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ZACHARY BROCK MASSEY

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THE SOLACE OF EXTREMISM: AN EXAMINATION OF EXISTENTIAL MOTIVATION AND THE PERSUASIVENESS OF EXTREME GROUPS

A DISSERTATION APPROVED FOR

THE DEPARTMENT OF COMMUNICATION

BY

Dr. Claude Miller

Dr. Elena Bessarabova

Dr. Young Kim

Dr. Ioana Cionea

Dr. Shane Connelly

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Dedication

I dedicate this work to my mother, Shannon Kathleen Emmons, who passed away unexpectedly on June 7th, 2018. While I am happy to finish this dissertation, I do so with a heavy heart. I have lost my greatest teacher. My mother taught me kindness is a wonderful gift, and easy to give. And importantly, that it does not matter if you fall down, only that you get up. As this dissertation is public record, I hope some part of her will live on through my remembrance. She was a farm girl and a lawyer—one part grit, one part glamour. She loved dogs, expensive diners, and above all, spending time with family. She was a wonderful mother and an even better human being. She shined. I dedicate this work to her.

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Abstract

This dissertation examines the persuasive appeal of extreme groups under conditions of self-uncertainty. The guiding theoretical framework, uncertainty-identity theory (UIT; Hogg, 2007) argues self-uncertainty motivates people to identify with social groups. In this regard, UIT also considers properties of groups, arguing those high in entitativity (i.e., who tend to be rigid and uncompromising) are extreme in nature, and also more attractive to self-uncertain individuals. Given debate within the literature as to whether liberals or conservatives are more prone to identify with extreme groups (Jost & Napier, 2012), ideological congruence between group (sender) and participant (receiver) is also a factor in this research. The experimental study presented here (N = 423) applies a 2 (group extremism: moderate vs. extreme) × 2 (self-uncertainty: certain vs. uncertain) × 2 (ideological congruence: congruent vs. non-congruent) independent groups design.

Altogether, results point to three general conclusions. First, UIT was supported, with self-uncertainty showing a main effect across all outcome variables. Second, self-uncertainty interacted with group extremism, resulting in more favorable attitudes toward positions advocated by an extreme group, as well as more perceived goodwill from the extreme group leaders. Third, ideological congruence between sender and receiver only affected behavioral intentions for liberals and not conservatives. Additionally, the two-way interaction between ideological congruence and group extremism showed greater preference for a moderate congruent group and not an extreme one. Finally, an unexpected main effect for group extremism points to the need for greater scrutiny of source credibility outcomes in future research.

Keywords. Uncertainty-identity theory, extreme groups, persuasion, source credibility, ideology, ideological congruence

Chapter 1: Introduction

The influence of extreme groups poses a pressing challenge for democratic societies (Cordesman, 2017; Poushter, 2017). According to European law enforcement agencies, jihadi extremism is contributing to the recent increase in terrorist attacks across the European continent (Europol, 2017). Ethnically motivated hate crimes are also on the rise, as is right-wing extremism, both of which have been linked to assaults on religious and government leaders in Europe. Along similar lines, left-wing groups have used public demonstrations to destroy property, assault police officers, and foment unrest (Europol, 2017); all the while, authoritarian populism is gaining momentum in several European countries, as evidenced by the success of nationalist, anti-immigrant political groups in Austria, Germany, and France (YouGov, 2016).

Similar conditions can be found in the United States, as the number of hate crimes targeting individuals based on ethnicity, religion, and gender has risen over the past several years (Federal Bureau of Investigation, 2016), especially in major US cities (Center for the Study of Hate and Extremism, 2017). Such discord mirrors broader trends, as Americans exhibit historic levels of political polarization, with citizens describing those who do not share their views in extremely negative terms (Doherty, 2014). Distrust reflects wavering institutional support, as faith in the US government is at a historic low (Pew, 2017a), a factor associated with increasing support for populism and anti-government sentiment (Pew, 2017b). In short, the extremity of attitudes, ideologies, and groups seem to be growing in influence, challenging peaceful co-existence in democratic societies where compromise, reasoned debate, and civility appear to be on the wane.

Despite the growing threat posed by extreme groups, little research has focused on the persuasive communication strategies employed by such groups. Whether global jihadi networks,

nationalist movements, race supremacists, or anti-government activists, extreme groups rely on persuasive messaging operations, including the spread of conspiracy theories, fake news, calls for radicalization, and racist rhetoric. Many of these efforts have found success using non-traditional avenues, such as social media, Internet message boards, and online streaming services (Blaker, 2015; Connelly et al., 2015; Farwell, 2014; Zeitzoff, 2018). As research has found, most extremists are not pathologically, mentally ill (Gage, 2011; Loza, 2007); to the contrary, the majority are quite capable of planning, organizing, and leading groups in complex operations, while giving the appearance of blending in and functioning normally within society. Thus, a pressing question becomes: What makes extreme, radical messages persuasive, not just to fellow believers, but to individuals in otherwise ordinary, mainstream populations?

The psychological state in which individuals receive a persuasive message can influence their decoding behaviors in powerful ways. Experimental research shows that under conditions of existential threat (i.e., threats to one's existence or sense of meaningfulness), extreme groups tend to become increasingly attractive (Hogg & Adelman, 2013; Kruglanski, Chen, Dechesne, Fishman, & Orehek, 2009). For example, studies in Australia and the US found college students under conditions of existential uncertainty identified with an extreme student group advocating radical action (Hogg, Meehan, & Farquarson, 2010; Massey, Miller, & Fisher, 2017). Similarly, research has shown that when made aware of their mortality, participants tend to express significantly greater levels of support for the use of extreme military force, and even suicidal religious martyrdom (Pyszczynski et al., 2006). In sum, existential threats involve aversive forces that motivate people to restore psychological equanimity, often by seeking out and identifying with extreme groups who may offer a measure of solace through their rigid social structure and ideology.

Although research in psychology details ways in which threat motivates affiliation with extreme groups, this literature tends to focus on psychological variables (e.g., identification, behavioral intentions, and attitudes), and rarely, if ever, does it examine the persuasive appeal of extreme groups. As Jackson et al. (2019) note, there is consensus among intelligence and law enforcement agencies that greater scrutiny should be paid to the persuasive campaigns of extreme groups in order to counter domestic and international terrorism. And although recent communication research has considered the appeal of extreme groups from an interpretive lens (Bruscella & Bisel, 2018), such work does not draw on the considerable body of experimental research devoted to understanding the appeal of extreme groups. Thus, the present study addresses this gap in the literature by applying a communicative approach to examine key information-processing effects occurring when an individual receives a persuasive message from an extreme group under threat of self-uncertainty.

Although psychological conditions affect message processing, sender attributes also influence persuasion (Hovland, Janis, & Kelly, 1953). Thus, the source characteristics of extreme groups should also be considered. Classic research in persuasion, for instance, finds receivers are predisposed to agree with sources they evaluate favorably, and disagree with those they view unfavorably (Eagly, 1983; Eagly & Chaiken, 1993). Similarly, message quality taps into receivers' subjective evaluations of the quality of persuasive communication, with message quality found to moderate the effectiveness of persuasive appeals when the message topic aligns with receivers personal motivations (Updegraff, Sherman, Luyster, & Mann, 2007). With the exception of a handful of studies (see Connelly et al., 2015; Dunbar et al., 2014), assessments of source credibility and message quality are mostly absent from research on the influence of extreme groups. Measuring these critical source characteristics informs persuasion research

generally, while also enhancing and expanding research into the appeal of extreme groups.

Along similar lines, measuring the strength of counterarguments produced by message receivers on behalf of the group can help assess persuasive effectiveness (Compton & Pfau, 2005). Based on previous research examining the psychology of self-uncertainty and group extremism (Hogg et al., 2010), one would expect those experiencing self-uncertainty—and exposed to an extreme, relative to a moderate group—to be more likely to create more arguments in favor of the group's positions. To the author's knowledge, however, no studies have measured the number or quality of counterarguments produced in response to the persuasive appeals of extreme groups. And yet, on its face, a measure of successful group indoctrination should be evidenced by the ease with which adherents can effectively form counterarguments in opposition to group detractors, and in so doing, favor of the group. Again, this variable, typically used in attitude and persuasion research, adds to both the communication and social psychology literatures by measuring the success of extreme group at convincing, encouraging, and influencing their chosen targets

Overall, understanding the persuasiveness of extreme groups requires two critical points of analysis: first, understanding the existential motivation to seek safety in groups when under uncertainty; and second, measuring the persuasiveness of extreme groups while receivers perceive themselves to be under threat. In explicating both points, this dissertation takes the position that the need to belong to social groups is a powerful motive in human affairs (Baumeister & Leary, 1995), and the stability of individuals' identities, as well as their identifications, can affect their communication behaviors profoundly (Hogg, 2007; Kim, 2005, 2006). Thus, in the following sections, a broad overview of the physical, psychological, and cultural benefits of social group membership are discussed. Following this general overview,

existential motivational theories are reviewed, with a special focus on research examining the motivational effects of existential anxiety and uncertainty. After reviewing this literature, a study rationale is presented centering on the persuasiveness of an extreme group when individuals are experiencing self-uncertainty. To begin, the benefits of social group membership are reviewed to provide a backdrop for better understanding of the persuasive appeal of extreme groups under conditions of existential threat.

Existential Motivation and Persuasive Communication

Cultural anthropologist Ernest Becker (1975) argued humans face an existential dilemma, as we are the only creatures with the cognitive ability to comprehend our own insignificance. As such, we face an overwhelmingly complex world in which our lifespan is quite minuscule, and our individual achievements relatively meaningless. According to Becker, humankind's solution to the problem posed by this seeming insignificance is to seek ways to imbue life with meaning through the utility of culture. Culture provides meaning-making resources, and by adhering to the dictates of cultural systems, individuals are able to strive for and perhaps achieve some form of meaningful existence (Solomon, Greenberg, & Pyszczynski, 2004).

As Becker asserts, the stability of one's meaning-making systems, as well as the threats to meaningfulness one encounters as a relatively insignificant being, take on supreme importance. In particular, environmental factors that disrupt one's self-conceptual clarity, or upend one's psychological or social stability, represent potentially powerful threats to one's understanding of self. As the self represents *the* organizational referent for individual action (Hogg, 2007), the destabilization of the self is an intensely threatening existential concern. As has been argued in philosophy (e.g., Kierkegaard, 1992/1846), cultural anthropology (e.g., Becker, 1975), and existential psychology (e.g., Greenberg, Pyszczynski, & Solomon, 1986),

having a firm sense of who one is, and where one stands, gives one's life a vital sense of meaningfulness and purpose, without which the dread of one's relative insignificance would be overwhelming.

In this light, maintaining a stable perception of self-identity is a fundamental existential *necessity*. Destabilization of one's identity motivates compensatory behaviors to reestablish equanimity. In the search for balance, the destabilized individual should be more attracted to social groups for the calming psychological benefits they provide (Dittes, 1959; Dittes & Kelly, 1956; Hogg et al., 2010). Similarly, persuasive messages from such groups—particularly as expressed by their leaders—should be correspondingly more persuasive. Cast in this broader framework, the influence of extreme groups and the effectiveness of their persuasive messages can be understood in logically consistent ways. In essence, when the self-concept is undermined, individuals seek re-stabilization; and a primary means of finding stability comes with identification and membership within social groups capable of providing the myriad benefits necessary for securing one's continued existence within a complex and threatening social environment (Hogg, 2007).

Benefits of Social Group Membership

Humans are social animals who depend on groups for survival. Successful functionality within the group depends heavily upon one's social skills. The abilities to locate and identify oneself within a group have essential social and psychological consequences, as groups can provide security (Dittes, 1959; Dittes & Kelly, 1956), sense of identity (Tajfel, 1978; Tajfel & Turner, 1979), certainty (Hogg, 2007, 2011, 2014), and meaning-making systems (i.e., cultures; Miller & Massey, 2019), allowing one to understand chaotic social environments (Dechesne & Kruglanski, 2004). Maintaining a secure ingroup status provides evolutionary advantages

(Navarrete, Kurzban, Fessler, & Kirkpatrick, 2004) in terms of physical resources and behaviors (e.g., shared resources, mating opportunities, protection), as well as symbolic systems (e.g., culture) that aid in the encoding and creation as well as decoding and processing of symbols and messages. When one is exposed, threatened, or feels vulnerable to adverse conditions, the solace of ingroup memberships can afford a safe haven, physically, socially, psychologically, culturally, and, ultimately, existentially (Miller & Massey, 2019).

Physical Advantages

In terms of physical safety, forming coalitions is a matter of survival, as ancient humans relied on alliances to gather food and ward off physical threats (Buss, 1991). From an evolutionary perspective, behaviors that enhance group fitness provide adaptive utility over time, leading to the natural selection of communication behaviors designed to sustain group cohesion (Tooby, Cosmides, & Price, 2006). Research has found, for instance, that individuals who disrupt cohesion, or who violate group norms fail to contribute to the group adequately, and are subject to punitive retaliation—a mechanism that ensures the fluency of coordinated efforts (Williams, 2009).

Along similar lines, humans have developed an innate bio-psychological sensitivity to inclusion cues, with the mere suggestion of ostracism being strong enough in many cases to trigger automatic responses, including negative affect (Williams, 2007) and reports of pain (Chen, Williams, Fitness, & Newton, 2008; MacDonald & Leary, 2005). Neuroimaging confirms the presence of a "neural alarm system" within the anterior cingulate cortex, activated by physical pain in response to social rejection (Eisenberger, Lieberman, & Williams, 2003, p. 291). In response to threats to the social attachment system, this same region is associated with reports of affective distress, indicating rejection is both physically and emotionally disturbing. Because

rejection and isolation can cause aversive physical and emotional pain, individuals have a strong motivation to engage in inclusion-seeking behaviors. Likewise, research into ostracism has found that, when isolation is induced, participants engage in concerted efforts to restore social ties (Case & Williams, 2004; Williams et al., 2002).

Psychological Advantages

Research in social psychology has demonstrated that humans have a powerful need to belong, which constitutes a fundamental and powerful motivation to seek affiliation (Baumeister & Leary, 1995; Maslow, 1943). The need to belong, however, may often clash with other impulses, especially the desire to gain recognition and status (Rank, 1978/1929, 1978/1936, 1989/1932). These opposing motives constitute a dialectic comprised of distinctiveness and inclusion. When overly immersed in a collective, individuals may become motivated to express self-interest (i.e., distinctiveness), but if too isolated, they may become motivated to elevate group-based aspects of the self (Brewer, 1991). Vacillating between individual and group orientations is aimed at achieving optimal distinctiveness (see Brewer, 1991), a psychologically balanced state in which individuals can locate themselves satisfactorily outside, between, or within certain types of social groups (Brewer, 2003).

Cultural Advantages

Culture is a socially transmitted system of knowledge that prescribes norms and criteria for judgment (i.e., values; Keesing, 1974). Cultures relate humans to their social and physical environments while providing a framework for interpreting reality, including events that occur beyond the parameters of human cognition (e.g., death, the afterlife; Derchense & Kruglanski, 2004). Culture is a powerful psychological referent given that culturally derived conceptions of reality can explain how the world works, and how one can achieve a meaningful life, and, thus, a

sense of self-worth (Arndt & Vess, 2008). Such systems rest on social consensus (Berger & Luckmann, 1967; Solomon, Greenberg, et al., 2004), making the maintenance and transmission of culture critical communicative and group-based processes.

The internalization of cultural norms is necessary for the coordination of groups (Hallowell, 1956, 1963) as action is enhanced when individuals share normative expectations (McElreath, Boyd, & Richardson, 2003). Just as norm adherence facilitates greater capability for action, humans yield to norms under duress, most likely a byproduct of natural selection (Navarette et al., 2004). Indeed, research has demonstrated the compensatory motivation to bolster one's cultural worldview (i.e., by elevating the ingroup or punishing the outgroup) when threatened with death (Greenberg et al., 1992), self-uncertainty (Van Den Bos, Euwema, Poortvliet, & Maas, 2007), feelings of insecurity (Massey et al., 2017), and meaning violations (Heine, Proulx, & Vohs, 2006). In short, groups support cultures, and cultures promote groups. Ultimately, individuals adhere to cultural norms to access cultural resources, especially during times of crisis.

The loss of group membership means the loss of viable cultural systems, and, therefore, it bears on underlying existential concerns. Homo sapiens are unique in that we exchange symbols via communication to create meaning and construct frameworks for interpreting reality. The coherence and stability of our meaning-making systems are crucial to our ability to survive and thrive. Indeed, when accounting for human motivation, Maslow's (1943, 1987) hierarchy of needs lists self-actualization and meaning making at the peak—as the highest level of human growth and attainment. The ability to make meaning is a chief concern for humans whose advanced cognitive capacities allow them to account for otherwise overwhelmingly complex physical and social environments.

In summary, humans are social animals who depend on group membership for survival. From an evolutionary perspective, conformity to group norms provides physical benefits (e.g., resources/protection) and helps individuals manage and maintain a psychological equilibrium between inclusivity and distinctiveness. As the province of groups, cultural worldviews provide the frameworks allowing members to share understanding and make sense of the world. At the same time, internalizing and adhering to cultural norms help maintain social harmony and coordinate actions necessary for group survival. Together, the cultural, psychological, and physical benefits of group conformity compel the existential need for group membership, both as a legacy of evolutionary adaptation and as a means for imbuing life with meaning, thereby, according to Becker (1975), warding off the existential terror of human existence. When existential threats—such as self-uncertainty—disrupt individuals' understanding of themselves and their place in the world, social groups become increasingly essential for individuals' physical, psychological, and cultural equanimity.

Thesis

Working from the above assumptions, this dissertation will examine certain key information-processing effects encountered when an individual receives a persuasive message from an extreme group under conditions of existential uncertainty. Focusing on threat-induced message processing extends the research on understanding the attractiveness of extreme groups. Although in some cases research has found attitude extremism to be a function of social networks (Binder, Dalrymple, Brossard, & Scheufele, 2009), the majority of studies in this area have focused on drive states motivating individuals to identify with extreme groups. Such states include the need to reduce uncertainty (Hogg, 2007), buffer existential anxiety (Pyszczynski et al., 2006), reach a satisfied social identity (Tajifel & Turner, 1979, 1986), and/or find personal

significance (Kruglanski et al., 2009), all of which may be thought of as existential concerns, given how they relate to the human need to understand existence and live a meaningful life within that understanding. Although some interpretive research has examined the communication processes of extreme groups (Bruscella & Bisel, 2018), an experimental design is required to isolate specific communication variables and control the manipulation of existential threat along with various threats to validity. Hence, this dissertation uses a controlled experimental design to focus on the information processing effected by individuals receiving a persuasive communication from an extreme (versus moderate) group, while under the influence of existential threat.

In the following chapters, pertinent literature relevant to research examining the existential threat of self-uncertainty is reviewed. This body of research presents evidence that, when threatened with uncertainty about the self, individuals become motivated to seek solace in social groups. Though this general finding is empirically supported by research, there are theoretical disagreements as to which specific mechanisms underpin group identification. Furthermore, research is specifically needed to comprehend the unique persuasive appeal of extreme groups to individuals. To better understand the relationship between existential motives and the persuasive effect of extreme messages, the extensive literature detailing the effects of self-uncertainty on individuals' motivation to join extreme groups is reviewed next.

