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Fitting In: A Study on Adolescent Identity-Uncertainty and Group Entitativity

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Fitting In: A Study on Adolescent Identity-Uncertainty and Group Entitativity

Senior Project Submitted to
The Division of Science, Math, and Computing
of Bard College

by
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Annandale-on-Hudson, New York

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Abstract

Uncertainty-Identity Theory hypothesizes that the more uncertain people are about themselves, the more likely they are to identify with groups as a way to define themselves and guide their behavior (Grieve & Hogg, 1999). Research has shown that this identification can happen to an extreme level when the group is highly entitative, or provides clear expectations for how group members should behave, think and feel, thereby resolving their uncertainty. Adolescence is a development period defined by self-uncertainty, and therefore also heightened vulnerability to highly entitative, extremist groups. This experiment tests the prediction that adolescents who are experiencing high self-uncertainty will be more likely to report wanting to join a college with characteristics of high entitativity. After being primed to feel either self-certainty or self-uncertainty, participants in both conditions were asked to rate how much they would like to attend two different college options, where one was described with items reflecting low-entitativity and the other with items reflecting high-entitativity. Then, participants were asked to rate various college characteristics, reflecting either high or low entitativity, on how important each is at their “ideal college”. Results did not support the hypothesis, yielding no significant differences between any of the ratings of participants in the self-uncertainty and self-certainty conditions. The limitations of this study design are considered and suggestions are made for further research. The implications of these results regarding adolescent vulnerability to social extremism and radicalization are also discussed.

Keywords: Self-uncertainty, Adolescence, Entitativity

Introduction

Extremist groups are known to mainly target individuals who are susceptible to what they can offer: a simple worldview, clear identity and sense of belonging. These qualities are what define groups considered to be high in “entitativity”. Cults and terrorist groups, which often have all-encompassing, fundamentalist ideologies, are examples of this. Research has found that when an individual experiences extreme uncertainty about their identity, relationships and place in the world, they become especially vulnerable to the appeal of groups like these. For individuals experiencing loneliness, isolation, unemployment, identity crisis, or loss, and who lack access or awareness of positive alternatives, joining extremist groups may be a tempting way to find relief.

This is an important area to study at a time when America is experiencing economic and wealth inequality, rising poverty rates, a healthcare affordability crisis, and a rise in student debt, among other issues, all of which are undoubtedly causes of societal uncertainty (Pew Research Center, 2019). Indeed, at the same time that adolescent depression and suicide rates are on the rise and a global pandemic is currently threatening lives and preventing social connection, America is simultaneously struggling with polarization, domestic terrorism, and extremism (Santhanam, 2019). Given that adolescence is a pivotal developmental stage defined by identity formation and uncertainty, uncertain adolescents may be especially likely to join extremist groups, such as those defined by nationalism, fundamentalism or terrorism. Many extremist groups, such as the Alt-right white supremacist movement, are even youth-oriented, targeting teens as young as 11 as well as older adolescents on college campuses (Levine, 1981; Anti-Defamation League, 2018). With this in mind, the susceptibility of vulnerable American adolescents to recruitment by extremist groups is important to examine. Most research on this topic has focused on how uncertainty motivates individuals to identify more strongly with groups

which they are already members of, but few studies have examined how this makes individuals more likely to join some groups over others in the first place (Grieve & Hogg, 1999). In addition, little empirical research has been conducted to determine how this phenomena might impact adolescents specifically. However, previous research suggests that when individuals first join extremist or “highly-entitative” groups, it is often driven by uncertainty related to who one is and where one belongs in the world (Hogg, Meehan & Farquharson, 2010). As such, the purpose of the current study is to examine if this theory holds true for adolescents.

Since college choice is one of the most consequential social-identity related decisions for many adolescents, and because college universities in real-life exhibit differing levels of entitativity, college-choice is used to represent group choice in this study. It is predicted that the more uncertain adolescents feel regarding their identity, the more they will want to join a college which has highly entitative characteristics.

To explore these ideas, I first draw on social identity theory and social categorization theory, which are important for understanding how uncertainty influences what kinds of groups people choose to join. I then explain uncertainty-identity theory and the construct of Entitativity, as well as how these concepts relate to polarization and extremism. Finally, I review previous literature on Adolescent uncertainty and explain why college-choice was used to conduct the current research.

