination Climate), and how these constructs relate to males and females differentially. Participants were instructed to take an anonymous survey measuring organizational culture. The culture survey, based on the Harvard Coache measure, assessed participants' respective perceptions of organizational climate within their workplace, and ascertained demographic information (i.e., gender, department, etc.) as it might relate to their experiences of workplace climate. Each participant was given a personal identification number; all of their assessments were coded under their corresponding code in order to protect privacy. The items on the questionnaires were presented in a brief online session. Any participants were

removed from sample if they had incomplete responses on all items of the climate scale.

Participant responses were analyzed for existence of the proposed latent constructs and any differential results of organizational climate perceptions based on participant gender.

## **Results**

### **Preliminary Analyses**

All data were coded for missing values; subjects missing all data were removed from the dataset. A missing value analysis was conducted in Mplus; missing data patterns and covariance convergence of data were examined. The missing data patterns revealed 7 patterns, but only between 1-3 cases of each were missing. The covariance convergence of data revealed that all items had above 97% complete data when two variables were paired. Due to the fact that there were missing data, Little's Missing Completely At Random (MCAR) test was conducted to determine if the data was missing completely at random. The data were determined to be missing at random or missing not at random. To best deal with this pattern, all subsequent analyses were conducted using the Full Information Maximum Likelihood model (FIML). The method of analysis needs to examine fit statistics of multiple models, so the FIML method was viewed as more advantageous than multiple imputation or deletion.

To further examine the normality of data, a check for outliers, skewness, and kurtosis was conducted. Skewness for all variables was within the standard range of -3 to 3; kurtosis values were all fairly close to 0, which is less than the recommended absolute value of 10 (see Table 1 for descriptive statistics for males; see Table 2 for descriptive statistics for females). Outliers were checked in triplicate; no outliers were found. Univariate outliers were assessed with the test for the median value  $\pm 2IQR$  (Interquartile Range); all items were within range. Bivariate outliers were assessed with observing scatterplots; multivariate outliers were checked for using



the test for Mahalanobis distance, at the  $p < 0.001$  significance level. Data were determined as normal and were split by gender to run subsequent analyses.

### Multiple Group Confirmatory Factor Analysis (MGCFA) for Proposed Model

A two-factor model was proposed, consisting of the latent variables of interest: psychological contract maintenance climate and perception of a discrimination climate, based on subgroup membership. The procedure used to determine gender differences in the perceptions of the two factor model of an overall organizational climate profile was a Multiple Group Confirmatory Factor Analysis (MGCFA); proposed model visualized below.

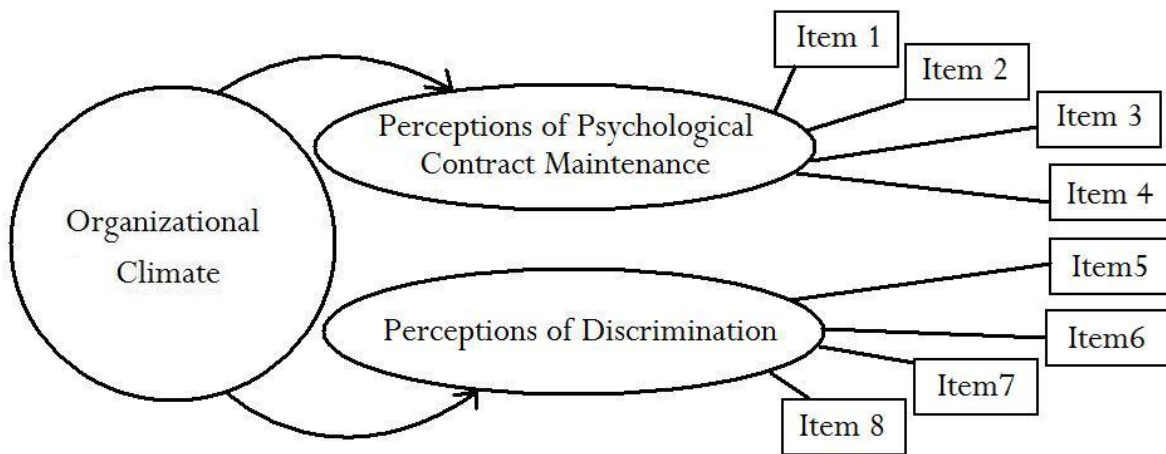


Figure 1. Proposed MGCFA model

The MGCFA was run in a series of sequential steps; the two subgroups were compared by constricting parameters to establish equality and maintenance of a good model fit. Each step resulted in a new model which can be viewed as nested within the preceding model. In order to determine the quality of the newer models, the fit statistics of the two models were compared to test a difference in model fit. Sequential procedures of testing fit were repeated until equality in the mean structures of the latent constructs could be established across the two groups. In order for the hypotheses to be supported, an inequity of mean structures for the two genders was the

expected result. The detailed statistical procedures, analyses, and their resulting products are described below.

*Step 1: Establish Model Fits for Both Genders*

In the first step, a Confirmatory Factor Analysis (CFA) was conducted on both groups to ensure the model was a good fit for both genders. This determined that the same overall two-factor structure worked for both groups. Two separate CFAs were conducted for each group and the model fit (see Table 3) and general unstandardized model estimates were examined (see Table 4 for men and Table 5 for females). The model fit was good for both groups. The Chi-Square test statistic ( $\chi^2$ ) was not significant so the chi-square null hypothesis, that the fit is perfect, could not be rejected for either group (Males  $\chi^2 = 23.343$ ,  $p = 0.226$ ; Females  $\chi^2 = 27.385$ ,  $p = 0.096$ ). The lower limit of RMSEA (Male: 0.000, 0.089; Female 0.000, 0.103) indicates the hypothesis that the fit is close cannot be rejected because it is less than .05 for both groups; the upper limit indicates that the poor fit hypothesis for males can be rejected because it is less than .10, but not for females; SRMR indicates a low average discrepancy between implied and observed correlation matrices for both groups (Males = 0.053; Females = 0.045). CFI/TLI are above .97 for both groups. The factor loadings were observed as similar across both groups. No loadings were determined as potentially problematic; overall fit was good.

*Step 2: Establish a Baseline Model*

Once good fit was established for both genders, data for both groups were combined. A CFA was conducted on both groups simultaneously; all factor loadings across both groups were freed, in order to establish a baseline model (or equal form) for comparison in subsequent steps. The model fit (see Table 6) and general unstandardized model estimates are reported (see Table 7). The following steps were nested in our baseline model. If the  $\chi^2$  values are compared to those

from step 1, it can be observed that step 2 yields a sum of the  $\chi^2$  and Degrees of Freedom (DF) values from both groups. The results convey that the same number of factors fits both groups. Overall fit was still good; chi square ( $\chi^2 = 50.728$ ,  $p = 0.0811$ ) was not significant the perfect fit null hypothesis cannot be rejected. RMSEA (0.000, 0.083) indicates the close fit hypothesis cannot be rejected, but the poor fit hypothesis can be rejected; SRMR (0.049) indicates a low average discrepancy between implied and observed correlation matrices for both groups. CFI/TLI are each above .98. Taken together, these indicated a good overall fit, so there is justification in proceeding to step three.

For each of the following steps, the resultant models were compared to the one from the step before (e.g., step three model was compared to step 2, step 4 model was compared to step 3, etc.) to maintain that the newer models still have good fit as compared to the preceding ones.