Chapter 2: Literature Review

A number of theoretical models have produced research findings arriving at a common conclusion: Uncertainty about one's attitudes, knowledge, feelings, and perceptions is an aversive experience that motivates uncertainty-reduction behaviors (Hogg, 2007; Jost, Glaser, Kruglanski, & Sulloway, 2003a; Landau, Rothschild, & Sullivan, 2012; Sorrentino, Ye, & Szeto, 2009; Van den Bos, 2009). Since a person can never gain complete certainty in life, uncertainty can never be totally eliminated, making uncertainty-reduction a panhuman endeavor (Hogg, 2007), with stable differences in uncertainty orientations manifesting individually (Sorrentino et al., 2009) as well as cross-culturally (Hofstede, 1980).

As Hogg (2007) has noted, uncertainty can be operationalized along epistemic and affective dimensions. Epistemic uncertainty relates to knowledge about events, and tends to focus on information that makes one uncertain. Affective uncertainty is diffuse, as one can feel uncertain without being able to articulate *why*. Van den Bos (2009) has made a similar distinction between personal-uncertainty as a *hot-cognitive* process (e.g., visceral, intuitive, and affective) and informational uncertainty as a *cold-cognitive* process (e.g., reasoned, rationalistic, and cognitive). Epistemic/informational uncertainty is focused, information-oriented, and related to confidence in decision-making. Affective/personal uncertainty is diffuse, emotive, and can be held in conscious or non-conscious awareness.

Uncertainty relevant to one's identity or sense of self is a key construct in several theories offering predictions about why individuals are attracted to extreme groups. This section begins with a review of UIT (Hogg, 2007) before discussing the uncertainty-threat model (UTM) of political extremism (Jost & Napier, 2012). These frameworks make competing predictions about how people react to extreme groups. The key difference lies in the role of ideology. Hogg's

theory argues that extreme groups are attractive to individuals experiencing self-uncertainty. In this case, the ideology of the group does not matter so much as the extremity of the group's orientation, with more rigidly structured groups providing a sense of stability and order to uncertain individuals. Jost and Napier's model holds that politically conservative individuals have a greater need to reduce uncertainty, and thus, when made uncertain, find extreme groups with clear positions to be relatively more attractive (e.g., as with nationalism and right-wing authoritarianism). From this perspective, the individual's ideology is particularly important, as is the group's. Both frameworks focus on psychological variables, such as self-uncertainty, need for cognitive closure, and death anxiety. However, neither theory focuses on communication variables, such as source credibility and message quality, or receiver cognitive processes, such as active counterarguing. Assessing key persuasion outcomes alongside psychological constructs helps better capture the persuasive appeal of extreme groups, as well as individual motivations to affiliate with such groups. Accordingly, this dissertation tests competing predictions of UIT and UTM with a focus on communication variables, and the persuasive influence of extreme relative to moderate groups.

Uncertainty Identity Theory

Premised in social identity theory (SIT; Tajifel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), Hogg's (2007, 2011, 2014) UIT posits uncertainty about the *self* motivates people to identify with social groups. Within UIT, the self is conceptualized as the "critical organizing principle, referent point, or integrative framework for perceptions, feelings, and behaviors" (Hogg, 2007, p. 77). According to Hogg, when uncertain about the self, people are less able to function in their environment, and, consequently, they become motivated to stabilize their self-concept.

According to UIT, a potent means of eliminating self-uncertainty is identifying with groups. A unique property of groups is the provision of prototypes for their members. The term *prototype* describes social categories that "embody all and any attributes that define the category and distinguish it from other categories in a specific context" (Hogg, 2007, p. 79). Group-based prototypes prescribe normative expectations for behavior. Adhering to such expectations accentuates the similarity of ingroup members, while simultaneously differentiating outgroup members (Hogg, 2014). To this end, self-categorization helps clarify the definition of the self, thereby reducing self-uncertainty in the process.

Not all groups share the same uncertainty-reducing functions, however. As Hogg (2004) notes, groups high in what he terms *entitativity* are better suited to reduce self-uncertainty. Hogg describes entitativity as, "the property of a group, resting on clear boundaries, internal homogeneity, social interaction, clear internal structure, common goals, and common fate" (Hogg, 2012, p. 23). According to UIT, groups high in entitativity should be more attractive to individuals experiencing self-conceptual uncertainty given that such groups provide clear identity roles. Experimental research has demonstrated that, relative to those primed with self-certainty, those primed with self-uncertainty are significantly more attracted to groups high in entitativity (Hogg et al., 2007; Hogg et al., 2010).

Groups high in entitativity are characterized as extreme in nature, as group structure—such as rigid boundaries, internal homogeneity, belief in a common fate—is a function of the group's ideology. The term *ideology* describes a mental model or set of beliefs regarding how the world should work (Van Dijk, 2006). Ideologies are unique in the sense that people evoke socially shared beliefs to express personal opinions (Kim, 2011). By accepting the parameters of an ideology, individuals acquiesce to social and intellectual constraints espoused by the group

(Kim, 2011). A group high in entitativity, for instance, is structurally rigid but also ideologically rigid as members are expected to conform to a singular vision and shared fate.

Research using social network analysis has highlighted the connection between rigid group structure and opinion conformity. Friedkin (1993), for instance, notes that cohesive groups have a distinct network structure, defined by high connectivity between members and greater network density. Within such a structure, members are likely to be aware of one another's views, and information diffuses quickly, meaning members are aware of opinions that clash with the majority. Such a network encourages uniformity of opinion and grants significant power to leaders who are located at the center of these highly connected and dense networks (Friedkin, 1993).

Recent research has examined the role of homogenous networks on attitude extremism. For example, Binder et al. (2009) found homogenous discussion networks predict extreme attitudes on political issues. In this case, participants whose social networks were comprised of politically similar others expressed more extreme opinions on social issues (e.g., stem cell research) relative to those whose social networks were more heterogeneous. Along similar lines, Warner (2010) exposed participants to homogeneous partisan (i.e., conservative, liberal, or moderate) media (e.g., op-eds, news media, and comments sections) to determine if homogeneity predicted attitude extremism. Warner found exposure to homogeneous, partisan media did increase attitude extremity, but only for conservative participants.

Taken together, several different perspectives provide evidence that the structure of a social group influences the opinions and attitudes of members. Tightly organized groups with rigid boundaries encourage conformity in thought and behavior. Members within such groups are highly connected, and thus, more aware of dissenting opinions. The more densely connected the

network, the more likely members feel pressure to reach a unanimous opinion. Communication between members within this type of network can lead to attitude extremity (Binder et al., 2009). Similarly, mere exposure to homogeneous networks can encourage attitude extremity on social issues (Warner, 2010).

From the UIT perspective, a group high in entitativity reflects a more rigid, tightly organized hierarchy, in which members are expected to conform to a singular vision. Such groups can be conceptualized as extreme in orientation, both structurally and ideologically, and according to UIT, should be more attractive to those experiencing self-uncertainty.

Self-Uncertainty: Support for Extreme Groups and Radical Behavior

The link between persuasion and extremism posited by UIT is straightforward: Self-uncertainty motivates people to reduce uncertainty by identifying with groups. The more entitative the group, the more attractive it becomes. As highly entitative groups are extreme in orientation, under conditions of self-uncertainty, extreme groups become increasingly more attractive.

In a notable finding, Hogg et al. (2010) demonstrated that college students identified with and expressed behavioral intentions to act on behalf of a radical group after being primed with self-uncertainty. In this study, participants read about an unpopular tuition increase and then watched a video interview with representatives from a student group responding to the hike. Participants were randomly assigned to see either a moderate or radical group. In the video, the student group leaders were confederates, and extremity was operationalized as high versus low entitativity, which was manipulated by presenting the low entitativity, or moderate group as open, with weak boundaries, heterogeneous membership, and flexible ideology, and the high entitativity or extreme group as rigid, with hard boundaries, homogenous membership, and rigid

ideology. The moderate leaders offered a measured response to the increase, emphasizing reason and advocating dialogue with the administration. The extreme leaders proposed radical action, such as protests, walkouts, and sit-ins. After the video, participants were primed with self-certainty or self-uncertainty, and then asked to fill out dependent measures consisting of identification with the group and behavioral intentions to act on behalf of the group.

Hogg et al. (2010) found that relative to those in the self-certainty condition, those primed with self-uncertainty identified significantly more with the radical group. Furthermore, participants in the self-uncertainty condition indicated greater behavioral intentions to act on behalf of the radical group. These results provide validation for UIT, asserting that the more uncertain the person, the more attractive the group, especially when it is advocating radical behavior (Hogg, 2012).

In summary, UIT posits that self-uncertainty motivates individuals to identify with groups. The more tightly structured the group, the more attractive it appears to the uncertain person. The logic of UIT suggests extremely rigid groups should be maximally attractive to uncertain individuals, regardless of ideological orientation (Hogg, 2005, 2007). According to UIT, the ideological orientation of the group is not necessarily a motivating factor for identification, what matters is the extremity of ideology, in general. In contrast, other uncertainty models claim ideological conviction is instrumental in predicting uncertainty-reduction behaviors.

The Uncertainty-Threat Model of Political Extremism

The UTM holds that the need to reduce uncertainty is "associated with political conservatism in particular and not ideological extremity in general" (Jost & Napier, 2012, p. 91). This model supposes politically conservative individuals—compared to liberal counterparts—are more uncomfortable with uncertainty and threat (e.g., death anxiety, system instability, and fear

of threat and loss), and thus, more motivated to reduce both. One means of reducing uncertainty is adherence to rigid ideological positions and support for authoritarian action (see Tetlock, 1989; rigidity of the right hypothesis). According to the UTM, political conservatism, and not ideological extremism (in either direction), predicts support for rigid ideological commitment due to the unique epistemic and existential needs associated with conservatism (cf. Greenberg & Jonas, 2003, who contend rigid ideologies buffer uncertainty equally for liberals and conservatives).

The UTM is supported by two extensive meta-analyses (Jost et al., 2003a; Jost, Glaser, Kruglanski, & Sulloway, 2003b) of published research dating from 1950 to 2003 identifying predictors for political conservatism. Political conservatism had an inverse relationship with openness to experience, such that, as scores for conservative ideology increased, scores for openness decreased. Further, openness to experience was a negative predictor for social dominance (Pratto et al., 1994), right-wing authoritarianism (Peterson et al., 1997; Peterson & Lane, 2001), systems justification (Jost & Thompson, 2000)—uncertainty tolerance, integrative complexity, and threats to self-esteem (e.g., false feedback about failure; Sales & Friend, 1973). Conversely, dogmatism, death anxiety, system instability, intolerance of ambiguity, as well as need for structure, order, and closure, all positively predict conservatism, with death anxiety and system threat as the strongest predictors. These meta-analytic results support a profile suggesting politically conservative individuals have unique epistemic (e.g., need for closure) and existential (e.g., fear of death) needs to reduce uncertainty and alleviate threat.

Ideological Conservatism as Motivated Social Cognition

The UTM framework defines conservatism as "an ideological belief system that consists of two core components, resistance to change and opposition to equality, which serve to reduce

uncertainty and threat" (Jost & Napier, 2012, p. 92; cf. Haidt & Joseph, 2007). As Jost et al. (2003a) argued, resistance to change and opposition to equality are psychologically linked. Resistance to change, for instance, involves a desire to retain the status quo or return to traditional customs. In this view, most social hierarchies are said to be organized in an inequitable manner, and since they are assumed to have always been so organized, the return to tradition thus represents a return to inequality. Therefore, from a UTM perspective, resistance to change is equivalent to defense of inequality.

The relationship between political conservatism, uncertainty, and persuasion is fairly straightforward in the UTM: Under conditions of uncertainty, politically conservative individuals should find conservative leaders, beliefs, and attitudes more persuasive (Jost & Napier, 2012). The motivation to reduce uncertainty is a greater concern for politically conservative individuals and less so for liberals. As Berger and Calabrese (1974) have theorized, the need to reduce uncertainty is a near universal human motivation. Yet, although individuals are driven to reduce uncertainty, some have a greater need to be certain than others. In this view, conservative individuals are also more likely to be threat-averse compared to liberals, as evidenced by Jost et al. (2003a) who found several threat-related variables (e.g., death anxiety, system instability, and fear of threat and loss) positively predictive of political conservatism but not liberalism.

Although evidence for the UTM rests on individual differences in epistemic and existential needs, the framework also implies that, relative to their liberal counterparts, conservative ideologies may be more attractive under conditions of social, intergroup, or existential threat (see Bonanno & Jost, 2006). Research utilizing death anxiety as an intervention—a key construct in both UTM meta-analyses (Jost et al., 2003a; Jost et al., 2003b)—has shown increased support for conservative leaders when participants were made

death aware via reminders about terrorism. This induction crossed ideological lines, as increased support for a conservative leader was found amongst liberal and conservative participants, with greater positive change in attitude for liberals towards a conservative leader compared to conservatives for the same leader (Landau et al., 2004; see also Greenberg et al., 1992), a finding Jost and colleagues (e.g., Bonanno & Jost, 2006; Jost et al., 2007; Jost & Napier, 2012) appear to incorrectly cite as evidence in support of the UTM.

Threat and Uncertainty: Conservatism, Not Extremism

To determine the latent structure of the UTM, Jost et al. (2007) conducted three studies in Texas, Massachusetts, and New York. In the first study, more conservative participants in Texas completed surveys designed to measure political self-placement and uncertainty/threat orientations. To measure uncertainty, items were drawn from Big Five personality inventories, specifically, the contentious and openness dimensions. Threat was measured using Wong et al.'s (1994) death anxiety scale. Finally, political ideology was assessed with only a single self-report item anchored by 1 = *very liberal*, and 9 = *very conservative*. Structural equation modeling (SEM) found support for the UTM, as uncertainty avoidance and threat both positively predicted political conservatism, whereas neither was associated with ideological extremism in either liberal or conservative ends of the ideological scale.

In study 2, the researchers tested the same SEM, this time drawing data from a predominately liberal sample in Massachusetts. In this case, participants completed questionnaires designed to capture political self-placement as well as uncertainty and threat management orientations. Uncertainty avoidance was measured using sub-scales from the personal need for closure inventory (Webster & Kruglanski, 1994), whereas threat and political orientation were captured using the same items as the Texas study. The SEM again revealed

uncertainty avoidance and threat to be reliable predictors of political conservatism. Interestingly, however, in this model, uncertainty orientation had a significant inverse relationship with ideological extremism; which is to say, as uncertainty avoidance increased, ideological extremism decreased, providing additional evidence for inter-relationships between uncertainty avoidance, political conservatism, and ideological extremism.

Greenberg and Jonas (2003) criticized Jost and colleagues' definition of conservatism and the notion that extreme ideologies primarily appeal to politically conservative individuals. Jost et al. (2007) responded by including resistance to change and opposition to inequality within the SEMs in their Study 3, in which uncertainty avoidance was measured using need for cognitive closure, threat was captured using perceptions-of-dangerous-world scales (Duckitt, Wagner, du Plessis, & Birum, 2002), need for stability/order was used to capture resistance to change, and opposition to equality items were borrowed from inequality research (Kluegel & Smith, 1986). The resulting SEM for Study 3 tested relationships between opposition to equality, resistance to change, uncertainty avoidance, and political orientation (whereas Studies 1 and 2 only examined uncertainty avoidance, reactions to threat, and conservatism).

The expanded SEM found the relationship between uncertainty avoidance and political orientation to be completely mediated by resistance to change. That is, the direct path from uncertainty avoidance to political conservatism was nonsignificant with resistance to change in the model—a departure from Studies 1 and 2. The relationship between threat and political orientation, however, was only partially mediated by opposition to equality, as the threat variable had a significant direct path to conservatism, a finding similar to earlier models. Overall, uncertainty avoidance was significantly related to resistance to change, which positively predicted self-reported conservatism (as assessed by the single item), showing full mediation.

Additionally, threat positively predicted self-reported conservatism, along with opposition to equality, which positively predicted political orientation, revealing opposition to equality to be a partial mediator.

Altogether, findings from multiple studies along with two meta-analyses produced support for the UTM, and Jost et al.'s (2003a) predictions concerning the association between existential threat, uncertainty, and conservatism. In sum, the UTM holds that political beliefs (i.e., resistance to change and opposition to equality) are motivated by epistemic needs (e.g., cognitive closure) and existential needs (e.g., death anxiety) that reflect individual differences (e.g., dogmatism) but also manifest in response to situational contexts (e.g., system instability). Overall, the UTM predicts threat and uncertainty should disproportionally motivate politically conservative individuals to reduce uncertainty and engage in behaviors aimed at eliminating the source of threat. Similarly, conservative individuals should be relatively more sensitive to potential threats.

Challenges to the UTM

Greenberg and Jonas (2003) have challenged the premises of the UTM, arguing that the need to reduce uncertainty can be met by endorsing any extreme ideology, whether conservative or liberal. In their view, the utility of ideological extremity is simple: Rigid worldviews provide certainty, as they present a sharp, black-and-white vision of the world, often prescribing rigid expectations for individual behavior, as well as making prohibitions clear and delineating boundaries between groups. Thus, under conditions of uncertainty, a rigid left-wing ideology should be just as uncertainty reducing for liberals as extreme right-wing ideology should be for conservatives.

In support of this formulation, Greenberg and Jonas (2003) noted how totalitarian

Communist states (e.g., Soviet Russia; Maoist China; the Kim dynasty in North Korea) exhibit all the hallmarks of right-wing dictatorships (e.g., Nazi Germany; Fascist Italy; Pinochet in Chile), suggesting there is little difference between extreme left and extreme right ideologies when they become manifest as governing philosophies. Moreover, many leftist regimes come to power through popular uprisings in response to high levels of social uncertainty (e.g., the overthrow of the Romanov dynasty by Bolsheviks during WWI; the Cuban revolution in the 1950s), indicating uncertainty can drive leftists to radical action. Citing several other such historical examples, Greenberg and Jonas (2003) argue extreme leftist ideologies serve the same uncertainty-reduction functions as right-wing ideologies (e.g., Patty Hearst's conversion by the Symbionese Liberation Army in 1974).

Individual-level data has shown scores on authoritarianism (i.e., a concept associated with conservatism in US social sciences) in former Communist countries (e.g., Bulgaria) to be higher amongst respondents than in capitalistic, Democratic countries (e.g., the US; Larsen, Groberg, & Simmons, 1993). As Greenberg and Jonas (2003) argue, acceptance of authoritarianism is not a function of one ideology, but instead, a means of reducing uncertainty regardless of political ideology. The direction of ideology (right vs. left) is only important to the degree relevant beliefs are accepted in society. Authoritarianism should be attractive to individuals across the political spectrum when they are made to feel uncertain. Thus, authoritarianism can manifest in both conservative and liberal societies.

Greenberg and Jonas (2003) agree with Jost et al. (2003a, 2003b) that ideological rigidity serves to reduce uncertainty and threat. However, contrary to the UTM, and based on a terror management theory perspective (TMT; Greenberg, Pyszczynski, & Solomon, 1986), Greenberg and Jonas' (2003) contentions rest on a body of experimental research demonstrating how

existential threat can motivate individuals to seek psychological balance and the alleviation of anxiety by bolstering their cultural worldview, which can vary greatly depending on the individuals' ideological commitment to their ideals, whether liberal, conservative, or otherwise. This dissertation, then, adopts Greenberg and Jonas' (2003) formulation, which contends that under conditions of existential threat and self-uncertainty, perceived group extremity can function to buffer the potential for existential anxiety, regardless of the individual's political ideology.

Chapter 3: Present Research

Given that one's self construct is the principal organizational referent for action, self-uncertainty represents a primary existential threat, the alleviation of which is motivated by the need to firmly locate one's self construct securely within both the physical and social environments. Uncertainty about identity and social standing undermines the ability to find and/or create personal meaning in one's existence. Under existential threat, people become increasingly attracted to social groups due to their physical, psychological, and cultural meaning-making benefits. When one is in a state of self-uncertainty, extreme groups and their high entitative leaders should become increasingly more psychologically attractive as message sources, and potentially more persuasive in their advocacy of more extreme positions and actions relative to their moderate counterparts.

