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Exploring the Role of Self-Complexity in Reducing Intergroup Anxiety and Fear of Discrimination Among Marginalized Group Members

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EXPLORING THE ROLE OF SELF-COMPLEXITY IN REDUCING

INTERGROUP ANXIETY AND FEAR OF DISCRIMINATION

AMONG MARGINALIZED GROUP MEMBERS

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by

Homa Sheibani Asl

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CENTRAL WASHINGTON UNIVERSITY

Graduate Studies

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ABSTRACT

EXPLORING THE ROLE OF SELF-COMPLEXITY IN REDUCING

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AMONG MARGINALIZED GROUP MEMBERS

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Multi-cultural and multi-ethnic societies experience unique challenges regarding interactions between different social groups. Negative emotions such as intergroup anxiety are one of the most common challenges that marginalized group members report about their experience of intergroup interactions. As such, social psychologists continue to explore methods to reduce negative intergroup emotions. Given that research on self-concept representation has repeatedly demonstrated that higher self-complexity serves as a buffer during stressful situations, in the current study, I combined intergroup and self-concept research to examine the role of self-complexity as a tool for reducing intergroup anxiety and fear of discrimination among members of marginalized groups. In this study, a 2 (identity prime: marginalized identity prime vs. no identity prime) x 2 (self-complexity manipulation: high vs. low) between-subject design was used. Intergroup anxiety and fear of discrimination were the dependent variables. I recruited 155 participants from undergraduate students in the Department of Psychology. I asked them to write about a self-relevant marginalized identity or their surroundings (in the control condition) and then complete Setterlund's (1994) self-complexity manipulation. Afterward, they rated their levels of intergroup anxiety (IAS-SF; Paolini et al., 2004) and fear of discrimination (InDI-A; Scheim & Bauer, 2019). I predicted that high self-complexity would reduce intergroup anxiety and fear of discrimination,

especially when the participants' marginalized identity was primed. However, the results did not support this hypothesis, as there were no main effects or interactions involving the self-complexity manipulation and priming conditions on outcomes of interest. Despite the null results of this study, self-complexity has been shown to help individuals cope with stress, stereotype threat, and tension between different social groups. Further research should investigate how self-complexity affects intergroup emotions, considering the insights and limitations of existing studies.

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CHAPTER I

INTRODUCTION

Membership in social groups increases a sense of belonging and support (Greenaway et al., 2015), but intergroup interactions can present major challenges for members of marginalized groups. For example, interacting with members of outgroups can elicit specific negative emotions such as intergroup anxiety. Levels of intergroup anxiety can be influenced by a range of social and personal factors, which can either reduce or exacerbate these negative emotions (Stephan, 2014). When individuals are able to manage their intergroup anxiety effectively, they are more likely to engage in intergroup contact with others, experience smoother intergroup interactions, and foster more positive intergroup relations (Gudykunst & Hammer, 1988). The primary goal of this research was to study how self-complexity and primed social identity impact intergroup emotions such as intergroup anxiety and fear of discrimination. While highlighting one's marginalized identity may exacerbate these emotions, higher self-complexity, known to serve as a buffer in times of stress, may serve as a helpful tool for decreasing intergroup tensions (Thoits, 1983). Defined as an inclination or ability to describe the self in terms of multiple and diverse social identities, high self-complexity may also help decrease levels of intergroup anxiety because it may encourage a more flexible view of the self and outgroup members in light of other shared social identities.

In this thesis document, I discussed the importance of social identity and identity salience, as well as intergroup anxiety and fear of discrimination, to provide a better understanding of how these various factors may interact. I also reviewed the importance of self-complexity and its role in affective responses, followed by the description of my experimental study, which examined the impact of primed marginalized identity and self-

complexity on intergroup emotions. Finally, I explained my statistical analysis, results,

discussion, and conclusions based on the results.

LITERATURE REVIEW

Social Identity

Social Identity Theory and Marginalization

Social identity refers to a person's sense of self based on their membership in social groups (Charness & Chen, 2020). According to social identity theory (Tajfel & Turner, 1982), social identification primarily involves three components - categorization, identification, and comparison. Categorization is labeling and placing the self and others into groups (e.g., racial groups, gender groups, etc.). Identification involves the further step of associating the self with specific groups. Lastly, comparison, the third component of social identity, consists of identifying similarities and differences between the ingroup and other groups and is an important stage when considering the biases created toward ingroups and outgroups as a result of these comparisons.

Marginalized Identity Activation and Salience

Studies have found that certain aspects of identity hold greater significance for the person than others (Meca et al., 2015). Stryker's theory (1968) suggests that people classify themselves into several social categories and then arrange them into a hierarchy based on the salience of each category. For example, one individual may consider career identity the most salient, while another may prioritize family identity over other social categories. Bombay et al. (2010) suggest that those belonging to marginalized groups (i.e., groups that are devalued or not well represented within mainstream society, Eccles; 2009), such as people of color in the United States, tend to place a higher value on that aspect of their identity compared to individuals from the dominant or privileged group.

In addition to the personal prioritization or societal standing of an identity, the situation/context has also been shown to (temporarily) alter the activation of specific aspects

of one's identity. For example, being a numerical minority in a situation (e.g., a male-dominated workplace) can prime a particular identity (e.g., female), activating it by making it stand out or seem potentially relevant to the situation (Abrams et al., 1990).

When a cue or prime draws attention to a particular category or identity, the corresponding behavioral norms gain a greater role in shaping actions and responses (Benjamin et al., 2016). Therefore, primed racial, ethnic, or gender identities increase the tendency to follow norms and conform to stereotypes of the ingroup (Benjamin et al., 2010). When individuals hold a salient marginalized identity, they perceive themselves as linked with others holding that same identity. This leads them to pay more attention to their ingroup's desires and exert more effort to blend in with the group and conform to ingroup-relevant behaviors and thoughts (Markus & Kitayama, 1991; Mandel, 2003; Triandis, 1995; Triandis & Suh, 2002).

Salient or Activated Marginalized Identities and Health Outcomes

Several studies indicate that individuals who belong to marginalized groups (e.g., gay/lesbian/bisexual persons, women, and gender minorities) are more prone to negative physical and mental health outcomes (Fraser et al., 2019; Meyer, 2013) and exhibit lower levels of resilience (English et al., 2020; Noyola et al., 2020). Furthermore, these issues are linked to greater levels of functional impairment when participating in daily life activities (Cochran et al., 2017).