Social Identity Theory & Social Categorization Theory

In order to understand why an adolescent might join an extremist group, it is important to first understand why people form or join groups in the first place. People form groups when they have something in common. Groups can be formed based on anything that people share, such as

religion, nationality, ethnicity, political ideology, family, or an interest. According to Social Identity theory, “a social category into which one falls, and to which one feels one belongs, provides a definition of who one is in terms of the defining characteristics of the category” (Hogg et al., 1995; Tajfel & Turner, 1979). In other words, the groups to which a person belongs and identifies with help to shape their perceptions, attitudes, values and behavior, or their “self-concept”.

These “defining characteristics of a category” which contribute to self-concept are also known as group-prototypes. A prototype is a person’s perceptual representation of a set of attitudes, feelings and behaviors that personify a group, thereby differentiating its members from others and making it distinctive (Hogg, 2009). The process by which one uses group prototypes to perceive the world and the people around them is explained by Self Categorization Theory, an extension of Social Identity Theory (Turner, 1994). This theory argues that we naturally categorize ourselves and other people into social categories and groups, thereby perceiving people based on the prototypes of those groups rather than on individual characteristics. This occurs through a process called “depersonalization”, which results in consistent expectations of how others will think and behave based on the perceived prototypes of the groups they are members of. When we categorize ourselves in this way, the same process occurs: we view ourselves not as an individual but as an embodiment of the characteristics that define our ingroup. This allows us to conform to the prototypes of a group we identify with, so that we may behave, feel and think in accordance with that group. Since all members of a group then perceive themselves in terms of the same group prototype, this creates a shared social identity. In this way, our sense of who we are and how we relate to others becomes constructed by our group memberships within society (Hogg & Tindale, 2008).

Categorizing and depersonalizing ourselves into groups is also motivated by a desire to enhance self-esteem (Turner, 1994). Since the prototypes of one's in-group are shared among the whole group, this creates both support and consensual validation of that group's social identity, attitudes and actions. This, by extension, validates the identity of each individual group member. When those prototypes are also evaluated by members to be positive when in comparison to other relevant but dissimilar groups (i.e. outgroups), this can perceptually elevate the status of their own group over those other groups (Turner, 1994). This by extent grants positive social-identity and even further enhances self-esteem of members as a result of depersonalization. Since emphasizing positive traits associated with the in-group functions indirectly as a way of increasing self-esteem and validating one's identity, this helps explain why members of a group often exhibit ingroup bias and favoritism (Dunham, Baron & Carey., 2011; Haslam et al., 1999). We need to be a part of groups that help us feel good about ourselves as individuals because- if we feel negatively about the groups we identify with or are if we are excluded from a group, our understanding of who we are, our place in the world, and how the world works can be threatened.

Identity Uncertainty and Group Identification

As social-categorization makes the world a more meaningful and predictable place by providing group prototypes and enhancing self-esteem, it follows that individuals should be even more likely to rely on this when they are feeling uncertain about their self-concept. Framed by social-identity theory and social-categorization theory, uncertainty-identity theory argues that aversive feelings of uncertainty related to the self, as well as how others relate to us, motivate us to self-categorize and identify with groups (Hogg et al., 2007; Hogg, 2009). This is because,

when one feels uncertain about their perceptions, beliefs and who they are in general, it becomes difficult to both plan one's behavior and anticipate the behavior of others. Once one has integrated the prototypes of a group into their self-concept though, they can then use these to determine the acceptable ways of behaving, thinking and being. Group membership and identification thereby becomes an incredibly effective way to replace an intolerable self-uncertainty with a feeling of belonging and identity certainty (Siegel et al., 2011).

Several previous studies provide direct support for this idea. For example, in an experiment investigating motives behind group identification, it was predicted the people are especially motivated to identify with groups when they are experiencing uncertainty on dimensions important to their self-concept (Mullin & Hogg, 1999). Participant group membership, task uncertainty and task importance were all manipulated and participants were all randomly categorized into random groups via a Minimal groups design. As predicted, it was found that participants identified with their groups when they were feeling uncertain about their task judgements on dimensions related to their self-concept. This indicated that a desire to reduce uncertainty motivated participants to "self-categorize" and embrace group membership.