As an experimental framework for explicating these relationships, this dissertation draws upon Hogg et al.'s (2010) application of UIT, wherein college students were informed about a tuition increase and exposed to either an extreme or moderate student group, ostensibly formed in response to the increase, before being primed with self-uncertainty. Relative to those in the certainty condition, Hogg and colleagues found college students in the uncertainty condition identified with the radical group significantly more. Further, those in the uncertainty condition also expressed greater intentions to act on behalf of the extreme group than those in the moderate group. Their results provided support for the UIT assertion that extreme groups become increasingly attractive to self-uncertain individuals. Moreover, their findings aligned with the position put forth by Greenberg and Jonas' (2003) that the attractiveness of radical groups is not necessarily a function of one's ideological orientation.

More recently, Massey et al. (2017) replicated Hogg et al.'s (2010) original study,

employing a 2 (source: extreme vs. moderate) × 4 (induction: self-certain, self-uncertain, identity-security, identity-insecurity) independent group design, which also tested alternative explanations for Hogg et al.'s (2010) results. Following the general approach used by TMT researchers to manipulate mortality salience, in the self-certain/-uncertain conditions, participants were asked to write about three things that made them feel certain or uncertain about themselves. Similarly, within the identity-security/insecurity conditions, participants were asked to provide the name of an important social group, then to write two essays about either being rejected and outcast (i.e., identity insecurity) or accepted and included (i.e., identity security) by that social group.

Massey et al. (2017) were able to reproduce Hogg et al.'s (2010) effects on identification, wherein participants in the self-uncertainty condition showed greater identification with the radical group compared to students in the self-certainty condition. However, there were no significant differences between self-certainty/uncertainty effects on behavioral intentions. The same pattern was found for identity-security/insecurity; relative to those in the secure condition, those made to feel insecure identified more with the radical group. However, there again were no significant effects for behavioral intentions.

In sum, the results from Massey et al. (2017) indicate those in the self-uncertain and identity-insecure conditions identified with an extreme student group more than those in self-certain and identity-secure conditions, with no significant differences on behavioral intentions regardless of condition, suggesting none of the subjects showed an apparent willingness to act on behalf of the group. Given the sample was drawn from a relatively conservative student population, the actions advocated by the group (e.g., sit-ins, walk outs, loud demonstrations) may have been more akin to the student activism of the 1960's. That is to say, although the groups

were not described in terms of their ideology, they did advocate radical campus activism, which may have violated a conservative worldview. However, Massey et al. (2017) did not measure ideology, so it is unclear why participants may have identified with an extreme group but not indicated a desire to act on that group's behalf.

Although Massey et al. (2017) provided support for Hogg's UIT model, and successfully replicated Hogg et al.'s (2010) experimental design; their study did little to advance research into the effects of self-uncertainty on outcomes more relevant and specific to social influence and persuasion. In their replication, Massey et al. (2017) included the same two outcome variables used in Hogg et al. (2010): identification with the group and behavioral intentions towards the group. The persuasive appeal of the group, including relevant communication variables, such as source credibility, message quality, attitudes change, and counterargument generation, were not considered. However, the general model used in the replication did provide a pilot test for an experimental extension of Massey et al.'s (2017) results, useful in determining whether existential motivation in the form of self-uncertainty can enhance the persuasiveness of an extreme student group relative to a moderate one. Building on Hogg et al. (2010) and Massey et al. (2017), this dissertation utilizes the same extreme group manipulation but expands the design to measure and test several key communication variables of interest.

Hypotheses and Research Questions

The UIT holds individuals reduce self-uncertainty by identifying with social groups. Several studies have supported this finding; in both Hogg et al. (2010) and Massey et al. (2017), identification was stronger for the moderate group relative to the extreme group. In both Hogg et al. (2010) and Massey et al. (2017) the extreme group was operationalized as rigid, demanding, harsh and unreasonable. Comparatively, the moderate group was operationalized as loose, open

to newcomers, the leaders reasonable and accommodating. In both studies, the moderate group was described as more attractive compared to the extreme group, in both the self-certain and self-uncertain conditions. Per UIT, this outcome is expected. Only under conditions of self-uncertainty would group entitativity motivate identification. In other words, under relatively normal conditions, in which one is not experiencing self-uncertainty, high entitativity (i.e., extreme) groups should be less attractive than low entitativity groups (i.e., moderate). This reasoning forms the basis for the following hypothesis:

H1: There is a main effect for perceived group extremism such that, relative to an extreme group, exposure to a moderate group results in higher (a) identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality.

Massey et al. (2017) found differences on identification towards a social group (regardless of relative extremity or moderation) when comparing self-certainty versus self-uncertainty. This finding aligns with the UIT, and mirrors Hogg et al.'s (2010) finding, as well as other recent studies utilizing self-uncertainty manipulations (Hohman & Hogg, 2015; Hohman, Gaffney, & Hogg, 2017). Therefore, the following hypothesis is posited:

H2: There is a main effect for perceived self-uncertainty such that, relative to self-certainty, self-uncertainty increases (a) group identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality.

Within the UIT framework, extreme groups only increase in attractiveness under

conditions of self-uncertainty, as self-certain individuals should not be as motivated to seek safety with groups high in entitativity compared to self-uncertain individuals. Indeed, Hogg et al. (2010) found a two-way interaction between self-uncertainty and group extremism, such that there were no differences between self-certainty and self-uncertainty on identification with the moderate group. However, there were significant differences between self-certainty and self-uncertainty when participants were exposed to an extreme group. In this case, relative to self-certainty, self-uncertainty predicted greater identification with the extreme group. To date, no studies have tested Hogg's Self-uncertainty × Group Extremism interaction using communication variables as the dependent measures. Assuming, as UIT posits, that increased self-uncertainty fosters a preference for groups high in entitativity—and, therefore, perceived as more extreme—the following interaction is hypothesized:

H3: Self-uncertainty interacts with perceived group extremity such that in the extreme group condition, relative to self-certainty, self-uncertainty increases (a) identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality, whereas in the moderate condition, there is no difference between self-certainty and self-uncertainty on any of these outcome variables.

Massey et al. (2017) provided support for Hogg's UIT framework by showing how self-uncertainty can result in higher identification with a radical group. However, the radical student group in Massey et al. (2017) espoused no ideological positions, but rather, only radical advocacy. One possible way to address this issue, to better understand the persuasiveness of extreme groups, would be to measure participant ideology during a pretest, and then randomly

assign ideology (liberal/conservative) to the student group source to thereby assess whether shared/not-shared ideology (i.e., congruence of ideological positions between source and receiver) influences the way self-uncertain participants will react to extreme versus moderate messages.

As noted, there is a lack of theoretical consensus regarding the relationship between existential uncertainty and the appeal of extreme groups. Hogg's UIT argues group structure, not ideology, mediates identification with radical groups. Any extreme group should reduce uncertainty by allowing followers to form themselves into more clearly distinctive and rigid belief systems. Thus, from the UIT perspective, one's initial ideological position should be irrelevant—groups are expected to provide solace to uncertain individuals regardless of ideological direction. Based on this perspective, there should be no difference between liberals and conservatives with respect to groups attraction under conditions of uncertainty.

The UTM, however, holds that conservatives have a unique set of epistemic and existential motives apart from their liberal counterparts. In particular, conservatives are thought to be more threat-averse and likely to express a greater need for certainty. If the UTM is correct, this sensitivity to threat and uncertainty should make conservatives more susceptible to rigid ideologies, such as right-wing authoritarianism and need for closure (Jost et al., 2003a; Jost et al., 2003b; Jost & Napier, 2012). Based on this body of research, conservatives should be more attracted to likeminded conservative groups under conditions of uncertainty.

Furthermore, Greenberg and Jonas (2003) have posited that any extreme ideology will help to reduce uncertainty, regardless of ideological orientation. According to their view, attitudes such as ingroup favoritism, outgroup prejudice, ethnocentrism, submission to authority, derogation of dissimilar others, nationalism, jingoism, support for extreme military actions, and

support for authoritarian leaders are facets of extreme ideologies on both the left and the right sides of the political spectrum. Citing historical and survey evidence, the authors assert extreme ideologies and the groups who espouse them should be able to reduce uncertainty for liberals and conservatives alike. The question may hinge upon what the dominant ideology within a society is perceived to be. Should chronic social uncertainty focus its grip upon a left-leaning society, Greenberg and Jonas argue left-wing authoritarianism (e.g., Communist totalitarianism) should be effective at reducing uncertainty. Likewise, should chronic social uncertainty take hold of a right-leaning society, then right-wing authoritarianism (e.g., Fascist totalitarianism) should be effective at reducing uncertainty.

As to the systems that motivate conservative versus liberal ideological groups, Haidt and Graham's (2007) *moral foundations theory* (MFT) argues five moral foundations underpin human psychology. These foundations include *harm* (i.e., protecting others from harm), *fairness* (i.e., advocating procedural and social justice), *ingroup loyalty* (i.e., patriotism, nationalism, and distrust of outsiders), *authority* (i.e., respect for authority and disdain for subversion), and *purity* (i.e., disgust for violations of bodily or social norms). Haidt and Graham (2007) argue cultures develop virtues based on these five foundations, and individuals socialized within such cultures come to adopt a worldview, or political ideology, accordingly.

In particular, MFT finds liberal virtues are associated with harm and fairness foundations, meaning liberals value protecting others from harm, often by focusing on procedural and social justice. Conservative virtues, however, are derived from all five foundations, meaning liberal virtues (i.e., derived from harm and fairness) comprise a smaller portion of a conservative worldview (Haidt & Joseph, 2004). Based on this distinction, MFT posits liberal groups are more likely to focus on issues of equality and justice, and should be less offended by dissent, less wary

of diversity, and less committed to enforcing social mores. Similarly, conservative groups are described as valuing ingroup loyalty, respect for authority, disdain of subversion, and greater disgust with purity violations.

Measuring ideological orientation could help determine if ideological congruence between sender and receiver influences the sender's adjustment to the group. In this regard, UIT and UTM offer different predictions. Whereas UIT argues group structure and self-uncertainty interact to motivate group identification, UTM claims ideology in general, and political conservatism in particular, predicts support for extremism. Conversely, Greenberg and Jonas (2003) have argued that liberals and conservatives can support an extreme group as long as the group confirms adherents' ideological worldview. This dissertation takes the latter positions, and thus, the following hypothesis is proposed:

H4: Ideology predicts greater (a) identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes towards the advocated position, and (e) favorable perceptions of message quality with an ideologically congruent group.

If source ideology (liberal/conservative) is fully crossed with group type (extreme/moderate source) and self-certainty induction (self-certain/self-uncertain), some self-uncertain participants will be exposed to radical groups that do not share their ideology. In such a case, some literature (Greenberg et al., 1992; Jost & Napier, 2012) suggests a source may be more persuasive to conservative *or* liberal receivers depending on perceived similarity.

Research demonstrates source similarity enhances persuasion. For example, Berscheid (1985) notes how attitudinal similarity increases receivers' attraction to message senders. Similarly, Mackie, Worth, and Ansuncion (1990) found participants were more willing to

process persuasive messages attributed to an ingroup source, but less willing to process messages attributed to an outgroup source. Briñol and Petty (2009) explained these processing effects by noting how shared social identity serves as a cue to enhance persuasion under low (i.e., serves as periphery cue), moderate (i.e., increases processing), and high (i.e., biases perceptions) elaboration conditions. Indeed, identity similarity between source and receiver has been found to increase message-processing motivation across a range of contexts (Felming & Petty, 2000).

In terms of ideology, Hogg's (2007) UIT model holds that under conditions of self-uncertainty, individuals are motivated to identify with extreme groups, given that their high entitativity helps to provide a sense of certainty and stability. Implicit in this argument is the notion that under conditions of self-uncertainty, people are attracted to extreme groups regardless of (or in spite of) ideological dissimilarity. For the most part, UIT places greater emphasis on the perceived rigidity of a group's structure relative to congruence with a group's perceived ideological similarity. Within reason, any ideological group could conceivably provide self-certainty, as long as the group is sufficiently structured so as to provide the requisite prototypes into which members can self-categorize, and thereby stabilize their identities. However, unlike UTM and TMT, research utilizing UIT has thus far not examined political ideology as a predictor. Therefore, the following research question is proposed:

RQ1: Do group extremism, self-uncertainty, and ideological congruence interact to affect (a) identification, (b) behavioral intentions, (c) source credibility, (d) attitude toward the advocated behavior, and (e) message quality?

The final dependent measure to be examined in this experiment involves formulating counterarguments in favor of an extreme group—against an issue the group opposes. Counterarguing is an important outcome variable in studies employing a range of persuasion

theories, including parallel process models such as the elaboration likelihood model (ELM; Petty & Cacioppo, 1986), and the heuristic-systematic model (HSM; Chaiken, Liberman, & Eagly), as well as inoculation (McGuire, 1961) and psychological reactance (Brehm, 1966) theories. Although research across theoretical domains conceives of the ability to actively generate counterarguments as indicative of resistance to persuasion (Compton & Pfau, 2005), the inverse may also be true: That is, successful attempts at persuasion might well enhance receivers' ability to generate counterarguments on behalf of the message source. In this study, it is hypothesized that a group high in entitativity (i.e., the more extreme group) should be more persuasive when self-uncertainty is induced (H1, H2, and H3). It would therefore follow that self-uncertainty should motivate greater counterarguing in favor of the positions advocated by an extreme group (e.g., against a proposed tuition increase). However, to date, no study has tested the relationships between self-uncertainty, entitativity, and counterarguing. Thus, the following hypotheses are proposed:

H5: There is a main effect for perceived group extremism such that, relative to exposure to an extreme group, exposure to a moderate group increases counterarguing.

H6: There is a main effect for perceived self-uncertainty such that, relative to self-certainty, self-uncertainty increases counterarguing.

H7: Self-uncertainty interacts with perceived group extremity such that in the extreme group condition, relative to self-certainty, self-uncertainty increases counterarguing, whereas in the moderate group condition, there is no difference between self-certainty and self-uncertainty on counterarguing

Chapter 4: Method

Participants

Undergraduates in the Communication Department research participant pool at the University of Oklahoma (N = 423; age: M = 20.00, SD = 2.53, range: 18-48; 61.2% female) received credit or extra credit in their Communication courses for participating in this study. Approximately 68% of participants identified as White, 4% as Black or African American, 7% as Asian or South Asian, 1% as Native-American or Pacific Islander, 3% as Latino or Hispanic, 2% as Middle-Eastern, 12% as mixed race/ethnicity, and 1% did not provide race/ethnicity. Since the study involved deception about a tuition increase (described below), participants were given the option to withdraw their data after being debriefed if they chose to, and one participant so choosing was excluded from analyses.

Based on previous research (Hohman et al., 2017; Massey et al., 2017; Rast, Hogg, & Giessner, 2016), the following effect size was predicted, $\eta_p^2 = .02$. Power analysis showed multivariate analysis of variance (MANOVA) with three predictors and six response variables requires 341 participants to detect an effect of $\eta_p^2 = .02$ with 80% power at the .05 alpha level. Thus, the sample collected met power requirements for MANOVA.

Design

The study employed a 2 (self-uncertainty: self-certainty vs. self-uncertainty) × 2 (group extremism: high entitativity vs. low entitativity) × 2 (ideological congruence: congruent vs. non-congruent) independent group design. Participants completed an online pretest measuring political ideology before attending a lab session. In the lab, participants read about an ostensible tuition increase, and then were randomly assigned to watch an interview of two moderate or extreme student group leaders responding to news of the increase, after which participants were

primed with self-certainty or uncertainty. The ideology of the group was manipulated by describing the groups as conservative or liberal. Ideology scores from the pre-test were used to create an ideological congruency grouping variable. Dependent variables included identification with the group, behavioral intentions towards the group, perceptions of source credibility (i.e. competence, trustworthiness, and perceived goodwill), attitudes towards the group's positions, perceptions of the group's message quality, and evaluations of self-uncertainty, as well as counterarguments against pro-tuition increase arguments.

Procedure and Materials

Pretest. Participants were recruited online through the research participation pool in the Department of Communication. Once participants scheduled a lab appointment, they received an email containing a link to the online pretest. Any participants who did not complete the pretest within 48 hours of their lab appointment were contacted to re-schedule the in-lab session. After providing consent for the online pretest, participants were presented two measures of ideology (described below), after which they completed demographics and were given a short debrief wherein they were given information about the local institutional review board and contact information for the principal investigator.

In-lab experiment. Participants came to a lab on campus and were seated at a computer whereupon they received a short introduction from the research assistant, after which they were presented with an online survey hosted on the Qualtrics survey website containing all the study materials described below. Participants were first presented with a consent form, and upon consenting to participate, read the following script from Massey et al. (2017) describing a tuition increase being considered by the OU Board of Regents:

The Higher Education Contribution Plan

We'd like to familiarize you with the nature of the proposed increase in ***Mandatory Enrollment Fees*** *known as the Higher Education Contribution Plan, or* ***HECP,*** *which is designed to maintain and improve the quality of education at OU. This controversial plan includes proposed increases in the following student fees to be paid in addition to standard credit hour based tuition fees:*

Student Activity & Facility Fees *to supports student services, counseling and testing facilities, and transportation services.*

Technology and Connectivity Fees *to maintain computing labs and classroom technology, and IT support and network services.*

Academic Excellence Fees *to help recruit and retain excellent faculty and their research laboratories, equipment, and assistants.*

Life Safety Fees *for classroom maintenance and resident hall improvements ensuring fire safety and personal wellbeing.*

Security Services Fees *to improve campus lighting, emergency phones, police and security services.*

Other Mandatory Enrollment Fees *to fund operation, maintenance and development of the University infrastructure, including* ***Special Event and Speaker Fees*** *and* ***Student Assessment Fees****.*

In addition to their tuition fees, the controversial mandatory student fees required by the ***HECP*** *are expected to add a* ***20-25% cost increase*** *in student education charges for each year of enrollment at OU.*

Consequently, this cost increase is expected to lead to a substantial escalation in

student borrowing, and an associated surge in subsequent college debt upon graduation.

Source manipulation: Extreme versus moderate groups. After reading about the tuition increase, participants were randomly assigned to view materials from one of two OU student groups that ostensibly were: "formed in response to the HECP." Identical wording was used to describe the two groups with the exception of ideological orientation. In explaining the group's ideological position (liberal vs. conservative), the liberal group was described as espousing "values of moral care, fairness, and reciprocity," whereas the conservative group was described as "valuing respect for authority, in-group loyalty, purity, and sanctity." Haidt and Joseph (2004, 2007) have outlined such values as comprising the moral foundation for liberals and conservatives, respectively. Their instructions were as follows:

Students Against Tuition Inequality (SATI)

*Following is an interview of the [**conservative** or **liberal**] OU student group that formed in response to the Higher Education Contribution Plan. The group is comprised of current OU students and goes by the name Students Against Tuition Inequality, or SATI for short.*

Next, you will watch a 4-minute interview of the leaders of SATI by the OU College of Journalism weekly student-led news report, Speaking OUt.
When you are finished watching the clip, you will be shown interviews with other OU students so that you can form a complete impression.

