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Individual and Contextual Factors and the Efficacy of an Experiential Sexism

Intervention

A Dissertation

Presented in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

By

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October 22, 2017

Department of Psychology

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Abstract

The purpose of this study was to investigate the efficacy of a sexism-focused diversity training program. More specifically, this study examined the direct and indirect relationships between individual characteristics (i.e., gender, self-efficacy, and reactance), contextual factors (i.e., organizational diversity climate) and diversity training outcomes and training transfer. To test hypotheses, graduate and undergraduate students participated in a two-stage study (baseline and intervention stages), with the intervention consisting of a 90-minute sexism-focused diversity training workshop.

Data from one hundred and forty participants were retained for regression analyses. Results suggest the workshop was generally effective at reducing endorsement of sexist attitudes, improving knowledge of gender inequity issues, and increasing intentions to engage in activism against sexism. Individual characteristics were also found to significantly predict training outcomes, although organizational diversity climate did not predict any significant effects.

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Biography

The author was born in Louisville, Kentucky on April 23, 1991. She graduated from Corydon Central High School in Corydon, Indiana in 2009. She received a Bachelor of Arts degree in Psychology from Butler University in 2013 and a Master of Arts degree in Industrial/Organizational Psychology from DePaul University in 2015.

Introduction

Although the United States has seemingly observed a sharp decline in the occurrence of blatant sexism over the last several decades (Griffin, 2004; Schneider, 2004), women continue to face significant challenges in their fight for gender equality. One of the most problematic of these challenges is workplace gender discrimination (also referred to as sex-based discrimination), defined as occurring "when personnel decisions are based on gender, an ascribed characteristic, rather than on an individual's qualification or job performance" (Foley, Hang-Yue, & Wong, 2005, p. 423).

Instances of such discrimination are hardly rare: The U.S. Equal Employment Opportunity Commission (EEOC) received over 26,000 sex-based discrimination complaints in 2014 alone (U.S. Equal Opportunity Commission, 2014). Moreover, research suggests the majority of sex-based discrimination charges typically go unreported (Leslie & Gelfand, 2008). Meanwhile, perhaps the most visible impact of sex-based discrimination is the gender wage gap, in which women earn, on average, 77 cents for every dollar a man earns (DeNavas-Walt, Proctor, & Smith, 2011). The gender wage gap is often accounted for by the tendency for men and women to work in different industries and occupations, while the occupations typically filled by women earn less than those typically filled by men (Blau & Kahn, 2007). However, even when controlling for a variety of factors (e.g., industry, work experience, union status, education, and race) 41

percent of the wage gap remains unexplained. This suggests another factor—gender discrimination—is likely responsible (Carnevale & Smith, 2014).

One strategy many organizations have adopted to combat workplace prejudice and discrimination is the implementation of diversity training. *Diversity training* is defined as "any discrete program, or set of programs, which aims to influence participants to increase their positive — or decrease their negative — intergroup behaviors, such that less prejudice or discrimination is displayed toward others perceived as different in their group affiliation(s)" (Pendry, Driscoll, & Field, 2007, p. 29). Although the use of diversity training in organizations is currently on the rise, evidence supporting the general efficacy of such programs is restricted due in large part to limited empirical study and theoretical grounding (e.g., Bezrukova, Jehn, & Spell, 2012; Paluck, 2006; Pendry et al., 2007). Even more limited, then, is evidence suggesting such programs are effective in reducing sex-based discrimination and prejudice specifically. Indeed, the limited amount of research regarding interventions aimed at reducing sexism extends beyond research pertaining to diversity training. In a recent call for sexism intervention research, Becker and colleagues lament that "compared to research on reducing other forms of prejudice, research on interventions to reduce sexism is rare" (Becker, Zawadzki, & Shields, 2014).

This dissertation aims to answer that call through the furthered investigation of an experiential learning-based sexism intervention: Workshop Activity for Gender Equity Simulation (WAGES) created by Shields, Zawadzki, and Johnson (2011). In addition to providing more evidence for the effectiveness

of WAGES, the impact of individual- and organizational-level characteristics on the efficacy of the intervention will be examined under a transfer-of-training framework. Such examination may garner insights not only into future avenues of sexism reduction, but may also contribute to an improved theoretical and practical understanding of diversity training in general.

Stereotyping, Prejudice, and Discrimination

The concepts of stereotyping, prejudice, and discrimination are all closely linked, yet distinct in important ways. Thus, before moving forward it is prudent to clearly outline each term and discuss how they relate. In the broadest sense, stereotyping, prejudice, and discrimination can be described as making up the cognitive, affective, and behavioral components of attitude formation, respectively (Fiske, 2010; Ostrom, 1969). Put another way, this tripartite model suggests stereotyping consists of simple beliefs, while prejudice serves as emotional reactions and attitudes, and discrimination constitutes a behavioral response.

Social stereotypes are defined as over-simplified generalizations of social groups, which may be rigidly applied to a particular social group and are typically biased in some way (Allport, 1954; Stroebe & Insko, 1989). Although individuals who hold a particular stereotype may strictly believe it to be true, these stereotypes are rarely universally endorsed (Schneider, 2004). For instance, an individual may hold the stereotype (i.e., a belief) that women are less skilled at math than men. However, if presented with a woman who is extremely talented at

math, this person would likely admit that there are always some exceptions (while still rigidly clinging to the original stereotype) (Schneider, 2004).

Prejudice is "the set of affective reactions we have toward people as a function of their category memberships" (Schneider, 2004, p. 27). Unlike stereotypes, which are simple beliefs, prejudice is a more complex, often multifaceted attitude (Schneider, 2004). Prejudice drives the formation of affective prejudgments (or interpretations) of a particular group's behaviors. And because prejudice is a *set* of affective reactions, some of the reactions an individual has toward a particular group may actually be contradictory. Thus, an individual's prejudiced interpretations of a group are often influenced by context, as particular contexts are likely to activate different affective reactions (which may be positive, negative, or some combination of both). Additionally, an individual's own motivations can also play an influential role in these interpretations (for instance, he or she may have the goal of viewing the group negatively) (Schneider, 2004).

Discrimination is the "unjustified use of category information to make judgments (and/or behavior decision) about other people" (Schneider, 2004, p. 29). Discrimination differs from prejudice in that it consists of actually making judgments and/or taking action based on information from a particular group (judgments and action that *may or may not* be reliant on one's affective attitudes toward that group). Moreover, although *expressing* prejudice is the act of sharing one's attitudes toward a particular social group, discrimination is actually behaving differently toward that group.

Cursory consideration of the nature of stereotyping, prejudice, and discrimination may lead to the simple conclusion that stereotypic beliefs lead directly to prejudiced attitudes, which then guide discriminatory behavior. However, the relationship between these constructs is much more complex and rarely so direct (e.g., Crandall & Eshleman, 2003; Eagly, Mladinic, & Otto, 1994). For instance the relationship between beliefs and attitudes is likely bidirectional, with our attitudes just as capable of shaping our beliefs as the reverse (Allport, 1954). Moreover, behavior may be driven by our attitudes, or it may occur without a specific affective cause (Schneider, 2004). For example, an individual with negative attitudes toward women in the workplace may refrain from explicitly sharing these attitudes with others and may avoid actually acting on these attitudes. Conversely, someone who has a positive attitude toward women may still inadvertently treat women differently than men during work meetings. Thus, the difference between having prejudicial attitudes, expressing prejudice, and engaging in discrimination may sometimes be slight, but this is not always the case. More specific forms of sex-based prejudice and discrimination will be discussed in the following section.

The Range of Prejudice and Discrimination

Prejudice and discrimination can manifest in a variety of ways, ranging from overt to subtle. Overt prejudice typically involves a perceived threat from and the complete rejection of the outgroup (i.e., a social group perceived as being separate of one's own group) and conscious avoidance of contact with the

outgroup (Allport, 1954). Most commonly, though, modern forms of bias tend to be subtle, due in part to the declining social acceptability of displaying explicit bias against particular groups in the U.S. (Schneider, 2004). Because subtle forms of bias are typically more common than overt forms, this review will focus mainly on the former.

"Subtle prejudice" is a general term for less overt expressions of bias, which Pettigrew and Meertens (1995) describe as "cool, distant, and indirect" (p. 58). Subtle prejudice indirectly supports bias against a particular social group through the combination of three components (Pettigrew & Meertens, 1995). First, subtle prejudice involves the support of traditional values, which often involves blaming outgroup members for negative outcomes they face (i.e., victim blaming). This component also supports the view that outgroup members behave in unacceptable ways and thus are unlikely to succeed due to their own faults in performance. Second, subtle prejudice involves the exaggeration of cultural differences, again suggesting these differences play a causal effect in the outgroup's disadvantaged position. Third, subtle prejudice involves the denial of positive emotions toward the outgroup (Pettigrew & Meertens, 1995). The indirect conceptualization of subtle prejudice is similar to the concepts of "symbolic racism" (Kinder & Sears, 1981) and "modern racism" (McConahay, 1986). Although these two constructs have been researched under the specific context of racial bias, they similarly involve the *indirect* rejection of racial outgroups. Symbolic and modern racism exist through the endorsement of certain symbols—such as the value of hard work - that are then alleged to be of lesser

value to a particular racial group. Additionally, modern racists are more likely to endorse laws and initiatives that indirectly put particular racial outgroups at a disadvantage. It is important to note that although research on these constructs has been focused on racism, much of this can be generalized to sexism (Swim, Aikin, Hall, & Hunter, 1995).

Another example of subtle prejudice is the concept of "everyday prejudice," which is characterized by the often discreet, yet impactful instances of bias that individuals encounter on a routine or daily basis. Although *typically* subtle, instances of everyday prejudice can range in overtness and severity. However, irrespective of its blatancy, expression of this type of prejudice is stalwartly considered commonplace by many, and thus often goes unchallenged directly or is even accepted (Swim & Hyers, 1999). A subtle example of everyday prejudice could be an individual mistaking a female doctor for a nurse, while a blatant (yet still commonly occurring) example is men "cat calling" women in public (i.e., street harassment) (Bowman, 1993). Everyday prejudice as it pertains specifically to sexism will be discussed in greater detail in a later section of this paper.

The above examples illustrate the often subtle expression of prejudicial attitudes. Similarly to the modern expression of prejudice, discriminatory behavior can also range in overtness, yet is often subtle in today's work environment (Griffin, 2004). As previously outlined, discrimination can sometimes occur without conscious awareness or intent, which often makes such behavior more difficult to detect both from the perspective of the perpetrator and

the target (Schneider, 2004). Griffin (2004) examined discrimination specifically

in an organizational context and proposed a model in which pressure for and

against workplace discrimination conflict across multiple levels. Individuals'

personal feelings, beliefs, and expectations are reciprocally influenced by societal

and economic demands (e.g., national culture, structure, social policy, laws and

regulations), organizational-level factors (e.g., organizational policy and structure,

culture, leadership), and group characteristics (e.g., norms, roles, and values)

(Griffin, 2004, p. 140). These various factors interact in ways that ultimately

promote or discourage individual acts of discrimination within the organization.

These particular discriminatory acts can be classified across four dimensions:

overt—covert, intentional—unintentional, stable—unstable, and conscious—

unconscious. Thus, the most explicit instances of discrimination are characterized

as being overt, intentional, stable, and conscious whereas the subtlest are covert,

unintentional, unstable, and unconscious.

The Many Faces of Sexism

Whereas the previous section summarized *general* forms of prejudice and

discrimination, this section will specifically outline forms of sexism and

associated negative consequences. Sexism is defined as an "individual's attitudes,

beliefs, and behaviors, and organizational, institutional, and cultural practices that

either reflect negative evaluation of individuals based on their gender or support

unequal status of women and men" (Swim & Hyers, 2009, p. 407). As indicated

by this definition, sexism can occur both on an individual level (interpersonal sexism) and at an organizational level (institutional sexism).

Interpersonal sexism and its consequences. Interpersonal sexism can manifest in a variety of ways, ranging again from explicit to subtle (Swim & Cohen, 1997). Swim and Cohen (1997) identify three distinct forms of interpersonal sexism: overt, covert, and subtle. Whereas overt sexism characterizes observable unfair and harmful treatment of women, covert sexism also involves consciously engaging in unequal treatment of women but in a concealed manner (e.g., an individual may publicly disavow the unfair treatment of women, but engage in sexist behaviors when not observed directly). Subtle sexism, conversely, "involves unconsciously deployed stereotyping or bias that results in unequal and harmful treatment of women, which is not noticed or addressed because it is perceived to be customary behavior" (Zawadzki, Shields, Danube, & Swim, 2014).

"Everyday sexism" (Swim, Hyers, Cohen, & Ferguson, 2001) may typically be categorized as a form of subtle sexism. Everyday sexism includes prejudicial attitudes toward and stereotyping of traditional gender roles, derogatory statements or behaviors aimed at a particular gender, and engaging in sexual objectification (Swim et al., 2001). It should be noted that many of the above definitions clearly identify women as the target of sexist attitudes and behaviors. Although sexism certainly *can* be directed toward men (with undoubted negative consequences), it is equally important to note that women

face significantly greater instances of sexism in comparison to men (e.g., Swim et al., 2001). Therefore, this dissertation will focus on sexism targeting women.

Glick and Fiske (1996) propose a theory of sexism conceptualized as individuals' ambivalence toward women, or *ambivalent sexism*. Ambivalent sexism is comprised of two dimensions: hostile sexism and benevolent sexism, both of which emerge around social ideals of power, gender identity, and sexuality. Hostile sexism is an overt form of sexism characterized as "antipathy toward women who are viewed as usurping men's power" (Glick & Fiske, 2001, p. 109). For instance, men who openly antagonize women who identify as feminist are displaying hostile sexism. Whereas hostile sexism involves negative attitudes toward women, benevolent sexism conversely involves subjectively positive attitudes toward women (Glick & Fiske, 1996). Specifically, benevolent sexism often involves "chivalrous ideology that offers protection and affection to women who embrace conventional roles" (Glick & Fiske, 2001, p. 109). Although benevolent sexism may *appear* to benefit women due to the positive attitudes associated with it (and sometimes positive affect experienced by women targeted by it), *in reality* benevolent sexism is harmful to women in that it stems from traditional gender stereotypes and the assumption of masculine dominance over women. Thus, benevolent sexism ultimately operates to confine women to traditional gender roles and assert men's greater social power (Glick & Fiske, 1996). Benevolent sexism consists of three sub-dimensions: protective paternalism (women require male affection and protection, and are dependent on men to maintain their economic and social status), complementary gender

differentiation (men alone possess the traits required to fulfill important social

roles), and heterosexual intimacy (men's sexual desire for women, which may be

driven in part by a genuine desire for psychological intimacy) (Glick & Fiske,

1996).

Although hostile and benevolent sexism may seem to consist of competing

attitudes toward women, the two forms of sexism are actually positively related

and considered to be complementary (e.g., Glick & Fiske, 1996, 2001). Hence,

protective paternalism and gender differentiation both constitute benevolent

sexism and also reinforce hostile sexism by allowing for the continued

justification of male superiority and exaggeration of differences between men and

women. Additionally, heterosexual intimacy promotes hostile sexism in that men

may resent women's perceived use of sexuality to gain power over them, while

men simultaneously rely on women for sexual reproduction. The two dimensions

of sexism are thought to contribute to society's "polarized images of women"

(Glick & Fiske, 2001, p. 112). According to this argument, women are

categorized into different subtypes (e.g., housewife, mother, feminist, whore), and

these subtypes are then subjectively viewed as either being in accordance with

accepted ideologies (eliciting benevolent sexism) or challenging these ideologies

(eliciting hostile sexism) (Glick & Fiske, 2001). Importantly, it is not only men

who endorse sexist attitudes against women. Indeed, empirical study of

ambivalent sexism has found that although women, compared to men, steadily

reject notions of hostile sexism, many women actually *endorse* benevolent sexism

and/or believe it can be beneficial for women (Glick & Fiske, 2001).