When a marginalized identity is salient, it can lead to negative outcomes such as stereotype threat. Stereotype threat, or the fear of being negatively judged based on a stereotype about a group one belongs to, can have detrimental effects on well-being and performance in various fields (Steele et al., 2002). For example, Steele and Aronson (1995) found that Black college students performed worse on a standardized test when they were first reminded of their race compared to when they were not.

Salient identities can be considered a lens through which social realities, such as actions and interactions, are perceived (Spyriadou & Koutouzis, 2020). Individuals whose salient identity is marginalized may experience feelings of exclusion, oppression, and a decreased sense of belonging and self-esteem (Umaña-Taylor, 2016). Cochran et al. (2017) utilized information from the National Health Interview Survey to reveal that individuals with marginalized identities, such as those who identify as sexually diverse, face a heightened risk of experiencing depressed mood, anxiety, and psychological distress.

Overall, research suggests that salient or activated identities can have a wide-ranging impact on how individuals perform and perceive their environment. Salient identities can also affect intergroup experiences, especially for marginalized groups who may face discrimination. These experiences can cause anxiety or fear about potential discrimination.

Fear of Discrimination

Discrimination has been defined as treating members of a particular social group differently and unjustly solely based on their membership in that group (Bastos et al., 2012). Individuals may face discriminatory treatment based on various traits, including but not limited to gender, age, physical appearance, race, ethnicity, social class, and other characteristics that are either assigned by society, innate, or acquired (Bastos et al., 2010). Essed (1991) suggested that for some, discrimination is a part of daily life experiences and can include both daily stressful experiences and recurring minor offenses and annoyances in everyday situations.

Experiencing discrimination or repeated exposure to it in society can lead to a fear of the possibility of experiencing such discrimination (Moore et al., 2016). The apprehension or concern one feels in response to the possibility of experiencing physically or emotionally abusive and discriminatory behaviors is called fear of discrimination (Grinshteyn et al., 2022). The concept of "linked lives" proposes that the discrimination experienced by one

group member can be distressing for others too and negatively affect their well-being, similar to the impact of direct experience of discrimination (Elder, 1998).

Anticipation of discrimination can result in stigma-related mental health issues due to stress and fear associated with those anticipations (Quinn et al., 2020). Greene et al. (2006) suggested that racial and ethnic minority youth who experience perceived racial discrimination are more likely to have lower psychological well-being. Likewise, a 10-year cohort study among non-Hispanic Black and White 5th-12th graders demonstrated that perceived lifetime racial discrimination is associated with depressive symptoms (Cheng et al., 2015).

In addition to mental health outcomes, fear of discrimination can affect individuals' sense of belonging in society (Maxwell, 2009). In research examining national identification dynamics among Caribbean and South Asian individuals in Britain, Maxwell (2009) reported that higher expectations of discrimination among immigrants contributed to lower levels of positive attachment to mainstream society. These lower levels of attachment can lead to intergroup anxiety, defined as a negative emotional state experienced by individuals when interacting with members of other social groups (Schneider et al., 2005).

Intergroup Anxiety

Based on Stephan and Stephan's (1985) intergroup anxiety theory, anticipation of unfavorable consequences during contact with an outgroup results in intergroup anxiety. In intergroup research, intergroup anxiety pertains to the uneasiness that people feel when they imagine, are about to, or are already interacting with members of an outgroup (Stephan & Stephan, 1985). For example, individuals may be anxious because they expect discrimination, rejection, or threat to their identity or self-esteem in an intergroup situation (Greenland & Brown, 1999).

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Moreover, intergroup anxiety can cause bias in information processing, creating or reinforcing prejudicial attitudes (Stephan & Stephan, 1985). Costello and Hodson (2011) examined the relation between participants' intergroup anxiety and their support for helping immigrants, and the results demonstrated that negative intergroup attitudes were more likely to occur when higher levels of intergroup anxiety were experienced. Likewise, Stephan and Stephan (1985) reported that intergroup anxiety and outgroup stereotyping were correlated, such that individuals with higher levels of intergroup anxiety tended to be more likely to engage in stereotyping.

Decreasing Intergroup Anxiety and Fear of Discrimination

Exacerbated by links to stereotyping and avoidance of intergroup contact, intergroup anxiety and fear of discrimination have been found to have a significant negative impact on individuals and communities (Dovidio et al., 1998). Strikingly, intergroup anxiety is a more powerful mediator of intergroup contact and prejudice than empathy, knowledge, or perspective-taking (Pettigrew & Tropp, 2008). However, studies have indicated that positive intergroup contact can alleviate intergroup threat and anxiety (Paolini et al., 2004; Riek et al., 2006; Stephan et al., 2016). Research comparing the academic performance of domestic Dutch and international students showed that social integration is crucial in determining one's adaptation ability in situations that require coping with intergroup anxiety and engaging in intergroup interactions (Rienties et al., 2012). Further, researchers demonstrated that international students experienced less intergroup anxiety when they had friends who shared their cultural background as well as local community connections (Bok, 2009; Russell, 2010; Severiens & Wolff, 2008). By establishing personal relationships with individual members of the outgroup, intergroup anxiety and prejudice towards outgroups can be alleviated (Pettigrew & Tropp, 2006). For college students, this might take the form of joining extracurricular activities or connecting with a broader range of students in one's classes.

Tinto (1998) has suggested that joining clubs or societies that offer socially vulnerable students (e.g., international students) different roles/interactions is helpful for both their academic performance and social integration.

Controlling and reducing intergroup anxiety is crucial for living in a society with diverse social groups and having favorable intergroup interactions. As such, it is important to address the effects of fear of discrimination and intergroup anxiety to promote inclusive and equitable environments. Based on previous research examining the protective benefits of high self-complexity in challenging situations (Linville, 1985; McConnell et al., 2009), self-complexity may prove useful to individuals in controlling or decreasing the fear and anxiety that they experience because of their marginalized identities.

Self-Complexity

Self-complexity is a unique concept that considers not only the content but also the structure of the self in memory. According to McConnell and Strain (2007), rather than focusing solely on the traits and characteristics that make up one's identity, self-complexity considers how those traits and characteristics are organized across different aspects of the self, also known as self-aspects. Measures of self-complexity evaluate how individuals assign attributes to various self-aspects, such as social identities, relationships, roles, and contexts (McConnell & Strain, 2007). Self-complexity is determined by two factors: the number of self-aspects that one utilizes for organizing information about oneself (e.g., roles, group memberships, relationships, contexts) and the extent to which the attributes (e.g., traits, characteristics) that compose the self-aspects are related/overlapping (Linville, 1985).