### *Step 3: Test for Equality of Factor Loadings*

In this step, in order to establish factor loading invariance, a multiple group analysis model was run, while constraining the factor loadings for each item to be equal across both groups. In order to proceed, it must first be determined that the factors for each items load the same way onto the latent variables for both genders. The model fit (see Table 8) and general unstandardized model estimates are reported (see Table 9). The new fit of this constrained model was compared against the baseline model to justify further analysis. A  $\chi^2$  difference test was conducted between this and our baseline model from step two in order to test for equivalence of factor loadings across groups (comparing the nested model to the baseline model). At this point, the factor loadings are equal, but the factor variances, factor covariances, residual variances, and intercepts were still freely estimated. Our  $\chi^2$  is slightly larger, but not significant enough to reject the perfect fit null hypothesis. RMSEA (0.000, 0.080), SRMR (0.058), and CFI/TLI (above .98)

still indicated a good fit. The  $\chi^2$  difference test yielded a value of 6.796; the critical value for 6 DF of the difference test in standardized  $\chi^2$  distribution table is: 12.59.  $6.796 < 12.89$ , so full factor loading invariance was established. It was concluded that constraining factor loadings to be equal across both genders does not significantly worsen the fit from our baseline model. The results justified in proceeding to step four.

*Step 4: Test for Equality of Factor Intercepts*

In this step, the test was for cross-group equality of intercepts. The analysis was conducted by fixing the intercepts for all items to be equal across both groups; however, the means for the female group were allowed to load freely, and males were fixed at zero. The same basic idea as step three applied; in order to proceed, it had to be determined that the intercepts for each item were equal for both genders. The model fit (see Table 10) and general unstandardized model estimates are reported (see Table 11). The new fit in this equal intercept model was compared to the previous, loading constraint model of step three. A  $\chi^2$  difference test between this model fit and step three was conducted. Our  $\chi^2$  for this step is larger, but not significant enough to reject the perfect fit null hypothesis. RMSEA (0.051, 0.103), SRMR (0.077), and CFI/TLI (above .95) still indicated a moderately good model fit, even though the values indicate a slightly poorer fit than the preceding model. The  $\chi^2$  difference test yielded a value of 32.981; the critical value for 6 DF of the difference test in standardized  $\chi^2$  distribution table is: 12.59.  $32.981 > 12.59$ , so full cross-group intercept invariance was not established. It was concluded that constraining intercepts to be equal across both genders does significantly worsen the fit from our baseline model. Before proceeding to the next stage in the sequence, partial intercept invariance must be established across genders.

*Step 5: Test for Partial Equality of Factor Intercepts*

For establishing partial intercept invariance, the loadings for the intercepts that were significantly different across groups were freed up, in order to improve the model fit. The model fit (see Table 12) and general unstandardized model estimates are reported (see Table 13). In order to determine which item intercepts were best suited to freely load, the modification indices were examined to find evidence of localized points of strain. No problematic items were found, so the normalized residuals for the means/intercepts/thresholds were examined (see Table 14). There were three items that were significant: items 3, 5, and 8. Their intercepts were freed up one at a time to load across groups in order to determine if the overall model fit was improved. They were freed up one at a time because each additional free intercept would result in one less DF, which would result in lower power. Once these were free, the new model fit (with partial intercept constraints) was then compared to the model fit from step three (with only factor loading constraints), and another  $\chi^2$  difference test was conducted. The  $\chi^2$  difference test yielded a value of 4.788; the critical value for 3 DF of the difference test in standardized  $\chi^2$  distribution table is: 7.81.  $4.788 < 7.81$ , so partial intercept invariance was established. It was concluded that the model fit, with constraining some item intercept to be equal across both genders, did not significantly worsen the fit from our preceding model, so there was justification in proceeding forward. RMSEA (0.000, 0.080), SRMR (0.061), and CFI/TLI (above .98) still indicated a good model fit. At this point, because there were only two groups for comparison, so there was no need for subsequent analysis.

#### *Step 6: Test for Latent Factor Means*

As a final measure (once full factor loading and partial intercept invariance were established across groups), there was justification to determine if there was equality of latent mean structures across groups. The latent variable means for the two groups were examined and

compared in order to determine if there was a significant difference in climate perception across the two latent variables between genders. There were only two groups of comparison in this study, so there was no need to do further analysis and the last step was comparing the means for interpretation. The referent group was males, so the test for significance determines if the females deviate from the males in the means for the two latent factors (see Table 15). The mean difference for perception of a climate of psychological contract maintenance ( $M = -0.101$ ,  $p = 0.428$ ) was not significantly different across genders, even though females had a more negative perception of psychological contract maintenance. The first hypothesis was not supported; however, the second hypothesis was supported. The mean difference for perception of climate of group membership discrimination discouragement ( $M = -0.281$ ,  $p = 0.002$ ) was significantly different across males and females; females sensed a lower climate of discouragement for discrimination based on group membership.

### **Post-Hoc Power Analysis**

A post-hoc power analysis was conducted for the test of not-close fit hypothesis. The overall model was tested for power as opposed to individual parameters. The null hypothesis for the test of not-close fit states that the fit is not close; if the model fits well in the population, power determined by this test is regarded as the probability of rejecting the null hypothesis. The test was conducted using Table 2 provided by MacCallum et al. (1996, p. 142), which sorts power based on DF and sample size for post-hoc analyses. The DF for our overall model fit was 47, and the sample size was 268. Based on these values, the power for rejecting the not-close fit hypothesis for our sample was between 52.3% and 78.8%. This is regarded as moderate to poor power for rejecting the null hypothesis. A further discussion of the power analysis is offered in the interpretation of the results.

## **Model Identification**

First the t-rule is applied (a necessary rule). The number of parameters to be estimated was 17 (6 loadings, 2 factor variances, 1 covariance, and 8 residual variances). The number of data available is 36 ( $8(9)/2$ ), which exceeds the number of parameters to be estimated, so the t-rule is passed.

The second aspect of model identification pertains to handling scale dependency. In this study scale dependency was handled using the marker indicator method. For each step, one indicator per latent factor was fixed at 1.

The 3-indicator rule was also applied. This model had two latent variables, each with more than three indicators, no correlated errors, and each indicator only loaded onto one latent variable. The 3-indicator rule is sufficient and passed.

Once the t-rule was passed, and it had been established that the covariance part of the model was identified, the mean structures part of the model needed to be established. The total number of parameters to estimate is 27 (17 from before, 8 intercepts, and 2 factor means). The total available information are 44 ( $8(11)/2$ ), leading us with a degrees of freedom of 17. However, now that the number of parameters to estimate actually exceeds this acquired data, the means of the latent variables must be constrained to 0. With those fixed, the number of acquired data (8) now matches the number of intercepts (8), and the model is just identified with 0 DF and 0 addition to chi-square.

## **Discussion**

### **Gender Differences**

These results suggest that there are some significant implications in the differences on how an employee perceives their organizational climate, based on their gender. Men and women

see the climate for discrimination based on group membership differentially. Females tend to perceive more discrimination, and less positive of a climate than men. Although the difference was not statistically significant, the average perception of a climate for psychological contract maintenance was lower for females when compared to males. A potential explanation for the lack of significance for this difference could be due to a smaller sample size. Further replications are needed to detect significant differences. Hypothesis 1 was not supported; Hypothesis 2 was supported. The differences seen by gender for Hypothesis 1, however, were in the predicted direction. Implications and possible explanations of these results will be discussed below, in detail for future researchers.

These results have important implications with regard to the impact of organizational culture. The pervasive culture of an organization affects the values and attitudes of all employees, typically beginning at the management level. The active culture affects how they choose to treat their subordinates, and the expectations those subordinates have about appropriate workplace behavior. Rousseau (1995) found that managers play a special role in making or breaking the psychological contract of employees. An example of this would be management mitigating effects of unmet expectations (a breach in the psychological contract) on the part of the employees, by working with them and cutting special deals, creating opportunities, and providing emotional support and confidence (Rousseau, 1995). In addition to psychological reactions, such as morale, there has been evidence that organizational climate can strongly affect the bottom-line organizational performance (Kotter & Heskett, 1992, p. 104; Svyantek & Bott, 2004).