*Please pay close attention to the video clip and try to note the policy stances advocated by the leaders of Students Against Tuition Inequality, a [**conservative** or **liberal**] student action group committed to [**conservative** or **liberal** ideals].*

Upon reading about the SATI, participants watched a four-minute clip of the group's

leaders being interviewed on a campus news show called *Speaking OUt,* ostensibly produced by OU undergraduates. The interviews were carefully scripted and recorded with performers from the OU College of Journalism and Mass Communication. The scripts were designed to reflect two types of groups—either moderate (low entitativity) or extreme (high entitativity). The actors were broadcast majors who regularly produced an actual, award-winning newscast for the university. The actors performed the same role of group leaders in both the moderate and extreme conditions, and the same actress played the interviewer in both interviews.

The scripts for the video manipulation were based on Hogg et al. (2010), and were used in Massey et al. (2017). Within each video, the host of *Speaking OUt* asked the leaders to describe the structure of the group as well as the group's response to the HECP. The leaders of the extreme group describe a disciplined, tightly knit, hierarchical group, with little disagreement allowed, and a shared vision required for membership. The extreme leaders also presented a militant pose in response to the HECP, advocating for rallies and marches, as well as class walkouts, sit-ins, and campus blockades.

In contrast, the moderate leaders described a loosely organized group, which was easy to join, open to dialogue, and welcoming of dissenting opinions. The moderate group advocated a measured approach to the HECP, encouraging members to engage in open dialogue and discussion—both within the group and with administration officials. Whereas the extreme group called for protests and confrontation with the administration, the moderates proposed meetings, leaflets and letter-writing campaigns.

When asked what they intend to do in response to the HECP proposal, the leader of the extreme group responded:

We'll blockade the campus if we have to. We're going to make sure they understand OU

students can't be pushed around. There's no way the administration can take away our right to a good—and affordable—education. We'll do whatever it takes to ensure all of us—from the richest to the poorest—have the opportunity we deserve.

The leader of the moderate group responded with a less extreme approach, for example:

We're committed to change through dialogue. We'll be writing letters to the Daily. We'll be distributing leaflets flyers on cars and hanging posters in the Union. Another thing we're planning is to hold public discussions and meetings and engage in a dialogue to inform students about all the issues surrounding the HECP.

After random assignment to moderate or extreme group video conditions, participants completed Hogg et al.'s (2010) manipulation check measure, which assessed group entitativity (presented below).

Manipulating self-uncertainty. After the entitativity check, participants were randomly assigned to either a self-certainty or self-uncertainty condition. The induction involved two steps: first, reading a short "student-on-the-street" op-ed ostensibly written by a student responding to the HECP, and second, writing an essay about feeling certain or uncertain. The "student-on-the-street" prime consisted of an op-ed written by a fellow student presented as a part of the student paper (i.e., the *OU Daily*). Hogg et al. (2010) and Massey et al. (2017) successfully used a similar priming technique to make participants aware other students on campus were certain or uncertain about the HECP.

The op-ed articles were carefully edited to make them appear as screenshots from the *OU Daily*. For the certainty prime, the op-ed author expressed relative calm about the increase; for example, mentioning:

I'm feeling pretty certain about the future when it comes to tuition. Why? Because big

initiatives like this take years to pass. I'll be long gone before anything happens. I feel certain I won't have to drop out anytime soon. Most people I know have enough money for video games and beer, so I think they'll be all right too.

The author of the uncertainty op-ed expressed worry at the prospect of the HECP passing:

I'm feeling uncertain about the future when it comes to tuition. I cannot afford a fraction of what my degree costs as it is. I bought a $120 textbook this semester and I'll probably get 10 bucks back…if anything. I pay $250 for a parking permit, and I can't find a spot. I have 3 roommates and I pay $300 in rent. Now higher tuition? I can't handle more debt. I might have to drop out if the HECP passes.

After reading the op-ed, participants were prompted to complete the certainty/uncertainty induction (Hogg et al., 2010; Massey et al., 2017) asking them to first think about the HECP, and then complete a writing task using the following instructions:

Please take a few minutes and think about various aspects in your life that make you feel the most ***[certain/uncertain]*** *about yourself, your future, or your place in the world; then write a few brief sentences about three of these aspects related to your* ***[certainty/ uncertainty]*** *below.*

After the writing task, participants rated their identification with SATI, behavioral intentions to act on behalf of SATI, source credibility of the SATI leaders, attitude towards the SATI's message, message quality of the group, and were presented with the self-certainty/uncertainty manipulation check. Additionally, participants were presented with three pro-HECP prompts (described in the instrumentation section), then asked whether they agreed or disagreed, before being given a chance to provide counter-arguments against the prompts. As a methodological note, in Hogg et al. (2010), participants received the self-uncertainty

manipulation check at the end of the survey. Since Massey et al. (2017) was a replication, the same procedure was used. The manipulation check (1 = *not very uncertain*, 9 = *very uncertain*) in Hogg et al. (2010) (self-uncertainty: $M = 5.59$, vs. self-certainty: $M = 4.45$, $F[1, 78] = 7.09$, $p < .01$) and Massey et al. (2017) (self-uncertainty: $M = 4.91$, vs. self-certainty: $M = 4.31$, $t\ [182] = -1.96$; $p < .05$) revealed those in the self-uncertain conditions were significantly more uncertain than the self-certain conditions. A similar check was used at the end of the survey in this research (see Hohman & Hogg, 2015; Hohman et al., 2017, below). When completed, participants were debriefed face-to-face about the deception used, and given the chance to withdraw their data.

Instrumentation

Magnitude ratio-type scales were used to measure all dependent variables. The scales range from zero to an unbounded upper end, avoiding possible ceiling effects (Lodge, 1981). At the beginning of each lab session, participants received verbal instructions on how to use magnitude scales. To measure message quality, for example, participants were asked to indicate how much they agreed with a series of statements (e.g., "*How persuasive was the message?"*) using a scale ranging from zero to infinity, where zero represents zero amount of an attribute being measured (e.g., "*the message was not persuasive at all*") and 100 indicates a moderate amount of an attribute (e.g., "*the message was moderately persuasive*"). Using 100 (i.e., moderate amount) as a yardstick, participants can indicate their own internal perceptions relative to the yardstick. A score of 500, for instance, would indicate five times the moderate level; 1,000 would be 10 times moderate, and so on (see appendix A).

Raw data were screened prior to analyses, and no systematically missing data were found. Next, the distribution of each variable was assessed. Since magnitude scales are unbounded at the top, variables measured using magnitude scales tend to be positively skewed,

and can result in extreme outlying cases (Bessarabova, Fink, & Turner, 2013). Thus, data were examined for the presence of outliers as well as violations of normality assumptions (requiring that residuals of the dependent variables are normally distributed) necessary for analyses using the general linear model (Bauer & Fink, 1983; Fink, 2009).

To control for outliers, each dependent variable was winsorized by recoding extreme values to a lower score that corresponds with the "nearest value of an observation not seriously suspect" (Tukey, 1962, p. 18). This procedure moves extreme values closer to the center of the distribution instead of trimming them out (meaning data is recoded and not deleted). To complete this procedure, any variable with skewness greater than 1.0 was examined, and outliers above the 95th percentile were recoded into a value corresponding to 95th percentile of each variable distribution (Dixon & Yuen, 1974).

After winsorizing outliers, any scale item with skewness or kurtosis greater than 1.0 was then transformed to improve normality and equality of variance using the following equation, $Y^{*} = (Y + k)^{\lambda}$, where *Y* is the original variable, Y^{*} is the transformed variable, and *k* is a constant, and such that when $\lambda = 0$, $Y^{*} = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^{*} = (Y + k)^{\lambda}$ (Fink, 2009). Since magnitude scales have zero at the origin and are unbounded at the top, all items had skewness and kurtosis scores greater than 1.0 across all items, indicating the need for data transformation (see Osborne, 2013). Where transformations were required, the same transformation was performed on all items of an index. A summary of transformations can be found in Tables 1-7.

Once the data were transformed, indexes were formed using principal components analysis (PCA) in SPSS 23.0. This process includes saving un-rotated components with eigenvalues greater than 1.0 as regression weights. Such a procedure (Afifi, Clark, & May, 2004; DiStefano, Zhu, & Mîndrilă, 2009; for application examples, see Bessarabova et al., 2013;

Cionea, Van Gilder, Hoelscher, & Anagondahalli, 2018) weights each scale item in proportion to the item's contribution to the principal component. Resulting indexes have a mean of 0.00, a standard deviation of 1.00, and range from -3 to +3. PCA reliabilities (i.e., $PC_{reliability}$) were calculated using the following equation, $N/(N\text{-}1) \times (E\text{-}1)/E$, where N = number of items and E = eigenvalues for principal components (see Hampson, Goldberg, & John, 1987).

Overall, for each scale used, all items loaded on a single component with an eigenvalue greater than 1.00, with only one item showing $\lambda_i < .50$ (Brown, 2015; Costello & Osborne, 2005; see Tables 7). All scales showed high internal consistency (i.e., $PC_{reliability} = .89$ or above). Because the transformed data met the assumptions of normality, items showed strong loadings, all items loaded on a single component, and each scale was found to be reliable, the dependent variables were deemed appropriate for hypothesis testing. Correlations and reliability coefficients are presented in Table 9 and a complete list of measures is presented in Appendix B.

Pretest Measures

Political ideology. Ideology was measured with the standard American National Election Studies (ANES) single item scale ranging from 0 (*extremely liberal*) to 100 (*extremely conservative*). Ideology was also captured using an ANES three-item scale taking the average of self-placement scores from 0 = *very liberal* to 100 = *very conservative* on "social issues," "issues of taxes and spending," and "foreign policy issues." The single-item measure (M = 51.45, SD = 25.56) and the composite measure (M = 53.99, SD = 24.43) were not significantly different ($p > 0.1$). Thus, the composite measure was used to match congruence between participant ideology in the pretest with group ideology. To match on congruence, a median split was used, with those on the liberal end of the measure coded as liberal and those on the conservative end as conservative. Based on manipulation of group type, participants were exposed to either a group

sharing their ideology (congruent) or one not sharing their ideology (incongruent), and the congruency group variable was used to test H4 and RQ1 (full details in Results section below).

In-lab Measures

Manipulation check of group extremism. As a check on group extremity, entitativity was measured using Hogg et al.'s (2010) scale, asking participants to evaluate the student group (SATI) on the following dimensions: hierarchical structure, cohesion, clearly defined structure, organization, homogeneity, clarity of message, distinctiveness, intolerance of dissent, strong leadership, and intent on forceful action. Participants were given a short definition of each dimension (e.g., "*If a group of people is considered to be homogeneous, then they might be thought of as all being relatively the same or similar*") and then asked to evaluate SATI on that dimension. Because groups high in entitativity are perceived to be extreme in nature (e.g., tightly organized, hierarchically structured, dismissive of dissent), the higher the entitativity scores, the more extreme participants are assumed to perceive the group.

Group identification. Identification with SATI was measured using Hogg et al.'s (2010) nine-item scale adapted by Massey et al. (2017). Participants were asked to indicate their agreement with statements describing identification with SATI, using magnitude scales. Example items included, "*How much do you feel you'd like to get to know the members of the group Students Against Tuition Inequality*?" "*Based on what you know from the video, how much do you feel you might like to join the group Students Against Tuition Inequality*?" and, "*How likely would you be to stand up for the group Students Against Tuition Inequality*?"

Behavioral intentions. Intentions to act on behalf of SATI were measured using Hogg et al.'s (2010) 10-item scale. Measured on a magnitude scale, items asked participants how likely they would be to: "*Petition the university on behalf of SATI*;" *"Participate in demonstrations on*

behalf of SATI;" *or* "*Engage in a sit-in on behalf of SATI*."

Source credibility. To determine perceptions of source credibility, McCroskey and Teven's (1999) 18-item scale was used. The original scale consists of three dimensions: *competence, goodwill,* and *trustworthiness.* To adapt the differential to a magnitude scale, participants were asked to evaluate adjectives from the positive end of the scale. For *competence*, example items asked participants, "*How intelligent is SATI*?" "*How trained is SATI*?" and "*How expert is SATI*?" For *goodwill*, participants were asked to indicate how much they agreed with statements such as, "*SATI is charitable*;" "*SATI cares about me*;" and "*SATI has my interests at heart.*" For *trustworthiness*, participants responded to items such as, "*SATI is honest*;" "*SATI is trustworthy*;" and "*SATI is honorable*."

Attitudes. To measure participants' attitudes towards the positions advocated by SATI, an adapted version of Dillard and Shen's (2005) seven-item scale (good, wise, favorable, positive, desirable, necessary, and beneficial) was used. Participants were prompted to think about the positions taken by SATI in the interview, and respond to items measured on a magnitude scale, such as, "*How good were the positions advocated in the video*?" "*How favorable were the positions advocated in the video*?" and "*How acceptable were the positions advocated in the video*?"

Message quality. Message quality was assessed using Updegraff et al.'s (2007) seven-item scale. Participants were prompted to think about the quality of the messages proposed by SATI in the interview and assess it using a magnitude scale. Example items include, "*How persuasive was the message*?" "*How clear was the message*?" and "*How accurate was the message*?"

Self-uncertainty. Hohman and Hogg's (2015) 10-item self-uncertainty scale was used as

a manipulation check. Participants were asked to rate how much they agreed with questions according to their beliefs and experiences. Example items include: "*My beliefs about myself often conflict with one another*;" "*One day I might have one opinion of myself and on another day I might have a different opinion*;" *and* "*I wonder about what kind of person I really am*."

Qualitative Counterargument Data

Counterarguments. To capture the number of counterarguments generated against the HECP, an active counterarguing measure was used (Banas & Bessarabova, 2009). Participants responded to the following three prompts: (1) *the HECP will improve the quality of education at the University of Oklahoma*; (2) *the HECP will positively influence students at the University of Oklahoma*; and (3) *no students at the University of Oklahoma will be forced to drop out if the HECP passes*. Participants were then asked to indicate if they accepted or rejected the prompt, and then to provide reasons why.

Coders analyzed responses to calculate number of counterarguments produced. To do so, the author trained two coders how to identify counterarguments using a random sample of responses (20% of thoughts). Coders were given a definition for the term counterargument (e.g., *to speak or act in opposition to a reason or set of reasons given with the aim of persuading others that an action or idea is right or wrong*) and instructed to score participant responses such that each counterargument was scored as 1, and everything else (including agreement) as 0 (see Appendix C). Initial scores were analyzed using Krippendorff's alpha. Results showed good intercoder reliability for number of counterarguments between coder 1 and 2 ($\alpha = 0.87$; Hayes & Krippendorff, 2007). Based on this approach, the remainder of responses was coded separately. When coding was complete, the author met with the coders to check scores. All disagreements were resolved verbally with the final result being total agreement on number of

counterarguments produced for each participant. Number of counterarguments from prompts 1, 2, and 3 ranged from 0 (*no counterarguments present*) to 4 (*four counterarguments present*).

Chapter 5: Results

Multivariate Results

MANOVA was used to analyze results, with group extremism (moderate vs. extreme), self-uncertainty (certain vs. uncertain), and group ideology (conservative vs. liberal) entered as the independent variables, and entitativity, identification, behavioral intentions, source credibility (i.e., competence, goodwill, and trustworthiness as separate dependent variables), attitudes (i.e., towards SATI's position on the HECP), and message quality as the dependent variables. As noted previously, the first un-rotated principal component saved as a regression weight for each scale was used to create indexes for dependent variables. The resulting scales have a mean of 0.00, a standard deviation of 1.00, with scores ranging from -3 to +3. All means and standard deviations reported in results are based on these metrics.

Multivariate results revealed main effects for self-uncertainty, Wilks' $\Lambda = .94$, $F(9, 396) = 2.61$, $p < .01$, $\eta_p^2 = .06$, and group extremism, Wilks' $\Lambda = .48$, $F(9, 396) = 47.57$, $p < .001$, $\eta_p^2 = .52$, whereas group ideology failed to reach significance, Wilks' $\Lambda = .98$, $F(9, 396) = 0.84$, $p = .58$.

The two-way interactions for Self-uncertainty × Group Extremism, Wilks' $\Lambda = .97$, $F(9, 396) = 1.41$, $p = .18$, Self-uncertainty × Group Ideology, Wilks' $\Lambda = .99$, $F(9, 396) = 0.53$, $p = .86$, and Group Extremism × Group Ideology, Wilks' $\Lambda = .98$, $F(9, 396) = 0.78$, $p = .64$, were all non-significant. However, the three-way Self-uncertainty × Group Extremism × Group Ideology interaction was significant, Wilks' $\Lambda = .95$, $F(8, 397) = 2.80$, $p < .01$, $\eta_p^2 = .06$, indicating the interaction had a significant effect on at least one of the dependent variables.

Manipulation Checks

Univariate results showed exposure to the extreme group ($M = 0.64$, $SD = 0.84$)

significantly increased perceptions of entitativity, $F(1, 404) = 264.51$, $p < .001$, $\eta_p^2 = .40$, compared to the moderate group ($M = -0.61$, $SD = 0.73$), indicating the manipulation of the student groups—one high entitativity (i.e., extreme) and one low (i.e., moderate)—was successful. For self-uncertainty, scores were significantly higher in the self-uncertainty condition ($M = 0.13$, $SD = 1.07$) compared to the certainty condition, ($M = -0.13$, $SD = .90$), $F(1, 404) = 7.53$, $p < .01$, $\eta_p^2 = .02$. Based on these results, the self-uncertainty induction was also successful.

Hypotheses Tests: H1 through H3

Main effect of group extremism. H1 predicted a main effect for perceived group extremism such that, relative to those exposed to an extreme group, those exposed to a moderate group would report greater (a) identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality. As compared to the extreme group ($M = -0.10$, $SD = 1.05$), participants exposed to the moderate group ($M = 0.11$, $SD = 0.93$) expressed greater identification with SATI, $F(1, 404) = 3.83$, $p = .05$, $\eta_p^2 = .01$, although there was no significant difference between groups on behavioral intentions, $F(1, 404) = 0.34$, $p = .56$. Thus, H1a was supported, however H1b was not.

Contrary to expectations, of the three dimensions of source credibility, exposure to the extreme group ($M = 0.18$, $SD = 1.04$) significantly increased rather than decreased perceptions of source competence, $F(1, 404) = 13.38$, $p < .001$, $\eta_p^2 = .03$, compared to the moderate group ($M = -0.16$, $SD = 0.94$). However, as hypothesized, the extreme group ($M = -0.18$, $SD = 1.05$) was characterized by significantly lower goodwill, $F(1, 404) = 15.14$, $p < .05$, $\eta_p^2 = .04$, compared to the moderate group ($M = 0.19$, $SD = 0.92$). There was no significant difference between groups on trustworthiness of SATI, $F(1, 404) = 1.39$, $p = .24$. Thus, H1c was only partially supported.

The difference between extreme and moderate groups on attitudes towards SATI's positions was not significant, $F(1, 404) = 2.10$, $p = .15$. Contrary to H1e, exposure to the extreme group ($M = 0.11$, $SD = 0.93$) significantly increased perceptions of message quality $F(1, 404) = 15.65$, $p < .001$, $\eta_p^2 = .04$, compared to the moderate group ($M = 0.18$, $SD = 1.02$). Thus, H1d and H1e were not supported.

Main effect self-uncertainty. H2 predicted a main effect for perceived self-uncertainty such that, relative to those in the self-certainty condition, those in the self-uncertainty condition would report greater (a) group identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality. Univariate results found self-uncertainty ($M = 0.17$, $SD = 1.02$) increased identification, $F(1, 404) = 11.40$, $p < .001$, $\eta_p^2 = .03$, compared to self-certainty ($M = -0.17$, $SD = 0.94$). Behavioral intention to act on behalf of the group was also significantly higher in the self-uncertainty condition ($M = 0.16$, $SD = 1.11$), $F(1, 404) = 12.77$, $p < .001$, $\eta_p^2 = .03$, compared to self-certainty ($M = -0.83$, $SD = 0.93$). Thus, H2a and H2b were fully supported.