Several empirical studies have documented the adverse psychological effects of experiencing interpersonal sexism. For instance, a diary study conducted by Swim and colleagues (2001) investigating the occurrence of everyday sexism found that individuals who encountered such bias reported greater levels of discomfort, increased anger and depression, and lower self-esteem. Moreover, women in this study frequently reported being sexually objectified (a form of everyday sexism that went virtually unreported by men). More frequent exposure to sexual objectification may contribute to developing an observer perspective for oneself, which has been linked to lower psychological well-being and increased depression (Fredrickson & Roberts, 2006; Swim et al., 2001).

In a study conducted by Major and colleagues (Major, Quinton, & Schmader, 2003), women were given negative task performance feedback, paired with either ambiguous or overtly sexist behaviors on the part of the evaluator. This study revealed that exposure to ambiguous sexism cues (i.e., cues that could potentially indicate prejudice against women, but could also be interpreted in other ways) was actually *more* harmful to self-esteem than exposure to overt sexism. This likely occurred because women subjected to blatant sexism were able to attribute their negative performance feedback to the bias of the evaluator, thereby preserving their self-esteem. However, when the sexist behavior was ambiguous, it was less clear that the negative feedback was biased and women were more likely to attribute poor performance to their own shortcomings. The findings in this study are of particular importance when considering the fact that

most modern occurrences of sexism are of a subtle, and therefore more
ambiguous, nature.

Institutional sexism: The indirect sequestering of women. Institutional
sexism refers to the existence or manipulation of organizational policies and
practices that limit the available opportunities and/or resources to a particular
gender (Unger & Saundra, 1993). Institutional sexism is indirect in nature, and
thus is often invisible to organizational members As such, it is often dismissed as
non-existent or inconsequential (Cundiff, Zawadzki, Danube, & Shields, 2014).

Gelfand and her colleagues (2007) propose an organizational-level
systems perspective to explain the perpetuation of discrimination in organizations.
According to this model, factors from the larger context in which an organization
operates (such as national and industry culture, stakeholder interests, laws and
regulations, economic environment) can impact an organization's internal context
(such as formal and informal structure, culture and climate, and leadership). For
instance, the larger context may put more or less pressure on an organization to
incorporate diverse leadership within its top management team, or a male-
dominated industry may influence organizational culture and climate.
Organizational-level factors (which may or may not be discriminatory in and of
themselves) can in turn serve as antecedents to group- and individual-level
prejudice and discrimination.

There are a vast number of ways in which these higher-level factors can
place women at an institutional disadvantage. For instance, from a structural
perspective, the perpetuation of institutional sexism can be understood by

examining organizational structure and the division of labor. Acker (1992) argues that although many organizational structures *appear* to be gender-neutral, they are, in actuality, innately masculine and thus biased against women. Acker claims that gender bias begins at the most basic level: the individual worker. Traditional theory assumes a fictional "universal worker," one whose primary responsibility is to their role in the organization, with little to no interference from responsibilities outside of work. However, as Acker points out, this "universal worker" in reality describes the ideal (white) male worker, whose stereotypical power and privileges allow outside responsibilities to be delegated to others (e.g., the stereotypical traditional wife).

Acker (1992) further explicates the gendered nature of organizational structure through gender rifts in the division of labor. According to this argument, as divisions of labor form within an organization, particular types of jobs are perceived as being specifically for women or for men. In particular, jobs with more power (which, consequently, are usually linked with higher compensation) are typically seen as pertaining to men rather than women (Acker, 1992). This argument coincides with role congruity theory (Eagly & Karau, 2002). According to this theory, men and women are perceived as being most successful in roles that match with their respective traditional gender stereotypes. Thus, men are typically perceived as better suited for roles associated with more masculine, agentic traits (such as the role of an organizational leader), while women are perceived as being better suited for roles involving stereotypically feminine traits, such as empathy, communication skills, and caregiving.

Acker's theoretical suppositions regarding the gendered nature of the division of labor have also been supported empirically. For instance, a study by Peterson and Morgan (1995) found that occupation-establishment segregation (the segregation of women into particular occupations — as opposed to differential pay within occupations — was the driving force behind the gender wage gap in the 16 industries examined, accounting for roughly 40 percent of the wage gap. These findings confirm not only that men and women do tend to be segregated in terms of occupation type, but that the roles more commonly held by women are less economically valued than the occupations more commonly held by men. Thus, it is vital to note that although the difference in pay between men and women can partly be explained by considering interpersonal forms of bias, such as negatively perceiving women who negotiate for a higher salary (Stuhlmacher & Linnabery, 2013), it can perhaps be more clearly understood and accounted for by an organizational level perspective in which gender bias is institutionalized and thus perpetuated (Acker, 1992).

The persistence of institutional sexism can also be understood from the perspective of power in organizations. Organizational power stems from several sources, such as through formal (i.e., appointed) power, control of resources and information, knowledge and skills, and access to those with power (Mintzberg, 1983), and these sources of power tend to be biased toward men (Mann, 1995). As mentioned previously, men overwhelmingly hold more positions of authority, a source of formal power, than women. Mann (1995) highlights a number of common organizational practices that shift the balance of formal power toward

men. For instance, many organizations urge employees to "get ahead" by working long hours, and many organizations fail to provide adequate child-care options to employees. These organizational practices can be especially difficult for women with family commitments, thus holding women back from attaining high formal power (e.g., in the form of promotions). Additionally, managers may purposely refrain from promoting women to positions of high authority due to a sense of overprotectiveness akin to benevolent sexism (i.e., keeping women in "safe positions"; hoping to protect women from others who may not be as "accepting" of a female manager) (Kanter, 1979).

However, women are also at a great disadvantage when it comes to informal sources of power. In many organizations it is common for employees to host "unofficial" meetings in locations that restrict access to women (such as private clubs) or at events in which women are often excluded (e.g., golf outings, after-work social gatherings). Thus, men are often provided access to "The Old Boy Network" (Mann, 1995, p. 11), which provides power through the provision of "insider" information, greater corporate connections, and the formation of coalitions that can control information and resources. But why are women excluded from this network in the first place? One explanation is that those in power often avoid associating with those perceived to be weak. Thus, women are excluded from powerful networks due to both traditional gender stereotypes regarding power (i.e., the assumption that women are inherently weaker than men) and because, in reality, women often have less organizational power than

men (Kanter, 1979; Mann, 1995). For reference, Table 1 provides a brief

summary of all of the forms of sexism defined above.

Table 1. Summary of the Forms of Sexism

Form of Sexism	Definition
Overt Sexism	Intentional, *observable* unequal and harmful treatment of women
Covert Sexism	Intentional, *concealed* unequal and harmful treatment of women
Subtle Sexism	Unintentional (unconscious) unequal and harmful treatment of women
Everyday Sexism	Typically a type of subtle sexism, often involving prejudiced attitudes toward and stereotyping of a particular gender in a manner that is seen as commonplace
Ambivalent Sexism (2 Dimensions) • Hostile Sexism • Benevolent Sexism	Originates from social ideals of power, gender identity, and sexuality. *Hostile sexism* – overt negative attitudes toward women who violate conventional roles *Benevolent sexism* –protective, paternalist attitudes toward women who embrace conventional roles
Institutional Sexism	Existence or manipulation of organizational policies/practices that limit opportunities and/or resources to a particular gender, typically in an indirect and often difficult to detect manner

Interventions to Reduce Sexism

As Glick (2014) elegantly stated: "Although progress has been made

documenting sexism's causes and consequences, social science has been more

adept at diagnosing the disease than treating it" (p. 779). Indeed, research on

sexism interventions is relatively scarce in comparison to research on other forms

of prejudice and discrimination; there are currently only a handful of studies that have specifically examined methods to reduce sexism (Becker et al., 2014). One barrier to sexism intervention research is that the methods used to lessen other forms of bias are not easily adaptable to sexism research. For instance, many interventions aimed at other types of prejudice (such as racism or homophobia) are designed according to intergroup contact theory, which proposes that increased interpersonal contact between groups leads to greater familiarity, mutual understanding and, consequently, reduced prejudice (Pettigrew & Tropp, 2006). Although intergroup contact has been shown to be a powerful tool against several forms of prejudice (Pettigrew & Tropp, 2006), such a strategy is virtually ineffective against sexism, since men and women typically are already in frequent, close contact and because, more often than not, men and women already like each other (Becker et al., 2014). Nonetheless, some progress has been made in identifying successful strategies to reduce sexism, and these strategies are outlined in the following sections.

Confronting sexism. Arguably the simplest form of intervention against any form of bias is confrontation. Confrontation involves the direct acknowledgment of another individual's bias, and this acknowledgement can range in intensity from "hot" confrontation (e.g., the confronter makes hostile or accusatory allegations of bias) to "cold" or subtle confrontation (e.g., the confronter politely points out potential bias, or rolls their eyes in response to bias) (Czopp, Monteith, & Mark, 2006). Although cold confrontation is typically viewed as violating fewer social norms than hot confrontation, both are

considered at least somewhat effective at reducing subsequent bias (e.g., Ashburn-Nardo, Morris, & Goodwin, 2008; Czopp et al., 2006). Confrontation is believed to reduce bias in those who are confronted *and* in observers through creation of greater awareness of bias, the desire for self-satisfaction and the promotion of self-regulation, and indicating and/or strengthening social norms of fairness and equality (Czopp et al., 2006).

Individuals who confront sexism often face a variety of both positive and negative outcomes as a result of calling out bias. From a positive perspective, in addition to reducing others' biases, confronters may experience improved feelings of competence, self-esteem, and empowerment (Gervais, Hillard, & Vescio, 2010). Moreover, direct (even angry) confrontation of sexism has been found to predict improved general well-being in women over time and may serve as a coping mechanism (Foster, 2013; Miller & Kaiser, 2001). Confronting bias can also elicit feelings of guilt and discomfort in perpetrators (Czopp et al., 2006).

However, individuals who confront sexism may also face considerable social costs, and the social costs of confronting sexism tend to be greater for women (e.g., Becker et al., 2014). For instance, female confronters of sexism are often perceived as overreacting and behaving in their own self-interest (Czopp & Monteith, 2003). Moreover, female confronters are viewed more negatively by male (vs. female) observers (Dodd, Giuliano, Boutell, & Moran, 2001).

Because women who address sexism run a greater risk of being negatively perceived by others, it is perhaps unsurprising that male confronters (i.e., non-targets) are often more effective at reducing sexism in others. Specifically, male

confrontations are perceived as more legitimate and serious than female confrontations (Drury & Kaiser, 2014). However, gender differences in confrontation effectiveness are not always so clear-cut. For example, a study by Gervais and Hillard (2014) found that participants viewed women (vs. men) more positively when the confrontation was conducted *in private*, while men (vs. women) were viewed more positively when the confrontation was *public.* However, this study also found that public confrontation was generally more effective than private confrontation. Thus, women are often placed in a difficult position when it comes to effectively confronting sexism.

These results highlight the important role men play as allies in the fight against sexism. Not only do men incur less social cost when confronting sexism, but their actions against bias are viewed as more credible and persuasive (perhaps due to the perception that male confronters do not benefit directly from addressing sexist behaviors) (Drury & Kaiser, 2014). However, it has been widely demonstrated that men are significantly less likely to recognize bias against women (e.g., Becker & Swim, 2011; Gervais & Hillard, 2014; Gervais et al., 2010; Rodin, Price, Bryson, & Sanchez, 1990; Rotundo, Nguyen, & Sackett, 2001). Thus, it is imperative that strategies to reduce sexism are inclusive of men, and that researchers consider techniques to heighten both men's awareness of gender bias and their willingness to address it (Drury & Kaiser, 2014).

Experiential learning. Sexism interventions that focus only on providing information regarding sexism typically have limited success (e.g., Becker & Swim, 2012; Becker et al., 2014; Zawadzki et al., 2014). This may be due in part

to the fact that denial of the existence of sexism is a major characteristic of

modern forms of sexism (Zawadzki et al., 2014) and simply providing

information about sexism may provoke *reactance*, "a motivational state to refuse

and reject information regardless of its content or actual veracity" (Zawadzki et

al., 2014, p. 76). Providing information on sexism may provoke reactance because

individuals who hold subtle sexist beliefs may contend that current gender norms

are natural, that subtle sexism is not truly harmful (or may even benefit women),

and/or that attempts to erase subtle sexism are excessive and unimportant (e.g.,

Glick & Fiske, 2001; Swim et al., 1995; Zawadzki et al., 2014). Thus, sexism

interventions that only provide information on sexism may actually backfire, as

individuals who experience reactance to the message may actually strengthen

their stance against it.

However, a team of researchers at Penn State argue that reactance against

sexism reduction messages can be avoided through the use of an experiential

learning-based intervention (e.g., Shields, Zawadzki, & Johnson, 2011; Zawadzki,

Danube, & Shields, 2012; Zawadzki et al., 2014). Experiential learning is "the

process whereby knowledge is created through the transformation of experience"

(Kolb, 1984, p. 41). In other words, experiential learning involves acquiring

knowledge through direct experience with the material. Kolb (1984) suggests

experiential learning involves four stages: concrete experience (the experience

itself occurs); reflective observations (the learner actively considers what

occurred and the outcomes of the experience); abstract conceptualization (the

learner draws conclusions about the experience); and active experimentation (the learner engages in additional experimental behaviors within the learning context).

Taking these principles of experiential learning into account, Shields and her colleagues (2011) created the Workshop Activity for Gender Equity Simulation in the Academy (WAGES-Academic), an experiential learning-based sexism intervention that "uses a game-like simulation to condense career advancements that would take years in real life into a brief concrete experience" (Shields et al., 2011, p. 122) followed by a period of reflection and discussion. To participate in this intervention, four to eight individuals are randomly divided into two teams (Green and White). Players aim to earn "credit chips" allowing members of their team to advance upward in an academic career (each player begins the game as an Assistant Professor, with the ultimate goal of becoming the first player to become a Distinguished Professor). Gameplay consists of players drawing cards from their own team-specific card deck. These cards describe common experiences in the academic career and the associated number of credit chips earned as a result of this experience. During each turn, players must move forward on the game board, which represents the steps on a career ladder. Periodically, players will reach a "Promotion and Tenure" space. However, players cannot advance past such a space unless they have accrued a minimum number of credit chips; if this space is reached and the player does not have enough credit chips, they must "move to another institution" (i.e., start over).

Unknown to participants before gameplay begins, the separate card decks used by each team are gendered in nature. Thus, although both the White Team

and the Green Team encounter the same events, their experience of these events differs slightly such that White cards represent typical male experiences and Green cards represent typical female experiences. Experiences and outcomes described on the cards are based on realistic job events for which gender bias has been empirically demonstrated and documented in peer-reviewed journals (e.g., salary, work-family balance issues, performance evaluation). Overall, the cards give a slight credit chip advantage to the White (male) team. However, the snowballing effect of the White team's small advantage becomes increasingly apparent as gameplay advances. This allows players to witness firsthand that even seemingly trivial differences can eventually have a large impact on the ultimate success of each team. Once gameplay is complete, participants engage in a guided discussion in which the differing outcomes on the cards are compared and their connection with gender differences are made apparent. More information on the specifics of the WAGES intervention can be obtained by visiting http://wages.la.psu.edu/.