In this study, both genders perceived psychological contract maintenance equally; however, females were observed to have a higher perception of a climate of discrimination based



on their group membership. Females perceived their workplace climate to have more of a lack of accountability for discrimination, as compared to males, which may have led to increased negative perceptions of overall organizational climate. This could be indicative of female employees experiencing a more closed climate profile within the organization. If one subgroup of employees (in this case, females in the university setting) experiences these negative climate perceptions more than another, it could lead to feelings of inequity or being under-valued, which could lead to attrition. This is cause for concern because if women feel the need to self-select out, organizations stand to lose a substantial portion of talent in the workforce through loss of diversity (Astin, 1972). Additionally, failing to provide the same encouragement to women as is provided for men has a similar effect, resulting in an issue of poor human resources utilization (Pflafflin, 1984).

### **Practical and Theoretical Implications**

The implications of this study call for a more thorough and deliberate development of organizational culture. Schein (1992) outlined two major processes of organizational culture as external adaptation and internal integration. As this study highlights the need for organizations to reexamine the true culture they may have in effect, a potential motivation for this analysis could be external adaptation. External adaptation can be viewed as an evolutionary process (Schein, 1992); organizations assess the changing needs of their external environment, and must adapt to be successful in that macro-level business economy. In this case, the global workforce environment is becoming increasingly egalitarian, with a need for more diversity and equality (Bilimoria et al., 2008). Organizations with a perceived climate of discrimination must firstly recognize its existence, and in response, adapt to their outside, progressive environment. The second process, internal integration, is the commitment of values throughout the social structures

of the organization. Integration leads to increased cohesion and professional socialization (Schein, 1992). In this case, on a micro-level, organizations must actively integrate a functionally open climate across its different levels in pursuit of strengthening the structure of its climate.

In order to cultivate equity, organizations must refocus the traditional character of the workplace away from just utilizing employees of a certain type, and instead accommodating a different type; institutionalized routines and social practices that have been ingrained in the fabric of their social structures need to be transformed wholly (Bilimoria et al., 2008). In sum, an adaptive culture is better than an unchanging organizational culture, and organizations must strive to adjust and acclimate to their changing external environments (Schein, 1992).

Adaptation involves large-scale transformation. Transformation requires fundamentally altering the organization's culture by carefully establishing the vision of the end-goal, outlining a strategy to achieve that vision, offering comprehensive administrative support, collaborating on leadership, and most importantly, showing visible action (Bilimoria et al., 2008). Bilimoria et al. (2008) provide literature on an example of a successful organizational change initiative through the implementation of their ADVANCE program in certain universities. Moreover, the ADVANCE program is an example of the exact sort of cultural restructuring that this study calls a need for—one that refocuses actual practices of gender equality in the workplace. The ADVANCE program suggested climate initiative ideas at certain universities. These initiatives included educating, training, and developing male colleagues in order to improve their awareness and practices. Initiatives also devoted effort on making the micro-climates (departments) more collegial, egalitarian, equitable, and transparent. Lastly, the initiatives created increasing awareness of organizational diversity and the problems associated with non-inclusionary practices (Bilimoria et al., 2008).

Other studies have suggested restructuring organizational culture by changing the specific practices related to the way employees are utilized. A recurrent theme that surfaced in literature was the need to increase female leadership positions in an attempt to change organizational culture at the management level. Berdahl and Anderson (2005) suggested increasing the participation of women in groups. Gender has an effect on the group structure and the dynamics of the resultant emergent leaders, which has had positive effects on group cohesion. In the past, females who portrayed salient masculine characteristics have been seen as more promotable (Looney & Kurpius, 2004). Even successful managerial women have been seen as less effective leaders, who lack the qualities to lead, compared to their male counterparts (Martell & DeSmet, 2001). Involving more women to participate at the group level would increase the salience of more female characteristics, potentially demonstrating their utility on a more wide-spread scale that affects promotions and understanding of their effectiveness as leaders. In today's business environment, leaders must demonstrate greater cooperation, support, employee participation, along with other qualities associated with female behavior more so than male (Martell & DeSmet, 2001). The rise of women in the workplace has thus far been limited by outdated gender role attitudes of decision makers; increasing female inclusion in specific practices at differing levels could begin to combat these practices and change organizational cultures to truly become more progressive (Looney & Kurpius, 2004; Pratch & Jacobowitz, 1996).

Changing organizational practices in order to reflect an espoused progressive and equal organizational culture is increasingly important with the growing diversity in the workforce. If one particular group within the organization is continually having a negative and closed experience of climate, that group may have a lower level of performance. At the university level, if this group is female—a group that is composed of a substantial portion of employees—then

this indicates a significant negative effect in overall organizational performance. As demonstrated in this study, a culture for group discrimination is deemed more salient to females, having perceived an existing climate for it more than males. Avoiding discrimination, and the numerous negative consequences on the large subgroup that experiences it, call for a restructuring of egalitarian practices in academic institutions. Although female employees in academia did not perceive more of a breach in their psychological contracts than males, a greater understanding of this phenomenon still needs to be further researched. It is possible that when an employee starts working with an organization, an expected aspect of their psychological contract could be the expectation to work within a discrimination-free environment. To this end, it is interesting that an employee can experience discrimination, but not a breach in their psychological contract. One explanation could be that gender based discrimination could be the factor that is offsetting the differential effects of the perceived equality of psychological contract maintenance between males and females. In order to better understand these gender-based differences in equality of perceptions, future research should examine mediation effects of discrimination on psychological contract maintenance within an overall organizational climate. Gaining a better understanding of the functionality involved in differential group perceptions of culture would allow organizations to more readily avoid experiences of discrimination, resulting in a cohesive, progressive workplace environment.

### **Limitations and Future Research**

There were a few limitations to note. One limitation in this study was the low power. It should be acknowledged that according to the not-close fit hypothesis, this level of power would not be very strong in rejecting a null that claims the model fit is not close. However, good model fit was established. It is concluded that even though there is low power, the model fit was still

good enough to offset the low power of the sample. Regarding power, it is recommended that future research be conducted with a greater sample size to test the effects of greater power.

Researchers should also test if the faculty status or tenure within the department would matter with regard to climate perceptions. It would be interesting to see if faculty members who have been in a position longer experience more discrimination than newer employees. The proportion of gender in tenured faculty would need to be taken into account when discerning perceived discrimination. A replication with a stratified sample in an academic setting could yield interesting results. Future research could implement other methods of stratifying the sample that include examining the differences in perceived climate within different departments. For instance, certain academic departments have a higher concentration of female faculty (i.e., English departments) or male faculty (i.e., Engineering) which could have different results in the gender-based experiences of a uniformly open organizational culture. Another example could look at race as a potential factor in differential perceptions of discrimination.

Another limitation of this study was that it was conducted in a large southeastern university. The national and regional culture impacts the actual impact of organizational culture (Kotter & Heskett, 1992, p. 41). A replication of this sample in another location (or with smaller universities) would help with generalization of the results. There could be existing geographic differences in how men and women are treated in the workplace, or how well maintained their psychological contracts are. Perhaps replicating the study in a different region could find significant gender differences for psychological contract maintenance.

Additionally, there could be regional differences in the emphasis paid on the importance of having an open and progressive organizational climate. This study should be replicated within an open organizational culture context, a closed organizational culture, and other climate

profiles, to assess the potential emergence of different latent factors, as well as examine their relationship to different organizational outcomes.

The cross-sectional nature of this study also inhibits a more global understanding of climate; particularly at the organizational level, climate change is an interesting phenomenon, because it directly reflects on its external environment. As the outside environment changes, different demands on workforce practices are required, and adaptation becomes necessary to survive. The importance placed on progressive organizational climates could be functional at this time, but when the economy evolves, emphasis could be paid on different aspects of organizational culture. On a micro-level, differences in perceptions of discrimination at one point in time (for instance, as a newcomer) could be different than perceptions of discrimination after having worked with the organization for some time. This study should be replicated longitudinally, to gain a better understanding of the structure and functionality of organizational culture. Relatedly, replicating this study in a non-academic environment could have stronger implications for the generalization of these results.