High self-complexity results from numerous relatively unrelated self-aspects, whereas low self-complexity arises from a few highly interdependent self-aspects (Linville, 1985). For example, individuals with lower self-complexity typically have a small number of self-aspects whose attributes overlap (e.g., someone who sees their characteristics similarly across

their identities as a student, activist, and woman). In contrast, someone who is higher in self-complexity may have many self-aspects, each of which has a set of relatively unique attributes (e.g., someone who sees themselves as thinking, feeling, or behaving quite differently across their roles as student, athlete, woman, daughter, girlfriend, activist, and baker).

Tajfel and Turner (1979) highlighted the significance of group membership in shaping an individual's self-aspects. Having diverse social identities, which partially drives higher self-complexity, can also improve individuals' performance under stereotype threat (Gresky et al., 2005). Stereotype threat research has repeatedly shown that when women were informed that a mathematics test they were about to take produces gender differences in results, their performance was poorer compared to when women were told that the test did not show such differences (Spencer et al., 1999). However, Shih et al. (1999) found that reminding Asian American women of their identity as Asians instead of women before taking a math test alleviated stereotype threat and improved their performance. Rydell et al. (2009) went beyond priming one single identity to examine the impact of priming multiple identities on women's stereotype threat in math. Specifically, researchers included three different identity prime conditions: gender identity condition, college identity condition, and multiple-identities condition. Results demonstrated that simultaneously priming multiple identities and roles, such as gender identity and college identity, can alleviate women's stereotype threat in mathematics and eliminate gender differences in performance (Rydell et al., 2009). These results are in line with research showing that the more numerous and varied social identities an individual has, the less likely they are to report experiencing psychological distress, such as anxiety and depression (Thoits, 1983).

Research also shows how having varied identities can impact individuals' exploration and attachment to those aspects of the self. For example, researchers applied the self-

complexity concept to student-athletes and found a negative effect of athletes' rigid and exclusive self-identification on their performance (Warriner & Lavallee, 2008; Willard & Lavallee, 2016). Specifically, students with lower self-complexity were found to be more likely to limit their future development to the field of sport or lose their interest in exploring other careers (Cabrita et al., 2014). They also tended to avoid decisions and tasks with higher difficulty (Hsu & Lin, 2020).

Linville (1985) suggested that people with lower self-complexity tended to have more fluctuations in their emotions and self-evaluation after experiencing success or failure. According to McConnell et al. (2009), when an individual has low self-complexity, spillover amplification effects occur, meaning that any positive or negative feedback or experiences related to one aspect of the self can spread and impact other related aspects of the individual, resulting in a more significant proportion of the self-concept being affected, and subsequently, more extreme emotional responses. Spillover amplification helps to explain why high self-complexity shields against various negative emotions like depression, sadness, and anxiety and prevents decreases in self-evaluation when experiencing stressful situations (Linville, 1985; McConnell et al., 2009).

Despite broad research in the field and attention on how self-complexity relates to individual-level setbacks and challenges, there remains a lack of literature concerning the impact of self-complexity on group identity-related fear and anxiety, including but not limited to the fear of discrimination and intergroup anxiety. Due to its ability to assist individuals in coping with difficult situations and its recognition of a diverse range of social identities, I believe that high self-complexity represents a good candidate for reducing negative intergroup emotions.

Current Study

In this research, I examined the role of self-complexity and primed marginalized social identity on intergroup emotions (i.e., anxiety and fear of discrimination). Based on previous research, I expected:

H1. Participants with higher self-complexity vs. lower self-complexity would report lower intergroup anxiety and fear of discrimination.

H2. Participants with a primed marginalized identity vs. the control group would report higher intergroup anxiety and fear of discrimination.

H3. Higher self-complexity would be especially effective in decreasing intergroup anxiety and fear of discrimination for participants with a primed marginalized identity vs. the control group.

<center>**CHAPTER III**</center>

<center>**METHOD**</center>

Design

This study used a 2 (primed social identity: marginalized identity prime vs. no identity prime) x 2 (self-complexity manipulation: high vs. low) between-subjects factorial design. The two dependent variables were intergroup anxiety and fear of discrimination.

Participants

Based on the number of conditions, an estimated small to medium effect ($F^2 = .04$), a power set at .80, and an alpha of .05 (Cohen, 1992), power analysis suggested recruiting approximately 151 participants. I recruited participants from Central Washington University using the university's Sona online participant management software. All students were eligible to participate in this study. However, I only analyzed the data from those participants with at least one of the outlined marginalized identities (i.e., women, racial/ethnic minorities, LGBTQ+ community members) for this project. The final sample ($N = 155$) consisted of 74.2% females, 17.4% males, and 5.2% non-binary individuals. Regarding race/ethnicity, 51% of participants were White, 22% were Hispanic/Latino, and 28% reported other ethnicities. Regarding sexual orientation, 54% were heterosexual, 22% bisexual, 6% asexual, 6% homosexual, and 12% reported other sexual orientations. The average age of participants was 21 ($M = 21.1$, $SD = 6.25$). See Tables 1 - 5 for a full breakdown of measured participant demographic information.

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Table 1

Gender Identity Descriptive Statistics

	n	%
Male	27	17.4
Female	115	74.2
Non-binary	8	5.2
Other	5	3.2

Table 2

Ethnic/ Racial Identity Descriptive Statistics

	N	%
Asian	5	3.2
Asian, Hispanic/ Latino	1	0.6
Asian, Native American	1	0.6
Asian, White	7	4.5
Black/ African American	5	3.2
Asian, White, Black/ African American	1	0.6
White, Black/ African American	7	4.5
Hispanic. Latino	34	21.9
Hispanic. Latino, Native American	8	5.2
Native American, White	3	1.9
Pacific islander	3	1.9
White	79	51.0
Other	1	0.6

Table 3

Sexual Orientation Descriptive Statistics

	N	%
Asexual	9	5.8
Bisexual	35	22.6
Heterosexual	84	54.2
Homosexual	9	5.8
Other	18	11.6

Table 4

Religious Identity Descriptive Statistics

	N	*%*
Agnostic	33	21.3
Atheist	14	9.0
Buddhism	5	3.2
Christianity	61	39.4
Other	42	27.1

Table 5

Marital Status Descriptive Statistics

	N	*%*
Divorced	3	1.9
Married	10	6.5
Single	140	90.3
Widowed	1	0.6
Missing	1	0.6

Materials

Social identity manipulation. Participants were randomly assigned to either the control condition ($n = 76$) or the marginalized identity prime condition ($n = 79$). Those in the marginalized identity prime condition responded to questions regarding their group identities (i.e., race/ethnicity, sexual orientation, gender) one at a time until membership in a marginalized group was identified (see Appendix A for flow chart). Once a marginalized identity was identified, participants were directed to that identity's writing prime prompt. Participants in the marginalized identity prime condition were instructed to spend about 5 minutes writing a short paragraph about their marginalized group membership (see Appendix A). Participants in the control condition also had a writing task but were asked to write a short paragraph about what they were seeing in their immediate surroundings. This

manipulation is a modified version of the social identity salience manipulation used in previously published research (Wojcieszak & Garrett, 2018).