Not only has the WAGES intervention been shown to effectively illustrate the cumulative impact of gender bias in the workplace (Shields et al., 2011), it has also been effective in increasing individuals' perceptions that subtle sexism is indeed harmful and in reducing individuals' endorsement of sexist attitudes (Cundiff et al., 2014; Zawadzki et al., 2014). Compared with interventions that only provide information about gender bias, the experiential learning approach used in WAGES is thought to be effective through its ability to provide information while provoking less reactance, stimulating greater empathy

toward victims of bias, and increasing individuals' self-efficacy to identify and

address bias (Zawadzki et al., 2012; Zawadzki et al., 2014). However, gender has

served as a moderating effect on the efficacy of WAGES in reducing sexist

attitudes, such that men (vs. women) showed a smaller decrease in sexist attitudes

and that the effects of the intervention were less strongly retained by men (vs.

women) over a two-week period (Zawadzki et al., 2014).

Organizational-level interventions. Another proposed avenue of

reducing sexism in the workplace is through the use of organizational policies.

For instance, the Equal Employment Opportunity Commission (EEOC) has

established guidelines regarding the effective implementation of organizational

sexual harassment policies. Guidelines include sharing a clear, formal statement

that biased behavior is not tolerated within the organization, and making this

statement widely available to employees. Further, it is recommended that

organizations establish procedures for making a complaint, that complaints are

swiftly and thoroughly investigated, and that prompt corrective action is taken

when a complaint is verified. However, the effectiveness of these policies remains

somewhat limited. For instance, individuals may hesitate to actually issue formal

complaints and instead opt for informal methods of dealing with harassment (such

as direct or indirect confrontation). Consequently, when issues of gender

discrimination are dealt with in private, such action is less likely to deter offender

or other potential perpetrators in the future (Buchanan, Settles, Hall, & O'Connor,

2014).

Buchanan and colleagues (2014) suggest that, rather than focusing solely

on the *existence* of organizational policies intended to reduce sexual harassment

and other forms of sex-based discrimination, it is essential that organizations (via

organizational leaders) communicate a clear and consistent message of support for

these policies. Thus, the most effective organizational policies are those that are

not only formally stated and reinforced (such as through mandated training and

consistent enforcement of consequence), but are also informally reinforced (such

as through behavioral modeling from leaders and the organizational climate for

tolerating harassment). Buchanan and colleagues therefore emphasize the

importance of *organizations as a whole* serving as allies to combat gender

inequality at an institutional level. This dissertation will examine (as will be

further discussed) how organizational factors, particularly organizational climate

in regards to diversity, relates to the efficacy of individual-level interventions

against sexism (e.g., WAGES) by considering influences on the transfer of

training.

Tying Organizational Factors to Intervention Efficacy: Training Transfer

Although previous research has examined how some individual-level

factors influence or explicate the efficacy of WAGES (e.g., gender, reactance,

self-efficacy to recognize sexism) (Zawadzki et al., 2014), no research has yet

examined the role higher-level (e.g., organizational) factors may also play in the

efficacy of this intervention. In this dissertation, the potential impact of

organization-level factors will be considered under a training transfer theoretical

framework. Therefore, this section will begin with a general overview of training

transfer research, followed by more in-depth discussion of organizational-level

impacts on training transfer, both in general and as it specifically relates to

transfer of diversity training.

A review of training transfer research. Kraiger, Ford, and Salas (1993)

identified three distinct types of learning outcomes of training: cognitive

outcomes (e.g., knowledge gained), skill-based outcomes (e.g., skill acquisition),

and affective outcomes. Affective outcomes are further categorized as attitudinal

(e.g., attitudes toward diversity) or motivational (e.g., motivation to use training

information, self-efficacy). Training transfer is the extent to which these training

outcomes actually generalize to and are maintained on the job (Baldwin & Ford,

1988). Researchers have long since recognized the "transfer problem" in

organizational training, in that much of what is trained fails to adequately transfer

to the job context (e.g., Baldwin & Ford, 1988; Blume, Ford, Baldwin, & Huang,

2010; Ford & Weissbein, 2008; Kupritz, 2002). Indeed, only an estimated 10

percent of training learning transfers to job performance (Kupritz, 2002).

To better understand the mechanisms underlying training transfer (and,

consequently, barriers to transfer), Baldwin and Ford (1988) proposed a training

transfer model in which training inputs (i.e., trainee characteristics, training

design, and the work environment) and training outputs (i.e., learning and

retention) directly and indirectly impact conditions of transfer (i.e., generalization

and maintenance). Although other influential models of training transfer exist

(e.g., Alvarez, 2004), these frameworks and the majority of transfer research consistently focus on the same broad categories believed to influence transfer: individual, intervention, and environmental factors (Burke & Hutchins, 2007). This is consistent with Baldwin and Ford's (1988) model, which will thus serve as the focal transfer model in this paper.

Burke and Hutchins (2007) conducted a large integrative review on training transfer, which focused primarily on the three broad categories influencing transfer. Thus, they investigated how learner characteristics, intervention design and delivery, and work environment impact transfer. At the individual level, learner characteristics such as cognitive ability, self-efficacy, pre-training motivation, perceived utility of training, and organizational commitment were found to have strong or moderate relationships with transfer. In terms of training design and delivery, training components such as the creation of learning goals, training content relevance to these goals, behavioral models, and providing feedback and the opportunity to practice contributed positively to transfer. Additionally, this review also found that a number of characteristics of the work environment, including transfer climate, supervisor and peer support of training, and opportunity to perform trained behaviors also had strong or moderated links to transfer (Burke & Hutchins, 2007).

A subsequent meta-analytic review of training transfer conducted by Blume et al. (2010) similarly found that trainee characteristics (e.g., cognitive ability, motivation, personality) and the work environment (e.g., peer and supervisor support) significantly impacted transfer outcomes. Consequently,

Blume and his colleagues (2010) concluded that both individual and contextual variables play an important role in the transfer process. However, despite the demonstrated importance of contextual factors in the transfer process, researchers have cited a relative lack of research on this topic (Baldwin & Ford, 1988; L. A. Burke & Hutchins, 2007; Ford & Weissbein, 1997). Thus, a greater focus on organizational-level variables in transfer research is needed. The impact of these variables on transfer will be described in greater detail in the following section.

Environmental impacts on training transfer

Despite being a recognized gap in the field (e.g., Bunch, 2007), organizational climate and culture have received some important attention in relation to training transfer and other training outcomes. Although organizational climate and culture are complementary constructs, they are distinguishable. *Organizational climate* refers to "employees' perceptions of what the organization is like in terms of practices, policies, procedures, routines, and rewards" (Ostroff, Kinicki, & Tamkins, 2003, p. 566). *Organizational culture*, on the other hand, "pertains to employees' fundamental ideologies and assumptions and is influenced by symbolic interpretations of organizational events and artifacts" (Ostroff et al., 2003, p. 566). Likewise, Schein (2004) suggests that culture has three basic levels: artifacts (the visible pieces of culture, such as stories, rituals, and symbols), underlying values (which may be espoused and/or enacted by an organization), and deep-level assumptions that guide organizational behavior and influence organizational members' perceptions of events. Whereas

climate is tied to individual experience of events—which are relatively temporal,

subjective, and open to greater individual variation—culture is considered to be

collectively held by all employees within an organization and relatively stable

over time. In essence, climate is thought to be *what* is experienced in an

organization, and culture is *why* those experiences occur (Ostroff et al., 2003).

Indeed, some scholars have suggested that organizational culture is a

central determining factor of training success (e.g., Ballesteros-Rodríguez, De

Saá-Pérez, & Domínguez-Falcón, 2012; Bunch, 2007). For instance,

Hemmelgarn, Glisson and James (2006) found that an organization's culture

influences the organization's willingness to adopt innovative technologies (such

as training) and can also impact the fidelity with which such technologies are

applied. Similarly, Bunch (2007) argued that an organizational culture that does

not support a particular training program can lead to a clear "disregard for sound

practices…[and a] reflection of cultural barriers than can circumvent the best-

designed program" (p. 157). Thus, cultural values, beliefs, and assumptions that

encourage negative attitudes toward training can be instrumental in training

failure. A number of researchers have found that trainee perceptions of training

can be significantly impacted by organizational culture and climate, and these

perceptions in turn shape trainee motivation to learn and transfer intentions (e.g.,

Bunch, 2007; Egan, Yang, & Bartlett, 2004; Nikandrou, Brinia, & Bereri, 2009).

Ballesteros-Rodríguez and colleagues (2012) suggest that culture impacts the

effectiveness of training and its transfer through human resources management

(HRM) techniques. Bunch (2007) suggested a similar mediating relationship,

arguing that particular HRM practices, such as reward structure or career development opportunities, are linked to the values, norms, and assumptions of organizational culture, which consequently indicate the significance (or insignificance) of training.

Organizational climate is also thought to impact training outcomes in a manner similar to culture. For instance, Tracey et al. (2001) concluded that organization climate mediates relationships between the need for training, trainees' satisfaction with training, and training transfer. In fact, *transfer climate* is perhaps the most thoroughly researched organizational impact on training transfer. Transfer climate is defined as the "aspects of the work environment that directly influence the generalization and maintenance of knowledge and skills learned during training" (Machin & Fogarty, 2004, p. 222). According to Rouiller and Goldstein, (1993), transfer climate is comprised of two elements: situational cues (e.g., manager goals, support from managers and peers, task components, and opportunity to use trained knowledge or perform trained skills) and consequences (e.g., positive, negative, or no feedback; rewards or punishment). A positive transfer climate, then, is one that promotes transfer of what was learned in training through these two elements (such as through frequent cues prompting use of trained skills or positive feedback for using these skills) (Rouiller, & Goldstein, 1993). Rouiller and Goldstein (1993) proposed and tested an initial measure of transfer climate and concluded that it significantly accounted for unique variance in training transfer outcomes. Tracey, Tannenbaum, and Kavanagh (1995) later supported and expanded on these findings, concluding that

transfer climate and a continuous-learning culture (i.e., a culture in which knowledge and skill acquisition are vital and are both socially and formally supported within the organization) both positively predicted post-training job behaviors after controlling for pre-training knowledge and performance. Moreover, Tracey et al. (1995) revealed that the social support dimensions of transfer climate and continuous-learning culture exhibited the strongest direct effects on transfer outcomes, suggesting that reinforcement from supervisors and peers to use trained knowledge and skills is perhaps especially vital for transfer.

A variety of climate factors have received additional evidence regarding their relationship with training transfer. Specifically, research has demonstrated direct effects of the opportunity to use training, supervisor and coworker support (Ford, Quiñones, Sego, & Sorra, 1992), organizational commitment to training (Darden, Hampton, & Howell, 1989), and alignment between organizational and training goals (Richey, 1990) on training transfer.

In addition to a demonstrated direct effect of transfer climate variables on transfer outcomes, transfer climate has alternatively been reported to act as a moderator between individual and organization variables and transfer (Burke & Baldwin, 1999; Richman-Hirsch, 2001). For instance, Richman-Hirsch (2001) reported that perceptions of transfer climate may moderate the relationship between training and transfer such that employees who perceive a positive transfer climate (vs. negative transfer climate) were more likely to set goals to support transfer of skills.

Diversity Training and Its Transfer

As previously defined, diversity training refers to "any discrete program, or set of programs, which aims to influence participants to increase their positive—or decrease their negative—intergroup behaviors, such that less prejudice or discrimination is displayed toward others perceived as different in their group affiliation(s)" (Pendry, Driscoll, & Field, 2007, p. 29). In general terms, diversity training initiatives have three main goals: increasing awareness of diversity issues, reducing stereotypes and prejudicial attitudes that negatively impact workplace effectiveness, and reducing discriminatory behaviors while also encouraging behaviors conducive to managing a diverse workforce (Hanover & Cellar, 1998). Because sexism interventions, such as WAGES, typically aim to provide information regarding sexism and reduce prejudice and discrimination against women, it is reasonable to conceptualize such an intervention as a form of diversity training.

The advent of diversity training occurred in the 1960s and '70s in response to increased civil rights efforts and as a preventative approach toward litigation, and the use of such training has steadily risen in today's work context (Paluck, 2006). The organization and content of diversity training can vary widely, and may include methods such as instructional videos, role-playing activities, group discussion, or the explanation of company policies regarding diversity (Paluck, 2006). Diversity training is unique from other types of training because it focuses on changing one's attitudes towards topics that are often seen as personal or emotional (Hanover & Cellar, 1998). Thus, diversity training is often perceived as

more politically and emotionally charged than other forms of training, and has the

potential to provoke strong emotional reactions from employees (Paluck, 2006).

Reviews of diversity training practices provide mixed support for their

general effectiveness in achieving their primary goals. In the most recent

comprehensive review of diversity training, Bezrukova, Jehn, and Spell (2012)

suggest these mixed findings are due in large part to the great variation in

diversity training design and the fact that many organizations often implement

diversity training programs not designed or evaluated according to any specific

theory (Bezrukova et al., 2012; Paluck, 2006). Bezrukova et al. (2012) also

concluded that trainee characteristics (e.g., demographics, personality) are

important to investigate in the context of diversity training, but are currently

understudied. More specifically, only 17 of the 124 studies reviewed examined

trainee characteristics, although these studies typically found these characteristics

to be meaningful for training outcomes. In terms of measured outcomes of

diversity training, reaction-based outcomes such as perceptions of trainer

competence, credibility and experience, the overall perceived usefulness of the

training, backlash against training (i.e., reactance), and organizational message

(i.e., trainees' perceptions of the impact training will have on the organization)

have been found to mediate relationships between training focus and affective

learning outcomes (e.g., attitudinal changes toward diversity topics, changes in

trainee self-efficacy to foster diversity; Bezrukova et al., 2012). With these

findings in mind, Bezrukova et al. (2012) concluded that there is need for greater

focus on how trainee characteristics and reactions related to the training program itself, to the trainer(s), and to fellow trainees.

Relatively little research has specifically investigated factors influencing the transfer of diversity training onto the job. Rather, evaluations of diversity training programs have typically focused primarily on immediate outcomes of these programs (Bezrukova et al., 2012). However, Hanover and Cellar (1998) did investigate how work environment (i.e., perceptions of climate and supervisor and coworker support in relation to diversity training) and social environment ("the messages, beliefs, and values held by influential sources outside of work," p. 112) influence the effectiveness of diversity training over a two-month period. Their study concluded that the diversity training intervention did increase trainees' perceived importance of management practices relating to diversity and reported engagement in these practices. Moreover, social environment was found to have an indirect effect on posttest importance and behavior ratings through its effect on pretest levels of these variables. Somewhat surprisingly, Hanover and Cellar (1998) did not find any direct or indirect effects of the work environment on training criterion measures, which was inconsistent with previous findings regarding the impact of the work environment on training transfer (e.g., Tracey et al., 1995). The authors argued these results were perhaps attained because one's social environment may have a stronger direct effect on initial attitudes toward diversity than one's work environment because the social environment encompasses a broader context in one's life and is formed over a longer period of time in comparison to one's work environment. Thus, it could be the case that any

direct or indirect effects of the work environment on diversity attitudes and

behaviors may take longer than a two-month measurement time frame to manifest

(Hanover & Cellar, 1998). Nevertheless, Hanover and Cellar's (1998) findings, in

conjunction with previously documented and discussed environmental effects on

general training transfer and the call for more contextually focused training

transfer research, suggest that greater investigation of the role work environment

factors play in diversity training research is warranted. The goal of this

dissertation research is to provide this investigation.