Lastly, this is a confirmatory factor analysis, so no causal interpretation can be drawn between the latent factors; any sort of inference should be carefully drawn. As with any statistical models, there will always be equivalent models that exist which may provide an identical good fit, but with substantively different interpretations. For instance, in this case, if we changed the covariance between the two latent factors into a causal pathway (SEM), we are now making completely different claims about the mechanisms of the model. However, the fit would still be identical to the current model. This study acknowledges that there are other models that exist that have the same fit, and would like to maintain that the exploratory nature of how these two latent variables relate was more of interest to this study. As such, this is the model that we

proposed to learn more about this interaction. Future research should also replicate these findings with a different model structure in order to better understand the effects of gender on organizational climate perception.

### **Conclusion**

Organizations that have an open culture emphasize respect for people through fairness, tolerance, equality, and support for all employees (O'Reilly, Chatman, & Caldwell, 1991). As previously discussed, organizational climate is important in the functionality of the workplace; it has been shown to have an impact on several organizational outcomes. Espoused organization values can endorse a progressive, non-discriminatory climate in theory; however, in practice, the pervasive climate that actually exists may not be experienced the same way by all members of the organization. This is of concern, because the effect of superficially neutral policies may actually be detrimental rather than benign (Pfafflin, 1984). When organizations have misrepresented beliefs—beliefs that do not reflect accurate workplace conditions for employees—they could foster animosity amongst workers and hinder progress. When the misrepresented beliefs target a specific group, such as women—a fairly large group—the result could be a substantial loss in productivity for the organization. It would be very beneficial for organizations to investigate whether a disconnect exists between the climate they claim to foster and the one that exists in practice. Remedying a disconnect in espoused and practiced values of organizational culture may help that organization adapt to remain successful in its external business environment.

## References

- Adkins, B., & Caldwell, D. (2004). Firm or subgroup culture: Where does fitting in matter most? *Journal of Organizational Behavior, 25*(8), 969-978.
- Argyris, C. (1960). *Understanding Organizational Behavior*. Dorsey, Homewood, IL.
- Ashkanasy, N. M., Wilderom, C. P., & Peterson, M. F. (2000), *Handbook of organizational culture & climate* (pp. 1-20). California: Sage Publications, Inc.
- Astin, H. S. (1972). Employment and career status of women psychologists. *American Psychologist, 27*(5), 371-381.
- Bal, P., Kooij, D. M., & De Jong, S. B. (2013). How do developmental and accommodative HRM enhance employee engagement and commitment? The role of psychological contract and SOC strategies. *Journal of Management Studies, 50*(4), 545-572.
- Banerjee, R. (2008). An Examination of Factors Affecting Perception of Workplace Discrimination. *Journal Of Labor Research, 29*(4), 380-401.
- Benson, R. T., & Trower, C. A. (2012). Data, leadership, and catalyzing culture change. *Change, 27*-34.
- Berdahl, J. L., & Anderson, C. (2005). Men, Women, and Leadership Centralization in Groups Over Time. *Group Dynamics, 9*(1), 45-57.
- Bilimoria, D., Joy, S., & Liang, X. (2008). Breaking barriers and creating inclusiveness: Lessons of organizational transformation to advance women faculty in academic science and engineering. *Human Resource Management, 47*(3), 423-441.



- Boring, E. G. (1951). The Woman Problem. *American Psychologist*, 6(12), 679-682.
- Botsford, M. W., & King, E. B. (2012). Mothers' psychological contracts: Does supervisor breach explain intention to leave the organization? *Human Resource Management*, 51(5), 629-649.
- Bradley, J. (2010). Antecedents and outcomes of workplace discrimination as perceived by employees with disabilities. *Dissertation Abstracts International*, 70, 5215.
- Bronstein, P., Black, L., Pfennig, J., & White, A. (1986). Getting academic jobs: Are women equally qualified—and equally successful? *American Psychologist*, 41(3), 318-322.
- Bryan, A. I., & Boring, E. G. (1947). Women in American psychology: Factors affecting their professional careers. *American Psychologist*, 2(1), 3-20.
- Cangemi, J., & Miller, R. (2007). Breaking-out-of-the-box in organizations: Structuring a positive climate for the development of creativity in the workplace. *Journal of Management Development*, 26(5), 401-410.
- Chiang, J. C., Chechen, L., Jiang, J., & Klein, G. (2012). Consequences of psychological contract violations for IS personnel. *Journal of Computer Information Systems*, 52(4), 78-87.
- Chrobot-Mason, D., & Button, S. B. (1999). Sexual identity management strategies: An exploration of antecedents and consequences. *Academy of Management Proceedings & Membership Directory*, GDO, H1-H6.
- Daldy, B., Poot, J., & Roskrige, M. (2013). Perception of Workplace Discrimination among Immigrants and Native Born New Zealanders. *Australian Journal of Labour Economics*, 16(1), 137-154.

- Davison, H. K., & Burke, M. J. (2000). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior, 56*(2), 225-248.
- Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review, 21*(3), 619-654.
- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin, 117*(1), 125-145.
- Ensher, E. A., Grant-Vallone, E. J., & Donaldson, S. I. (2001) Effects of perceived discrimination on job satisfaction, organizational commitment, organizational citizenship behaviors and grievances. *Human Resource Development Quarterly, 12*, 5-72.
- Foster, S.W., McMurray, J.E., Linzer, M., Leavitt, J.W., Rosenberg, M., & Carnes, M. (2000). Results of a gender-climate and work-environment survey at a Midwestern academic health center. *Academic Medicine, 75*(6), 653-660.
- Furumoto, L., & Scarborough, E. (1986). Placing women in the history of psychology: The first American women psychologists. *American Psychologist, 41*(1), 35-42.
- Gallagher, A. (2007). Study challenges: Assumption that private colleges make better faculty workplaces. *Academic Sourcebook, 25-26*.
- Gundling, E. (2000). The 3M way to innovation: *Balancing people and profit*. Tokyo: Kodansha International.

- Guyer, L., & Fidell, L. (1973). Publications of men and women psychologists: Do women publish less? *American Psychologist*, 28(2), 157-160.
- Halpin, A. W. (1966). *Theory and research in administration*. Oxford, England: Macmillan.
- Jagusztyn, N. (2011). Perceived workplace discrimination as a mediator of the relationship between work environment and employee outcomes: Does minority status matter? *Dissertation Abstracts International*, 71, 7132
- James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin*, 81(12), 1096-1112.
- Janson, N. (1994). *Safety culture: A study of permanent way staff at British Rail*. Amsterdam: Vrije University.
- Kaiser, C. R. & Major, B. (2006). A Social Psychological Perspective on Perceiving and Reporting Discrimination. *Law & Social Inquiry*, 31(4), 801-830.
- Kaplan, S.H., Sullivan, L.M., Dukes, K.A., Phillips, C.F., Kelch, R.P., Schaller, J.G. (1996). Sex differences in academic advancement. *The New England Journal of Medicine*, 335, 1282–1289.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2nd ed.). New York: Wiley.
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York: Free Press.

- Kunze, F., Boehm, S. A., & Bruch, H. (2011). Age diversity, age discrimination climate and performance consequences-a cross organizational study. *Journal of Organizational Behavior*, 32(2), 264-290.
- Litwin, G. H., & Stringer, R. A. (1968). *Motivation and Organizational Climate*. Boston: Harvard University Press.
- Looney, J., Robinson Kurpius, S. E., & Lucart, L. (2004). Military leadership evaluations effects of evaluator sex, leader sex, and gender role attitudes. *Consulting Psychology Journal: Practice & Research*, 56(2), 104-118.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130-149.
- Maranto, C., & Griffin, A. (2011). The antecedents of a 'chilly climate' for women faculty in higher education. *Human Relations*, 64(2), 139-159.
- Martell, R. F., & DeSmet, A. L. (2001). A diagnostic-ratio approach to measuring beliefs about the leadership abilities of male and female managers. *Journal of Applied Psychology*, 86(6), 1223-1231.
- Mason, R. O. (2004). Lessons in organizational ethics from the Columbia disaster: Can a culture be lethal? *Organizational Dynamics*, 33(2), 128-142.
- Nicholson, N., & Johns, G. (1985). The Absence Culture and Psychological Contract-Who's in Control of Absence? *Academy Of Management Review*, 10(3), 397-407.