Self-complexity manipulation. Using a modified version of Setterlund's (1994) self-complexity manipulation, participants were shown a list of attributes (e.g., creative, lonely, relaxed) and were asked to select the attributes that describe aspects of their lives. Participants were randomly assigned to low ($n = 80$) or high ($n = 75$) self-complexity conditions. In the low self-complexity condition, participants described themselves using three self-aspects -with their family, as a student, and with a friend/significant other. Alternatively, the high self-complexity condition described themselves using seven self-aspects -with family, as a student, with friends/significant other, thinking about the future, on their own, physically, doing volunteer work/hobbies (Appendix B). In both conditions, each self-aspect might contain as many or as few attributes as participants wish. Participants did not need to use every attribute, and each attribute might be used in more than one self-aspect.

Fear of discrimination scale. The intersectional discrimination index (InDI-A; Scheim & Bauer, 2019) was used to measure participants' levels of anticipated discrimination. Participants answered nine questions (e.g., "I worry about being treated unfairly by a teacher, supervisor, or employer.") on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) (Appendix C).

Validity and reliability tests have been conducted among participants from Canada and the United States, and results demonstrated Cronbach's alpha coefficients ranging from .70 to .72 for this scale (Scheim & Bauer, 2019). The scale was also shown to be reliable in the current study, with a Cronbach's alpha of .89.

Intergroup anxiety scale. The intergroup anxiety scale-short form (IAS-SF; Paolini et al., 2004), which consists of six items, was used to assess negative affective responses experienced by individuals when they anticipate future contact with outgroup members (Britt

et al., 1996). This scale is a modified version of the original intergroup anxiety scale (IAS; Stephan & Stephan, 1985). Participants were asked to imagine they were the only members of their social group interacting with members of another group. Participants then rated the extent to which they feel emotions such as relaxed, confident, self-conscious, and defensive on a 4-point Likert scale ranging from 1 (*not at all*) to 4 (*extremely*). See Appendix D. The reliability of this scale has been supported based on reported Cronbach's alpha scores ranging from .86 to .90 in Irish and British undergraduate samples (Paolini et al., 2004; Turner et al., 2007). The Cronbach's alpha was .84 in the current study.

Demographics. Participants responded to demographic questions regarding age, gender (see Table 1), ethnicity (see Table 2), sexual orientation (see Table 3), religion (see Table 4), and marital status (see Table 5).

Procedure

This study was conducted online using the Qualtrics platform, and participants read and agreed to an online consent form before starting the survey (Appendix F). Participants were then randomly assigned to either the marginalized identity prime condition or the control condition. Participants in the identity prime condition answered questions regarding their potential marginalized group memberships (i.e., race/ethnicity, gender, or sexual orientation) until a marginalized identity was identified. At that point, participants received instructions for writing tasks based on that marginalized group. The control group wrote about their surroundings. After completing the writing task, participants were randomly assigned to either the high or low self-complexity manipulation conditions, in which they used listed traits to describe aspects of their selves. After completing the self-complexity task, participants completed the fear of discrimination scale, the intergroup anxiety questionnaire (order counterbalanced), and demographic questions. Finally, participants were debriefed and thanked for their participation (Appendix G).

Statistical Analysis

For the statistical analysis, scores for the dependent variables were calculated according to the following procedures. For the fear of discrimination scale, no items required reverse scoring. Participants' final scores were calculated by averaging their responses across all nine items, with higher scores indicating a greater fear of discrimination ($M = 2.32$, $SD = 0.85$). For the intergroup anxiety scale, three items (i.e., item 1, item 4, and item 5) required reverse scoring. Participants' final scores were calculated by averaging their responses to all six items, accounting for the reverse-coded items. Higher scores represented higher levels of intergroup anxiety ($M = 2.93$, $SD = 0.67$).

I ran a multivariate analysis of variance (MANOVA) to analyze the possible main effects of each independent variable (i.e., identity prime and self-complexity manipulation) and their interaction on the dependent variables which were fear of discrimination and intergroup anxiety. In order to further evaluate the data, I followed up with univariate analyses to test the main effect and interaction of independent variables (identity prime and self-complexity manipulation) on each dependent variable individually (fear of discrimination and intergroup anxiety).

In addition, to see if the identity prime and control groups had difficulty or differences in completing the writing task, I counted and analyzed the number of words each participant used to complete the identity prime writing task or the control condition. I used Linguistic Inquiry and Word Count software (LIWC) to count the words, which defines a word as a sequence of characters separated by spaces or punctuation, excluding numbers and non-word symbols. Then, I ran an independent sample t test to compare the number of words used in marginalized identity prime and control groups.

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CHAPTER IV

RESULTS

This study was interested in the effect of self-complexity and marginalized identity on fear of discrimination and intergroup anxiety among members of marginalized groups as such, participants who did not identify with any of the marginalized groups I studied in this project were excluded from the analysis ($n = 16$, straight, white, males).

Among participants who were randomly assigned to the marginalized identity prime condition, 28 participants were identified as and wrote about being an ethnic minority, 29 participants were identified as and wrote about being LGBTQ+, and 22 participants were identified as and reflected on being women (gender minority; Table 6). However, all of these individuals were analyzed together as the marginalized identity prime condition.

Table 6

Marginalized Identity Prime Groups' Descriptive Statistics

	N	%
Control	76	49.0
Ethnicity	28	18.1
LGBTQ+	29	18.7
Gender	22	14.2

After ensuring that statistical assumptions were met, I conducted a multivariate analysis of variance (MANOVA) test to examine the potential main effects and interactions involving self-complexity and marginalized identity prime on intergroup anxiety and fear of discrimination. Contrary to my first two hypotheses, results did not reveal a significant main effect of self-complexity, $F(2, 150) = 2.09$, $p = .13$, or marginalized identity prime, $F(2, 150) = 0.17$, $p = .85$, on the combined dependent variables. Additionally, I found no support for

my third hypothesis, as there was no significant interaction between self-complexity and

marginalized identity prime on my outcomes of interest, $F(2, 150) = 0.16$, $p = .85$ (Table 7).