A theoretical model outlining the factors believed to directly and indirectly

predict the efficacy of diversity training, based on the research outlined above and

shaped in part by the model proposed by Baldwin and Ford (1994) is shown

below (Figure 1). Training outcomes (i.e., post-training knowledge and attitudes)

and training transfer are together considered to be indicators of general training

effectiveness.
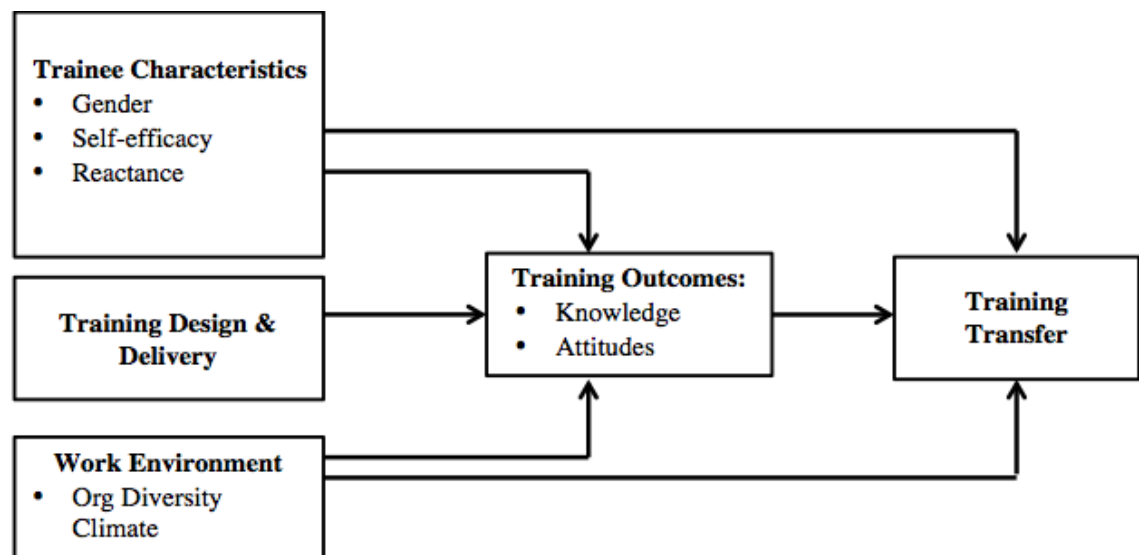
Figure 1. Theoretical model of the relationship between trainee characteristics, work environment, and training effectiveness.

Statement of Hypotheses

Due to methodological constraints, the current study will test a modified

version of the above theoretical model. Specifically, this study will investigate the

impact of particular trainee characteristics and the work environment and their

predicted direct and indirect effects on training transfer intentions of a diversity

training program focused on sex-based workplace discrimination (Figure 2).
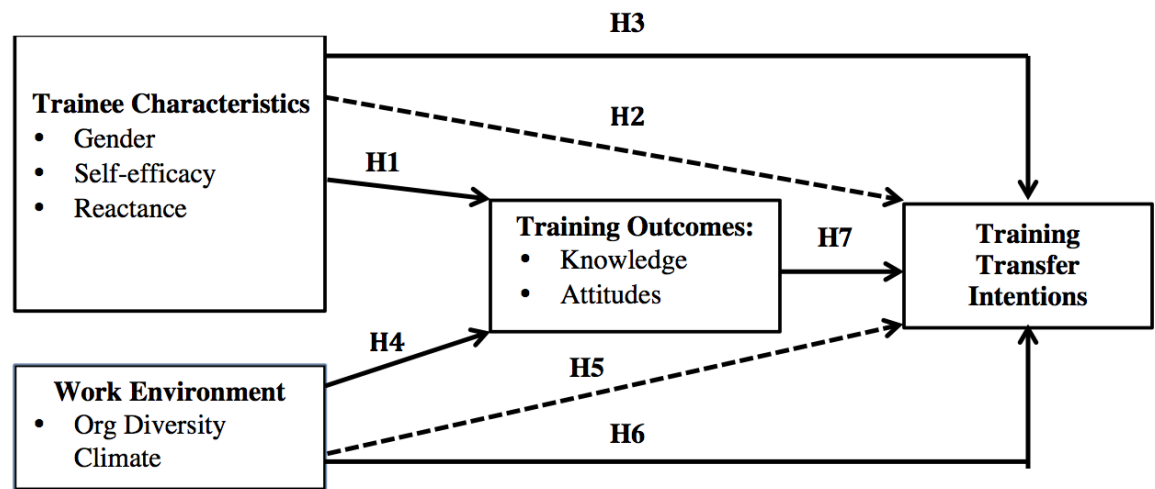
Figure 2. Empirical model of the relationship between trainee characteristics, work environment, and training effectiveness. *Note*. Dotted lines indicate an indirect relationship.

First, it is hypothesized that trainee characteristics predict WAGES training

outcomes, which in turn indirectly predict training transfer intentions:

H1a: Participant gender predicts post-training knowledge such that women

report greater knowledge of training content than men.

H1b: Participant gender predicts post-training attitudes toward sexism

such that women will report less endorsement of sexism than men post-

training.

H1c: Self-efficacy positively predicts post-training knowledge.

H1d: Self-efficacy negatively predicts post-training attitudes, such that

greater self-efficacy predicts lower endorsement of sexist attitudes post-

training.

H1e: Reactance negatively predicts post-training knowledge.

H1f: Reactance positively predicts post-training attitudes toward sexism,

such that higher reactance is associated with higher endorsement of

sexism.

H2a: Gender indirectly predicts training transfer intentions through post-

training knowledge.

H2b: Gender indirectly predicts training transfer intentions through post-

training attitudes.

H2c: Self-efficacy indirectly predicts training transfer intentions through

post-training knowledge.

H2d: Self-efficacy indirectly predicts training transfer intentions through

post-training attitudes.

H2e: Reactance indirectly predicts training transfer intentions through

post-training knowledge.

H2f: Reactance indirectly predicts training transfer intentions through

post-training attitudes.

Additionally, trainee characteristics are expected to have a direct effect on

training transfer intentions:

H3a: Participant gender predicts training transfer intentions such that

women report greater transfer intentions than men.

H3b: Self-efficacy positively predicts training transfer intentions.

H3c: Reactance negatively predicts training transfer intentions.

Next, the work environment is predicted to have direct and indirect effects on training transfer intentions, via training outcomes:

H4a: Organizational diversity climate positively predicts post-training knowledge, such that a greater perception of an organizational climate that values diversity predicts greater post-training knowledge.

H4b: Organizational diversity climate negatively predicts post-training attitudes toward sexism, such that a greater perception of an organizational climate that values diversity predicts less endorsement of sexist attitudes.

H5a: Organizational diversity climate predicts training transfer intentions through post-training knowledge.

H5b: Organizational diversity climate predicts training transfer intentions through post-training attitudes

H6: Organizational diversity climate positively predicts training transfer intentions, such that a greater perception of an organizational climate that values diversity predicts greater transfer intentions.

Last, training outcomes are expected to have a direct effect on training transfer intentions:

H7a Post-training knowledge positively predicts training transfer intentions.

H7b: Post-training attitudes toward sexism negatively predict training

transfer intentions, such that lower endorsement of sexism predicts greater

training transfer intentions.

Method

Participants

A total of 211 undergraduate and graduate students at a large private

university in the Midwest (aged 18 and older; currently enrolled in a variety of

psychology, sociology, and business courses) participated in this study. Students

were invited to participate in the study as part of an in-class learning experience;

students enrolled in participating courses who did not wish to participate were not

penalized. G*Power analyses, based on training transfer effect sizes reported by

Blume et al. (2010; rho = .23), indicated approximately 140 participants were

required to test the proposed empirical model (Erdfelder, Buchner, & Land,

2009). Participants who did not complete both stages of the study were excluded

from study analyses. After removing participants who completed only one stage

of the study, a total of 140 participants were retained. The remaining sample was

67.9% female with substantial racial diversity (60.7% white, 17.1% Hispanic,

13.6% Asian or Pacific Islander, 5.7% Black, 2.8% other). Participant age ranged

from 18 to 48 years of age (M_{age} = 23.02, SD_{age} = 5.18).

Procedure

The study was completed in two-parts: the baseline phase and the intervention phase. For the baseline phase, participants completed measures pertaining to their attitudes toward sexism, knowledge of gender equity, baseline activism against sexism, and state self-efficacy via the Qualtrics survey hosting site. A number of distractor scales, unrelated to the purpose of this study, were also included during this phase to help disguise the true purpose of the intervention from participants. Minor deception was employed in the outset of the study specifically as a means of preventing or reducing participant reactance against information covered during the workshop.

During the intervention phase (which typically occurred a few weeks after the baseline phase), participants were told that the purpose of the WAGES activity was to examine how groups interact. Participants then played the WAGES-Academic game and engaged in a group discussion facilitated by the trainer (using the protocol described previously; p. 23). Participants were provided handouts to follow during post-game discussion (Appendix A). General facilitator guidelines for post-game discussion can be found in Appendix B. Following the group discussion, participants were asked to complete a survey related to the intervention via Qualtrics using their personal electronic devices (if a participant did not have a personal electronic device capable of supporting Qualtrics, they completed a printed version of the survey). This survey measured post-intervention attitudes toward sexism, state self-efficacy, state-reactance, knowledge of gender equity, perceptions of organizational diversity climate, and

WAGES training transfer intentions. Last, participants provided demographic

information and information related to their WAGES group (e.g., number of

people in their group, which WAGES team they were on). The intervention phase

lasted approximately 90 minutes.

Measures

      Organizational Diversity Climate. Perceived organizational diversity

climate was assessed during the baseline phase using a modified version of the

Organizational Diversity Climate scale created by Barak, Cherin, and Berkman

(1998; Appendix C). This scale, as created by Barak et al. (1998) consists of two

general dimensions of diversity climate: an organizational dimension and a

personal dimension. Due to the nature of the sample for this study, items not

pertinent to undergraduate or graduate students' perceptions of university climate

were removed or reworded to better reflect the experience of students, rather than

employees in a more traditional organizational setting. The initial scale involved

14 items rated on a 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale.

      Attitudes toward sexism scales. Three sexism scales were included in

this study, all of which were completed during both the baseline and the

intervention phases. The 8-item Modern Sexism scale (MSS; Swim et al., 1995;

alpha = .82) and the 8-item Gender-Specific System Justification scale (GSSJ;

Jost & Kay, 2005, alpha = .74) scales were used to assess subtle sexist beliefs.

The MSS is meant to tap into participants' denial of discrimination toward women

and antagonism of those who ask for fair treatment of women, whereas the GSSJ

examines perceived gender equity in today's society and institutions. The third

measure is the 5-item Old-Fashioned Sexism scale (OFSS; Swim et al., 1995;

alpha = .65), which is intended to measure overt sexism. Participants responded to

all 3 scales on a 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale. For each

measure, items were averaged (after reverse scoring, as necessary) such that

higher values indicate stronger endorsement of sexism (Appendix D). Both the

MSS and GSSJ scale demonstrated acceptable scale reliabilities. However, the

OFS did not demonstrate an acceptable scale reliability (alpha = .51), therefore

this scale was excluded from all subsequent analyses.

Activism against sexism baseline/training transfer intentions. During

the baseline phase, participants completed a 5-item scale created for this study,

intended to assess baseline activism against sexism (e.g., "I am willing to 'call

out' sexist practices and behaviors in the moment when I see them occur"). A

slightly modified, 7-item version of this scale also served as the measure for

training transfer intentions during the intervention stage (e.g., "Based on the

information I learned today, I am willing to 'call out' sexist practices and

behaviors in the moment when I see them occur."). Due to methodological

constraints, there was no opportunity to collect data in a third, post-intervention

stage. Although not a perfect indicator of true training transfer, *intentions* to

transfer the behaviors covered during WAGES training (e.g., confrontation

behaviors) is a well-established practice (e.g., Ashburn-Nardo, Blanchar,

Petersson, Morris, & Goodwin, 2014; Czopp & Monteith, 2003; Rasinski, Geers,

& Czopp, 2013). Items were rated on 1 (*Strongly Disagree*) to 7 (*Strongly Agree*)

scale, and responses were averaged such that higher values indicate higher

baseline activism/training transfer intentions after reverse coding items as

necessary (Appendix E)

Knowledge of Gender Equity. During both the baseline and intervention

phase, participants were asked to report their knowledge of issues regarding

gender equity using the 7-item Male Privilege Awareness Scale (Case, 2007).

Items were rated on 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale, and

responses were averaged such that higher values indicate greater knowledge of

gender equity (Appendix F)

Self-efficacy. A 7-item State Self-Efficacy created by Zawadzki et al.

(2012; alpha = .88) was administered during the intervention phase to determine

participant self-efficacy specifically in regard to using the information learned

during the WAGES training (e.g., "What I heard today provides opportunities for

me to overcome obstacles."). Items were rated on 1 (*Strongly Disagree*) to 7

(*Strongly Agree)* scale, and responses were averaged such that higher values

indicate higher state self-efficacy (Appendix G).

Reactance. A 4-item State Reactance scale created by Zawadzki et al.

(2012; alpha = .86) was administered during the intervention phase to assess

participant unwillingness to accept the information covered during WAGES

training. Items were rated on 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale,

and responses were averaged such that higher values indicate higher reactance

(Appendix H).

Demographics and other variables. Participants were asked to provide common demographic information including gender, race, and age. Additionally, participants were asked to provide information relevant to their WAGES group experience and their general reactions to the WAGES training (Appendix I).

Distractor Scales. Three additional scales not pertinent to the current study were also included in the baseline phase as a means of disguising the true focus of the study from participants prior to the intervention stage. The Decision-Making Collaboration Scale (Anderson, Martin, & Infante, 1998), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), and White Privilege Awareness Scale (Case, 2001) served as distractor scales in this study (Appendix J). These scales were chosen as distractors because they conceivably fit with the initial information given to participants that the study is intended to examine how groups interact. The third scale, concerned with awareness of white privilege, helped distract participants from recognizing that the focus of the current study is on sexism as opposed to other forms of bias.

With the inclusion of the distractor scales, the following is a summary of the order in which all scales were presented to participants during the baseline phase: 1) Decision-Making Collaboration Scale 2) Organizational Diversity Climate Scale 3) Attitudes toward sexism scales (three scales in total) 4) Activism Against Sexism Baseline Scale 5) Male Privilege Awareness Scale 6) White Privilege Awareness Scale 7) Satisfaction with Life Scale.

The following is a summary of the order in which all scales were presented to participants during the intervention phase: 1) Attitudes toward

sexism scales (three scales in total) 2) Training Transfer Intentions Scale (i.e., modified Activism Against Sexism Baselines Scale) 3) Male Privilege Awareness Scale 4) State Self-Efficacy Scale 5) State Reactance Scale 6) Demographics and miscellaneous variables.

Results and Analyses

Data preparation

Mean imputation (i.e., replacing missing data with the sample mean for that item) was used to replace missing data due to skipped scale items. Missing data violates a strict assumption of Maximum Likelihood estimation of Structural Equation Modeling (Kline, 2011), so mean imputation ensured this assumption was met while also helping to avoid the overestimation of error variances. Once missing data were replaced, mean scale scores were calculated. Missing demographic data were left blank.

Scale analyses

Internal consistency of the scales used in this study were evaluated via Cronbach's alpha. Scales with alphas lower than 0.70 were not analyzed. This was the case with the Old-Fashioned Sexism (OFS) scale (alpha = .51) In this case, omitting any items from the scale did not yield sufficient internal consistency. As such, this scale was omitted from subsequent analyses.

Inter-item correlations for each scale were examined, as high alphas do not guarantee unidimensionality; any scales with highly variable correlations (set here

to mean a difference of more than 0.30 between the weakest and strongest

correlation) were subject to additional analysis to determine the best factor

structure to use in the confirmatory tests. As anticipated, the Organizational

Diversity Climate (ODC) scale (a multidimensional scale) demonstrated variable

correlation differences greater than .30. All other scales demonstrated sufficient

unidimensionality according to the stated parameters. All final measures used in

this study are described in detail below. Scale means, standard deviations,

reliabilities, and correlations can be found in Table 2.