- O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-environment fit. *Academy of Management Journal*, 34, 487-516.
- Over, R. (1981). Representation of women on the editorial boards of psychology journals. *American Psychologist*, 36(8), 885-891.
- Paull, M. (2000). Managing volunteer performance: The role of the feedback environment. *Australian Journal on Volunteering*, 5(2), 19-31.
- Pavalko, E. K., Mossakowski, K. N., & Hamilton, V. J. (2003) Does perceived discrimination affect health? Longitudinal relationships between work discrimination and women's physical and emotional health. *Journal of Health and Social Behavior*, 43, 18-33.
- Payne, R. L. (2000). Climate and culture. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture & climate* (pp. 163-176). California: Sage Publications, Inc.
- Pfafflin, S. M. (1984). Women, science, and technology. *American Psychologist*, 39(10), 1183-1186.
- Ponjuan, L., Conley, V. M., & Trower, C. (2011). Career stage differences in pre-tenure track faculty perceptions of professional and personal relationships with colleagues. *Journal of Higher Education*, 82(3), 319-346.

- Pratch, L., & Jacobowitz, J. (1996). Gender, motivation, and coping in the evaluation of leadership effectiveness. *Consulting Psychology Journal: Practice and Research*, 48(4), 203-220.
- Ravisi, D., & Schultz, M. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal*, 49, 433-458.
- Richard, O. C., McMillan-Capehart, A., Bhuian, S. N., & Taylor, E. C. (2009). Antecedents and consequences of psychological contracts: Does organizational culture really matter? *Journal of Business Research*, 62(8), 818-825.
- Robinson, S. L., & Morrison, E.W. (2000). The development of psychological contract breach violation – a longitudinal study. *Journal of Organizational Behaviour*, 15,(3), 245–59.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Roussell, C. (1974). Relationship of Sex of Department Head to Department Climate. *Administrative Science Quarterly*, 19(2), 211-220.
- Schein, E. H. (1965). *Organizational psychology*. Engelwood Cliffs, NJ: Prentice-Hal
- Schein, E. H. (1983). The role of the founder in creating organizational culture. *Organizational Dynamics*, Summer, 13-28.
- Schein, E. H. (1985). *Organizational culture and leadership: A dynamic view*. (2nd ed.). San-Francisco: Jossey-Bass. 1992.

- Schein, E. H. (2000). Sense and nonsense about culture and climate. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture & climate* (pp. xxiii-xxx). California: Sage Publications, Inc.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40(3), 437-453.
- Schneider, B. (2000). The psychological life of organizations. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture & climate* (pp. xvii-xxi). California: Sage Publications, Inc.
- Schroen, A.T., Brownstein, M.R., & Sheldon, G.F. (2004). Women in academic general surgery. *Academic Medicine*, 79(4), 310–318.
- Solmon, L. C. (1978). Attracting women to psychology: Effects of university behavior and the labor market. *American Psychologist*, 33(11), 990-999.
- Stirling, C., Kilpatrick, S., & Orpin, P. (2011). A psychological contract perspective to the link between non-profit organizations' management practices and volunteer sustainability. *Human Resource Development International*, 14(3), 321-336.
- Suliman, A. M. (2002). Is it really a mediating construct? The mediating role of organizational commitment in work climate-performance relationship. *The Journal of Management Development*, 21, 170-183.
- Svyantek, D. J., & Bott, J. P. (2004). Organizational culture and organizational climate measures: An integrative review. In J. C. Thomas (Ed.), *Comprehensive Handbook of*

- Psychological Assessment, Vol. 4: Industrial and organizational assessment (pp. 507-524). Hoboken, NJ: John Wiley & Sons Inc.
- Teghtsoonian, M. (1974). Distribution by sex of authors and editors of psychological journals, 1970-1972: Are there enough women editors? *American Psychologist*, 29(4), 262-269.
- Touchton, J., Musil, C., & Campbell, K. (2008) *A Measure of Equity: Women's progress in higher education*. Washington, DC: Association of American Colleges and Universities.
- Trower, C. A. (2009). Toward a greater understanding of the tenure track for minorities. *Change*, 38-45.
- Tynes, B. M., Rose, C. A., & Markoe, S. L. (2013). Extending campus life to the Internet: Social media, discrimination, and perceptions of racial climate. *Journal of Diversity in Higher Education*, 6(2), 102-114.
- West, M. S., Curtis, J. W. (2006). American Association of University Professors ( AAUP) Faculty Gender Equity Indicators. *American Association of University Professors*.
- Wright, A.L., Schwindt, L.A., Bassford, T.L., Reyna, V.F., Shisslak, C.M., St. Germain, P.A., & Reed, K.L. (2003). Gender differences in academic advancement: patterns, causes, and potential solutions in one U.S. college of medicine. *Academic Medicine*, 78(5), 500–508.



Table 1

*Descriptive Statistics for Males*

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Mean	3.17	3.12	2.83	3.22	3.52	3.16	3.13	2.81
Std. Deviation	1.187	1.227	1.242	1.254	1.295	1.295	1.327	1.443
Variance	1.410	1.505	1.541	1.573	1.678	1.677	1.760	2.082
Skewness	-.381	-.176	-.119	-.398	-1.225	-.638	-.479	-.020
Std. Error of Skewness	.206	.206	.206	.206	.207	.208	.208	.208
Kurtosis	-.926	-.980	-1.054	-.771	1.494	-.024	-.354	-1.005
Std. Error of Kurtosis	.410	.410	.410	.410	.411	.413	.413	.413

*Note.* N=268; 130 Female, 138 Male.

Table 2

*Descriptive Statistics for Females*

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Mean	3.15	2.85	2.43	3.18	2.78	2.81	2.60	2.12
Std. Deviation	1.264	1.221	1.207	1.162	1.356	1.278	1.277	1.310
Variance	1.599	1.490	1.456	1.351	1.840	1.634	1.632	1.715
Skewness	-.140	-.053	.165	-.385	-.870	-.630	-.249	.414
Std. Error of Skewness	.212	.212	.212	.213	.215	.214	.213	.212
Kurtosis	-1.052	-1.026	-.885	-.297	.066	-.077	-.603	-.535
Std. Error of Kurtosis	.422	.422	.422	.423	.427	.425	.423	.422

*Note.* N=268; 130 Female, 138 Male.

Table 3

*Model Fit Information*

	Males	Females
Number of Free Parameters	25	25
Loglikelihood		
H0 Value	-1533.794	-1504.016
H1 Value	-1522.123	-1490.323
Information Criteria		
Akaike (AIC)	3117.589	3058.031
Bayesian (BIC)	3190.770	3129.719
Sample-Size Adjusted BIC ( $n^* = (n + 2) / 24$ )	3111.678	3050.650
Chi-Square Test of Model Fit		
Value	23.343	27.385
Degrees of Freedom	19	19
P-Value	0.2226	0.0960
RMSEA (Root Mean Square Error Of Approximation)		
Estimate	0.041	0.058
90 Percent C.I.	0.000 0.089	0.000 0.103
Probability RMSEA $\leq$ .05	0.572	0.355
CFI/TLI		
CFI	0.992	0.978
TLI	0.989	0.968
Chi-Square Test of Model Fit for the Baseline Model		
Value	604.737	416.920
Degrees of Freedom	28	28
P-Value	0.0000	0.0000
SRMR (Standardized Root Mean Square Residual)		
Value	0.053	0.045