Another study found similar results. When examining the role of self-categorization in discrimination, study participants were randomly categorized into groups and a task was used to manipulate uncertainty. Participants in general identified more strongly with the group they were placed in after being categorized. It was found though that participants who had been categorized under conditions of subjective uncertainty experienced enhanced group identification and self-esteem. It was theorized that these participants had internalized the categorization, or "self-categorized" in order to resolve their uncertainty. As another indication that uncertainty motivated self-categorization, it was only these participants who also exhibited discrimination of

people in other groups thereby validating their own social identity further (Grieve & Hogg, 1999).

Entitativity

Entitativity is a type of group quality which functions as a powerful mediator in the relationship between self-uncertainty and group identification (Hogg, 2009; Hogg, 2014). The term entitativity was first proposed by David Campbell (1958) to mean “the extent to which a group or collective is considered by others to be a real entity having unity, coherence, and internal organization rather than a set of independent individuals”. Groups which are considered to be highly entitative often have characteristics such as clear boundaries, internal homogeneity, clear internal structure, common goals and tightly shared prototypes. In contrast, low entitativity groups usually have unclear boundaries, ambiguous membership criteria, limited shared goals, and poorly defined group attributes (Hogg, 2009; Hogg, 2014).

Due to their clear and distinct prototypes, research has found that uncertain individuals are more likely to prefer to identify with highly entitative groups over less entitative groups in order to resolve their uncertainty. As the self is governed by prototypes which prescribe one’s perceptions, attitudes and behaviors, “prototypes that are simple, unambiguous, prescriptive, focused, and consensual are more effective [at reducing uncertainty] than those that are vague, ambiguous, unfocused, and dissensual” (Hogg et al., 2007). Having tightly clear prototypes also increases a groups level of distinction in contrast with other groups, which contributes to a stronger group social-identity overall. Therefore, when in a state of uncertainty regarding one’s self-identity, entitative groups are simply better equipped to provide the type of clear social

identity and behavioral-norms needed to eliminate the pressure of “figuring out” what to believe and how to behave.

In addition, in an uncertain world, people may seek out highly entitative groups in order to resolve uncertainty regarding their security, prosperity and lifestyle. For example, during the period of rapid societal change and counterculture in America during the 1960s and 70s, there was simultaneously a rise in popularity of religious cults and radical political organizations (Hogg, Kruglanski & Kees van den Bos, 2013). It is this type of entitative group which may develop orthodox ideologies and hierarchical authority structures, and which promotes forceful behavioral agendas, thereby becoming extremist. These groups, ready to act assertively and radically, therefore may be perceived as more capable motors for real social change. This is often in contrast to mainstream groups, which operate within the margins of the current political system and are not always responsive to people’s grievances (Schils & Verhage, 2017). Individuals who feel unheard and experience an urgent need for active involvement and answers to injustice might then seek social change through extremist groups instead. When someone lacks access to regular groups that listen to them and help them constructively build a society which includes and validates them, the high entitativity of extremist groups might be deemed the most effective alternative.

Previous research has found direct support for this phenomena. Individuals in one study, after being primed to be uncertain, were found to identify significantly more strongly with their political party when they perceived their party to be more entitative (Hogg et al., 2007). In study 2 of the same research, participants were placed in ad hoc lab groups and the entitativity of those groups was then manipulated- participants were again found to identify significantly more strongly with their lab group in conditions of both high-uncertainty and high group-entitativity.

As such, the property of entitativity was concluded to be a key moderator in the relationship between identity-uncertainty and in-group identification, where high-uncertainty people are more likely to strongly identify with groups that exhibit high entitativity, rather than groups that are low entitativity (Hogg et al., 2007).

Perception of a group's level of entitativity can be influenced by a number of things. Researchers have argued that group cues of entitativity can be conceptualized from two basic approaches: essence-based and agency-based. The essence-based entitativity approach focuses on the similarity of the common-attributes of group members as key characteristics. According to this approach, more homogeneity among members ultimately increases the group's level of distinction with any out-group, and therefore increases its entitativity. The agency-based entitativity approach primarily considers the interactions, motivations and presence of common goals among group members. According to this approach, the most significant predictor of entitativity is the interaction between group members to achieve common goals, the presence of which increases the attribution of contrasting malicious intentions of the out-group. Therefore, the more consensus there is among members in their goals, the more entitative the group will be perceived to be.