Table 7

Multivariate Test Results

		F	$df1$	$df2$	p
Self-complexity	Wilks' Lambda	2.087	2	150	0.128
Identity Prime	Wilks' Lambda	0.168	2	150	0.845
Self-complexity ✳ Identity Prime	Wilks' Lambda	0.164	2	150	0.849

In order to further analyze the data, I checked the results of univariate analysis, and

the pattern of results remained the same when examining each dependent variable separately.

(see Table 8 for univariate test results, and Table 9 for descriptive statistics of each dependent

variable broken down by condition).

Table 8

Univariate Test Results

	Dependent Variable	Sum of Squares	df	Mean Square	F	p
Self-complexity	Fear of Discrimination	2.260	1	2.260	3.111	0.080
	Intergroup Anxiety	0.029	1	0.029	0.064	0.800
Marginalized Identity Prime	Fear of Discrimination	0.156	1	0.156	0.215	0.643
	Intergroup Anxiety	0.117	1	0.117	0.256	0.613
Self-complexity ✳ Identity Prime	Fear of Discrimination	0.087	1	0.087	0.120	0.729
	Intergroup Anxiety	0.142	1	0.142	0.311	0.578
Residuals	Fear of Discrimination	109.700	151	0.726		
	Intergroup Anxiety	69.309	151	0.459		

Table 9

Descriptive Statistics of Dependent Variables

	Marginalized identity prime	Self-complexity	Mean	Std. Deviation	N
Fear of discrimination	Control	Low	2.147	.830	38
		High	2.439	.961	38
		Total	2.293	.904	76
	Prime	Low	2.257	.780	42
		High	2.454	.835	37
		Total	2.349	.807	79
	Total	Low	2.205	.801	80
		High	2.447	.895	75
		Total	2.322	.854	155
Intergroup anxiety	Control	Low	2.886	.685	38
		High	2.922	.685	38
		Total	2.904	.681	76
	Prime	Low	3.000	.521	42
		High	2.914	.808	37
		Total	2.960	.667	79
	Total	Low	2.946	.603	80
		High	2.918	.743	75
		Total	2.932	.672	155

There was no significant effect of self-complexity on fear of discrimination, $F(1, 151) = 3.11$, $p = .08$. Specifically, high ($M = 2.45$, $SD = 0.89$) and low ($M = 2.20$, $SD = 0.80$) self-complexity groups did not significantly differ in their reported fear of discrimination. Similarly, there was no significant effect of self-complexity on intergroup anxiety, $F(1, 151) = 0.06$, $p = .80$. Specifically, high ($M = 2.92$, $SD = 0.74$) and low ($M = 2.95$, $SD = 0.60$) self-complexity groups did not significantly differ in their reported intergroup anxiety.

Further, there was no significant effect of the marginalized identity prime on fear of discrimination, $F(1, 151) = 0.22$, $p = .65$. Identity prime ($M = 2.35$, $SD = 0.81$) and control ($M = 2.29$, $SD = 0.90$) groups did not significantly differ in their reported fear of discrimination levels. Similarly, there was no significant effect of the marginalized identity

prime on intergroup anxiety, $F(1, 151) = 0.26$, $p = .61$. Specifically, identity prime ($M = 2.96$, $SD = 0.67$) and control ($M = 2.90$, $SD = 0.68$) groups did not significantly differ in their reported levels of intergroup anxiety.

Finally, there were no significant interactions between self-complexity and marginalized identity prime on either fear of discrimination, $F(1, 151) = 0.12$, $p = .73$, or intergroup anxiety, $F(1, 151) = 0.31$, $p = .58$

I also conducted an independent *sample t* test to compare the word count of the identity prime and control group's writing tasks. Results did not show a significant difference between identity prime and control groups regarding word count of their writing, $t(153) = -0.75$, $p = .23$ (Table 10). Specifically, there was no significant difference between the identity prime ($M = 67.86$, $SD = 45.95$) and control ($M = 62.70$, $SD = 39.22$) groups regarding the number of words they used to complete the writing task.

Table 10

Independent Samples t Test Results

		Statistic	*df*	*p*
WC	Student's t	-0.751	153	0.454

Note. H_a $\mu_0 \neq \mu_1$

CHAPTER V

DISCUSSION

Tajfel and Turner (1979) emphasized the influence of group membership in shaping an individual's self-concept, with diverse social identities contributing to higher self-complexity. This complexity can enhance performance under challenging life circumstances, such as stressful situations (Linville, 1985; McConnell et al., 2009), stereotype threat (Gresky et al., 2005), and intergroup tension (Thoits, 1983).

Drawing from previous studies, the current study combined intergroup and self-concept research to examine the role of self-complexity as a tool for reducing intergroup anxiety and fear of discrimination among members of marginalized groups. The results of this study did not support any of the hypotheses. This is inconsistent with the existing literature on self-complexity, which finds self-complexity to be an effective buffer against negative intergroup emotions (Thoits, 1983) and the stress caused by stereotype threat (Rydell et al., 2009).

These results may reflect the college environment and relatively low levels of negative intergroup emotions among marginalized students. The student population might not experience enough intergroup anxiety and fear of discrimination to need or benefit from high self-complexity as a buffer. As the literature shows, when experiencing an adverse event, individuals with low self-complexity exhibit a higher level of negative affect because the negative feelings spill over into other self-aspects (Linville, 1985). However, in favorable life circumstances, individuals with lower self-complexity might experience higher well-being (McConnell, 2009). This could be the case in my sample, which consisted of college students. Additionally, this could inform us about the effectiveness of diversity and equity interventions for the college population.

Beyond the general level of participants' fear of discrimination and intergroup anxiety and the role of high and low self-complexity in positive and negative events, additional factors might explain why self-complexity did not show a buffer effect against negative intergroup emotions between groups as anticipated. One possible reason could be related to the self-complexity manipulation. Thinking about several roles/identities and defining them using attributes may have primed several marginalized identities. This could increase base levels of intergroup anxiety and fear of discrimination in all conditions, thereby diminishing the priming effect of the identity prime task and the consequent difference between prime and control groups regarding the dependent variables.