Investigating the Measurement Properties of the Organizational Diversity

Scale

A modified version of Barak et al.'s (1998) Organization Diversity Scale

was subjected to Confirmatory Factor Analysis (CFA) to examine the resulting

factor structure. The CFA measurement model for ODC was run to ensure the

correct factor structure for this scale was used before testing hypotheses; items 1-

9 were set to load on the Organizational Dimension, and items 10-13 were set to

load on the Personal Dimension. Consistent with recommendations for CFA and

structural equation modeling, multiple fit indices were examined for each model

(i.e., χ^2, NFI, CFI, RMSEA, RMSEA 90%CI) examined during analyses.

The originally specified factor structure for the ODC scale failed the exact

fit hypothesis, as it resulted in a significant chi square, $\chi^2(76) = 181.54$, $p < .001$.

Approximate fit indices also indicated poor model fit (CFI = .81, TLI = .77,

RMSEA = .10, RMSEA 90%CI=.08-.12). Adequate fit would require CFI and

TLI >.90, RMSEA <.08, and RMSEA 90%CI with a lower bound below .05 and

an upper bound below .10. Good fit would require CFI and TLI >.95, RMSEA

<.05, and RMSEA 90%CI with a lower bound below .05 and an upper bound

below .08 (Kline, 2011).

Table 2. Scale Reliabilities and Variable Means, Standard Deviations, and Correlations

Variable	M (SD)	1	2	3	4	5	6	7	8	9	10
1. Organizational Diversity Climate	5.27 (.96)	(.85)									
2. Sexist Attitudes, time 1	3.24 (1.01)	.18*	(.91)								
3. Sexist Attitudes, time 2	2.90 (.91)	.13	.83**	(.89)							
4. Activism Against Sexism	5.52 (.87)	-.04	-.40**	-.40**	(.76)						
5. Training Transfer Intentions	5.91 (.81)	-.08	-.39**	-.48**	.53**	(.84)					
6. Male Privilege Awareness, time 1	5.10 (1.10)	-.20**	-.81**	-.74**	.45**	.45**	(.87)				
7. Male Privilege Awareness, time 2	5.49 (1.03)	-.23**	-.67*	-.82**	.32**	.47**	.75**	(.87)			
8. State Self-Efficacy	5.45 (.89)	.22*	-.07	-.15	.14	.53**	.20*	.17*	(.90)		
9. State Reactance	1.98 (1.05)	.115	.49**	.58**	-.35**	-.57**	-.52**	-.64**	-.43**	(.90)	
10. Gender	1.32 (.47)	.053	.29**	.29**	-.035	-.032	-.31**	-.29**	-.032	.15	(1.00)

Note. $N = 140$. All scales used a 7-point scale, with the exception of gender (1=female; 2=male). Scale reliability as Cronbach's alpha is presented in the diagonal. M = mean. SD = standard deviation. ** = $p < .001$, * = $p < .05$

At this point, it was noted that all indicators for the Organizational Dimension loaded significantly onto the latent variable, while *none* of the indicators for the Personal Dimension loaded significantly onto the latent variable. Common CFA practice to improve model fit involves eliminating non-significant paths. Eliminating non-significant paths improves the parsimony of the resulting model; thus even if the resulting model does not result in adequate fit, the simpler model is retained in accordance with the parsimony principle. Because the Personal Dimension demonstrated serious model fit issues, and in consideration with the parsimony principle, the Personal Dimension was dropped from consequent analyses. The Organizational Dimension of Organizational Diversity Climate (i.e., the perceived value an *organization* places on diversity) is considered to be of particular theoretical importance to the current study in comparison to the Personal Dimension (i.e., the amount of value the *individual* places on diversity, which may develop independently of organizational diversity values and climate) – thus it makes both theoretical and psychometric sense to conduct consequent hypothesis testing using data only from the Organizational Dimension.

CFA analyses proceeded by examining only items intended to measure the Organizational Dimension of ODC. The CFA loaded all 9 indicators onto the latent variable. The resulting model failed the exact fit test, $\chi^2(26) = 61.44$, p <.001. Approximate fit indices also indicated poor fit; CFI = .91, TLI = .88, RMSEA = .10, RMSEA 90%CI = .07-.13. All 9 indicators significantly loaded onto the latent variable, so modification indices were examined to attempt to

improve model fit. Modifications were added to the model one at a time, testing

the model in an iterative fashion so the resulting change in model fit per

modification could be examined. Allowing error terms to correlate significantly

improved model fit and resulted in a nonsignificant chi square of the final model,

$\chi^2(21)= 29.73$, $p=.10$. Table 3 details the modifications made to the retained items

of the Organizational Diversity Climate scale. All Organizational Dimension

items (i.e., items 1-9 of the scale) were retained in the final model, resulting in a

unidimensional measure of Organizational Diversity Climate. Scale scores were

obtained by computing a mean score across all 9 items.

Table 3. Organizational Diversity Climate Confirmatory Factor Analysis
Modifications

Model	Modification	$\chi^2(df)$	$\Delta\chi^2(df)$ test	CFI	TLI	RMSEA (90%CI)
1	none	67.11(26)***		0.91	0.88	0.10 (.07-.13)
2	ODC3←→ ODC4	55.42 (26)***	11.69(1)**	0.93	0.91	0.09 (.05-.12)
3	ODC4←→ ODC8	48.31(25)**	7.11(1)**	0.95	0.93	0.08 (.05-.12)
4	ODC2←→ ODC4	42.15(24)*	6.16(1)*	0.96	0.94	0.07 (.03-.11)
5	ODC3←→ ODC7	38.56(23)*	3.59(1)*	.97	.95	0.07 (.03-.11)
6	ODC4←→	35.48(22)*	3.08(1)*	.97.	.95	.06

	ODC5				(.02-.11)
7	ODC5←→	29.73(21)	.98	.97	.05
	ODC7				(.00-.10)

←→= covariance path added between errors; ***$p<.001$; **$p<.01$; *$p<.05$; CFI= comparative fit index; TLI= Tucker-Lewis index; RMSEA= root mean square error of approximation; 90%CI= 90% confidence interval

Investigating the Measurement Properties of the Attitudes Toward Sexism Scales

Both the Modern Sexism Scale (Swim et al., 1995; $alpha_{time1}$ = .85; $alpha_{time2}$ = .81) and the Gender-Specific System Justification Scale (Jost & Kay, 2005; $alpha_{time1}$ = .89; $alpha_{time2}$ = .85) demonstrated adequate unidimensionality and reliability. However, because both scales are intended to measure relatively subtle and indirect forms of sexist attitudes and were strongly correlated (r_{time1} = .75, $p < .01$; r_{time2} =.70, $p<.01$), Confirmatory Factor Analyses were conducted to determine whether combining these scales into one scale measuring a single general dimension of sexist attitudes was appropriate in an attempt to further improve model parsimony.

The CFA loaded all 16 indicators onto the latent variable. The resulting model failed the exact fit test, $\chi^2(104) = 231.00$, $p <.001$. Approximate fit indices also indicated poor fit; CFI = .87, TLI = .86, RMSEA = .09, RMSEA 90%CI = .08-.11. All 16 indicators significantly loaded onto the latent variable, so modification indices were examined to attempt to improve model fit. Modifications were added to the model one at a time, testing the model in an iterative fashion so the resulting change in model fit per modification could be

examined. Although the modified model failed the exact fit test, $\chi^2(96) = 151.42$, $p < .001$, allowing error terms to correlate significantly improved model fit and resulted in approximate fit indices that indicated good model fit, CFI = .95, TLI = .93, RMSEA = .06, RMSEA 90%CI = .04-.08. Table 4 details the modifications made to the model. All items from the MSS and the GSSJ were retained in the final general scale, resulting in a final unidimensional measure of Sexist Attitudes, scores for which were used for subsequent hypothesis testing. Scale scores were obtained by computing a mean score across all 16 items ($alpha_{time1}$ = .91; $alpha_{time2}$ = .89).

Table 4. Sexist Attitudes Scale Confirmatory Factor Analysis Modifications

Model	Modification	χ^2(df)	$\Delta\chi^2$(df) test	CFI	TLI	RMSEA (90%CI)
1	none	231.00 (104)***		0.87	0.86	0.09 (.08-.11)
2	MSS 4←→ MSS 8	210.50 (103)***	20.50(1)**	0.89	0.88	0.09 (.07-.10)
3	MSS 4←→ GSSJ 3	199.18(102)***	11.32(1)**	0.90	0.89	0.08 (.07-.10)
4	GSSJ 3←→ GSSJ 7	188.15(101)***	11.03(1)**	0.91	0.90	0.08 (.06-.09)
5	MSS 1←→ MSS 6	179.94(100)***	8.21(1)**	.92	.91	0.08 (.06-.09)
6	MSS 1←→ MSS 3	172.21(99)***	7.73(1)**	.93.	.91	.07 (.05-.09)

7	GSSJ 4←→	166.17(98)***	6.04(1)**	.93	.92	.07
	GSSJ 5					(.05-.09)
8	GSSJ 2←→	159.14(97)***	7.03(1)**	.94	.93	.07
	GSSJ 5					(.05 - .09)
9	GSSJ 1←→	151.42(96)***	7.72(1)**	.95	.93	.06
	GSSJ 2					(.04-.08)

←→= covariance path added between errors; ***$p<.001$; **$p<.01$; *$p<.05$; CFI= comparative fit index; TLI= Tucker-Lewis index; RMSEA= root mean square error of approximation; 90%CI= 90% confidence interval

Measurement Model

The full measurement model (Figure 3) was examined using Confirmatory Factor Analysis to ensure the model was correctly specified before testing hypotheses with structural regression. The CFA set each indicator (i.e., scale item) to load onto its respective latent variable. All analyses were completed in R. The full measurement model returned an inadmissible solution. The identified model was not positive definite, meaning the solution returned multiple negative error variances (otherwise known as a Heywood case; Kline, 2011). Because variances cannot take on a negative value, the results of this model cannot be reliably interpreted. This error may occur for a variety of reasons. However, in this particular case, this error may have occurred due to having a sample size too small to adequately test the specified full measurement model.
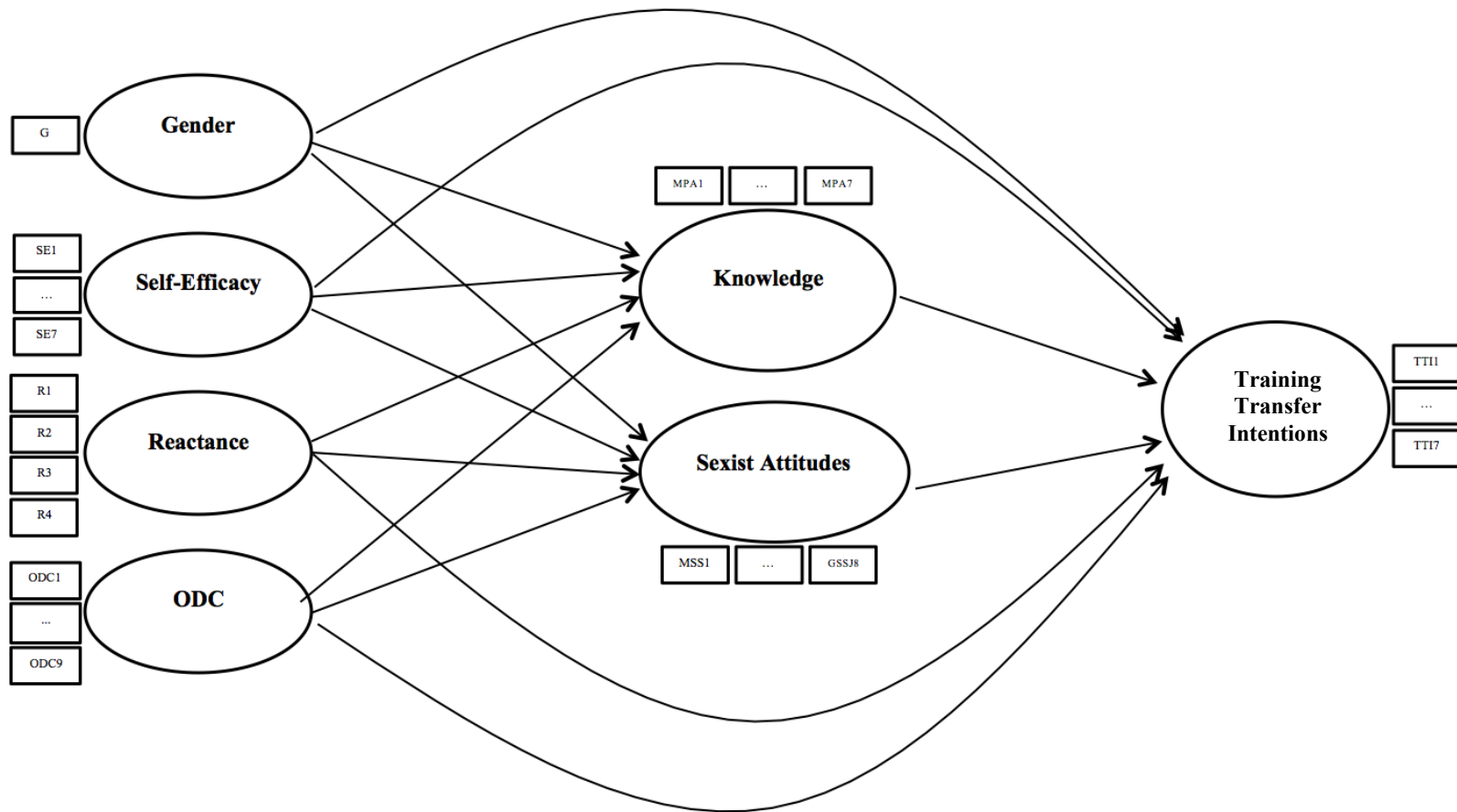
Figure 3. Full Measurement Model.

Parceling

An alternative to running the full measurement model is to run a parceled model. Parceling is a commonly used SEM technique that involves computing the average score across a set of homogenous items (i.e., items measuring a common latent variable) and setting this composite score as an indicator for a latent variable, rather than setting individuals items as indicators. Parceling therefore reduces the number of indicators per latent variable and typically results in indicators that are more normally distributed in comparison to using individual items as indicators. This method is considered beneficial in situations in which sample size is relatively small, as reducing the number of indicators simplifies the model. The more complex the model, the larger the sample size generally required to reach a stable parameter estimation; thus parceling reduces sample size requirements (Orcan, 2013). Before parceling the model, CFAs were run on each scale to ensure all items on each scale could indeed be considered homogenous and therefore parceled appropriately.

The CFA for knowledge set all indicators to load onto a single latent variable. All of the scale items loaded significantly onto the latent variable and the hypothesized model passed the exact fit test and demonstrated good fit, $\chi^2(14) =$ 14.10, $p = .44$, CFI $= 1.00$, TLI $= 1.00$, RMSEA $= .007$, RMSEA 90%CI $= .000$- .08. Therefore, all items were averaged to create a single knowledge parcel.

The CFA for training transfer intentions set all indicators to load onto a single latent variable. The CFA failed the exact fit test and demonstrated poor fit,

$\chi^2(5) = 30.16, p < .001,$ CFI = .91, TLI = .82, RMSEA = .19, RMSEA 90%CI =

.12-.26. All indicators loaded significantly onto the latent variable, so

modification indices were examined in an attempt to improve model fit. Allowing

error terms to correlate significantly improved model fit. The modified model

passed the exact fit test and resulted in approximate fit indices that indicated good

model fit, $\chi^2(3) = 1.25, p = .74,$ CFI = 1.00, TLI = 1.02, RMSEA = .00, RMSEA

90%CI = .00-.10. Table 5 details the modifications made to the model. All seven

items were retained and averaged to create a parcel for training transfer intentions.