For the measure of source credibility, self-uncertainty ($M = 0.14$, $SD = 1.11$) significantly increased perceptions of competence, $F(1, 404) = 9.55$, $p < .01$, $\eta_p^2 = .02$, compared to self-certainty ($M = -0.13$, $SD = 1.01$); increased goodwill towards SATI $F(1, 404) = 5.77$, $p < .05$, $\eta_p^2 = .02$ (self-uncertainty: $M = 0.14$, $SD = 0.97$, vs. self-certainty: $M = -0.13$, $SD = 1.02$); and increased perceptions of trustworthiness, $F(1, 404) = 5.71$, $p < .05$, $\eta_p^2 = .01$, (self-uncertainty: $M = 0.12$, $SD = 1.01$, vs. self-certainty, $M = -0.13$, $SD = 0.99$). Thus, H2c was also fully supported.

Regarding attitudes, self-uncertainty increased positive attitudes towards SATI's positions on the HECP ($M = 0.15$, $SD = 0.98$), $F(1, 404) = 9.63$, $p < .001$, $\eta_p^2 = .02$, compared to

self-certainty (M = -0.16, SD = 1.00). Those in the self-uncertain condition also rated SATI's message quality higher (M = 0.17, SD = 1.01), $F(1, 404) = 14.08$, $p < .001$, $\eta_p^2 = .04$, compared to the self-certainty condition (M = -0.17, SD = 0.97). Thus, H2d and H2e were also supported.

Self-uncertainty × Group Extremism interaction. H3 predicted that, whereas there should be no difference between self-certainty and self-uncertainty within the moderate condition, self-uncertainty should interact with perceived group extremity within the extreme group condition, such that relative to those in the self-certainty condition, those in the self-uncertainty condition should report greater (a) identification, (b) behavioral intentions to act on behalf of the group, (c) perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality. As noted, multivariate results did not support an interaction between self-uncertainty and group extremism. However, univariate results found the Self-uncertainty × Group Extremism interaction on goodwill approached significance, $F(1, 404) = 3.44$, $p = .06$, $\eta_p^2 = .01$, and had a statistically significant effect on attitudes, $F(1, 404) = 4.47$, $p = .032$, $\eta_p^2 = .01$. Thus, although multivariate results were non-significant for the Self-uncertainty × Group Extremism interaction, the shape of the interaction at the univariate level was consistent with H3c and H3d. Therefore, the simple effect of each outcome variable was examined using separate t tests.

As predicted, goodwill scores were significantly different between self-certainty (M = -0.38, SD = 1.03) and self-uncertainty (M = 0.03, SD = 1.02) within the extreme condition, $t(204) = -2.87$, $p < .01$, d = -0.40 (see Figure 1), and this was not the case in the moderate condition, $t(210) = -0.49$, $p = .63$. Similarly, within the extreme condition, attitudes towards SATI's message were significantly more positive in the self-uncertainty condition (M = 0.19, SD = 1.06) than in the self-certainty condition (M = -0.30, SD = 1.07), $t(205) = -3.32$, $p < .001$, d = -.46 (see

Figure 2), and again, this was not the case in the moderate condition, $t(211) = -0.80$, $p = .42$. Thus, H3c was partially supported (i.e., goodwill), and H3d was fully supported.

Self-uncertainty × Group Extremism × Group Ideology interaction. The Self-uncertainty × Group Extremism interaction was qualified by a significant three-way interaction of Self-uncertainty × Group Extremism × Group Ideology. Similar to the two-way interaction, univariate results showed the three-way interaction was significant for goodwill, $F(8, 404) = 10.42$, $p < .001$, $\eta_p^2 = .03$, and attitudes, $F(1, 404) = 5.41$, $p < .05$, $\eta_p^2 = .01$.

The interaction was broken down for interpretation, revealing self-uncertainty increases perceptions of goodwill when comparing self-certainty ($M = -0.002$, $SD = 0.99$) and self-uncertainty ($M = 0.35$ $SD = 0.94$) within the moderate, conservative condition, $t(103) = -1.85$, $p = .07$. There was not a significant difference on goodwill between self-certainty ($M = -0.23$, $SD = 1.01$) and self-uncertainty ($M = -0.13$, $SD = 0.90$) in the extreme conservative group condition, $t(100) = -0.52$, $p = .61$. There was also no significant difference for goodwill scores within the moderate-liberal condition, when comparing self-certainty ($M = 0.33$, $SD = 0.81$) and self-uncertainty ($M = 0.10$, $SD = 0.90$), $t(105) = 1.40$, $p = .18$. However, self-uncertainty increased perceptions of goodwill when comparing self-certainty ($M = -0.60$, $SD = 1.04$) and self-uncertainty ($M = 0.16$, $SD = 1.11$) in the extreme-liberal group condition, $t(102) = -3.40$, $p < .001$, and the effect size was large, $d = -0.71$.

There were no differences for attitude scores between self-certainty and self-uncertainty within the conservative group condition, for either a moderate (self-certainty: $M = -0.08$, $SD = 1.03$; self-uncertainty $M = 0.22$, $SD = 1.00$), $t(104) = -1.50$, $p = .14$, or extreme group (self-certainty: $M = -0.16$, $SD = 1.15$; self-uncertainty $M = 0.06$, $SD = 1.00$), $t(101) = -1.00$, $p = .32$. There was also no significant difference for attitude scores within the moderate-liberal condition,

comparing self-certainty (M = 0.13, SD = 0.72) to self-uncertainty (M = 0.03, SD = 0.81), $t(105) = 0.65$, $p = .52$. However, scores for goodwill were significantly different between self-certainty (M = -0.45, SD = 0.95) and self-uncertainty (M = 0.31, SD = 1.10) when exposed to the extreme liberal group, $t(102) = -3.78$, $p < .001$, and the effect size was, again, large d = -0.74. The overall shape of the interaction indicates participants showed higher goodwill and attitudes towards an extreme liberal group, but only when primed with self-uncertainty, consistent with Greenberg and Jonas (2003), and not Jost & Napier (2012). This effect was absent for the moderate, liberal group, and moderate and extreme conservative groups (see Figures 3 and 4).

Hypothesis Test: H4

To test H4 addressing ideological congruence between participants and SATI, a split file method was used, wherein the data were separated into sub-samples based on whether or not participants were exposed to a version of SATI corresponding to their political ideology, as measured in the pretest, where they were asked to rate themselves from 0 (*totally liberal*) to 100 (*totally conservative*) on social issues, taxation, and foreign policy, and the three scores were averaged to create a composite ideology score. Median split (Mdn = 51) was used to assign ideology to participants (0 through 51 = liberal; 52 through 100 = conservative). During the in-lab session, the description of SATI was manipulated so that participants were randomly exposed to a group portrayed as holding conservative or liberal values. A grouping variable was created based on whether participants were exposed to an ideologically congruent group (0 = non-congruent, or 1 = congruent). The non-congruent/congruent variable was then used to split the data file, and a regression analysis was conducted to determine if participants' ideology scores (0 to 100) predicted scores on the outcome variables relevant to H4.

H4 proposed that ideology predicted (a) greater identification, (b) behavioral intentions to

act on behalf of the group, (c) positive perceptions of source credibility, (d) positive attitudes toward the advocated position, and (e) favorable perceptions of message quality with an ideologically congruent group. H4a was not supported, as exposure to a congruent group was not associated with identification, $F(1, 197) = 2.84$, $p = .10$. H4b, however, was supported, as the regression model was significant, $F(1, 200) = 23.86$, $p < .001$, $R^2 = .11$, $R^2_{adj} = .10$, with ideology significantly predicting behavioral intentions ($\beta = -.33$, $p < .001$). As scores for ideology became more liberal, intentions to act on behalf of the congruent group increased. Conversely, as ideology scores became more conservative, intention to act on behalf of the congruent group decreased.

H4 also predicted more favorable perceptions of (c) source credibility, (d) attitudes towards SATI's positions, and (e) message quality for an ideologically congruent group. However, concerning source credibility, ideology did not predict competence, $F(1, 200) = 0.60$, $p = .44$, goodwill, $F(1, 198) = 0.49$, $p = .49$, or trust, $F(1, 198) = 0.17$, $p = .68$, when the source shared participants' ideology. Furthermore, ideology was not associated with attitudes towards the group, $F(1, 198) = 1.15$, $p = .28$, or the group's message quality, $F(1, 198) = 1.14$, $p = .24$; thus, H4 (c, d and e) were not supported.[1]

Research Question 1

RQ1 asked whether group extremism interacted with self-uncertainty and ideological congruence to affect (a) identification, (b) behavioral intentions, (c) positive perceptions of source credibility, (d) more favorable attitudes toward the advocated behavior, and (e) message quality. To address this question, a MANOVA was conducted using group extremism, self-

[1]Analyses were conducted using a trichotomized grouping variable where ideology was split into $1/9^{th}$ parts, and the middle $1/9^{th}$ was removed to get a clearer distinction between the conservative $4/9^{ths}$ and the liberal $4/9^{ths}$. Results were the same as those using the dichotomized variable. Ideology negatively predicted behavioral intentions in the congruent group condition.

uncertainty, and ideological congruence as independent variables, and identification, behavioral intentions, source credibility, attitude, and perceived message quality as dependent variables. Results showed significant main effects for self-uncertainty, Wilks' $\Lambda = .94$, $F(7, 388) = 3.39$, $p < .01$, $\eta_p^2 = .06$, and group extremism, Wilks' $\Lambda = .49$, $F(7, 388) = 17.28$, $p < .001$, $\eta_p^2 = .24$, but not ideological congruence, Wilks' $\Lambda = 1.00$, $F(7, 388) = 0.19$, $p = .99$.

In examining the interactions, the Self-uncertainty × Group Extremism (Wilks' $\Lambda = .97$, $F[7, 388] = 1.62$, $p = .13$) and Self-uncertainty × Congruent Ideology (Wilks' $\Lambda = .99$, $F[7, 388] = 0.51$, $p = .83$) interactions were not significant. However, the Group Extremism × Congruent Ideology interaction was significant, indicating there were differences on some outcome variables comparing extreme versus moderate conditions, when participants shared ideology with the groups portrayed in the study, Wilks' $\Lambda = .96$, $F(7, 388) = 2.11$, $p < .05$, $\eta_p^2 = .04$.

Univariate results revealed the Group Extremism × Congruent Ideology interaction was significant for identification, $F(1, 394) = 8.30$, $p < .01$, $\eta_p^2 = .02$, and behavioral intentions, $F(1, 394) = 5.72$, $p < .05$, $\eta_p^2 = .01$. For source credibility, the effects of the interaction on competence approached significance, $F(1, 394) = 3.31$, $p = .07$, $\eta_p^2 = .01$, the effect on goodwill was not significant, $F(1, 394) = 1.79$, $p = .18$, and the effect on trustworthiness was significant, $F(1, 394) = 5.47$, $p < .05$, $\eta_p^2 = .01$. Finally, the effect of the Group Extremism × Congruent Ideology interaction on attitudes was significant, $F(1, 394) = 4.72$, $p < .05$, $\eta_p^2 = .01$, whereas, this interaction on message quality failed to reach significance, $F(1, 394) = 1.17$, $p = .28$. These results indicate that overall, when ideology was congruent (i.e., participant shared group's ideology), scores for identification, intentions, source goodwill and trustworthiness were all higher in the moderate versus the extreme group conditions.

Simple effect for group extremism within the congruent-ideology condition.

Comparing the extreme and moderate groups within the congruent ideological condition reveals significant simple effects for identification, behavioral intentions, source trustworthiness, and attitudes. The trend across all results reveals participants producing higher scores in response to the moderate group relative to the extreme group, but only when the group was described as having an ideology congruent with the participants'. There were no significant differences between groups in the non-congruent condition. Means, standard deviations, *t*-test results along with effect sizes are provided in Table 10.

Hypotheses Tests: H5 through H7

To the author's knowledge, no research has examined counterarguing in relation to self-uncertainty and extreme groups. Thus, H5 through H7 followed the same logic as the first three hypotheses. Essentially, a main effect was predicted for group extremism such that, compared to an extreme group, exposure to a moderate group should increase counterarguments (H5). It was also predicted that there should be a main effect for self-uncertainty such that, compared to self-certainty, self-uncertainty should increase counterarguments against the HECP (H6). Finally, it was predicted that self-uncertainty should interact with perceived group extremity such that in the extreme group condition, relative to self-certainty, self-uncertainty should increase counterarguing against the HECP, whereas there should be no difference in the moderate condition (H7).

To measure counterarguments, participants read the following prompts: (1) *The HECP will improve the quality of education at the University of Oklahoma*; (2) *The HECP will positively influence students at the University of Oklahoma*; and (3) *No students at the University of Oklahoma will be forced to drop out if the HECP passes*. Participants were asked if they

agreed with each prompt, and then given a chance to provide their reasoning. Coders analyzed those responses counting the number of counterarguments present. Responses ranged from 0 (*no counterarguments present*) to 4 (*four counterarguments present*).

A MANOVA was used with self-uncertainty and group extremism entered as the independent variables, and number of counterarguments for prompts 1, 2, and 3, entered as dependent variables. Multivariate results revealed a significant main effect for self-uncertainty, Wilks' $\Lambda = .92$, $F(3, 417) = 12.10$, $p < .01$, $\eta_p^2 = .08$, whereas group extremism, Wilks' $\Lambda = .98$, $F(3, 417) = 47.57$, $p = .76$, and the Self-uncertainty × Group Extremism interaction, Wilks' $\Lambda = 1.00$, $F(9, 396) = 0.17$, $p = .91$, were not significant. Thus, H5 and H7 were not supported.

For self-uncertainty, univariate results showed no difference between self-certainty ($M = 0.46$; $SD = 0.58$) and self-uncertainty ($M = 0.54$; $SD = 0.66$) for counterarguments on prompt 1, $F(1, 419) = 1.83$, $p = .18$. For prompt 2, individuals in the self-uncertainty condition ($M = 0.84$; $SD = 0.63$) produced significantly more counterarguments than those in the self-certainty condition ($M = 0.63$; $SD = 0.57$), $F(1, 419) = 11.82$, $p > .01$, $\eta_p^2 = .03$. Similarly, for prompt 3, self-uncertainty ($M = 1.07$; $SD = 0.74$) produced more counterarguments than self-certainty ($M = 0.07$; $SD = 0.66$), $F(1, 419) = 30.39$, $p > .001$, $\eta_p^2 = .07$. These results show partial support for H6.

Chapter 6: Discussion

Although extreme groups are thought to be a threat to democratic and civil societies, such groups are difficult to study. How would social scientists recruit jihadists or white supremacists to participate in campus research? To do so would be both foolish and dangerous. Accordingly, this dissertation adopted the novel approach of creating and experimentally designing extreme groups to test their appeal under conditions of self-uncertainty. The guiding theoretical framework, UIT, posits self-uncertainty motivates people to identify with groups to increase self-certainty. Given how there is some debate within the literature as to whether liberals or conservatives are more prone to identify with extreme groups, this dissertation also considered ideological congruence between the group (source) and participant (receiver). Relationships between self-uncertainty, group extremism, group ideology, and ideological congruence were also considered.

Results point to three general conclusions. First, key predictions of UIT were supported, with self-uncertainty showing a main effect across all outcomes. Second, self-uncertainty interacted with group extremism, resulting in more positive attitudes and goodwill directed at the extreme group. Third, ideological congruence between sender and receiver only affected behavioral intentions for liberals and not conservatives—a conclusion that does not provide support for Jost and Napier's (2012) UTM, which holds that the need to reduce uncertainty is primarily associated with conservatism and not ideological extremism, in general. Finally, the unexpected main effect of group extremism on perceptions of source competence points to the need for greater scrutiny of issues relevant to source credibility outcomes associated with extreme groups in future research.

Overall, these findings contribute to theoretical literature related to self-uncertainty and extreme groups, as well as the role ideology plays in motivating people to support such groups. These results also contribute to risk and crisis communication by highlighting the need for new areas of persuasion research focused on the suasory appeal of such groups. In what follows, the theoretical and social implications of the findings reported in this dissertation are discussed, as well as limitations, future directions and concluding remarks.

Support for UIT: Theoretical and Social Implications

A primary postulation of UIT holds that self-uncertainty motivates people to identify with social groups. The present results support this proposition. Moreover, compared to self-certainty, those made to feel self-uncertain showed higher scores on all dependent variables, meaning they felt greater identification with SATI, considered the leaders to be more credible in terms of competence, goodwill, and trustworthiness, and rated their communication more favorably in terms of message quality, while producing more counterarguments against the HECP, in line with the group's positions. Across the board, self-uncertainty motivated affiliation with SATI, regardless of group structure or ideology. This finding shows strong theoretical support for UIT, while stressing the important motivational role self-uncertainty plays for young adults.

An important aspect of the present findings is related to the sample, which was comprised of emerging adults, a population noted for greater likelihood to experience uncertainty about social standing and autonomy (Arnett, 2004). These same populations fit the terrorism age-crime profile for suspects most likely to commit violent crimes, including acts of terrorism (Klausen, Morrill, & Libretti, 2016). Socio-demographic profiles of violent extremists show two-thirds of terrorists have at least some college education, and a small percentage (i.e., up to four percent) have advanced graduate degrees, including Ph.Ds. (Horgan, Gill, Bouhana, Silver, & Corner,

2016). This confluence of factors designates college-educated, emerging adult populations as particularly vulnerable to influence from extreme groups. Thus, understanding how self-uncertainty motivates this population is a topic of immense social importance.

Towards this end, UIT offers a framework for predicting affiliation with extreme groups. As UIT posits, groups with clear boundaries and strong leaders (i.e., high in entitativity) provide certainty to uncertain people (Hogg, 2007). Given groups high in entitativity tend to be extreme in orientation, a further implication of UIT is that self-uncertainty motivates identification with extreme groups (Hogg et al., 2010). Supporting this prediction, the Self-uncertainty × Group Extremism interaction showed a significant effect on perceived goodwill from the high entitative version of SATI and positive attitudes towards the group's positions. These findings support UIT's prediction about attraction to extreme groups and emphasize specific factors to consider for assessing risk susceptibility relevant to such groups.

The high entitative, extreme version of SATI formed its arguments around three general points: (1) HECP is unfair; (2) SATI will resort to radical tactics to oppose the initiative; and (3) to effectively combat the HECP, SATI must be unyielding and intolerant. With this in mind, it is telling to note that only when made to feel self-uncertain did participants perceived more goodwill from this group. Recall, goodwill is a sub-dimension of source credibility related to character, with items such as, "*SATI cares about me*;" "*SATI is concerned about me*;" and "*SATI has my interests at heart*." Under conditions of self-uncertainty, participants felt SATI was fighting for their interests, but only when the group projected an extreme orientation. Such a finding is noteworthy considering perceptions of goodwill were relatively more negative coming from the same group under self-certainty conditions (see Figure 1). Thus, self-uncertainty significantly improved perceptions of goodwill from the extreme group.

Attitudes mirrored goodwill. To measure attitudes, items asked how "*good*," "*wise*," and "*positive*" SATI's positions were. When self-uncertain, participants rated the extreme group more favorably, even though some of their positions were quite aggressive (e.g., holding sit-ins, blockading campus, staging walkouts). As the *Speaking OUt* interview included discussion of SATI's structure (e.g., "*Our group has one mission and one mission only*: *Oppose and defeat the Higher Education Contribution Plan! Anyone who doesn't share this one goal need not apply!*"), attitude scores also suggest greater approval of a group presented as rigid, aggressive, and authoritarian.