Another possible explanation for the null findings relates to the identity priming task. Although identity prime and control groups did not differ in the word count of their writings, it is possible that the manipulation group might not have spent enough time on the task to be adequately primed by it. Furthermore, depending on what the participants chose to write about their marginalized group, the prime condition may have resulted in self-affirmation. Self-affirmation theory suggests that it is psychologically important to perceive the self in a positive light (Steele, 1988) and implies that if one's self-conception faces any threat, a natural response will be to bolster feelings of self-worth by reflecting on positive aspects of the self (e.g., highly valued identities/values). Thus, self-affirmation can reduce feelings of stress (Creswell et al., 2005) and defensive responses to self-threats (Owens & Massey, 2011). Participants in this study might have exhibited a similar response to threats resulting from identity prime tasks based on the self-affirmation theory.

Limitations

The current study was limited in several aspects. First, the participants were all undergraduate students from Central Washington University. College environments are often more likely than other contexts to facilitate diverse social interactions, exposing students to

different perspectives, which may reduce prejudice through familiarity with outgroups (McPherson et al., 2001). Additionally, to the extent that universities actively promote awareness of diversity issues and foster inclusive norms, creating a more accepting environment (Paluck & Green, 2009), students might generally experience fewer negative intergroup emotions. Priming their identity might not increase their fear of discrimination and intergroup anxiety levels to the degree that I expected in this study. In this case, as demonstrated by McConnell et al. (2009), when people are not under stress and are generally doing well, those with lower self-complexity often experience higher levels of well-being than those with higher self-complexity.

Another limitation of the current study involves the variety of responses elicited by the identity prime instructions. Although I asked the participants to write about their marginalized identity, participant responses indicated different understandings of this task and what they were asked to think about. For example, some participants reflected on superordinate group identities and inclusion (e.g., despite differences, we all are human) rather than discussing their own group (which was the goal of this task). Also, in many cases, the length and content of the writings were brief, which may have limited the priming effect on the participants. Although there was no significant difference regarding the word count of the prime and control groups, spending a longer time on the task and thinking deeply about the instructions could create stronger priming effects.

Future Directions

Intergroup relations are an unavoidable and potentially rewarding part of society, and research on navigating such interactions and decreasing negative intergroup emotions should continue. Future studies should replicate the present study, addressing the limitations discussed. For example, the identity prime task could incorporate a minimum time or word requirement. In this study, participants were asked to spend up to five minutes on that task,

but there was no actual time requirement to ensure participants spent the full five minutes on it. There might be a benefit to having such a requirement. Specifically, it may encourage participants to think about the task more deeply, write longer and more detailed texts, and have that specific identity salient in their minds.

Additionally, people with different marginalized identities might have varied reactions to identity prime and self-complexity manipulations and experience different levels of intergroup anxiety and fear of discrimination. In this study, I primed one marginalized identity that participants belonged to (i.e., ethnic minorities, women/gender minorities, sexual minorities). Although the sample size of each group in the current study was too small to examine the effects of each marginalized group on its own, future studies should recruit a larger number of participants to be able to run separate statistical analyses on each marginalized identity group that has been primed.

When studying marginalized identities, intersectionality must be taken into account. Multiple marginalized populations may have different experiences of discrimination (Hudson et al., 2024). Individuals with multiple marginalized identities (e.g., Hispanic women experience marginalization based both on race and gender) experience discrimination more than those with only one marginalized identity (e.g., White women; Beale, 1990). Emphasis on intersectionality is growing and it is necessary to examine multiple identities that may influence the experiences of discrimination (Potter et al., 2019).

Negative intergroup emotions, such as intergroup anxiety and fear of discrimination, can affect perception, judgment, and behavior. Esses and Dovidio (2002) showed that negative intergroup emotions could predict unwillingness to contact the other group. Another study showed it could increase the desire to attack the outgroup (Mackie et al., 2000). Dumont et al. (2003) have found that intergroup fear uniquely motivates people to avoid an outgroup. Thus, providing marginalized group members with skills or tools that can alleviate

these negative emotions would facilitate intergroup interactions and reduce stress. Research has indicated that self-complexity can assist individuals in managing stressful situations (Linville, 1985; McConnell et al., 2009), stereotype threat (Gresky et al., 2005), and intergroup tension (Thoits, 1983). Future studies should further explore the roles and effects of self-complexity on intergroup emotions, building upon the findings and limitations of this study.

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APPENDICES

Appendix A

Identity Prime Manipulation (Wojcieszak & Garrett, 2018)
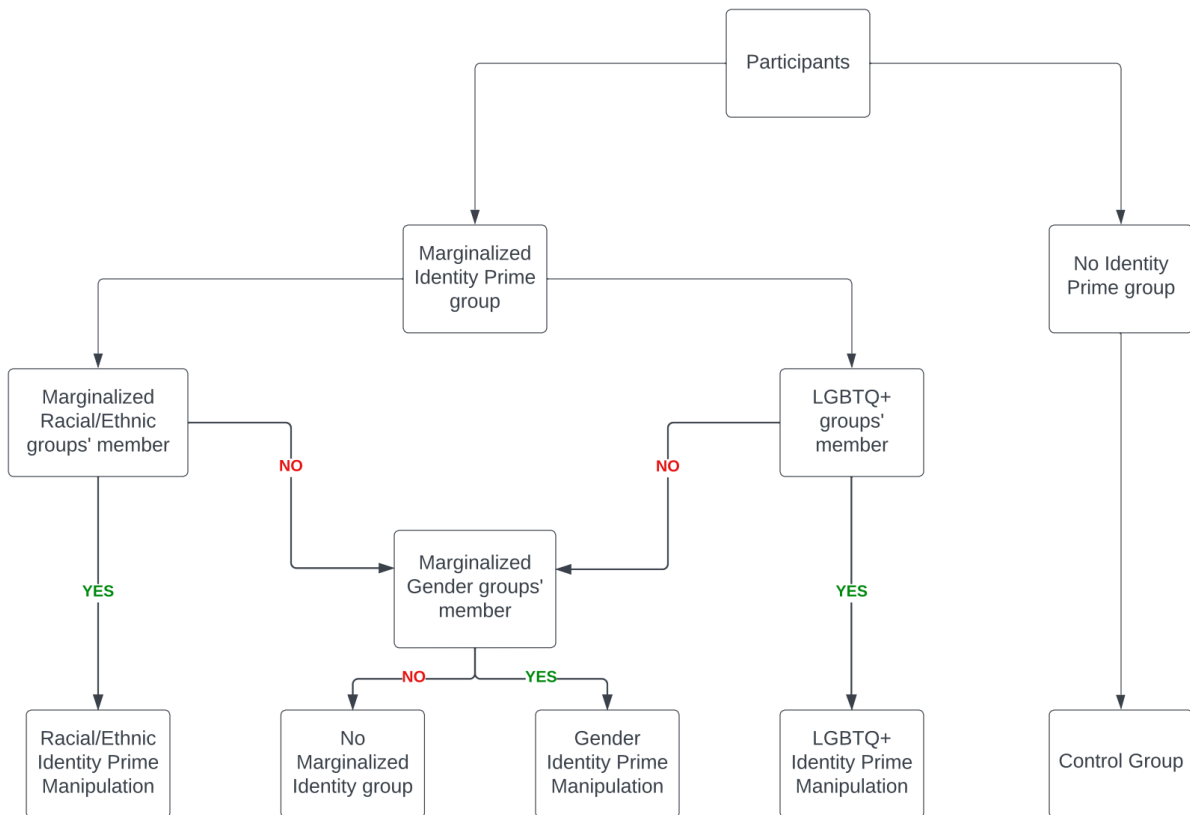
Racial/Ethnic Identity: Before we continue, please take a few minutes to reflect on what it means to be a member of your racial/ethnic group. That is, what do you have in common with other people from your racial/ethnic group? It may be that you have similar backgrounds, challenges, experiences of biases in this society, etc. Please take up to five minutes to write about essential qualities that you share with members of your racial/ethnic group, something that unites you as a people.