Table 4

*Model Results for Men (Parameter Estimates)*

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
<b>F1 BY</b>				
ITEM 1	1.000	0.000	999.000	999.000
ITEM 2	0.943	0.101	9.339	0.000
ITEM 3	1.088	0.100	10.839	0.000
ITEM 4	1.098	0.100	11.034	0.000
<b>F2 BY</b>				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.550	0.208	7.433	0.000
ITEM 7	1.805	0.251	7.182	0.000
ITEM 8	0.705	0.183	3.857	0.000
<b>F2 WITH</b>				
F1	0.261	0.078	3.351	0.001
<b>Intercepts</b>				
ITEM 1	3.167	0.101	31.442	0.000
ITEM 2	3.116	0.104	29.949	0.000
ITEM 3	2.833	0.105	26.907	0.000
ITEM 4	3.217	0.106	30.247	0.000
ITEM 5	3.518	0.110	31.911	0.000
ITEM 6	3.163	0.110	28.670	0.000
ITEM 7	3.134	0.113	27.753	0.000
ITEM 8	2.811	0.123	22.823	0.000
<b>Variances</b>				
F1	0.925	0.166	5.561	0.000
F2	0.529	0.151	3.500	0.000
<b>Residual Variances</b>				
ITEM 1	0.475	0.076	6.238	0.000
ITEM 2	0.672	0.095	7.039	0.000
ITEM 3	0.436	0.077	5.645	0.000
ITEM 4	0.446	0.078	5.695	0.000
ITEM 5	1.136	0.142	8.012	0.000
ITEM 6	0.389	0.086	4.515	0.000
ITEM 7	0.016	0.097	0.170	0.865
ITEM 8	1.802	0.219	8.222	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 5

*Model Results for Women (Parameter Estimates)*

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
<b>F1 BY</b>				
ITEM 1	1.000	0.000	999.000	999.000
ITEM 2	0.953	0.125	7.625	0.000
ITEM 3	1.158	0.138	8.379	0.000
ITEM 4	0.846	0.122	6.961	0.000
<b>F2 BY</b>				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.576	0.276	5.706	0.000
ITEM 7	1.857	0.365	5.085	0.000
ITEM 8	0.417	0.186	2.240	0.025
<b>F2 WITH</b>				
F1	0.294	0.085	3.453	0.001
<b>Intercepts</b>				
ITEM 1	3.146	0.110	28.481	0.000
ITEM 2	2.854	0.107	26.759	0.000
ITEM 3	2.431	0.105	23.054	0.000
ITEM 4	3.173	0.102	31.172	0.000
ITEM 5	2.786	0.120	23.307	0.000
ITEM 6	2.810	0.112	25.049	0.000
ITEM 7	2.610	0.112	23.388	0.000
ITEM 8	2.115	0.114	18.487	0.000
<b>Variances</b>				
F1	0.832	0.188	4.437	0.000
F2	0.438	0.162	2.704	0.007
<b>Residual Variances</b>				
ITEM 1	0.754	0.118	6.384	0.000
ITEM 2	0.723	0.111	6.518	0.000
ITEM 3	0.330	0.091	3.620	0.000
ITEM 4	0.745	0.106	7.010	0.000
ITEM 5	1.385	0.186	7.464	0.000
ITEM 6	0.539	0.120	4.472	0.000
ITEM 7	0.105	0.137	0.765	0.444
ITEM 8	1.626	0.202	8.032	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 6

*Model Fit Information (Establishing a Baseline Model)*


---

Number of Free Parameters	50
Loglikelihood	
H0 Value	-3037.810
H1 Value	-3012.446
Information Criteria	
Akaike (AIC)	6175.620
Bayesian (BIC)	6355.169
Sample-Size Adjusted BIC	6196.638
( $n^* = (n + 2) / 24$ )	
Chi-Square Test of Model Fit	
Value	50.728
Degrees of Freedom	38
P-Value	0.0811
Chi-Square Contributions From Each Group	
MALE	23.343
FEMALE	27.385
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.050
90 Percent C.I.	0.000 0.083
Probability RMSEA $\leq$ .05	0.472
CFI/TLI	
CFI	0.987
TLI	0.981
Chi-Square Test of Model Fit for the Baseline Model	
Value	1021.656
Degrees of Freedom	56
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.049

---

Table 7

*Model Results (Parameter Estimates for Establishing a Baseline Model)*

		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Group MALE					
F1	BY				
	ITEM 1	1.000	0.000	999.000	999.000
	ITEM 2	0.943	0.101	9.339	0.000
	ITEM 3	1.088	0.100	10.839	0.000
	ITEM 4	1.098	0.100	11.034	0.000
F2	BY				
	ITEM 5	1.000	0.000	999.000	999.000
	ITEM 6	1.550	0.209	7.433	0.000
	ITEM 7	1.805	0.251	7.182	0.000
	ITEM 8	0.705	0.183	3.857	0.000
F2	WITH				
	F1	0.261	0.078	3.351	0.001
Means					
	F1	0.000	0.000	999.000	999.000
	F2	0.000	0.000	999.000	999.000
Intercepts					
	ITEM 1	3.167	0.101	31.442	0.000
	ITEM 2	3.116	0.104	29.949	0.000
	ITEM 3	2.833	0.105	26.907	0.000
	ITEM 4	3.217	0.106	30.247	0.000
	ITEM 5	3.518	0.110	31.911	0.000
	ITEM 6	3.163	0.110	28.670	0.000
	ITEM 7	3.134	0.113	27.753	0.000
	ITEM 8	2.811	0.123	22.823	0.000
Variances					
	F1	0.925	0.166	5.561	0.000
	F2	0.529	0.151	3.500	0.000
Residual Variances					
	ITEM 1	0.475	0.076	6.238	0.000
	ITEM 2	0.672	0.096	7.039	0.000
	ITEM 3	0.436	0.077	5.645	0.000
	ITEM 4	0.446	0.078	5.695	0.000
	ITEM 5	1.136	0.142	8.012	0.000
	ITEM 6	0.389	0.086	4.515	0.000
	ITEM 7	0.016	0.097	0.170	0.865
	ITEM 8	1.802	0.219	8.222	0.000
Group FEMALE					
F1	BY				
	ITEM 1	1.000	0.000	999.000	999.000
	ITEM 2	0.953	0.125	7.625	0.000

Table 7 Continued

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ITEM 3	1.158	0.138	8.379	0.000
ITEM 4	0.846	0.122	6.961	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.576	0.276	5.706	0.000
ITEM 7	1.857	0.365	5.086	0.000
ITEM 8	0.417	0.186	2.240	0.025
F2 WITH				
F1	0.294	0.085	3.453	0.001
Means				
F1	0.000	0.000	999.000	999.000
F2	0.000	0.000	999.000	999.000
Intercepts				
ITEM 1	3.146	0.110	28.481	0.000
ITEM 2	2.854	0.107	26.759	0.000
ITEM 3	2.431	0.105	23.054	0.000
ITEM 4	3.173	0.102	31.172	0.000
ITEM 5	2.786	0.120	23.307	0.000
ITEM 6	2.810	0.112	25.049	0.000
ITEM 7	2.610	0.112	23.388	0.000
ITEM 8	2.115	0.114	18.487	0.000
Variances				
F1	0.832	0.188	4.437	0.000
F2	0.438	0.162	2.705	0.007
Residual Variances				
ITEM 1	0.754	0.118	6.384	0.000
ITEM 2	0.723	0.111	6.518	0.000
ITEM 3	0.330	0.091	3.620	0.000
ITEM 4	0.745	0.106	7.010	0.000
ITEM 5	1.385	0.186	7.464	0.000
ITEM 6	0.539	0.120	4.472	0.000
ITEM 7	0.105	0.137	0.765	0.444
ITEM 8	1.626	0.202	8.032	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.