Combining both the essence-based and agency-based entitativity approaches is a method which uses the "Common Entitativity Scale". This includes items about both the similarities and common goals of the members of a group. Lickel and colleagues (2000) created a list of 8 key characteristics of groups using this method, including the degree of interaction among group members, importance of group membership for its members, common group goals and outcomes, similarity among group members, permeability of group boundaries, group size, and duration. Based on research confirming these characteristics, Newheiser and colleagues (2009)

developed an index to measure perceived entitativity which includes: the interaction of group members, the importance of being a group member, the degree to which the group qualifies as a real group, and the similarity of group members.

The current study designs a high-entitativity group and a low-entitativity group based on this conception of the common-entitativity scale, combining both essence-based and agency-based approaches. Based on these properties of entitativity, the current study confirms the perceived entitativity of these groups by asking participants to rate, first, how unified the members of each group seem to be. This question is meant to measure entitativity through the agency-based approach where members of entitative groups are seen as being more “unified” in terms of their goals and interactions. Second, participants in the current study are also to rate how similar to each other the members of each group seem to be, in terms of beliefs and values. This question is based on the essence-based approach, where similarity and homogeneity among members is a strong cue for entitativity.

Group Think, Polarism and Extremism

One way of ensuring a feeling of inclusion in an entitative group is by actively excluding and distancing people who do not belong to it. By making a group more distinctive through the formation of clear boundaries of inclusion and exclusion, uncertainty regarding clear membership and identity can be relieved. This is another reason why entitative groups are appealing to uncertain people- homogenous behaviors and attitudes among a group also strengthen its cohesiveness and exclusivity. Furthermore, uncertain people can increase the entitativity of a group by adopting an “Us vs Them” attitude, distancing the in-group social identity from all other groups. This improves the group’s effectiveness in reducing

self-uncertainty of its individual members. The experience of both in-group inclusion and out-group exclusion gives us a sense of belonging, validates our group membership, and also makes us feel special, especially when our in-group has high status (Tajfel & Turner, 1979).

As a way of strengthening group cohesiveness and therefore boundaries too, individuals become more pressured to be “good members” of the group, and to prioritize agreement and consensus over independent thought. Commonly known as “groupthink”, the desire for conformity and tightly shared prototypes among members of an entitative group produces the tendency to agree at all costs (Janis, 1972). Issues of politics, for instance, become fused with identity, so a person’s position becomes more like a voucher of loyalty to their social group and cultural identity rather than evidence of independent thought to come to a logical conclusion. The result of this is a distorted view of both reality and of the group itself. For example, in one study which categorized children into random groups via a “minimal-group design”, children were found to assume that members of the in-group were more likely to perform good actions, and they were also more likely to then encode positive actions performed by in group members (Dunham, Baron & Carey., 2011). It was concluded that group categorization over time causes biases to take root by shifting perception to produce confirmatory evidence of the in-group’s superiority. In this way, group categorization “underlies the rapid internalization of social biases among entitative social groups in the real world” (Dunham, Baron & Carey., 2011).

Along this line of reasoning, entitative groups which are highly exclusive and encourage Groupthink among members are more likely to become more polarized and extreme as well. Uncertain people who have joined these groups may engage in radical and sometimes dangerous behaviors in order to protect and strengthen the group’s identity and ideology, as well as to enforce uniformity and consensus among members. When the values of an entitative social group

are perceived as threatened in some way, for example, this acts by extension as a threat on members' social-identity, putting their social values into question. Group radicalization or extremism could therefore serve as a way to resolve the resulting threat on the group's social-identity, returning it to a state of positive group distinctiveness and personal certainty (Hogg, 2014). Especially when there is an absence of appropriate resources available to resolve it through "normal" social-identity contingent behaviors, the experience of heightened self-uncertainty can therefore lead individuals to zealotry, ideological conviction and societal extremism. This could occur in contexts such as religion, politics, gangs, leadership and adolescent risk taking (Hogg, 2014).