Although attitudes do not always predict behaviors, they do reflect mental evaluations of attitude objects, informing the range of behaviors deemed acceptable towards that object (McGuire, 1985). In describing the process of radicalization, Moghaddam (2005) argues the "first floor" of the "stairway to terrorism" involves evaluation of available options to fight unfair conditions (p. 163). If a person cannot improve unfair conditions, they may displace their aggression on a target associated with the injustice, moving from the first floor (evaluation) to the second (aggression). Results show self-uncertainty altered the range of actions deemed acceptable to fight the HECP, but only when advocated by an extreme group. Further, the retaliation advocated by the high entitative version of SATI intended to displace aggression across campus, not just towards administrators. Such a shift in attitudes may seem minor, as favoring extreme behavior is far from behaving extremely. Yet, if Moghaddam's model is correct, radicalization begins with such small steps. Although linking current findings to Moghaddam's model is beyond the scope of this dissertation, favorable attitudes towards radical action are noteworthy, especially when captured within a population actively recruited by extreme groups.

The Anti-Defamation League (ADL; 2019b) has recently released a report indicating white supremacist groups are targeting college campuses with recruitment propaganda. This observation underlines the stakes while providing a real-world application for the findings reported in this dissertation. An examination of correlations between variables in Table 9 shows a positive association between goodwill and attitudes towards the high entitative version of SATI's positions ($r = 0.69$, $p < .01$). Yet, attitudes and goodwill capture different aspects of affiliation. Attitudes assessed the group's advocacy, whereas goodwill measured perceptions of concern and support from the group. As participants perceived the more extreme group to be fighting on their behalf, their appraisal of the group's advocacy became more favorable. Alternatively, as attitudes improved, so, too, did perceptions of goodwill. Regardless, as the ADL (2019b) has noted, white supremacist propaganda is aimed at establishing goodwill by claiming to defend against nefarious conspiratorial forces (e.g., Jewish media, one-world government, "cultural Marxism"). Although these imagined forces pose no real, physical threat to students, neither did the supposed HECP. Still, self-uncertain participants were motivated to perceive goodwill from the extreme version of the group. Source goodwill may be a key variable in understanding the critical opening sequence of recruitment efforts undertaken by extreme groups. If the ADL's assessment is to be taken seriously, extreme groups are already working to leverage goodwill.

The present findings also offer directions for counter-messaging campaigns. Inoculation theory (McGuire, 1961), for instance, might be utilized to develop interventions to "inoculate" students against the recruitment tactics of extreme groups. Successful inoculation requires an understanding of those tactics, a distillation of themes found across propaganda types. Inoculating potentially vulnerable populations against future perceptions of goodwill on the part

of extremist groups would offer one important avenue for study. In this regard, communication researchers are uniquely situated to undertake such an exploration. One of the discipline's founding figures in the realm of political science, Harold Lasswell, conducted extensive analyses of propaganda in the 1920s and 1930s (see Rogers, 1994). Although global conditions may not be as dire now as in Lasswell's time, there are striking similarities, given that right-wing authoritarianism is on the rise in eastern and central Europe (Europol, 2017), while left-wing anarchists are disrupting Greece and Italy (Souli, 2019). In the United States, so-called "alt-right" neo-fascists battle militant so-called "Antifa" antifascist elements in metropolitan areas across the country, resulting in property damage, injury, and death (Stack, 2017). Furthermore, domestic terrorism in the United States seems to be taking a decidedly ideological turn, as 49 out of 50 domestic terrorism deaths in 2018 were perpetrated by individuals linked to right-wing extremist groups (ADL, 2019a; Serwer, 2019). In light of the growing threat of extreme groups, communication researchers are appropriately positioned to address this fast developing problem by returning to their disciplinary roots, and analyzing the high entitative aspects of the propaganda utilized by extreme groups, as Harold Lasswell did before World War II.

Self-uncertainty, Group Extremism, and Group Ideology

The results reported above also reveal an unexpected Self-uncertainty × Group Extremism × Group Ideology three-way interaction for goodwill and attitudes that qualified the Self-uncertainty × Group Extremism two-way interaction. The shape of this three-way interaction showed that when exposed to an extreme liberal-oriented SATI, self-uncertainty predicted greater perceptions of goodwill and more positive attitudes towards the group. This effect was absent in the equally liberal-minded moderate conditions, as well as in the moderate and extreme conservative conditions (see Figures 3 and 4). Though un-hypothesized, this finding

resembles the two-way interaction between self-uncertainty and group extremism described above and advances scholarship by considering how the ideology of a group influences its attractiveness when ideological congruence is not a salient factor.

The UTM claims conservatives have a unique epistemic need for certainty and safety; thus, they should be more prone to identify with extreme groups under conditions of uncertainty. The UTM also holds conservative groups and leaders are more persuasive during times of uncertainty because of the precise, unambiguous nature of conservative political projects (i.e., returning to a storied past and traditional values). Theoretically, the Self-uncertainty × Group Extremism × Group Ideology interaction cuts against these arguments, as it shows only when exposed to an extreme-liberal group did self-uncertainty predict higher scores for attitudes and goodwill.

When interpreting these findings, context matters. The ideological congruence manipulation described the liberal group as valuing, "*kindness and equality, fair treatment and equal rights for all, as well as embracing greater tolerance for the inclusion of all peoples*," whereas the conservative group was described as valuing, "*honor, personal responsibility, courage, and patriotism, as well as respect for tradition and the sanctity of the individual*." Participants may have considered the HECP unfair, and, based on ideological aspects of the description, perceived the liberal version better suited to fight inequality. In this case, it stands to reason that under conditions of self-uncertainty when regarding the two extreme groups (liberal or conservative), the liberal version would be perceived as more attractive.

Given that these findings relate student responses to university policy, it is important to consider the potentially broader trends on campuses. As Lukianoff and Haidt (2018) have argued, college administrators are increasingly employing "castastrophizing" rhetoric, which

involves magnifying the threat of otherwise relatively benign events. According to Lukianoff and Haidt, such catastrophizing not only encourages students to overreact to such events, but also emboldens them to adopt zero-tolerance stances. Regarding the HECP, the extreme group was more catastrophizing (e.g., "…*we think it's a crime to raise tuition and fees*…") and advocated a zero-tolerance stance (e.g., "*To be a member of our group, you have to make it your goal to kill the HECP, and if you don't fully buy into that, then all we have to say is: thanks but no thanks*"). Future research might explore whether catastrophizing rhetoric sensitizes students to certain linguistic features of extreme groups. As survey data show, college administrators are on average more liberal than faculty, students, and the general public (Abrams, 2018). A further question might explore the notion that catastrophizing rhetoric is sensitizing students to become more vulnerable to the propaganda of extreme liberal groups. To be clear, that is not necessarily the position of this dissertation; however, as a possible explanation of the unanticipated three-way interaction, this possibility deserves consideration. More focused research is needed in this area.

Ideological Congruence and Support for an Extreme Group

There is debate within the psychology literature as to how ideology motivates identification with extreme groups. Hogg's UIT framework argues the more self-uncertain the person, the more attractive the group, regardless of ideology. Conversely, Jost and Napier (2012) claim conservatives are fundamentally more prone to seek certainty, and thus, when uncertain, find authoritarian groups more attractive. Greenberg and Jonas (2003) have persuasively criticized the UTM, reasoning that virtually any rigid ideology has uncertainty-reducing utility, regardless of whether conservative or liberal.

The results here support Hogg's UIT and Greenberg and Jonas' (2003) position, given how ideological congruence was largely a non-factor. Using congruence as a grouping variable,

and ideology as a predictor, ideology (scored from 0 = *extremely liberal* to 100 = *extremely conservative*) had a negative relationship with behavioral intentions. The more liberal participants' ideology scores, the greater their intentions to act on behalf of a liberal-congruent group. Conversely, the more conservative participants' ideology scores, the less likely they were to act on behalf of a conservative-congruent group. Liberals—not conservatives—were more likely to support the high entitative version of SATI when ideology was congruent. These findings support Greenberg and Jonas (2003) and contradict claims about conservatives being more prone to supporting extreme groups due to their unique epistemic needs.

This finding was further bolstered by a significant Congruent Ideology × Group Extremism interaction. When participants were exposed to a group sharing their ideology, those in the moderate group condition reported significantly higher levels of identification, intentions, perceptions of source trustworthiness, and attitudes towards the group's positions, relative to those in the extreme condition. If ideological congruence played a role in motivating participants to affiliate with the group, it was towards the moderate rather than the extreme version of SATI. This effect was found for liberals and conservatives alike, again undercutting the notion that conservatives alone have a unique predisposition towards extreme groups, as posited by the UTM.

Perhaps the simplest explanation of the Congruent Ideology × Group Extremism interaction is that ideological congruence diminishes the attractiveness of extreme groups in ways that do not apply to moderate groups. This possibility runs counter to research showing that homogenous ideological networks breed extreme attitudes (e.g., Binder et al., 2009). However, as reviewed earlier, ingroup inclusion has psychological, cultural, and existential benefits. Ideological congruence signals shared values, and in turn, belongingness to a shared identity. If belongingness provides equanimity, then it stands to reason people would prefer a moderate

group over an extreme one, given the likelihood that more extreme groups tend to espouse actions and opinions that may be unsettling or upsetting. Disagreement with a group that shares one's ideology may heighten perceived exclusion prospects, upending the equanimity of stable ingroup identification. Thus, ideological congruence may dampen support for extreme groups, as a moderate-congruent group is more inclusive, and, thus, poses fewer prospects for opinion disagreement. Compared to the findings for H2 through H4, self-uncertainty, group extremism, and their interaction were all found to be better predictors of attraction to extreme groups than either ideology or ideological congruence.

Counterargumentation and Persuasion

The ability and willingness to produce counterarguments is indicative of the cognitive processing that accompanies resistance to persuasion—in this case resistance to the HECP as advocated by the SATI group. However, to the author's knowledge, no studies have examined counterarguing as a function of self-uncertainty or in response to extreme groups. Participants in the present research were given three pro-HECP prompts and asked to stipulate whether they agreed with them, and then provide answers indicating why or why not. Analyses showed significantly more disagreement in the form of counterargument production in the self-uncertainty versus self-certainty condition. However, group extremism and the interaction between group extremism and self-uncertainty did not produce significant results in this regard. It was self-uncertainty alone that appeared to motivate counterarguing, and not affiliation with a group, extreme or otherwise. Given that self-uncertainty resulted in increased counterarguing, one interpretation for this finding is that counterarguing worked as an uncertainty-reducing mechanism, a conclusion consistent with theories arguing that uncertainty is an aversive feeling state, and people use communication behaviors to manage their uncertainty (e.g., uncertainty-

reduction theory; Berger & Calabrese, 1974; the motivation to reduce uncertainty model; Kramer, 1999).

A review of participant responses helps to explain this conclusion. Prompt 2 argued the HECP would positively influence students at the University of Oklahoma. In response, some participants argued the HECP would harm students, for example: "*Many will be forced to drop out, and the backlash from students could be very very* [sic] *negative*." Others responded with arguments related to fairness, for example: "*I do not think it is fair for someone like me, a financially-struggling, working, college student, to have to pay more in order to assist out of state students*." Still, others argued the increase might make tuition less affordable, undermining diversity initiatives in the process, for example: "*Myself and many other students cannot pay for an increase in tuition costs, this increase will only lead to a less diverse economic group of students*." Though the premises varied, the thrust of counterarguments maintained the HECP would negatively impact student life.

Prompt 3 asserted the HECP would not force any students to drop out. Some participants responded with incredulity, such as, "*Some students WILL* [sic] *have to drop out or transfer due to the ridiculous tuition increase*" and "Unless [the university] *plans on handing out more financial aid to the students who need it, they will drop out. So don't even try feeding me that*." Other students provided personal insights, noting they could not afford the increase: "*I personally am unsure if my parents would be able to afford to send me here if the tuition prices rose*." And still, others cited peer experiences: "*I have a friend who recently had to take the semester off to work in order to be able to afford her college education; who's to say that she could ever be able to come back to college if the tuition was raised by 20%?*" Again, while

students offered differing grounds for their disagreement, counterarguments almost entirely disputed the claim the HECP would not cause student to drop out.

Overall, counterarguments for prompt 2 and 3 were negative against the HECP. As this finding was not present for group type or ideology, it is likely not due to persuasion by SATI—although some responses echoed SATI talking points (e.g., "…*some students will have to drop out*…"). Similarly, this finding departs from UIT, as the theory would argue counterarguing should reflect group identification. Considering an alternative theoretical framework, uncertainty-reduction theory (URT) posits that people have a threshold for uncertainty, such that, when above the threshold, they become motivated to reduce uncertainty (Berger & Calabrese, 1974). In this study, the combination of induced self-uncertainty and uncertainty from the pending HECP increase may have been too much. As Berger (1995) argued, people use communication behaviors to actively seek information to reduce uncertainty. The finding here is that communication behavior (e.g., counterarguing against the HECP) were more robust in the self-uncertainty condition. This falls outside the UIT framework, and suggests other motivational mechanisms, such as uncertainty reduction needs during particular strategic types of interactions. As URT was not used as an explanatory framework within the present theorizing, further investigation is needed to understand the role of counterarguments as a function of different uncertainty reduction strategies. Moreover, future research would do well to integrate the two theories to further investigate strategic counterarguing as a form of uncertainty-reduction within the context of group interaction.

Source Credibility and the Appeal of Extreme Groups

There was an unpredicted main effect for group extremism. As expected, participants identified with and perceived more goodwill from the moderate group; however, contrary to

expectations, exposure to the extreme group resulted in relatively higher ratings for competence and message quality. Side-by-side these results tell a seemingly conflicting story. Participants identified less with the extreme group, and perceived less goodwill from the extreme group, yet found the extreme group to be more competent, and rated it higher on perceived message quality. Since this was a main effect for group extremism and not self-uncertainty, these results are unexplained by UIT alone, as well as research into persuasion and social influence.

A large body of research has demonstrated the use of explicit (Miller et al., 2007), freedom threatening (Dillard & Shen, 2005), or expectancy-violating (Burgoon et al., 2002) language undermines the efficacy of persuasive messages, resulting in source derogation (Quick & Considine, 2008). A long-standing convention of persuasion research holds source credibility is essential for persuasion, as loss of credibility not only undermines influence in the present but also hampers future persuasion attempts (Hovland et al., 1953). And yet, extreme groups employ these vary language features, while still being able to effectively recruit followers (Bruscella, & Bisel, 2018). These observations appear to be at odds. If threatening or explicit language undermines source credibility, and credibility is required for long-term influence, how then can extreme groups recruit followers over the long-term?

One possible answer is that using forceful, threatening language undermines some aspects of credibility, but not others. This effect is akin to a source being forceful, while un-liked, but speaking with such confidence that they appear competent. A similar effect was found for the unexpected main effect of group extremism. The leaders of the extreme SATI group were direct, forceful, and confident, all the while being factually incorrect about many of the positions they advocated. Still, participants found them more competent than the leaders of the moderate SATI group, who expressed openness to dialogue and preference for democratic processes.

These results imply that the dimensions of source credibility may operate in such a way that, under certain circumstances, confident, direct, and forceful speakers are viewed as less likable, but more competent. In this scenario, a critical dimension of source credibility (i.e., competence) would remain intact for future influence attempts. This idea may help untangle the contradiction whereby extreme groups employ language features research shows undermine influence. Simply put, confidence may be conflated with competence, especially when the source has the trappings of credibility (i.e., being interviewed on television) and the receiver has little knowledge about the issues at hand (e.g., a new HECP increase).

Similar results have been found in recent research. LaVoie, Quick, Riles, and Lambert (2017), for instance, found graphic cigarette warnings induced psychological reactance. However, although reactance increased perceptions of domineeringness, perceptions of source expertise and trustworthiness were not diminished as hypothesized. In other words, although the source was considered domineering, negative evaluations did not extend to other dimensions of credibility. Similar to credibility ratings for the extreme group, the effect noted by Lavoie et al. is akin to, "I do not like you, but find you competent, nonetheless." These findings run counter to the majority of reactance research, leading researchers to call for greater scrutiny of the different dimensions of source credibility. This dissertation echoes LaVoie et al.'s (2017) call, arguing for greater examination of unique source credibility attributes, especially as credibility relates to extreme groups.

Limitations and Future Directions

There are several limitations bearing on the experimental results reported here. First, operationalizing extreme groups is a challenge for any researcher. The author relied on previous work testing UIT (Hogg et al., 2010; Massey et al., 2017) to replicate extreme student group

stimuli for use in this study. Although the manipulation showed results similar to previous studies, in light of the un-hypothesized three-way interaction involving group ideology, it could be argued the extreme group may have been more in-line with accepted forms of campus advocacy (e.g., staging sit-ins) conducive to a liberal worldview, and actions such as blockading the campus may have been a bridge too far for conservative participants. As such, an extension of this study might be to create an extreme group with a more conservative orientation, making respect for authority, patriotism, and an emphasis on ingroup loyalty more salient, as well as providing a topic better suited to move conservatives towards extreme advocacy.

A second limitation relates to the concept of extremity. What is considered extreme in one environment might be considered normal in another. To operationalize extremism, the present study relied on Hogg's conceptualization of high versus low levels of entitativity. Although a fruitful approach within the UIT tradition, greater distinction could be made concerning attributes that make persuasive messages perceived to be more or less extreme. One way to accomplish this might be to collect more extensive survey data as a means to understand better what a specific population considers to be extreme ideas, attitudes, or messages. Again, this dissertation argues extreme messages are those that deviate from normative expectations, as they espouse extreme opinions, beliefs, and attitudes (Binder et al., 2009; Borum, 2011). An area of future research would do well to identify normative expectations before messages are designed and data collection begins, to better identify and operationalize message features that are extreme relative to those that are not.

Third, and finally, there are limitations to the generalizability of the study findings. The study sample (e.g., college students from a departmental pool) would best be described as a nonprobability, convenience sample, thus findings may not be generalizable to non-student

samples. On the other hand, Etikan, Musa, and Alkassim (2016) have noted that convenience sampling may be acceptable when it is not possible to include all participants within a population due to the size of the population. In this case, the generalizability of findings is most appropriately considered in light of successful replications. Thus, this limitation is presented as an avenue of future research examining the persuasive appeal of extreme groups with samples primed with self-conceptual uncertainty. As noted, the present study is the second replication of Hogg et al. (2010), wherein college students primed with self-uncertainty showed greater affiliation with an extreme student group. The author presents results and limitations as a call to utilize the current design and materials to further explore these topics, to first replicate, and hopefully, find evidence of the generalizability of findings across related, yet different, samples. As the socio-demographic profile of college students mirrors the age-crime profile of individuals most likely to commit acts of violence and domestic terrorism, this call to replicate and extend the current experiment is both timely and socially important.

Conclusion

This dissertation found the experience of self-uncertainty to have a strong effect on college students' attitudes toward affiliating with a student group advocating the use of relatively extreme measures against an administration proposing an ostensibly unfair tuition increase. Self-uncertainty within the receiver, and perceived extremism within the source group, interacted such that participants perceived the extreme group to care about them more and to hold their interests to heart more. At the same time, participants in the self-uncertainty condition also reported more positive attitudes towards the extreme group's positions.

However, ideological congruence appeared largely to be a non-factor, with its only effect involving behavioral intentions towards the group, whereas, self-uncertainty interacted with

congruence such that exposure to a moderate-congruent group increased identification, attitudes, trust, and behavioral intentions. These findings are informative and useful in light of the currently growing national and worldwide threats posed by extreme groups. Indeed, the profile of those who generally join extreme groups and movements approximates that of college students—that is, emerging adults with higher than average education.