Table 8

*Model Fit Information (Test for Equality of Factor Loadings)*


---

Number of Free Parameters	44
Loglikelihood	
H0 Value	-3041.208
H1 Value	-3012.446
Information Criteria	
Akaike (AIC)	6170.416
Bayesian (BIC)	6328.419
Sample-Size Adjusted BIC	6188.912
(n* = (n + 2) / 24)	
Chi-Square Test of Model Fit	
Value	57.524
Degrees of Freedom	44
P-Value	0.0830
Chi-Square Contributions From Each Group	
MALE	26.064
FEMALE	31.460
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.048
90 Percent C.I.	0.000 0.080
Probability RMSEA <= .05	0.514
CFI/TLI	
CFI	0.986
TLI	0.982
Chi-Square Test of Model Fit for the Baseline Model	
Value	1021.656
Degrees of Freedom	56
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.058

---

Table 9

*Model Results (Parameter Estimates for Test for Factor Loading Invariance)*

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Group MALE				
F1 BY				
ITEM 1	1.000	0.000	999.000	999.000
ITEM 2	0.947	0.079	12.058	0.000
ITEM 3	1.122	0.081	13.819	0.000
ITEM 4	1.005	0.078	12.802	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.557	0.165	9.420	0.000
ITEM 7	1.808	0.203	8.895	0.000
ITEM 8	0.572	0.131	4.356	0.000
F2 WITH				
F1	0.267	0.075	3.536	0.000
Means				
F1	0.000	0.000	999.000	999.000
F2	0.000	0.000	999.000	999.000
Intercepts				
ITEM 1	3.167	0.101	31.222	0.000
ITEM 2	3.116	0.105	29.745	0.000
ITEM 3	2.833	0.108	26.276	0.000
ITEM 4	3.217	0.102	31.503	0.000
ITEM 5	3.518	0.110	31.923	0.000
ITEM 6	3.163	0.111	28.598	0.000
ITEM 7	3.133	0.113	27.743	0.000
ITEM 8	2.811	0.121	23.268	0.000
Variances				
F1	0.945	0.156	6.044	0.000
F2	0.528	0.127	4.151	0.000
Residual Variances				
ITEM 1	0.475	0.076	6.231	0.000
ITEM 2	0.666	0.094	7.051	0.000
ITEM 3	0.416	0.076	5.445	0.000
ITEM 4	0.485	0.079	6.118	0.000
ITEM 5	1.136	0.141	8.045	0.000
ITEM 6	0.389	0.082	4.724	0.000
ITEM 7	0.016	0.090	0.176	0.860
ITEM 8	1.813	0.221	8.203	0.000

Table 9 Continued

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Group FEMALE				
F1 BY				
ITEM 1	1.000	0.000	999.000	999.000
ITEM 2	0.947	0.079	12.058	0.000
ITEM 3	1.122	0.081	13.819	0.000
ITEM 4	1.005	0.078	12.802	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.557	0.165	9.420	0.000
ITEM 7	1.808	0.203	8.895	0.000
ITEM 8	0.572	0.131	4.356	0.000
F2 WITH				
F1	0.293	0.073	4.038	0.000
Means				
F1	0.000	0.000	999.000	999.000
F2	0.000	0.000	999.000	999.000
Intercepts				
ITEM 1	3.146	0.109	28.784	0.000
ITEM 2	2.854	0.106	26.979	0.000
ITEM 3	2.431	0.103	23.626	0.000
ITEM 4	3.172	0.109	29.134	0.000
ITEM 5	2.786	0.120	23.300	0.000
ITEM 6	2.810	0.112	25.135	0.000
ITEM 7	2.611	0.111	23.413	0.000
ITEM 8	2.115	0.117	18.092	0.000
Variances				
F1	0.805	0.143	5.607	0.000
F2	0.452	0.110	4.110	0.000
Residual Variances				
ITEM 1	0.748	0.112	6.655	0.000
ITEM 2	0.732	0.108	6.768	0.000
ITEM 3	0.364	0.081	4.469	0.000
ITEM 4	0.722	0.107	6.715	0.000
ITEM 5	1.373	0.180	7.640	0.000
ITEM 6	0.520	0.097	5.387	0.000
ITEM 7	0.134	0.097	1.383	0.167
ITEM 8	1.630	0.204	7.991	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 10

*Model Fit Information (Test for Equality of Factor Intercepts)*


---

Number of Free Parameters	38
Loglikelihood	
H0 Value	-3057.631
H1 Value	-3012.446
Information Criteria	
Akaike (AIC)	6191.262
Bayesian (BIC)	6327.720
Sample-Size Adjusted BIC	6207.236
(n* = (n + 2) / 24)	
Chi-Square Test of Model Fit	
Value	90.371
Degrees of Freedom	50
P-Value	0.0004
Chi-Square Contributions From Each Group	
MALE	40.895
FEMALE	49.475
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.078
90 Percent C.I.	0.051 0.103
Probability RMSEA <= .05	0.043
CFI/TLI	
CFI	0.958
TLI	0.953
Chi-Square Test of Model Fit for the Baseline Model	
Value	1021.656
Degrees of Freedom	56
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.077

---

Table 11

*Model Results (Parameter Estimates for Factor Intercept Invariance)*

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Group MALE				
F1 BY				
ITEM 1	1.000	0.000	999.000	999.000
ITEM 2	0.967	0.080	12.026	0.000
ITEM 3	1.148	0.084	13.600	0.000
ITEM 4	1.007	0.080	12.612	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.450	0.145	9.977	0.000
ITEM 7	1.700	0.177	9.612	0.000
ITEM 8	0.613	0.124	4.928	0.000
F2 WITH				
F1	0.279	0.078	3.568	0.000
Means				
F1	0.000	0.000	999.000	999.000
F2	0.000	0.000	999.000	999.000
Intercepts				
ITEM 1	3.236	0.096	33.661	0.000
ITEM 2	3.088	0.096	32.058	0.000
ITEM 3	2.748	0.106	26.023	0.000
ITEM 4	3.281	0.097	33.938	0.000
ITEM 5	3.337	0.099	33.630	0.000
ITEM 6	3.205	0.106	30.359	0.000
ITEM 7	3.135	0.113	27.748	0.000
ITEM 8	2.553	0.097	26.439	0.000
Variances				
F1	0.920	0.154	5.964	0.000
F2	0.598	0.137	4.376	0.000
Residual Variances				
ITEM 1	0.485	0.078	6.222	0.000
ITEM 2	0.663	0.095	6.998	0.000
ITEM 3	0.424	0.080	5.318	0.000
ITEM 4	0.496	0.081	6.111	0.000
ITEM 5	1.171	0.148	7.896	0.000
ITEM 6	0.393	0.076	5.144	0.000
ITEM 7	0.014	0.082	0.175	0.861
ITEM 8	1.870	0.232	8.050	0.000
Group FEMALE				
F1 BY				
ITEM 1	1.000	0.000	999.000	999.000

Table 11 Continued

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ITEM 2	0.967	0.080	12.026	0.000
ITEM 3	1.148	0.084	13.600	0.000
ITEM 4	1.007	0.080	12.612	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.450	0.145	9.977	0.000
ITEM 7	1.700	0.177	9.612	0.000
ITEM 8	0.613	0.124	4.928	0.000
F2 WITH				
F1	0.307	0.075	4.081	0.000
Means				
F1	-0.208	0.121	-1.709	0.087
F2	-0.313	0.099	-3.165	0.002
Intercepts				
ITEM 1	3.236	0.096	33.661	0.000
ITEM 2	3.088	0.096	32.058	0.000
ITEM 3	2.748	0.106	26.023	0.000
ITEM 4	3.281	0.097	33.938	0.000
ITEM 5	3.337	0.099	33.630	0.000
ITEM 6	3.205	0.106	30.359	0.000
ITEM 7	3.135	0.113	27.748	0.000
ITEM 8	2.553	0.097	26.439	0.000
Variances				
F1	0.780	0.141	5.548	0.000
F2	0.510	0.118	4.321	0.000
Residual Variances				
ITEM 1	0.771	0.116	6.660	0.000
ITEM 2	0.729	0.109	6.718	0.000
ITEM 3	0.371	0.085	4.349	0.000
ITEM 4	0.736	0.110	6.709	0.000
ITEM 5	1.429	0.191	7.462	0.000
ITEM 6	0.526	0.092	5.715	0.000
ITEM 7	0.136	0.091	1.491	0.136
ITEM 8	1.700	0.217	7.820	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 12