As a trigger for self-uncertainty, uncertain times can lay the groundwork for this type of extreme-group identification among individuals. This has been a notable issue in the U.S. specifically, where economic and wealth inequality, rising poverty rates, a healthcare crisis, and overwhelming student debt, all in combination, have been undoubtable causes of societal uncertainty (Pew Research Center, 2019). Indeed, a surge of support in the U.S. for right-wing hate and extremist groups such as the KKK, the Proud Boys, and others supporting xenophobia, transphobia and islamophobia, was recently unveiled during the Trump administration (ADL, 2017; Keneally, 2017; Norris, 2016; Ford, 2017). Two more specific and recent examples of "uncertain times" are the 2020 U.S. presidential election and Covid-19 pandemic. Together in combination, these events will have lasting consequences on the self-certainty of people across the globe. The current pandemic specifically has set the stage for several changes that exactly parallel those labeled by research as triggers for individual uncertainty: "changes in technology, the nature of work and the way we communicate and relate to one another dovetail with environmental and cultural uncertainty, "limitless" choice and moral relativity to create a world

in which people can be overwhelmed about who they are and how they should behave” (Hogg, 2009). In responses to this uncertainty, it was argued that people may go to extremes in terms of zealotry and ideological conviction as a sort of protective mechanism and source of self-certainty. An age group which experiences extreme levels of uncertainty even in the most normal of circumstances, the impact of this experience on self-uncertainty might have been particularly severe for adolescents.

Adolescent Uncertainty

Self-uncertainty can be particularly prominent during adolescence, a time of identity-formation and transformation. Indeed, identity uncertainty is commonly experienced on a daily basis between the ages of 13 and 18 years old (Kroger et al., 2010; Becht et al., 2016). Experiencing this prolonged identity-crisis was considered by Erikson (1968) as being a normative developmental task, helping adolescents to find a stable sense of self and social-identity during their transition to adulthood. In order to finally achieve this stable social identity though, adolescents go to great lengths and often seek a sense of belonging, acceptance and validation by identifying with groups that they believe can offer this (Siegel et al., 2012). In line with Uncertainty-Identity theory, it would be expected that adolescents too would be motivated to identify or become part of the kinds of groups which may provide relief for self-uncertainty through a sense of belonging.

A desire for “popularity” among peers might be considered an example of how Uncertainty-identity theory manifests itself in adolescents (Siegel et al., 2011). Adolescence is often a time when becoming a member of “popular” groups among peers, and achieving “popularity” becomes especially important. Being accepted into these groups might provide

exactly what adolescents often desire most: social connection, identity, belonging, and certainty in terms of how to act and behave. Being accepted into this group might represent the equivalent of having achieved “belonging” among the in-group, where one knows who they are, who their friends are and how to navigate their social environments. Additionally, these groups often exhibit entitativity cues such as being exclusive, distinctive, cohesive, and having close member interaction, thereby providing clear prototypes for how to behave and interact with others. Becoming popular therefore might be imagined as a way to achieve total social and self-certainty, or at least a way to avoid social rejection and exclusion. Research has confirmed this theory- in one study examining why adolescents desire popularity, results found that the more uncertain the adolescent, the more they would desire popularity (if they viewed it as a means of reducing self-uncertainty) and the more willing they would be to endure harm in order to attain and maintain group membership (Siegel et al, 2011).

Some entitative adolescent groups are more extreme in that they are defined by risky or dangerous behavior. For example, there have been many accounts of college fraternities that require dangerous hazing traditions for new members. A disturbing number of college students have died in hazing-related incidents and countless others have experienced serious injury as a result of dangerous partying expectations (Reilly, 2017; Flanagan, 2019). Uncertainty-Identity theory also provides evidence for why adolescents might join these types of groups: the greater the uncertainty of an individual, the more desperate they will become to resolve it and the more risks they will take to achieve this (Hogg et al., 2011). The dangerous behavior of more extreme groups functions to make them more distinctive and therefore more entitative, thereby resolving uncertainty of members via group prototypes (Hogg, 2009). Therefore, adolescents might attempt dangerous or extreme behavior if they deem it necessary in order to gain acceptance with

these groups and resolve high levels of self-uncertainty (Siegel et al., 2011). In this way they are provided with unambiguous self-attributes as well as a way to gain respect and popularity among peers. This might occur especially if sufficient resources to accomplish this in a safe, constructive manner are difficult to access. In this way, adolescent risk-taking behavior has been considered as relatively strategic in how it helps them construct a distinctive, favorable and adaptive social identity and sense of self (Hogg, Siegel & Hohman, 2011).