Table 5. Training Transfer Intentions Confirmatory Factor Analysis

Modifications

Model	Modification	χ^2(df)	$\Delta\chi^2$(df) test	CFI	TLI	RMSEA (90%CI)
1	none	30.16 (5)***		0.91	0.82	0.19 (.12-.26)
2	TTI 2←→ TTI 4	11.88(4)*	18.28(1)***	0.97	0.93	0.12 (.04-.19)
3	TTI 3←→ TTI 5	1.25(3)	10.63(1)**	1.00	1.02	0.00 (.00-.10)

←→= covariance path added between errors; ***$p<.001$; **$p<.01$; *$p<.05$; CFI= comparative fit index; TLI= Tucker-Lewis index; RMSEA= root mean square error of approximation; 90%CI= 90% confidence interval

The CFA for self-efficacy set all indicators to load onto a single latent

variable. The CFA failed the exact fit test and demonstrated poor fit, $\chi^2(27) =$

127.47, $p < .001.$ CFI = .86, TLI = .81, RMSEA = .16, RMSEA 90%CI = .14-.19.

All seven indicators loaded significantly onto the latent variable, so modification indices were examined in an attempt to improve model fit. Allowing error terms to correlate significantly improved model fit and resulted in a model that passed the exact fit test with approximate fit indices that indicated good model fit, $\chi^2(19)$ = 28.71, p = .071, CFI = .99, TLI = .97, RMSEA = .06, RMSEA 90%CI = .00-1.0. Table 6 details the modifications made to the model. All seven items were retained and averaged to create a parcel for self-efficacy.

Table 6. Self-Efficacy Confirmatory Factor Analysis Modifications

Model	Modification	χ^2(df)	$\Delta\chi^2$(df) test	CFI	TLI	RMSEA (90%CI)
1	none	127.47 (27)***		0.86	0.81	0.16 (.14-.19)
2	SE 8←→ SE 9	97.00(26)***	30.47(1)***	0.89	0.86	0.14 (.11-.17)
3	SE 5←→ SE 6	81.26(25)***	15.74(1)***	0.92	0.88	0.13 (.10-.16)
4	SE 2←→ SE 4	70.23(24)***	11.03(1)***	0.93	0.90	0.12 (.09-.15)
5	SE 3←→ SE 7	58.94(23)***	11.29(1)***	.95	.92	0.11 (.07-.14)
6	SE 1←→ SE 2	48.93(22)**	10.01(1)***	.96	.94	.09 (.06-.13)
7	SE 3←→ SE 5	39.45(21)***	9.48(1)**	.97	.95	.08

						(.04-.12)
8	SE 6 ←→	35.02(20)*	4.43(1)*	.98	.96	.07
	SE 8					(.03-.11)
9	SE 1 ←→	28.71(19)	6.31(1)*	.99	.97	.06
	SE 8					(.00-.10)

←→= covariance path added between errors; ***$p<.001$; **$p<.01$; *$p<.05$; CFI= comparative fit index; TLI= Tucker-Lewis index; RMSEA= root mean square error of approximation; 90%CI= 90% confidence interval

The CFA for reactance set all indicators to load onto a single latent variable. The CFA failed the exact fit test and demonstrated poor fit, $\chi^2(2) =$ 19.88, $p <.01$, CFI = .95, TLI = .86, RMSEA = .25, RMSEA 90%CI = .16-.36. All indicators loaded significantly onto the latent variable, so modification indices were examined in an attempt to improve model fit. Allowing error terms for items 2 and 3 correlate significantly allowed the model to pass the exact fit test, $\chi^2(1) =$ 4.64, $p = .051$. Taken together, approximate fit indices that indicated adequate model fit, CFI = .99, TLI = .94, RMSEA = .16, RMSEA 90%CI = .04-.32. All four items were retained and averaged to create a parcel for reactance.

Confirmatory Factor Analysis was run on the parceled measurement model. This model differed from full measurement model (Figure 4) in that, instead of individual items set as indicators for their respective latent variables, a single scale composite score (i.e., the scale parcel) was set as the indicator for each respective latent variable (e.g., the composite score for ODC was set as the
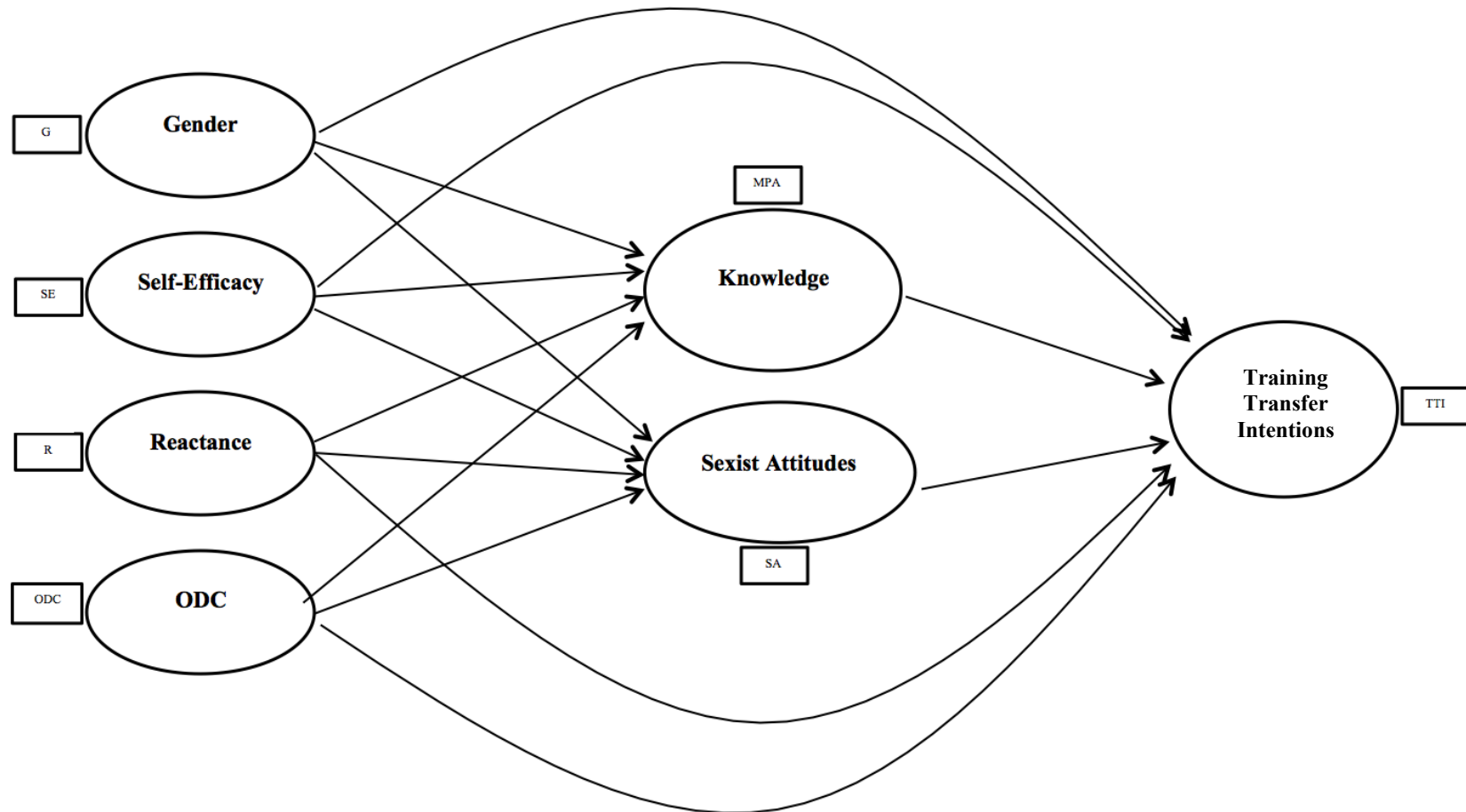
Figure 4. Parceled Model.

single indicator for the ODC latent variable).

The parceled model demonstrated poor fit, $\chi^2(13) = 77.48$, $p < .001$, CFI = .92, TLI = .71, RMSEA = .19, RMSEA CI90% = .15-23. Modification indices were examined in an attempt to improve model fit. However, suggested modifications were not theoretically rational (e.g., a suggested modification was to set the Sexist Attitudes parcel to load onto the Knowledge latent variable, which is not a theoretically sound modification). As a result, the parceled model was rejected.

Hypothesis Testing

Because the measurement model and parceled model were not retained, structural regression could not be used to test hypotheses. Instead, hypotheses were investigated with a series of mediated regression analyses. All mediation regression analyses were conducted using the PROCESS macro in SPSS (Hayes, 2012).

Trainee characteristics were expected to indirectly and directly predict training transfer intentions via training outcomes Three mediated regression analyses were conducted to examine each of the direct and indirect effects of the three trainee characteristics specified in the model. (i.e., gender, self-efficacy, and reactance).

In the first regression, gender was regressed on training transfer intentions with both training outcome variables (i.e., knowledge and sexist attitudes) set as mediators. Pre-training knowledge, pre-training sexist attitudes and activism

against sexism (i.e., the baseline measure of training transfer intentions) were entered as control variables. Contrary to H1a and H1b, results suggest that (when controlling for pre-training knowledge and attitudes), gender did not have a significant direct effect on post-training knowledge , $b = -.12.$, $t = -.95$, $p = .35$, or post-training attitudes, $b = -.08.$, $t = -.87$, $p = .38$. A Sobel's test was conducted to examine indirect effects of gender on training transfer intentions. H2a and H2b were also not supported, as gender did not demonstrate a significant indirect effect on training transfer intentions via post-training knowledge, $ab = -.02$, BCa Cl $[-.11, .021]$, or via post-training sexist attitudes, $ab = -.03$, BCa Cl $[-.13, .01]$. These effects are considered non-significant because the confidence interval includes zero. H3a was not supported, as gender did not demonstrate a significant direct effect on training transfer intentions, $b = .16.$, $t = 1.34$, $p = .18$. Results for H7a and H7b were also examined. H7a was not supported, as post-training knowledge did not significantly predict training transfer intentions, $b = .14$, $t = 1.38$, $p = .17$. H7b was supported, however, as post-training attitudes demonstrated a significant negative effect on training transfer intentions (i.e., stronger post-training endorsement of sexist attitudes predicted lower training transfer intentions), $b = -.29$, $t = -2.12$, $p = .037$.

In the second regression, self-efficacy was regressed on training transfer intentions with both training outcome variables (i.e., knowledge and sexist attitudes) set as mediators. Pre-training knowledge, pre-training sexist attitudes, and activism against sexism were entered as control variables. Contrary to H1c and H1d, results suggest that self-efficacy did not have a significant direct effect

on post-training knowledge, b = .05., t = -.80, p = .42, or post-training attitudes, b = -.07., t = -1.39, p = .17. A Sobel's test was conducted to examine indirect effects of self-efficacy on training transfer intentions. H2c and H2d were not supported, as self-efficacy did not have a significant indirect effect on training transfer intentions via post-training knowledge, ab = -.01, BCa Cl [-.01, .05], or post-training attitudes, ab = -.01, BCa Cl [-.01, .08]. H3b was supported, as self-efficacy demonstrated a significant, positive effect on training transfer intentions, b = .38, t = 7.10, p < .001.

In the third regression, reactance was regressed on training transfer intentions with both training outcome variables (i.e., knowledge and sexist attitudes) set as mediators. Pre-training knowledge, pre-training sexist attitudes and activism against sexism were entered as control variables. H1e and H1f were both supported, as reactance demonstrated a significant negative effect on post-training knowledge, b = -.34, t = -5.99, p < .001, and a significant positive effect on post-training attitudes (i.e., such that higher levels of reactance were associated with stronger endorsement of sexist attitudes, b = .18, t = 3.86, p < .001. A Sobel's test was conducted to examine indirect effects of reactance on training transfer intentions. H2e and H2f were also not supported, as reactance did not demonstrate a significant indirect effect on training transfer intentions via post-training knowledge, ab = -.002, BCa Cl [-.09, .07], or via post-training sexist attitudes, ab = -.05, BCa Cl [-.14, .001]. H3c was supported, as reactance demonstrated a significant negative direct effect on training transfer intentions, b = -.27, t = -4.20, p < .001.

A fourth regression was run to examine the direct and indirect effects of the work environment (i.e., organizational diversity climate) on training transfer intentions via training outcomes. In this regression, ODC was regressed on training transfer intentions with both training outcome variables (i.e., knowledge and sexist attitudes) set as mediators. Pre-training knowledge, pre-training sexist attitudes and activism against sexism were entered as control variables. H4a and H4b were not supported, as ODC did not directly predict post-training knowledge, $b = -.07.$, $t = -1.10$ $p = .27$, or post-training attitudes, $b = .03$, $t = .54$, $p = .58$. H5a and H5b were also not supported, as ODC did not indirectly predict training transfer intentions via post-training knowledge, $ab = -.009$, BCa Cl [-.07, .008], or post-training attitudes, $ab = -.007$, BCa Cl [-.06, .17].

To highlight all significant effects identified through multiple mediated regression hypothesis testing, a model displaying only significant regression paths can be seen in Figure 5.

Exploratory Analyses

In order to further investigate the relationship between gender and outcomes of interest, additional regression analyses were conducted. Although hypothesis testing suggested that gender did not predict post-training outcomes *above and beyond* pre-training measures, simple regression analysis revealed that
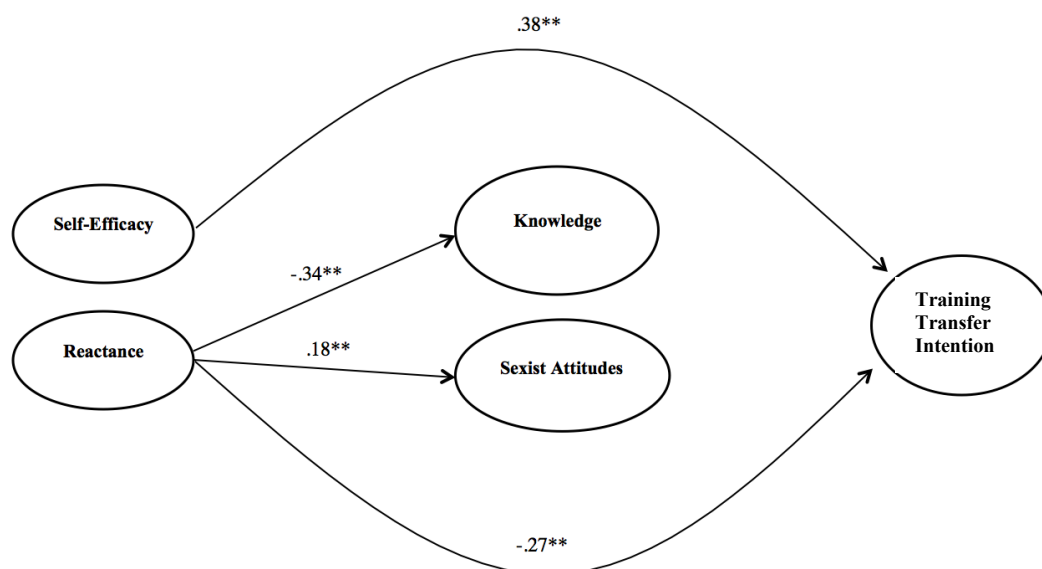
Figure 5. Significant Regression Paths of the Final Model.

gender did predict pre-training attitudes toward sexism, $b = .29$, $t = 3.61$, $p <$ .001, and pre-training knowledge, $b = -.31$, $t = -3.79$, $p < .001$, such that women demonstrated less endorsement of sexist attitudes and greater knowledge of sexism, compared to men, pre-training. Similarly, regression analyses revealed that gender had a strong positive effect on the pre-training activism against sexism (i.e., baseline training transfer intentions), $b = -.53$, $t = -7.29$, $p < .001$, such that women reported greater activism against sexism compared to men pre-training.