Although much research has been devoted to understanding the psychology of identifying with extreme groups, considerably less has been devoted to the persuasive campaigns such groups employ to attract young people. Toward that end, this dissertation is intended to help inform the literature about the persuasive appeal extreme groups can exert on young, impressionable populations. Given the momentum of extreme groups on the left and right, across the globe, examining such a topic is timely and necessary. Accordingly, results of this dissertation are presented to advance research on extreme groups, and hopefully, better society.

Several practical insights can be gleaned from the research results. First, in light of how the concept of self-uncertainty consistently influenced the range of dependent variables, more consideration should be given to the motivational effect of various conditions that may foster self-uncertainty, and in turn cause individuals to doubt their position within the social fabric of society. Indeed, in his seminal work on authoritarianism, Fromm (1941) argued that rapid social change causes widespread uncertainty, motivating a need to seek and find certainty, thereby making strong leaders with definitive and authoritarian proscriptions increasingly attractive to those who are unsure of themselves or their place in the world. As a refugee who fled Europe under the specter of fascist totalitarianism in the 1930's, Fromm's speculations serve a theory building purpose, but also as a warning and a means of diagnosing the social conditions that can facilitate acquiescence toward authoritarian governance. Similar to his contemporary Harold

Lasswell's (1927) work, Fromm's thinking in these areas resonates with social and material conditions in many democratic societies in Western Europe and North America, where issues such as recession, immigration, austerity, and global and domestic terrorism seems to be enhancing the attractiveness of extreme groups across the very states that once stood as barriers against fascist and communist totalitarianism.

Although the ability to change social, cultural, and material conditions is beyond the power of most individuals, conducting research to better understand how such conditions motivate others to accept the proscriptions of extreme groups is a valuable and viable option. Viewed from this larger perspective, the findings reported here indicate the construct of self-uncertainty can have a powerful motivational effect on college-aged, emerging adult populations. Furthermore, when self-uncertainty interacts with exposure to an extreme group, this same emerging adult population shows greater affiliation with the extreme group. In terms of practical applications, this important finding can inform policy makers—such as college administrators, professors, teachers, and graduate students—working with emerging adult populations, how to design strategies to ameliorate the underlying condition contributing to self-uncertainty that can motivate a sense of attraction toward extreme groups.

The reduction of self-uncertainty is particularly important for emerging adult populations, who are the most vulnerable to the appeal of extreme groups, and the potential for violence and terrorism. As extreme groups from across the ideological spectrum appear to be gaining traction globally, threatening democratic societies—often at the expense of reasoned debate and mutual coexistence—the call for examining the persuasive appeal of extreme groups is a serious and timely endeavor. To this end, the present research has sought to illuminate and better understand the nature of this critical social phenomenon.

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Table 1.

Entitativity Indicators Deviating from Normality Assumptions

Pre-transformation							Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*K*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
ENT1	16.57	0.12	312.34	0.24	1	.17	-0.71	0.12	0.72	0.24
ENT2	14.6	0.12	240.05	0.24	1	.17	0.14	0.12	0.55	0.24
ENT3	14.3	0.12	204.53	0.24	1	.17	0.04	0.12	0.5	0.24
ENT4	18.31	0.12	356.34	0.24	1	.17	0.1	0.12	0.35	0.24
ENT5	20.52	0.12	421.00	0.24	1	.17	-0.21	0.12	0.38	0.24
ENT6	20.16	0.12	409.74	0.24	1	.17	0.08	0.12	0.03	0.24
ENT7	20.54	0.12	421.99	0.24	1	.17	0.31	0.12	0.44	0.24
ENT8	17.05	0.12	317.95	0.24	1	.17	-0.45	0.12	-0.04	0.24
ENT9	20.49	0.12	420.00	0.24	1	.17	-0.29	0.12	0.11	0.24
ENT10	20.49	0.12	420.00	0.24	1	.17	-0.45	0.12	-0.43	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 2.

Identification Indicators Deviating from Normality Assumptions

	Pre-transformation						Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
ID1	20.57	0.12	423.00	0.24	3	.2	-0.25	0.12	-0.28	0.24
ID2	20.57	0.12	423.00	0.24	3	.2	0.02	0.12	-1.10	0.24
ID3	20.08	0.12	408.47	0.24	3	.2	-0.10	0.12	-0.05	0.24
ID4	20.54	0.12	422.00	0.24	3	.2	0.15	0.12	0.18	0.24
ID5	20.05	0.12	407.10	0.24	3	.2	0.30	0.12	0.73	0.24
ID6	20.54	0.12	422.00	0.24	3	.2	0.09	0.12	0.35	0.24
ID7	17.39	0.12	318.43	0.24	3	.2	-0.11	0.12	-0.23	0.24
ID8	20.54	0.12	422.00	0.24	3	.2	0.17	0.12	0.13	0.24
ID9	14.41	0.12	211.83	0.24	3	.2	-0.23	0.12	-0.22	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 3.

Behavioral Intentions Indicators Deviating from Normality Assumptions

Pre-transformation					Post-transformation					
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
BI1	20.54	0.12	422.00	0.24	1	.2	0.05	0.12	-1.52	0.24
BI2	20.54	0.12	422.00	0.24	1	.2	0.43	0.12	-1.48	0.24
BI3	20.54	0.12	422.00	0.24	1	.2	0.15	0.12	-1.52	0.24
BI4	20.54	0.12	422.00	0.24	1	.2	0.12	0.12	-1.04	0.24
BI5	14.33	0.12	205.55	0.24	1	.2	0.13	0.12	-1.36	0.24
BI6	15.55	0.12	252.13	0.24	1	.2	0.18	0.12	-1.36	0.24
BI7	20.54	0.12	422.00	0.24	1	.2	0.07	0.12	-1.32	0.24
BI8	20.54	0.12	422.00	0.24	1	.2	0.94	0.12	-0.66	0.24
BI9	20.57	0.12	423.00	0.24	1	.2	0.29	0.12	-1.58	0.24
BI0	20.54	0.12	422.00	0.24	1	.2	0.38	0.12	-1.40	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 4.

Source Credibility Indicators Deviating from Normality Assumptions

	Pre-transformation						Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
COMP1	19.05	0.12	375.26	0.24	5	.1	0.41	0.12	0.74	0.24
COMP2	19.83	0.12	400.93	0.24	5	.1	-0.50	0.12	-0.04	0.24
COMP3	20.52	0.12	421.00	0.24	5	.1	-0.33	0.12	0.18	0.24
COMP4	20.54	0.12	421.95	0.24	5	.1	0.03	0.12	0.24	0.24
COMP5	20.33	0.12	415.63	0.24	5	.1	-0.21	0.12	0.59	0.24
COMP6	20.52	0.12	421.00	0.24	5	.1	-0.01	0.12	0.10	0.24
GWILL1	20.47	0.12	419.00	0.24	5	.1	-0.10	0.12	0.04	0.24
GWILL2	20.47	0.12	419.00	0.24	5	.1	0.45	0.12	0.84	0.24
GWILL3	20.45	0.12	419.21	0.24	5	.1	-0.12	0.12	-0.52	0.24
GWILL4	20.52	0.12	421.00	0.24	5	.1	0.32	0.12	0.65	0.24
GWILL5	17.03	0.12	313.55	0.24	5	.1	-0.40	0.12	-0.38	0.24
GWILL6	20.54	0.12	421.98	0.24	5	.1	0.15	0.12	0.47	0.24
TRUST1	20.49	0.12	419.83	0.24	5	.12	-0.12	0.12	0.25	0.24
TRUST2	13.63	0.12	192.97	0.24	5	.12	0.04	0.12	0.55	0.24
TRUST3	14.44	0.12	207.48	0.24	5	.12	0.18	0.12	0.80	0.24
TRUST4	20.47	0.12	419.00	0.24	5	.12	-0.01	0.12	0.07	0.24
TRUST5	20.49	0.12	420.00	0.24	5	.12	-0.13	0.12	0.33	0.24
TRUST6	20.47	0.12	419.00	0.24	5	.12	-0.12	0.12	1.24	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 5.

Attitude Indicators Deviating from Normality Assumptions

	Pre-transformation						Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
AT1	20.27	0.12	413.82	0.24	5	.12	-0.30	0.12	0.26	0.24
AT2	11.72	0.12	144.10	0.24	5	.12	-0.03	0.12	0.79	0.24
AT3	20.54	0.12	421.91	0.24	5	.12	-0.20	0.12	0.50	0.24
AT4	20.54	0.12	422.00	0.24	5	.12	-0.02	0.12	0.17	0.24
AT5	20.54	0.12	422.00	0.24	5	.12	0.10	0.12	0.21	0.24
AT6	16.68	0.12	292.04	0.24	5	.12	-0.07	0.12	0.55	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 6.

Message Quality Indicators Deviating from Normality Assumptions

	Pre-transformation						Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
MQ1	7.49	0.12	55.96	0.24	5	.12	-0.04	0.12	-0.05	0.24
MQ2	20.49	0.12	420.00	0.24	5	.12	-0.24	0.12	-0.13	0.24
MQ3	20.49	0.12	419.87	0.24	5	.12	0.39	0.12	0.19	0.24
MQ4	20.52	0.12	421.00	0.24	5	.12	0.03	0.12	0.23	0.24
MQ5	20.49	0.12	419.91	0.24	5	.12	0.33	0.12	-0.28	0.24
MQ6	20.23	0.12	412.61	0.24	5	.12	-0.13	0.12	0.33	0.24
MQ7	20.54	0.12	422.00	0.24	5	.12	-0.08	0.12	0.19	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009).

Table 7.

Self-uncertainty Indicators Deviating from Normality Assumptions

Pre-transformation							Post-transformation			
Variable	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis	*k*	λ	Skewness	S.E. Skewness	Kurtosis	S.E. Kurtosis
UN1	20.28	0.12	414.56	0.24	5	.1	0.48	0.12	-0.76	0.24
UN2	9.98	0.12	99.24	0.24	5	.1	0.47	0.12	-0.33	0.24
UN3	20.57	0.12	423.00	0.24	5	.1	0.48	0.12	-0.63	0.24
UN4	20.54	0.12	422.00	0.24	5	.1	0.91	0.12	-0.23	0.24
UN5	20.11	0.12	409.86	0.24	5	.1	0.60	0.12	-0.76	0.24
UN6	20.57	0.12	423.00	0.24	5	.1	0.33	0.12	-0.98	0.24
UN7	17.06	0.12	310.19	0.24	5	.12	0.67	0.12	-0.68	0.24
UN8	14.62	0.12	216.46	0.24	5	.12	0.59	0.12	-0.54	0.24
UN9	14.35	0.12	206.02	0.24	5	.12	0.42	0.12	-0.85	0.24
UN10	20.54	0.12	421.92	0.24	5	.12	0.78	0.12	-0.70	0.24
UN11*	20.47	0.12	419.00	0.24	5	.12	—	0.12	—	0.24
UN12	20.54	0.12	422.00	0.24	5	.12	0.33	0.12	-0.06	0.24

Note. All items transformed with the following equation, $Y^* = (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^* = \ln(Y + k)$, and $\lambda \neq 0$, then $Y^* = (Y + k)^{\lambda}$ (Fink, 2009). *λ_i < .50 item dropped.

Table 8.
Eigenvalues for Principal Components Variables

Variables	Eigen value	% Total variance	Cumulative % of variance
Entitativity	5.56	55.60	55.60
Identification	6.08	67.51	67.51
Behavioral Intentions	6.78	67.83	67.83
Source Competence	4.34	72.40	72.40
Source Goodwill	3.86	64.31	64.31
Source Trust	4.52	75.26	75.26
Attitudes	4.42	73.62	73.62
Message Quality	4.86	69.40	69.40
Self-uncertainty	6.07	55.17	55.17

Table 9.
Reliabilities and Bivariate Correlations Between Variables

	$PC_{reliability}$	1	2	3	4	5	6	7	8	9
1. Entitativity	0.91	1								
2. Identification	0.94	0.21**	1							
3. Behavioral intentions	0.95	0.08	0.72**	1						
4. Source competence	0.92	0.59**	0.56**	0.38**	1					
5. Source trust	0.89	0.37**	0.64**	0.39**	0.70**	1				
6. Source goodwill	0.93	0.15**	0.62**	0.44**	0.55**	0.70**	1			
7. Attitude	0.93	0.29**	0.70**	0.50**	0.67**	0.75**	0.69**	1		
8. Mess. quality	0.93	0.59**	0.68**	0.47**	0.78**	0.72**	0.59**	0.75**	1	
9. Self-uncertainty	0.92	0.10*	0.14**	0.18**	0.15**	0.17**	0.12**	0.16**	0.16**	1

Note. All items transformed with the following equation, $Y^{*}= (Y + k)^{\lambda}$ such that when $\lambda = 0$, $Y^{*}= \ln(Y + k)$, and $\lambda \neq 0$, then $Y^{*}= (Y + k)^{\lambda}$ (Fink, 2009). All indexes were formed by saving first unrotated principal component as a standardized variable ($M = 0$; $SD = 1$). $PC_{reliability}$ calculated as $N/(N\text{-}1) \times (E\text{-}1)/E$ where N = number of items and E = Eigenvalues for principal components.
* $p < .05$; ** $p < .01$

Table 10.
Simple Effect for Congruent Ideology × Group Extremism Two-way Interaction

	Congruent ideology	
Dependent variables	Moderate group	Extreme group
Identification		
N	103	93
M	0.27_a	-0.21_b
SD	0.97	1.01
Behavioral intentions		
N	105	97
M	0.20_a	-0.11_b
SD	1.03	1.05
Trust		
N	104	96
M	0.20_a	-0.13_b
SD	0.95	1.15
Attitude		
N	104	96
M	0.17_a	-0.14_b
SD	0.91	1.13

Note. Means with different subscripts within rows are significantly different at $p < .05$.

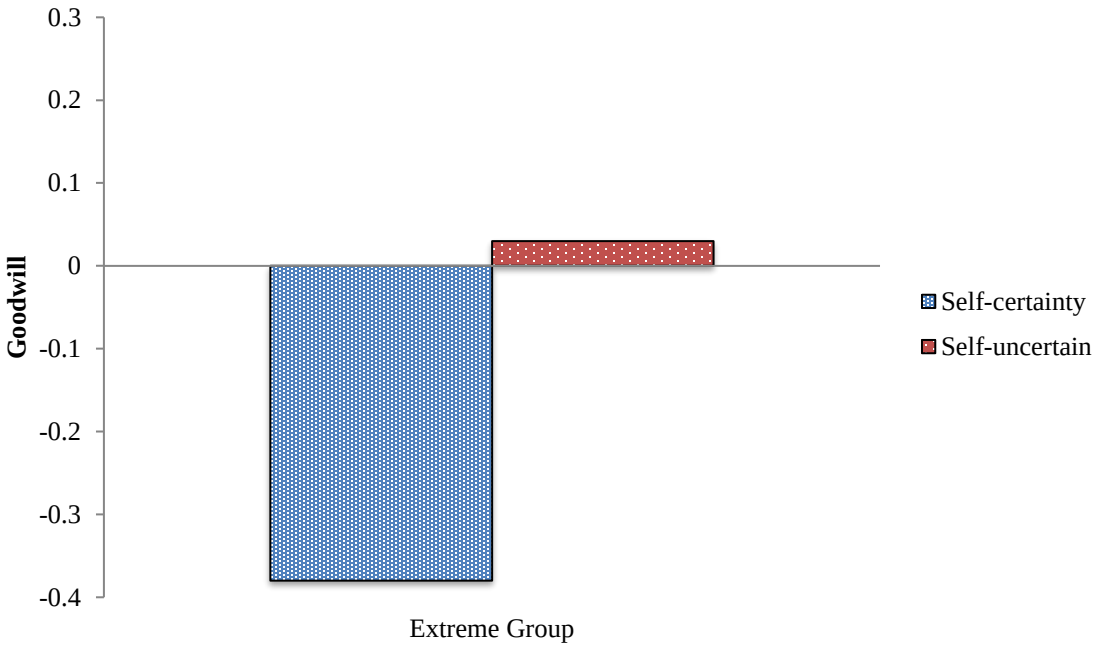


Figure 1. Simple effect of Self-uncertainty on Goodwill within the Extreme condition.

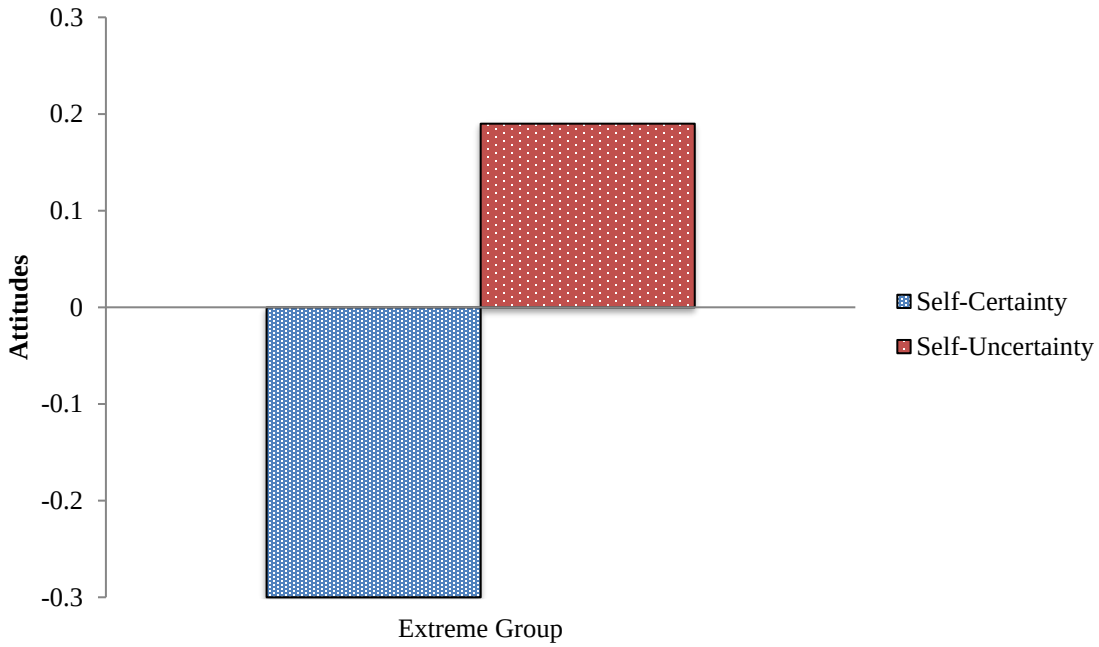


Figure 2. Simple effect of Self-uncertainty on Attitudes within the Extreme condition.