Research has found that once adolescents confronting self-uncertainty have chosen to identify with a more extreme group, they also become more likely to “support more radical and extreme protest actions by the [extreme] group (Hogg, Meehan & Farquharson, 2010). One study conducted on how self-uncertainty affected adolescent group-identification showed that when college students were primed to feel uncertain, their identification with an extreme group they sympathized with, as well as their intentions to engage in behaviors defined by that group, were intensified (Hogg, Meehan & Farquharson, 2010). Additionally, a study measuring prejudice against Romani people among serbian adolescents found that, perceived threat to either real resources or worldviews of the dominant group was related to more negative attitudes towards the roma minority. Further romaphobia was found to be positively related to adolescents’ nationalism, relationship which was partially mediated by perceived economic and symbolic threat (Ljubic, Vedder & Dekker, 2012).

College Choice as New group selection

The same cognitive reasoning that motivates some young people to join extreme groups and engage in risky behavior on its behalf is thought to also apply to less extreme situations and social groups as well (Siegel et al., 2011). College membership for example, through the

depersonalization process described in Social-categorization Theory, follows the same logic and can be considered a less extreme way for adolescents to resolve self-uncertainty. Just like with any exclusive group, students must “earn” membership into college student populations through the application process. In this case adolescents must also select between their options and choose one college to be a member of. Through this group membership, they are provided with identity and a sense of belonging. Indeed, the question “what university do you attend” is common during first introduction among adolescents, revealing that it is a salient aspect of their self-concept (Grant & Hogg, 2012; Hogg, 2009).

College selection is a situation in which adolescents are tasked with selecting between social groups which not only are new to them, but which also vary in entitativity level and cues. Though usually not considered “extreme” or radicalized, colleges might still exhibit entitativity through homogeneity, exclusivity, distinction, clear prototypes and collective goals for their students. In this way they can guide their behavior and provide their students with self-definition. Some colleges have many of these qualities. For example, colleges with low acceptance rates signal exclusivity. Some student bodies are more homogeneous in terms of being affiliated with a certain religion or political party. College rivalries, especially with regards to varsity sports, encourage intense school pride and loyalty from students, all of which give a college a more distinctive social identity. Promoting fierce adherence to special school values and traditions by wearing school merchandise could be considered as a way of providing tightly-shared prototypes for students. According to Uncertainty-Identity theory, the colleges that are perceived as having any or all of these characteristics would be perceived as more entitative and therefore more attractive to individuals who have high self-uncertainty.

Research on consumer-choice also backs up this reasoning. One study on consumer-choice found that people often choose to consume products and brands which allow them to communicate which in-groups they belong to, or would like to belong to (Chan & Van Boven, 2012). This is because, when they purchase items or services associated with those groups, they are often driven by a desire to conform to in-groups and distance themselves from out-groups. This same logic could be applied to novel group selection, such as college-choice. Colleges, like product brands, are associated with different social identities, and therefore each attract the type of customers who want to be associated with that identity. College selection might also be considered like a consumer choosing which “brand” to represent their social identity. Just as people are more likely to consume brands whose ideologies align with their political in-groups, it would be expected that students are more likely to select a college who shares their own political-affiliation. They might also be more likely to consider colleges which are associated with a social-identity that they desire to have, one that will offer them self-certainty and acceptance with in-groups. Attending a well-known and respected institution, for example, provides a desirable social-identity with which uncertain individuals can incorporate into their own self-concept. Based on the theory of consumer-choice and Uncertainty-Identity theory then, it would be expected that new group selection too would be influenced by a desire to construct a positive self-identity and resolve self-uncertainty.

The college choice typically goes like this: a student applies to one or more colleges and later receives notice about which schools have “accepted” them. Out of their college options, students must then choose which school appeals to them the most, not only academically but also socially. Depending on the individual, some types of college characteristics may be more attractive than others and could determine which school ultimately comes out on top. According

to Uncertainty-Identity theory, the most uncertain adolescents would seek schools which they perceive to be more entitative and therefore more capable of reducing uncertainty.

The Present Study

Most research on Identity-Uncertainty and group entitativity has mainly focused on what makes individuals who are experiencing self-uncertainty identify more strongly with groups which they are already members of. Less is known though about what makes uncertain individuals, and specifically uncertain adolescents, prefer joining one new social group over another. While Uncertainty-identity theory has been posed as a reasonable explanation for why some adolescents choose to join highly-entitative, “extreme” groups, no research has empirically tested this theory (Siegel et al., 2011, Hogg, Siegel, & Hohman, 2011). The present study builds on Uncertainty-Identity Theory and tests the prediction that self-uncertainty among adolescents make them more likely to join groups which are higher in entitativity and therefore more “extreme”.