Woman: Before we continue, please take a few minutes to reflect on what it means to be a woman. That is, what do you have in common with other women? It may be that you

have similar backgrounds, challenges, experiences of biases in this society, etc. Please take up to five minutes to write about essential qualities that you share with women, something that unites you as a people.

LGBTQ+: Before we continue, please take a few minutes to reflect on what it means to be LGBTQ+. That is, what do you have in common with other LGBTQ+ community members? It may be that you have similar backgrounds, challenges, experiences of biases in this society, etc. Please take up to five minutes to write about essential qualities that you share with other LGBTQ+ members, something that unites you as a people.

No Identity Prime and Control groups: Before we continue, please take a few minutes to write a short paragraph about your surroundings. It can be items, people, or even the view of your room.

Appendix B

Self-complexity Manipulation (modified from Setterlund, 1994)

High Complexity Group Instructions

Everyone has ideas about who they are. In this task, we are interested in how you view yourself. To do this, we will have you describe different possible aspects of yourself.

On the next page, there is a list of 39 traits and seven different groups. Your task is to select the traits that describe aspects of your life. Please describe yourself **with family**, yourself **as a student**, yourself with your **friends/a significant other**, yourself **thinking about the future**, yourself **on your own**, yourself **physically**, and yourself **doing volunteer work/ hobbies**.

Each aspect (group) may contain as many or as few traits as you wish. You do not need to use every trait. Each trait may be used in more than one group. So, you may keep reusing traits as many times as you like. For example, you might want to use the trait "relaxed" in several groups.

As you are doing this task, I would like you to keep a few things in mind:

1) Remember that you are describing yourself in this task, not people in general.

2) You do not have to use every trait, and you may re-use a trait in several groups.

Low Complexity Group Instructions

Everyone has ideas about who they are. In this task, we are interested in how you view yourself. To do this, we will have you describe different possible aspects of yourself.

On the next page, there is a list of 39 traits and three different groups. Your task is to select the traits that describe aspects of your life. Please describe yourself **with family**, yourself **as a student**, and yourself with your **friends/ significant other**.

Each aspect (group) may contain as many or as few traits as you wish. You do not need to use every trait. Each trait may be used in more than one group. So, you may keep reusing traits as many times as you like. For example, you might want to use the trait "relaxed" in several groups.

As you are doing this task, I would like you to keep a few things in mind:

1) Remember that you are describing yourself in this task, not people in general.

2) You do not have to use every trait, and you may re-use a trait in several groups.

Qualtrics version: (only one self-aspect shown, as an example of how participants will complete the task)

As a student
Select a box if you believe that trait describes yourself in that particular group. You may choose as many or as few boxes as you feel appropriate.

☐ Assertive	☐ Moody
☐ Anxious	☐ Offensive
☐ Conformist	☐ Outgoing
☐ Creative	☐ Passive
☐ Disciplined	☐ Playful
☐ Dishonest	☐ Relaxed
☐ Dissatisfied	☐ Self-Assured
☐ Fulfilled	☐ Selfish
☐ Generous	☐ Sensitive
☐ Genuine	☐ Serious
☐ Humorous	☐ Sexy
☐ In a rut	☐ Sophisticated
☐ Individualistic	☐ Spontaneous
☐ Industrious	☐ Stable
☐ Insecure	☐ Straight Forward
☐ Irresponsible	☐ Superficial
☐ Lazy	☐ Unattractive
☐ Lonely	☐ Unimaginative
☐ Manipulative	☐ Unorganized
☐ Mature	

<u>List of Traits</u>

Anxious	Moody
Assertive	Offensive
Conformist	Outgoing
Creative	Passive
Disciplined	Playful
Dishonest	Relaxed
Dissatisfied	Self-Assured
Fulfilled	Selfish
Generous	Sensitive
Genuine	Serious
Humorous	Sexy
In a Rut	Sophisticated
Individualistic	Spontaneous
Industrious	Stable
Insecure	Straight Forward
Irresponsible	Superficial
Lazy	Unattractive
Lonely	Unimaginative
Manipulative	Unorganized
Mature	

<u>List of groups in High self-complexity condition:</u>
With family
As a student
With your friends/ significant other
Thinking about the future
On Your own
Physically
Doing volunteer work/hobbies

<u>List of groups in Low Self-complexity condition:</u>
With family
As a student
With your friends/ significant other

Appendix C

Intersectional Discrimination Scale (InDI) (Scheim & Bauer, 2019)

These questions are about experiences related to who you are. This includes both how you describe yourself and how others might describe you.

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	Because of who I am, a doctor, nurse, or other health care provider might treat me poorly.					
2	Because of who I am, I might have trouble finding or keeping a job.					
3	Because of who I am, I might have trouble getting an apartment or house.					
4	I worry about being treated unfairly by a teacher, supervisor, or employer.					
5	I may be denied a bank account, loan, or mortgage because of who I am.					
6	I worry about being harassed or stopped by police or security.					
7	Because of who I am, people might try to attack me physically.					
8	I expect to be pointed at, called names, or harassed when in public.					
9	I fear that I will have a hard time finding friendship or romance because of who I am.					