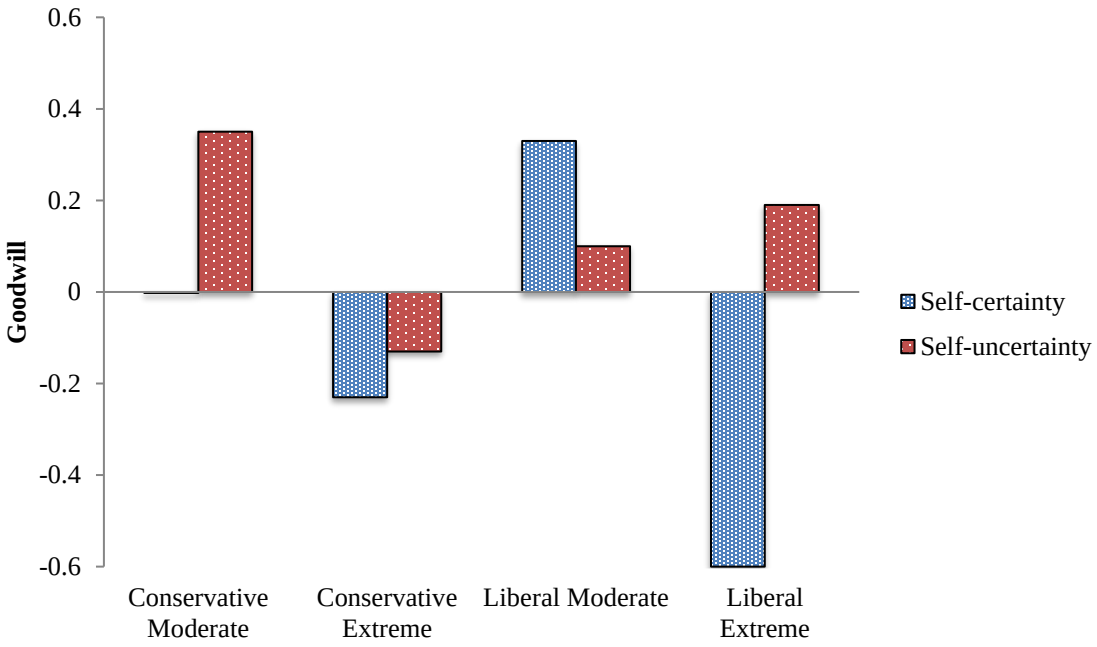


Figure 3. Self-uncertainty × Group Extremism × Group Ideology interaction on Goodwill.

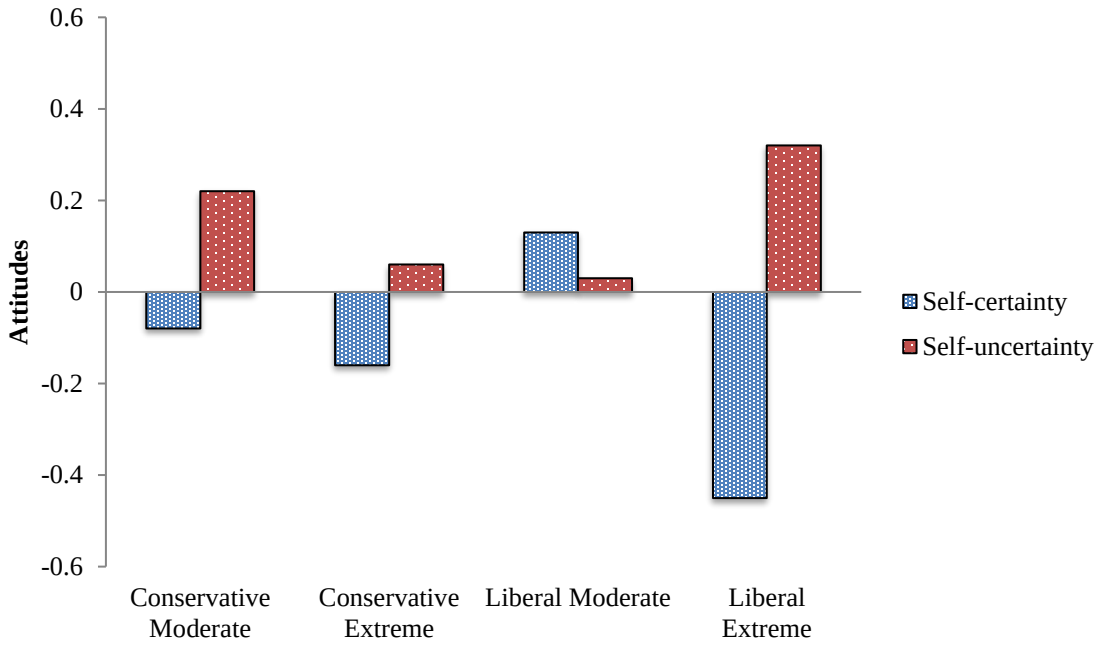


Figure 4. Self-uncertainty × Group extremism × Group ideology interaction on Attitudes.

APPENDIX A: MAGNITUDE INSTRUCTIONS

Researchers at the University of Oklahoma are studying young peoples' attitudes towards certain topics. Before we ask you to consent to participate in the study, we would like to show you the kind of questions you will be asked.

Instructions: Suppose we would like to know how much knowledge you have about your major. To answer this question, use a number from 0 (zero) to infinity. Zero means you have no knowledge at all about your major, and higher numbers represent greater levels of knowledge.

If you feel you have moderate knowledge about your major, rate your knowledge as 100. If your knowledge is twice as much as a moderate level, rate your knowledge as 200; if your knowledge about your major is half the moderate level, rate your knowledge as 50.

You can use any number from zero on up, such as 18, 193, or 347.

Thus,

I have no knowledge at all about my major = 0
I have moderate knowledge about my major = 100
Use any number from zero on up, which could extend beyond 100

Please be sure to respond using a number. Typing "infinity" will not work.

APPENDIX B: MEASURES

Political Ideology (single indicator)
This question asks you to locate your political orientation on a sale ranging from 0 (Extremely Liberal) to 100 (Extremely Conservative).

A **liberal** orientation involves being open to new behavior or opinions and willing to discard traditional values.

A **conservative** orientation involves holding to traditional attitudes and values and being cautious about change, typically in relation to politics or religion.
Please locate your political orientation on the scale below.

Zero means you consider yourself to be completely **liberal**, whereas, 100 means you consider to be completely c**onservative**. You must click on or move the slider to advance.

I consider myself to be:
0 = Extremely Liberal; 100 = Extremely Conservative

Political Ideology (Multiple Indicators)
I consider myself to be Extremely Liberal (0) to Extremely Conservative (100) on:
Social Issues
Issues of Taxes and Spending
Foreign Policy Issues

Entitativity
Please answer the following questions regarding your perceptions of the group Students Against Tuition Inequality (SATI).

Please use the following scale:
<u>not</u> at all = 0
<u>moderately</u> = 100

Use any number from zero on up, which could extend beyond 100

A **hierarchical** structure consists of multiple levels, as with a chain of command that looks like a pyramid, with a President or CEO at the top, supervisors and management in the middle, and workers at the base.

1. Using this definition, how hierarchically structured is the group you just watched in the video?

When something is **cohesive**, it means it hangs together. That is, when a team or group is said to be cohesive, it means the members are unified and well integrated into the group.

2. Using this definition, how cohesive do you think the group is you just watched in the video?
3. How **clearly defined** is the group you just watched in the video?
4. How **organized** is the group you just watched in the video?

If a group of people is considered to be **homogeneous**, then they might be thought of as all being

relatively the same or similar.
5. Based on this definition, how homogeneous is the group you just watched in the video?
6. How **clear** is Students Against Tuition Inequality in it's message?

The term **distinctive**, when applied to a group or a team, refers to how unique the quality of its identity is considered to be.

7. Based on this definition, how distinctive is Students Against Tuition Inequality as a group?
8. How **intolerant of dissent** is Students Against Tuition Inequality?
9. How **strongly led** is Students Against Tuition Inequality?
10. How **intent on forceful action** is Students Against Tuition Inequality?

Identification

Please answer the following questions regarding your perceptions about the group Students Against Tuition Inequality (SATI).

Please indicate how much you feel you agree with each statement.

1. How much do you feel you'd like to get to know the members of the group Students Against Tuition Inequality
2. Based on what you know from the video, how much do you feel you might like to join the group Students Against Tuition Inequality
3. How likely would you be to stand up for the group Students Against Tuition Inequality?
4. How much do you feel like you can identify with the group Students Against Tuition Inequality
5. How much do you like the group members from Students Against Tuition Inequality
6. In general, how much do you like the group Students Against Tuition Inequality
7. How much personal similarity do you feel there is between you and the group Students Against Tuition Inequality
8. How much do you relate to the group members from Students Against Tuition Inequality
9. How much do you feel like you could connect with the members of the group Students Against Tuition Inequality?"

Behavioral Intentions

For each of the following questions, please indicate how **likely** you are to behave or act on behalf of Students Against Tuition Inequality (SATI).

What is the likelihood you would:

1. Attend a monthly meeting
2. Perform clerical work
3. Lobby on behalf of SATI
4. Petition the university on behalf of SATI
5. Write a letter to the university on behalf of SATI
6. Participate in demonstrations on behalf of SATI
7. Engage in a sit-in on behalf of SATI
8. Blockade a university office on behalf of SATI
9. Help run or organize / SATI
10. Act as a representative of SATI?

Source Credibility

This section seeks to measure your impressions of the group Students Against Tuition Inequality (SATI) based on the video you just watched.

Please indicate how much you feel you agree with each statement.

Competence

1. How intelligent is SATI?
2. How trained is SATI?
3. How expert is SATI?
4. How informed is SATI?
5. How competent is SATI?
6. How bright is SATI?

Trustworthiness

1. SATI is honest.
2. SATI is trustworthy.
3. SATI in honorable.
4. SATI is moral.
5. SATI is ethical.
6. SATI is genuine.

Goodwill

1. SATI cares about me.
2. SATI has my interests at heart.
3. SATI is charitable.
4. SATI is concerned about me.
5. SATI is sensitive.
6. SATI is understanding.

Attitude

This section seeks to measure your attitude toward the positions advocated by the group Student's Against Tuition Inequality (SATI).

Please indicate how much you feel you agree with each statement.

1. How positive were the positions advocated in the video?
2. How good were the positions advocated in the video?
3. How favorable were the positions advocated in the video?
4. How acceptable were the positions advocated in the video?
5. How right were the positions advocated in the video?
6. How wise were the positions advocated in the video?

Message Quality

This section seeks to measure your perception of the quality of the message that was advocated in the video you just watched.

Please indicate how much you feel you agree with each statement.

1. How persuasive was the message?

2. How clear was the message?
3. How accurate was the message?
4. How memorable was the message?
5. How important was the message?
6. How helpful was the message?
7. How useful was the message?

Self-uncertainty

Read each of the following statements and decide how much you agree with each according to your beliefs and experiences.

1. My beliefs about myself often conflict with one another.
2. One day I might have one opinion of myself and on another day I might have a different opinion.
3. I wonder about what kind of person I really am.
4. I feel that I am not really the person that I appear to be.
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.
6. I often experience conflict between the different aspects of my personality.
7. I think I know other people better than I know myself.
8. My beliefs about myself seem to change very frequently.
9. If I were asked to describe my personality, my description might end up being different from one day to another.
10. Even if I wanted to, I don't think I would tell someone what I'm really like.
11. In general, I have a clear sense of who I am and what I am.
12. It is often hard for me to make up my mind about things because I don't really know what I want.

Counter-Arguing

Prompt 1

We are interested in finding out why you feel the way you do about the HECP tuition increase.

Please indicate whether you accept or reject the statement about the consequences of passing the HECP. If you reject the statement, please give your REASONS for doing so. If you have none, then write "none."

The HECP will improve the quality of education at the University of Oklahoma.
(Accept)
(Reject)

REASONS

Prompt 2

We are interested in finding out why you feel the way you do about the HECP tuition increase.

Please indicate whether you accept or reject the statement about the consequences of passing the

HECP. If you reject the statement, please give your REASONS for doing so. If you have none, then write "none."

The HECP will positively influence students at the University of Oklahoma.
(Accept)
(Reject)

REASONS

Prompt 3
We are interested in finding out why you feel the way you do about the HECP tuition increase.

Please indicate whether you accept or reject the statement about the consequences of passing the HECP. If you reject the statement, please give your REASONS for doing so. If you have none, then write "none."

No students at the University of Oklahoma will be forced to drop out if the HECP passes.
(Accept)
(Reject)

REASONS

APPENDIX C: CODING INSTRUCTIONS

Counter arguments:
Counter = speak or act in opposition to.
Argument = a reason or set of reasons given with the aim of persuading others that an action or idea is right or wrong.

Counter argument responses:

- express disagreement with the message
- express negative intention to comply with the message
- express that they are intending to do something contrary to the message
- express derogations of the source
- express derogation of the message: long, boring, stupid
- disagree with the tone of the message

How to code?

Within each response, each counterargument = 1; and everything else = 0

Argument:

"The HECP will improve the quality of education at the University of Oklahoma."

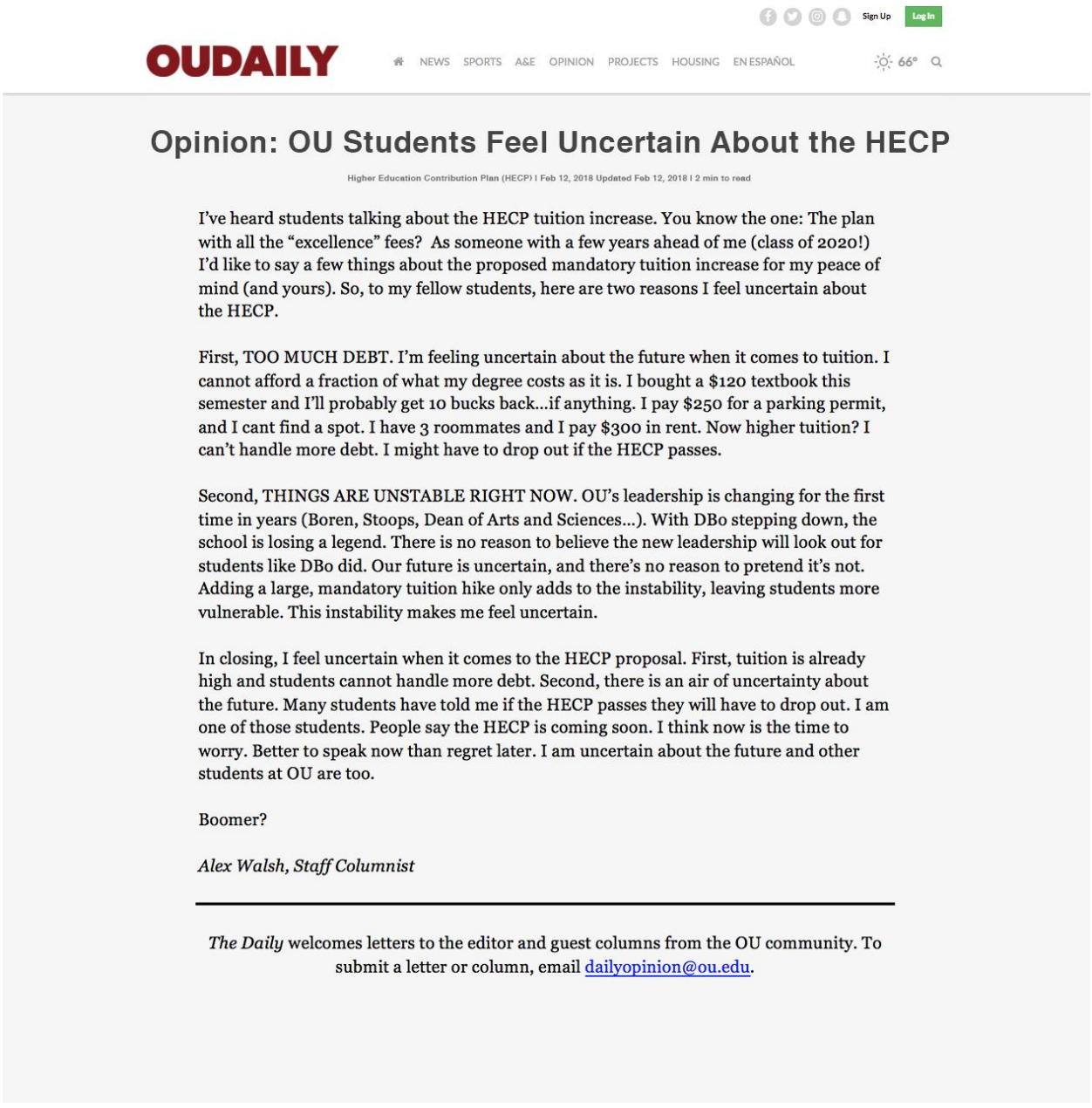
Example of 1 counterargument:

"From what I understand from the video, HECP costs are fees for out of state students and foreign exchange students. If OU wanted to improve the quality of education, academic excellent fee's would raise instead."

Example of 3 counterarguments:

"There is no way to hold the university accountable should the money they receive from the HECP be used in other ways. There would likely be little to no difference between the quality of life at OU now and the quality of life at OU if they require student pay more mandatory fees. If anything, one could argue that maybe the funding provided by the fee hike would go to the new president's massive pay raise, or to paying administration salaries, not improving any of the important and necessary things (like University Counseling, updated infrastructure, PARKING) that this proposes."

APPENDIX D: OP-EDS



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Opinion: OU Students Feel Uncertain About the HECP

Higher Education Contribution Plan (HECP) | Feb 12, 2018 Updated Feb 12, 2018 | 2 min to read

I've heard students talking about the HECP tuition increase. You know the one: The plan with all the "excellence" fees? As someone with a few years ahead of me (class of 2020!) I'd like to say a few things about the proposed mandatory tuition increase for my peace of mind (and yours). So, to my fellow students, here are two reasons I feel uncertain about the HECP.

First, TOO MUCH DEBT. I'm feeling uncertain about the future when it comes to tuition. I cannot afford a fraction of what my degree costs as it is. I bought a $120 textbook this semester and I'll probably get 10 bucks back...if anything. I pay $250 for a parking permit, and I cant find a spot. I have 3 roommates and I pay $300 in rent. Now higher tuition? I can't handle more debt. I might have to drop out if the HECP passes.

Second, THINGS ARE UNSTABLE RIGHT NOW. OU's leadership is changing for the first time in years (Boren, Stoops, Dean of Arts and Sciences...). With DBo stepping down, the school is losing a legend. There is no reason to believe the new leadership will look out for students like DBo did. Our future is uncertain, and there's no reason to pretend it's not. Adding a large, mandatory tuition hike only adds to the instability, leaving students more vulnerable. This instability makes me feel uncertain.

In closing, I feel uncertain when it comes to the HECP proposal. First, tuition is already high and students cannot handle more debt. Second, there is an air of uncertainty about the future. Many students have told me if the HECP passes they will have to drop out. I am one of those students. People say the HECP is coming soon. I think now is the time to worry. Better to speak now than regret later. I am uncertain about the future and other students at OU are too.

Boomer?

Alex Walsh, Staff Columnist

The Daily welcomes letters to the editor and guest columns from the OU community. To submit a letter or column, email dailyopinion@ou.edu.

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First, THE HECP WILL PROBABLY NEVER PASS. I'm feeling certain about the future when it comes to tuition. Why? Because big initiatives like this take years to pass. I'll be long gone before anything happens. I feel certain I won't have to drop out anytime soon. Most people I know have enough money for video games and beer, so I think they'll be all right too. Overall, there is nothing to worry about. If it happens, it'll be a long time from now.

Second, THE UNIVERSITY HAS OUR BACK. As an institution, OU has been great about keeping student costs low. I saw in the paper that OU is lower than almost all other Big 12 schools when it comes to tuition. I'm certain the HECP will not harm students, because the university will not allow it. We have fees for tuition, books, parking, and other stuff. But, I think they're manageable. I am certainty not too worried about the HECP...assuming it happens at all.

In closing, I feel certain when it comes to the HECP proposal. First, it takes a long time to pass stuff like this. It might never happen. Second, the university has always kept student costs low—lower than most Big 12 schools. The current fees are manageable. I don't know anyone who would be forced to drop out even if the HECP passed. Plus, it probably won't pass for a long, long time. Now is not the time to worry. I'm certain about the future and I hope you are too.

Boomer!

Alex Walsh, Staff Columnist

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