Regression analyses also revealed that pre-training attitudes toward sexism significantly predicted reactance, $b = .51$, $t = 6.56$, $p < .001$. Thus, participants who reported stronger endorsement of sexist attitudes before training also reported higher reactance post-training. Gender did not significantly predict reactance, $b = .15$, $t = 1.83$, $p = .07$.

Mean comparison tests were conducted to examine any potential group differences in perceptions of ODC. ANOVA results suggested no significant differences in perceptions of ODC among racial groups, $F = .35$, $p = .85$, or between men and women, $F = .40$, $p = .53$.

Last, three paired sample t-tests were conducted as a simple test of pre- and post- score differences of sexist attitudes, knowledge of sexism, and training transfer intentions. Pre-training endorsement of sexist attitudes ($M = 3.25$, $SE = 1.01$) was significantly higher than post-training attitude endorsement ($M = 2.89$, $SE = .91$, $t = 7.13$, $p < .001$). Pre-training knowledge ($M = 5.09$, $SE = 1.01$) was significantly lower than post-training knowledge ($M = 5.49$, $SE = 1.03$, $t = 5.64$, $p < .001$). Last, pre-training activism against sexism ($M = 5.52$, $SE = .87$) was significantly lower than post-training transfer intentions ($M = 5.91$, $SE = .81$, $t = 6.31$, $p < .001$.

Discussion

Using Baldwin and Ford's (1988) training transfer framework in relation to diversity training, this study examined the efficacy of an experiential learning-based sexism intervention. More specifically, this study examined the efficacy of a sexism intervention in increasing knowledge of sexism, reducing sexist attitudes, and increasing intentions to transfer these outcomes to one's social environment (both inside and outside the context of their organization) in the form of increased awareness of and activism against sexism post-training. Further, this

study examined intervention efficacy in relation to trainee characteristics and the organizational context.

Results suggest the experiential learning-based sexism intervention did successfully produce desired changes in outcomes of interest (i.e., knowledge of sexism, sexist attitudes, and training transfer intentions) and that certain trainee characteristics significantly predicted outcomes, although results failed to fully support the initially proposed model of training transfer. Thus, this study provided additional support for the effectiveness of experiential learning-based training as a viable sexism-intervention strategy. This is an important finding, as sexism-intervention research has lagged behind intervention research focused on other forms of prejudice and discrimination (Glick, 2014).

Baldwin and Ford's (1988) model of training transfer suggests that training design, trainee characteristics, and the work environment directly impact training outcomes in addition to directly and indirectly impacting training transfer. In the context of this study, an experiential learning training design (conceptualized as a form of diversity training) was implemented, and gender, self-efficacy, and reactance were examined as specific trainee characteristics believed to influence training outcomes (i.e., knowledge of sexism and sexist attitudes) and transfer intentions. In terms of training design, this study lends further support that an experiential-learning based intervention can be generally effective in producing desired sexism intervention outcomes, as participants reported significantly reduced endorsement of sexist attitudes, increased

knowledge of sexism, and reported greater intentions to engage in activism against sexism post-training.

In terms of examining trainee characteristics, results also generally supported the importance of accounting for a variety of characteristics in relation to training effectiveness. Contrary to hypotheses, gender did not predict training outcomes or transfer intentions when examined in the full model. That is to say that gender did not predict training outcomes *above and beyond* baseline measures (which were highly predictive of post-training outcomes). However, exploratory analyses revealed that gender did significantly predict pre-training attitudes, knowledge, and of activism against sexism (i.e., a baseline measure of training transfer intentions), such that women demonstrated less endorsement of sexist attitudes and greater knowledge of and activism against sexism pre-training compared to men. This is consistent with previous sexism intervention research (e.g., Gervais et al., 2010; Shields et al., 2011; Zawadzki et al., 2012; Zawadski et al., 2014). Therefore, gender did serve as a meaningful trainee characteristic in the context of this intervention, as gender significantly predicted all pre-training measures, which in turn were predictive of training outcomes.

Self-efficacy has also consistently been identified as an important trainee characteristic in relation to training outcomes (e.g., Blume et al., 2010) and this study provided additional support to this claim. Although, contrary to hypotheses, self-efficacy did not directly predict training outcomes, it did directly and positively predict training transfer intentions. From a theoretical standpoint, it makes sense that one's perceived self-efficacy toward acquiring and using the

information discussed in training (e.g., "I feel hopeful about using the information given today") directly relates to ones intentions to acquire and understand additional knowledge on this topic, as well as actually put such knowledge to use outside of training.

Of the three trainee characteristics examined in this study, reactance (i.e., participant motivation to refuse and reject information provided during training, regardless of evidence of its veracity; Zawadzki et al., 2014) was the only characteristic shown to significantly predict *all* outcomes of interest. More specifically, reactance demonstrated significant direct effects on both training outcomes and training transfer intentions, such that greater levels of reactance were associated with lower levels of post-training knowledge of sexism, greater post-training endorsement of sexist attitudes, and lower training transfer intentions. This is a notable finding, as a variety of research has demonstrated that receiving information about prejudice and discrimination, and receiving information about sexism *in particular*, often elicits reactance in some participants (e.g., Becker et al., 2014). Hypothesis testing and exploratory analyses revealed that reactance positively predicted both pre- and post-training sexist attitudes and negatively predicted post-training knowledge of sexism and training transfer intentions, suggesting that the individuals who would benefit the most from a sexism intervention (i.e., those with the greatest potential to substantially reduce their endorsement of sexist attitudes and gain the most knowledge of sexism) are also the most resistant to the messages of such an intervention.

Men and women did not differ significantly in the amount of reactance experienced as a result of training. This may be considered somewhat surprising given that, according to reactance theory, reactance is generally triggered when an individual perceives that one of his or her free behaviors is being threatened (Miron & Brehm, 2006). In the context of reducing sexist attitudes and behaviors (primarily those targeted negatively toward women), it may be reasonable to expect men to perceive a greater threat to their behaviors than women, eliciting greater reactance. This was not the case in this study. First, it is worth noting that mean reactance levels were low overall, with a mean of 1.98 on a 1 to 7 point scale. Therefore, the lack of a significant gender difference in reactance could be due in part to the relatively low variance observed in reactance scores. However, given that previous research has also suggested that some women do perceive sexism (especially benevolent sexism) as benefitting women (Glick & Fiske, 2001), it could perhaps also be the case that some women experienced reactance levels comparable to men if they perceived these "benefits" as being threatened.

This study also investigated how organizational context (chosen here to mean organizational diversity climate; ODC) related to the efficacy of the sexism intervention. Contrary to hypotheses, ODC did not demonstrate direct or indirect effects on training outcomes or training transfer intentions. These results were unexpected, as previous research suggests training context is of potentially equal importance to training outcomes as trainee characteristics (Blume et al., 2010). Potential explanations for the lack of any significant effects of ODC on variables of interest, despite strong theoretical support, will be discussed in the limitations

section of this paper. Exploratory analyses were conducted to determine whether

gender or racial subgroup differences existed in ODC, and suggested that all

subgroups similarly perceived the ODC of the university examined in this study.

Implications for Theory and Practice

The results of this study offer several notable implications for both theory and

practice. From a theoretical perspective, this study lends support to the argument

that, in addition to paying careful attention to training design, it is important to

consider the impact of trainee characteristics on training efficacy. Thus, although

it did not fully support Baldwin and Ford's (1988) training transfer model, it did

provide further evidence of the importance of considering trainee characteristics

and their potential impact on training effectiveness. That is, even the most well

laid training plans cannot succeed to their maximum potential if trainees do not

demonstrate certain ideal characteristics. Due to a general paucity in the

theoretical examination of diversity training design and effectiveness, this study

was also the first (to the author's knowledge) to specifically examine a form of

diversity training under the training transfer framework provided and to

specifically take organizational context into consideration when examining

diversity training effectiveness. This study demonstrated that many previously

identified determinants of training efficacy in more general training contexts can

be specifically applied to a sexism-focused diversity training context. This point

should be stressed, as diversity training is often considered qualitatively different

than many other common forms of organizational training (e.g., job knowledge

training, safety training) because it covers topics that may be considered personal and emotional and aims to change attitudes which may be deeply held (Hanover & Cellar, 1998). Prior to this study, researchers could not necessarily assume that the relationships of particular trainee characteristics to outcomes demonstrated in other training contexts could generalize to a diversity training context. Thus, this study further reinforced the importance of fostering participant self-efficacy to improve training transfer intentions, not only for training initiatives in general but also as it specifically relates to diversity training outcomes.

Reactance has been less thoroughly researched in the training literature in comparison to self-efficacy, in part because it is of less theoretical concern for more commonly researched forms of training (e.g., job knowledge training). Although reactance has been measured in previous sexism intervention studies (e.g., Shields et al., 2011; Zawadzki et al., 2014), this study further established how critically important it is to consider trainee reactance during the design and implementation of diversity training, not just in terms of more successfully changing trainee attitudes and increasing knowledge, but also in terms of increasing the likelihood that such changes will transfer outside of the training context. Overall, these findings suggest researchers should ensure they measure trainee characteristics, particularly trainee self-efficacy and reactance, when conducting diversity training research.

From a practical standpoint, the implications are in a similar vein. Diversity training practitioners should ensure they take steps to boost trainee self-efficacy and limit reactance as much as possible. Although the design of the WAGES

training conducted in this study was not directly compared to other training designs, previous research suggests that the experiential learning-based design of WAGES generally elicits less reactance and greater self-efficacy to use training knowledge than other sexism intervention designs (e.g., lecture-based designs focused only on providing information). Whether employing the WAGES paradigm or any other form of diversity training design, diversity-training practitioners should incorporate experiential learning principles when possible. This type of design requires trainees to actively engage in the material and perspective-take, which not only can improve knowledge retention but, in the context of diversity training, can also increase trainee empathy and reduce reactance (Kolb, 1984; Shields, Zawadzki, & Johnson, 2011; Zawadzki, Danube, & Shields, 2012; Zawadzki et al., 2014). This study provided attitional support for the WAGES experiential learning-based training design. Thus, future training designs may employee similar design elements to WAGES. Additionally it may be beneficial to incorporate other experiential learning-based training elements such as role-playing and the opportunity to practice trained skills (e.g., practice confronting discriminatory behavior during a role-playing scenario) as this may further increase empathy through perspective taking (which can limit reactance) and boost self-efficacy through practice (Kolb, 1984; Zawadzki et al., 2014).

Limitations and Future Directions

This study was subject to a number of statistical and methodological limitations. First, from a statistical standpoint, this study would likely have

benefited from obtaining a larger sample size to test hypotheses. As noted in the

analysis section, the hypothesized measurement model could not be assessed,

likely because the sample size was not large enough to test the number of

parameters specified in the model. The alternative parceled model was rejected

due to poor model fit, which prevented hypotheses from being examined via

structural regression. The data suggest the parceled model was misspecified, and

modification to the model did not make theoretical sense, meaning the

hypothesized model did not contain the true model to account for the data.

Therefore, analysis suggests the hypothesized model is improbable. The results of

hypothesis testing using a series of regression also indicated model

misspecification, as many of the hypothesized paths were nonsignificant.

Additionally, because hypotheses were ultimately examined using a series of

regressions rather than through structural regression, the results are subject to a

higher risk of Type I error (i.e., obtaining a false positive result).

From a methodological standpoint, the research design of this study is

susceptible to problems associated with quasi-experimental and longitudinal

designs, common-method bias, and sampling strategy. First, although this study

identified a number of significant relationships among variables, there is some

limit to the amount of confidence we can place on the assumption that the sexism

intervention *caused* the observed pre-/post- changes in outcomes of interest. The

design of this study did not control for a variety of potential effects present in

time-series data, such as history and maturation effects. Causal conclusions could

have been strengthened by the inclusion of a similarly-matched and randomly

assigned control group and/or through the inclusion of an additional wave of post-training data collection (e.g., a third wave of data collected post-training). Including a third wave of data collection would have also allowed the direct measurement of training transfer, rather than the indirect measurement via training transfer intentions. Although previous research has established measuring transfer intentions as an acceptable proxy to actual transfer (e.g., Ashburn-Nardo, Blanchar, Petersson, Morris, & Goodwin, 2014; Czopp & Monteith, 2003; Rasinski, Geers, & Czopp, 2013) the direct measurement of transfer would have provided greater accuracy of this outcome. However, due to time and resource constraints, such an approach was not possible. Future research should attempt to collect longitudinal data over a longer period of time, so training transfer can be examined directly and stronger causal conclusions can be made.

Common method bias should also be considered as a limitation in this study. All data were collected via self-report surveys, and this common method of data collection may artificially relate correlations among variables. Given the number of non-significant to small correlations among many of the variables examined, common method bias is likely not a major concern.

Finally, the sample used in this study serves as a considerable limitation. Aside from sample size issues, the quality of the sample should also be considered. The sample consisted of students (the majority of which were undergraduates) rather than traditional employees. It is possible that testing the intervention in a more traditional workplace setting could have produced different results than those obtained here. It is reasonable to consider that the way students

view a sexism intervention hosted during class time and the way employees may
view a formal training session hosted in their organization could differ
substantially. For one, students were not required to participate and faced no
consequences in relation to training outcomes. In a formal training setting within
an organization, employees may be more likely to consider how training
outcomes relate to their performance within the organization and may thus take
the workshop more seriously in comparison to students. Additionally, although
students were asked to consider the organizational diversity climate of their
university in relation to the training, it was relatively difficult to immediately tie
in climate perceptions during the workshop. When prompted during the
discussion-portion of the training, students had a difficult time connecting
workshop objectives to the larger context of the university (e.g., when asked how
their university does or does not demonstrate the values discussed during training,
students had a difficult time providing a perspective). This could be because
students were unlikely to naturally consider the workshop's goals and messages
within the context of the university. Thus, the larger context of organizational
diversity climate did not appear to play a salient role for participants during
training. Considering this methodological limitation, it was relatively unsurprising
that ratings of organizational diversity climate were not significantly related to the
predicted variables. Organizational diversity climate might be more salient in
relation to such an intervention when conducted within a more traditional work
environment, as employees may be more likely to consider how the training
program does (or does not) align with the organization's espoused and enacted

values. Therefore, it is strongly recommended that future research on diversity training efficacy be conducted in a more traditional workplace environment so the effects of context can more thoroughly be examined.

Conclusion

This study demonstrated the general efficacy of an experiential-learning sexism intervention in reducing sexist attitudes, increasing knowledge of sexism, and increasing intentions to engage in activism against sexism post-training. This study furthers the pursuit of identifying an effective means to combat sexist attitudes and behaviors, both inside and outside of the workplace. Additionally, this study examined of how trainee characteristics and the organizational context relates to the efficacy of such an intervention. Although results did not fully support the proposed training transfer framework (most notably, it failed to support the theorized importance of organizational context on training outcomes), it did provide additional evidence for the importance of considering the role of trainee characteristics in the design and delivery of diversity training initiatives.