Appendix D

Intergroup Anxiety Scale-Short Form (IAS-SF; Paolini et al., 2004)

If you were engaging with a group of individuals who all share a common identity that is different from yours (e.g., talking with them, working on a project with them), how would you feel compared to occasions when you are interacting with people holding the same identity as you?

		1 (*not at all*)	2	3	4 (*extremely*)
1.	Happy (reverse coded)				
2.	Awkward				
3.	Self-conscious				
4.	Confident (reverse coded)				
5.	Relaxed (reverse coded)				
6.	Defensive				

Appendix E

Demographic Questions

How old are you?

- o   Open Entry

What is your gender identity?

- o   Female

- o   Male

- o   Non-binary/ Third gender

- o   Other: _____ (write-in option)

What is your sexual orientation?

- o   Asexual

- o   Bisexual

- o   Heterosexual

- o   Homosexual

- o   Other: _____ (write-in option)

What is your marital status?

- o   Divorced

- o   Married

- o   Separated

- o   Single

- o   Widowed

What is your ethnicity?

- o   Asian

- o   Black or African American

- o   Hispanic or Latino

- o   Native American

- o   Pacific Islander

- o   White/Caucasian

- o   Other (please specify)

What is your religion?

- o   Agnosticism

- o   Atheism

- o   Buddhism

- o   Christianity

- o   Hinduism

- o   Islam

- o   Judaism

- o   Other: _____ (write-in option)

How religious are you?

- o   7-point Likert scale ranging from 1(*Not at all religious*) to 7(*Extremely religious*)

Think of this ladder as representing where people stand in the United States. At the **top** of the ladder are the people who are the best off – those who have the most money, the most education, and the most respected jobs. At the **bottom** are the people who are the worst off – those with the least money, the most minor education, the least respected jobs, or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom. Where would you place yourself on this ladder? Please indicate where you think you stand at this time relative to other people in the United States.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
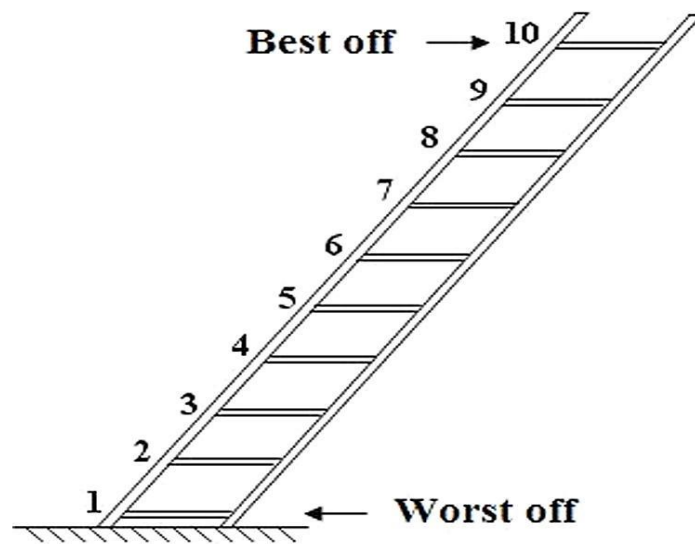
Appendix F

Research participant informed consent.

My name is Homa Sheibani, and I am a graduate student in the Psychology Department at Central Washington University. You are being asked to take part in a research study about how people describe themselves and evaluate meaningful events or issues in their lives. This research project has been approved by the Human Subjects Review Board - 2023- 112.

WHAT WILL HAPPEN

Suppose you agree to participate in this study. In that case, we will ask you to complete a short writing exercise about yourself or your surroundings and describe/evaluate how you see yourself, events, and emotions.

TIME COMMITMENT

The study typically takes between 10-20 minutes per session. You will receive extra course credit for your participation.

PARTICIPANTS' RIGHTS

You can agree to be in the study now and change your mind later. Leaving this study early will not affect your standing at CWU.

BENEFITS & RISKS

The risks are not greater than those ordinarily encountered in daily life. However, you may experience ordinary fatigue as you would after using a computer or paper-and-pencil to do any task lasting about 10 minutes. Your participation in this study will aid in your understanding of how psychological research is conducted, as well as contribute to the general knowledge in the field. You will receive extra course credit for your participation if your course instructor accepts this type of research credit.

CONFIDENTIALITY/ANONYMITY

The responses that you provide today will be kept completely anonymous. At no time will your name or any other identifying information be associated with any of the data that you generate today. Your responses will instead be associated with a randomly generated identification number. Your data will be stored securely. A secure remote server will run computer-based tasks, and data will be transmitted over the internet and stored in a password-protected account on the server during data collection. After data collection, data will be held on an electronic hard drive in a locked office. It will never be possible to identify you personally in any report of this research. Only those researchers directly involved in this project will have access to your raw data. Data are stored electronically. Your name is not stored with your data. Within these restrictions, the study results will be made available to you upon request. Reasonable and appropriate safeguards have been used in creating the web-based survey to maximize the confidentiality and security of your responses; however, when using information technology, it is never possible to guarantee complete privacy.

FOR FURTHER INFORMATION

I will gladly answer your questions about this study at any time. You may contact me via my email address at Homa.sheybaniasl@cwu.edu. If you want to find out about the final results of this study, you should email me at the end of the year. For your questions concerning your rights as a participant, please get in touch with the Human Subjects Review Council (HSRC) at 963-3115 or HSRC@cwu.edu.

I am 18 years or older and voluntarily agree to participate in this study:

Appendix G

Debriefing

Thank you for your participation in the experiment. We hope you found it interesting, and as a token of appreciation, you will receive partial course credit.

Our study focuses on the impact of social identity, self-complexity, and primed identity on intergroup emotions like anxiety and fear of discrimination, which can lead to exclusion, negative health outcomes, and conformity with stereotypes. The study aims to examine how self-complexity affects intergroup anxiety and fear of discrimination among members of marginalized groups.

As this research is ongoing, please refrain from discussing study details with others.

If you have further questions, please get in touch with the experimenter listed on your consent form or the Human Subjects Review Council (963-3115; hsrc@cwu.edu).

If you have experienced any psychological or emotional discomfort or distress from participating in this study, we encourage you to seek support. You can contact the Student Counselling Service at (509) 963-1391 for assistance. Additionally, if you feel the need to talk to someone or have any concerns, you are welcome to get in touch with the principal investigator, Tonya Buchanan, at Tonya.Buchanan@cwu.edu. Your well-being is important to us, and we are here to help if needed.