*Model Fit Information (Test for Partial Equality of Factor Intercepts)*


---

Number of Free Parameters	41
Loglikelihood	
H0 Value	-3043.600
H1 Value	-3012.446
Information Criteria	
Akaike (AIC)	6169.200
Bayesian (BIC)	6316.430
Sample-Size Adjusted BIC	6186.435
(n* = (n + 2) / 24)	
Chi-Square Test of Model Fit	
Value	62.308
Degrees of Freedom	47
P-Value	0.0666
Chi-Square Contributions From Each Group	
MALE	28.200
FEMALE	34.108
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.049
90 Percent C.I.	0.000 0.080
Probability RMSEA <= .05	0.488
CFI/TLI	
CFI	0.984
TLI	0.981
Chi-Square Test of Model Fit for the Baseline Model	
Value	1021.656
Degrees of Freedom	56
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.061

---

Table 13

*Model Results (Parameter Estimates for Partial Equality of Factor Intercepts)*

		Estimate	S.E.	Two-Tailed	
				Est./S.E.	P-Value
Group MALE					
F1	BY				
	ITEM 1	1.000	0.000	999.000	999.000
	ITEM 2	0.955	0.079	12.008	0.000
	ITEM 3	1.126	0.082	13.770	0.000
	ITEM 4	1.006	0.079	12.774	0.000
F2	BY				
	ITEM 5	1.000	0.000	999.000	999.000
	ITEM 6	1.547	0.165	9.355	0.000
	ITEM 7	1.831	0.207	8.830	0.000
	ITEM 8	0.574	0.132	4.359	0.000
F2	WITH				
	F1	0.262	0.075	3.520	0.000
Means					
	F1	0.000	0.000	999.000	999.000
	F2	0.000	0.000	999.000	999.000
Intercepts					
	ITEM 1	3.197	0.097	32.885	0.000
	ITEM 2	3.040	0.098	31.090	0.000
	ITEM 3	2.833	0.108	26.272	0.000
	ITEM 4	3.239	0.098	33.117	0.000
	ITEM 5	3.518	0.110	31.928	0.000
	ITEM 6	3.197	0.105	30.440	0.000
	ITEM 7	3.134	0.113	27.706	0.000
	ITEM 8	2.811	0.121	23.272	0.000
Variances					
	F1	0.939	0.156	6.025	0.000
	F2	0.520	0.126	4.117	0.000
Residual Variances					
	ITEM 1	0.477	0.077	6.234	0.000
	ITEM 2	0.673	0.096	7.007	0.000
	ITEM 3	0.414	0.076	5.422	0.000
	ITEM 4	0.486	0.080	6.113	0.000
	ITEM 5	1.143	0.142	8.042	0.000
	ITEM 6	0.405	0.082	4.936	0.000
	ITEM 7	-0.004	0.090	-0.040	0.968
	ITEM 8	1.813	0.221	8.213	0.000
Group FEMALE					
F1	BY				
	ITEM 1	1.000	0.000	999.000	999.000



Table 13 Continued

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ITEM 2	0.955	0.079	12.008	0.000
ITEM 3	1.126	0.082	13.770	0.000
ITEM 4	1.006	0.079	12.774	0.000
F2 BY				
ITEM 5	1.000	0.000	999.000	999.000
ITEM 6	1.547	0.165	9.355	0.000
ITEM 7	1.831	0.207	8.830	0.000
ITEM 8	0.574	0.132	4.359	0.000
F2 WITH				
F1	0.290	0.072	4.039	0.000
Means				
F1	-0.101	0.128	-0.793	0.428
F2	-0.281	0.091	-3.074	0.002
Intercepts				
ITEM 1	3.197	0.097	32.885	0.000
ITEM 2	3.040	0.098	31.090	0.000
ITEM 3	2.545	0.125	20.305	0.000
ITEM 4	3.239	0.098	33.117	0.000
ITEM 5	3.067	0.126	24.395	0.000
ITEM 6	3.197	0.105	30.440	0.000
ITEM 7	3.134	0.113	27.706	0.000
ITEM 8	2.277	0.123	18.583	0.000
Variances				
F1	0.799	0.143	5.594	0.000
F2	0.446	0.109	4.083	0.000
Residual Variances				
ITEM 1	0.754	0.113	6.661	0.000
ITEM 2	0.741	0.110	6.721	0.000
ITEM 3	0.362	0.081	4.442	0.000
ITEM 4	0.723	0.108	6.714	0.000
ITEM 5	1.379	0.180	7.646	0.000
ITEM 6	0.535	0.096	5.567	0.000
ITEM 7	0.118	0.097	1.217	0.224
ITEM 8	1.631	0.204	7.993	0.000

*Note.* F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 14

*Normalized Residuals for the Means/Intercepts/Thresholds*

ITEM 1	ITEM 2	ITEM 3	ITEM 4	ITEM 5	ITEM 6	ITEM 7	ITEM 8
-0.691	0.272	0.810*	-0.594	1.653*	-0.410	-0.021	2.142*

*Note.* \* Indicates significantly problematic items that should no longer be constricted

Table 15

*Test for Equality of Latent Factor Means*

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
<i>Female Means</i>				
F1	-0.101	0.128	-0.793	0.428
F2	0.281	0.091	-3.074	0.002*

*Note.* N = 268; \*Indicates a significant difference between group means,  $p < .01$ . F1 indicates Perceptions of Psychological Contract Maintenance Climate; F2 Indicates Perceptions of Discrimination Climate.

Table 16

*Item Correlations for Males*

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Item 1	1.000							
Item 2	0.608	1.000						
Item 3	0.673	0.631	1.000					
Item 4	0.696	0.615	0.722	1.000				
Item 5	0.246	0.165	0.183	0.186	1.000			
Item 6	0.276	0.333	0.302	0.208	0.503	1.000		
Item 7	0.323	0.303	0.334	0.264	0.560	0.871	1.000	
Item 8	0.037	0.017	-0.073	-0.116	0.206	0.300	0.357	1.000

*Note.* N= 268; 130 Female, 138 Male. No items were significantly correlated for males.

Table 17

*Item Correlations for Females*

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8
Item 1	1.000							
Item 2	0.561	1.000						
Item 3	0.619	0.622	1.000					
Item 4	0.505	0.389	0.618	1.000				
Item 5	0.095	0.181	0.133	0.093	1.000			
Item 6	0.217	0.266	0.277	0.225	0.473	1.000		
Item 7	0.313	0.454	0.422	0.262	0.466	0.790	1.000	
Item 8	0.051	0.180	0.150	0.137	0.178	0.166	0.200	1.000

*Note.* N= 268; 130 Female, 138 Male. No items were significantly correlated for females.

## Appendix A

### *Harvard COACHE Based Culture Scale Items (Modified)*

---

Please indicate your level of agreement with the following statements regarding AU. (1= strongly disagree, 2= tend to disagree, 3= neutral, 4= tend to agree, 5= strongly agree, 6= n/a)

1. The morale among faculty members at this university is good. (PC)
2. The university campus is free of intimidation, harassment, and discrimination. (PC)
3. Policies at this university are applied in a uniform and equitable manner. (PC)
4. I have confidence in the university's leadership. (PC)
5. Faculty members with disabilities are treated fairly at this university. (D)
6. There is accountability at this university for racist behavior. (D)
7. There is accountability at this university for sexist behavior. (D)
8. For faculty members in need, this university makes an effort to assist with spousal/partner hiring. (D)

---

*Note.* PC = Perceptions of Psychological Contract Maintenance Items; D = Perceptions of Discrimination Items.