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Appendix A. Workshop Discussion Handouts

WAGES Discussion Handouts

This activity was designed to demonstrate the following four points:

(1) negative impact of the <u>accumulation of apparently minor biases</u> and unfair practices on women's ability to advance in their field

(2) different gender-relevant factors may be more significant at one <u>stage in work life</u> than in others

(3) <u>stereotypes and other cognitive shortcuts</u> impair the ability to notice and address bias

(4) <u>patterns, not single incidents, are the most visible indicators</u> of gender inequity in the workplace.

In order demonstrate these four points, please see the side-by-side comparison of cards:

Assistant Professor	**Two different senior colleagues tell you about a university-funded program for essential research instrumentation and encourage you to apply.** *Earn 3 credit chips as your colleagues offer to help with your application. Move 1 space forward.*	You get a message from a listserv about a university-funded program for essential research instrumentation. *Earn 3 credit chips as you apply. Move 1 space forward.*
Associate Professor	**You finish a brilliant article that you have spent the last year on. You submit the article to the top journal in your field and are asked to revise and resubmit and discuss your analyses in more detail.** *Earn 2 credit chips as you quickly get your article published. Move forward 2 spaces.*	You finish a brilliant article that you have spent the last year on. You submit the article to the top journal in your field and are asked to revise and resubmit and include an additional study. *Earn 2 credit chips as you are eventually able to get your article published. Move forward 1 space.*
Full Professor	**The department head tells you that the university is starting a new mentoring program. You are pleased to mentor another White Team member.** *Earn 2 credit chips as you offer your wisdom. Move 1 space forward.*	The department head tells you that the university is starting a new mentoring program. You discover that because there aren't many Green Team members eligible to serve as mentors, you will be mentoring most of your teammates. *Earn 2 credit chips as you offer your wisdom. Stay where you are as you try to figure out how you're going to manage this extra work. Move 1 space forward.*

Item Focusing on the Material Consequences of the Accumulation of Small Bias:

<table>
<tr>
<td>

You read a report on the status of university employees and see that your salary is slightly above the average for people of your rank.

Earn 2 credit chips as you feel you are being fairly paid for your work. Move 1 space forward.

</td>
<td>

You read a report on the status of women at the university and see that your salary is below the average salary for White Team colleagues at your same rank.

Earn 1 credit chip as you feel undervalued. Move 1 space forward.

</td>
</tr>
</table>

Items Focusing on Differences in Emotional Investment:

<table>
<tr>
<td>

The work environment towards White Team members is positive. You see each day at work as being full of potential

Earn 2 credit chips as you finish a grant on time. Move 1 space forward.

</td>
<td>

You see examples of Green Team members being treated not as favorably as White Team members. You decide you need to work harder.

Earn 2 credit chips as you manage to finish a grant on time. Move 1 space forward.

</td>
</tr>
<tr>
<td>

At a search committee meeting, the chair wonders aloud how to educate department colleagues on the importance of hiring faculty from underrepresented groups.

Earn 2 credit chips as you suggest that the committee consult a Green Team colleague for advice. Move forward 1 space.

</td>
<td>

At a search committee meeting, the chair wonders aloud how to educate department colleagues on the importance of hiring faculty from underrepresented groups. Everyone around the table looks at you for advice.

Earn 2 credit chips as you, once again, serve as the diversity expert. Move forward 1 space.

</td>
</tr>
</table>

Items Focusing on Solutions:

<table>
<tr>
<td>

The university tries out a "team masked" evaluation system. You do just fine and get a good raise.

Earn 2 credit chips as you continue to move along. Move forward 1 space.

</td>
<td>

The university tries out a "team masked" evaluation system. Your pay raise this year is better than ever!

Earn 3 credit chips as you feel you are gaining ground. Move forward 1 space.

</td>
</tr>
</table>

WAGES: WHAT WE CAN DO TO MINIMIZE THE EFFECTS OF UNCONSCIOUS BIAS

Women have made tremendous strides in the academy since the 1970s. Women work hard and know what it takes to succeed. Most men do not want to be unfair and know that gender equity benefits them, too. Yet, gender-related inequities in salary, opportunity, and advancement persist. Dealing with the influence of non-conscious bias takes more than good-intentions and determination. It takes action as individuals, group members, and institutions. Some first steps we can take are listed here.

What we can do as individuals

Understand that good intentions and efforts to be objective are not enough. Cognitive shortcuts, such as stereotypes, impair our objectivity, and it takes work to organize evaluative information in a way to reduce susceptibility to biasing influences.

- Continue the dialogue with others. WAGES and other learning activities give us the language needed to discuss how inequity accumulates. Keep in mind WAGES' take-home messages:
    1. accumulation of apparently minor biases and unfair practices hinders advancement
    2. different gender-relevant factors are significant at each stage in work life
    3. stereotypes and other "cognitive shortcuts" impair our ability to notice bias
    4. patterns, not single incidents, reveal inequities

- Consult the WAGES website for resources and demonstrations: http://wages.la.psu.edu/

What we can do as group members

Use tools that enhance fairness. In making decisions about others' careers, we have powerful opportunities to limit the effects of unconscious bias and shifting standards.

- Use standardized criteria for evaluation (see other side of this handout for a sample form). Standardized criteria limit effects of extraneous information on decision-making. When possible, use masked evaluation. These strategies allow decision-makers to focus *more* on the *accomplishments and expertise* of the candidate and *less* on *who* the person is.

- Ensure that the pool of job candidates or award nominees represent the diversity that is available.

What we can do institutionally

Data and accountability are crucial to producing long-term change. Minimizing effects of unconscious bias only can be accomplished if structures and processes are evaluated for fairness.

- Collect and pay attention to data on hiring patterns, advancement and retention, salary equity, departmental climate, and other factors relevant to ensuring an equitable workplace.

- Hold decision-makers accountable. Do they effectively use tools that enhance fairness?

- Vigilance is required. It is not enough to review mission statements or perform assessments once; continued monitoring and evaluation of progress are needed.

Appendix B: "Career Ladder Workshop" – Facilitator Guide

PRE- GAMEPLAY BACKGROUND INFORMATION

Professor Ranks
- Assistant profession: entry-level; does not have tenure (less job security)
- Associate professor: has tenure
- Full professor: has tenure; extensive career achievement

Moving up the ladder means earning more:
- Money
- Job Security
- Respect
- Access to desirable opportunities and influential colleagues

POST- GAMEPLAY DISCUSSION

Kick-off questions:
- What sorts of things did you notice about the game as it progressed?
- If you were to play this game again, which team would you want to play on?

The purpose of this game
- This game was designed to show how the work environment is differently experienced by men and women
- All game card are based on published scientific research or national statistics on women's and men's experience in the workplace

Pass out WAGES handout

"Please turn your attention to the handout."

This game is designed to highlight 4 main points:

1. **Seemingly minor disadvantages accumulate over time, significantly negatively impacting women's advancement**
   - Bias is rarely intentional!
   - Take a look at your game cards to see if you find any that might describe unconscious bias
2. **Some factors may be more or less important at different stages in one's career**
   - Different challenges occur at different career stages

- Can you think of ways that people at one career level may find it harder recognize the challenges faced be someone at another level?

3. **Stereotypes may impair our ability to notice & address bias**
    - How may "jumping to conclusions" or making assumptions about someone impact their career?
    - Can you remember examples from the game where stereotypes influenced evaluations?
4. **Patterns, not single incidents, are the most visible indicators of gender inequity**
    - During the game, did anyone see an individual card – all by itself – as evidence of bias?
    - Bias is almost impossible to see if you don't have access to the overall pattern of how people are treated
    - Example: Most salaries aren't made public – it's hard to spot salary inequity without being able to make comparisons

What types of negatives consequences occur?
- Material/Economic
- Emotional

What can we do?
- Some solutions already exist
    - Blind reviews/applications
    - Objective evaluation criteria
- **What ideas do you have?**
    - What can be done to neutralize bias in our university?

Recommended Strategies:
Reducing bias in yourself
- Make the unconscious….conscious!
    - Our brains are wired to make quick judgments, and that's where stereotypes can emerge
- Welcome and accept feedback, and create an environment where people feel comfortable talking openly about this topic

Reducing bias in others
- "Confronting" bias may sound aggressive, but it doesn't have to be
    - It's usually the surest way of reducing subsequent expressions of bias
    - Research suggests this approach is particularly effective when used by male allies

- Focus on behaviors and how they can change for the better

Any other thoughts or questions?
Please complete the online survey to conclude this workshop

Feel free to contact Samantha Smith (ssmit189@depaul.edu)

Appendix C. Organizational Diversity Climate (adapted from Barak et al., 1998)

Organizational Dimension

1. I feel I have been treated differently here because of my race, sex, religion, or age.*
2. The university has a track record of admitting students fairly, regardless of their race, sex, religion, or age.
3. Instructors here give feedback and evaluate students fairly, regardless of the student's ethnicity, gender, age, or social background.
4. University policies (such as exam make-up policies and conduct policies) are applied equally for all students.
5. The university encourages the formation of student network support groups.
6. There are mentoring programs available here that identify and prepare all minority and female employees for academic success.
7. The university spends enough money and time on diversity awareness and related issues.
8. The university "walks the walk" when it comes to valuing diversity and inclusion.
9. All students, regardless of race, sex, religion, or age, have the equal chance for their voice to be heard by the university.

Personal dimension

10. Knowing more about cultural norms of diverse groups would help me be more effective in my role as a student.
11. I think that diverse viewpoints add value.
12. I feel at ease with people from backgrounds other than my own.
13. I am afraid to disagree with members of other groups here for fear of being called prejudiced.*
14. Diversity issues keep some students here from performing at their maximum effectiveness.*

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.
* Item is reverse coded

Appendix D. Attitudes Toward Sexism Scales

Modern Sexism Scale (Swim et al., 1995)

1. Women often miss out on good jobs due to sexual discrimination.*
2. It is rare to see women treated in a sexist manner on television.
3. Society has reached the point where women and men have equal opportunities for achievement.
4. It is easy to understand the anger of women's groups in America.*
5. Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women's actual experiences.
6. Discrimination against women is no longer a problem in the United States.
7. On average, people in our society treat husbands and wives equally.
8. It is easy to understand why women's groups are still concerned about societal limitations of women's opportunities.*

Gender-Specific System Justification (Jost & Kay, 2005)

1. In general, relations between men and women are fair.
2. The division of labor in families generally operates as it should.
3. Gender roles need to be radically restructured.*
4. For women, the United States is the best country in the world to live in.
5. Most policies relating to gender and the sexual division of labor serve the greater good.
6. Everyone (male or female) has a fair shot at wealth and happiness.
7. Sexism in society is getting worse every year.*
8. Society is set up so that men and women usually get what they deserve.

Old-Fashioned Sexism Scale (Swim et al., 1995)

1. Women are generally not as smart as men
2. I would be equally as comfortable having a woman or a man as a boss*
3. It is more important to encourage boys than to encourage girls to participate in athletics.
4. Women are just as capable of thinking logically as men. *
5. When both parents are employed and their child gets sick at school, the school should call the mother rather than the father.

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.
* Item is reverse coded

Appendix E. Activism Against Sexism Baseline/Training Transfer Intentions

1. I plan to use the information I learned today to promote gender equity.*
2. I plan to learn more about sexism and the promotion of gender equity.*
3. I am willing to discuss sexism and gender inequity with others.**
4. I am willing to "call out" sexist practices and behaviors in the moment when I see them occur.**
5. If I saw someone behave in a sexist manner, I would express displeasure with their actions through body language (e.g., rolling my eyes, frowning, or crossing my arms).**
6. If I saw someone behave in a sexist manner, I would talk to them about the harm of their actions.**
7. If I saw someone behave in a sexist manner, I would discuss it with trusted friends and/or coworkers.**

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.

*Item will appear only during the intervention phase
**Item will appear during the baselines and intervention phase. During the intervention phase, item will begin with "Based on the information I learned today"

Appendix F. Male Privilege Awareness Scale (Case, 2011)

1. Men have privileges that women do not have in the United States.
2. Men automatically have more opportunities than women in employment and education.
3. Women are disadvantaged in society and men are at an advantage.
4. Men are at an advantage because they hold most of the positions of power in society.
5. Men must be willing to give up their privileged status before men and women can be truly equal.
6. Women and men have equal chances at success in this country. *
7. Women are advantaged and men are currently at a disadvantage. *

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.
* Item is reverse coded

Appendix G. State Self-Efficacy Scale (Zawadzki et al., 2012)

1. What I heard today provides opportunities for me to strengthen my self-esteem
2. Being in this study made me feel certain that when I make plans, I can make them work
3. What I heard today provides opportunities for me to overcome obstacles
4. Being in this study made me feel that even if I can't do a job the first time, I can keep trying until I succeed
5. What I heard today challenges me
6. What I heard today provides opportunities to exercise my reasoning skills
7. I feel hopeful about using the information given today

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.

Appendix H. State Reactance Scale (Zawadzki et al., 2012)

1. I disagree with much of the information given today
2. I agree with the information given today   *
3. Much of the information I got today I accept as true*
4. Much of the information given today seemed exaggerated

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.
* Item is reverse coded

Appendix I. Demographic/Miscellaneous Variables

1. What is your gender?
2. What is your age (in numerical years)?
3. What year are you in school?
     First year/Freshman
     Second year/Sophomore
     Third year/Junior
     Fourth year/Senior
     Graduate Student
4. How many years of work experience do you have?
5. With which political party do you most strongly identify?
     Democrat
     Republican
     Independent
     Other (please identify)
     None
6. Please indicate the ethnicity with which you identify.
     White or Caucasian
     Black or African American
     Hispanic or Latino/a
     Asian or Pacific Islander
     Native American or Alaskan Native
     Other (please identify)
7. Please indicate how many people were in your small group during the workshop (i.e., how many people did you play the game with?).
8. Please indicate which team you were on during the workshop. (White/Green)
9. Please indicate which team in your small group won the WAGES game. (White/Green)
10. Of your small group, please indicate how many members were male and how many were female.

Percieved usefulness of training
1. The information I learned during this workshop was useful.
2. I gained practical knowledge on the harm of sexism during this workshop.

Percieved org commitment to training
1. The university is committed to the goals of this workshop (i.e., promoting gender equality).

Perceptions of trainer
1. The facilitator of this workshop was knowledgeable about the material that was covered.
2. I perceived the facilitator of this workshop as credible.

Appendix J. Distractor Scales

Decision-Making Collaboration Scale (Anderson et al., 1998)

1. When others tell me I should do something, I insist upon knowing why.
2. When there are terms I don't understand, I usually won't bother to ask what they mean*
3. I bargain with others when I think it's needed
4. Often I do not explore alternative solutions*
5. I take charge when decisions have to be made*
6. I enjoy participating in decision-making
7. Often I do not argue my point of view when conflicting views exist*
8. I do not ask about alternative solutions*
9. I tend to avoid offering suggestions for options*
10. Most of the time I initiate suggestions
11. Usually I speak frankly about how I feel
12. If I do not understand all the options, I keep quiet*

Note. Response choices include 1 = almost never true 2 = usually not true 3) true about half the time 4) usually true 5) almost always true
*Item is reverse coded

Satisfaction with Life Scale (Diener et al., 1985)

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.

White Privilege Awareness Scale (Case, 2001)

1. White people have privileges that non-Whites do not have in the United States.
2. Whites automatically have more opportunities than non-Whites in employment and education.
3. Non-Whites are disadvantaged in society and Whites are at an advantage.
4. Whites are at an advantage because they hold most of the positions of power in society.
5. Whites must be willing to give up their privileged status before non-White and Whites can be truly equal.
6. Whites and non-Whites have equal chances at success in this country.*

7. Non-Whites are advantaged and Whites are currently at a disadvantage.*

Note. Response choices include 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, 7=strongly agree.