More than just revealing how college-selection might be impacted by self-uncertainty, this study could also be especially important to conduct in the context of polarization among youth in the U.S. As adolescents are an age group vulnerable to relatively high levels of identity-uncertainty and have become increasingly politically active in recent years, this might mean that they are especially susceptible to political polarization (Tufts University, 2020). This research could also be put into context with the current global pandemic of 2020-2021, which creates a scenario of agonizing uncertainty among adolescents everywhere. The consequences of this experience itself may manifest in the coming years as identification with highly-entitative, extremist groups (Hogg, 2009). As many adolescents inevitably spend much of their time in high school and college, studying how educational institutions play a role in adolescent

self-uncertainty may be especially important. If adolescents in the current study who are experiencing self-uncertainty are found to be more attracted to highly entitative college groups, this would help support the theory that high self-uncertainty is a force driving polarization and extremism among adolescents today. More generally, further research could have implications for how vulnerable individuals in society might fall prey to extremist ideologies, radicalism, conspiracy theories, and cults.

Overall, the current study looks to answer the question, are adolescents who are experiencing high levels of self-uncertainty more likely to be attracted to highly-entitative groups?

Methods

Participants

Participants were 70 U.S. graduating high school students recruited online through Prolific™, an online participant pool. The sample included 36 females, 31 males, and 3 participants who reported their gender identity to be “other”. Participants were all 18 years old, and were each paid \$1.60 to complete the 13-minute long survey. The reported breakdown of study participants' ethnicities were as follows: White (34%), Black or African American (8.6%), Asian (34%), Hispanic or Latino (8.6%), and 12.9% reporting more than one ethnicity.

Procedure and materials

All individuals self-selected to take this online Qualtrics survey in response to a target-population demographic screener on Prolific. Through this site, they were provided with a link to a survey housed on the Qualtrics™ platform. In the survey consent form, participants

were told that the study would be investigating social attitudes and perceptions of groups. After giving informed consent, each participant was randomly assigned to either the self-uncertainty or the self-certainty prime. Self-uncertainty was manipulated using a short task in which participants were asked to think and write about the three aspects of their life that make them feel either most uncertain or most certain about their identity, life and future. The questions used for this task were adapted from past research that primed self-uncertainty (Hogg et al. 2007), and were as follows:

The Uncertainty group received the following prime for self-uncertainty:

“Please spend a few moments thinking about the aspects of your life that make you feel uncertain about your identity, your life and your future. Then, type in the space below a few sentences about the 3 aspects that make you feel most uncertain. Your answers will be kept anonymous and confidential.”

The Certainty group received the following prime for self-certainty:

“Please spend a few moments thinking about the aspects of your life that make you feel certain about your identity, your life and your future. Then, type in the space below a few sentences about the 3 aspects that make you feel most certain. Your answers will be kept anonymous and confidential.”

After completing this priming for either high or low self-uncertainty, the participants were then asked to carefully read bullet point descriptions of each of two hypothetical college options. One school was constructed to sound highly-entitative and the other was constructed to sound relatively less entitative. Participants were also told to assume that both institutions had accepted them and are affordable for them. The highly-entitative college option was described with items such as, “students here are known for all wearing the school colors and using the school slang”, “students here have a strong commitment to the school values, including loyalty to each other”, and “there is school rivalry with the college in the nearby city, which generally holds different political attitudes and beliefs” (See appendix Z for full description). The low-entitativity option was described with items such as “this school hosts yearly social events and gatherings for all students to attend”, “this school values diversity in all things, including students and faculty, and also accepts many international students”, and “students are encouraged to express different opinions and beliefs” (See appendix A for full description of stimuli). The characteristics of each school were created by adapting previous research measuring perceived entitativity of groups (Licket et al , 2000, New Heiser et al, 2009). Items of each list were therefore based on differences in Essence-based entitativity and Agency-based entitativity.

In order to check that these two school descriptions was effectively perceived as either high-entitativity or low-entitativity, four items were used: (1) “On a scale from 1 (not at all) to 10 (very much), how much of a unified group do you feel School #1 is”; (2) “On a scale from 1 (not at all) to 10 (very much), how much of a unified group do you feel School #2 is”; (3) “On a scale from 1 (not at all) to 10 (very much), how similar to each other (in terms of beliefs and values) do you feel the students are at School #1”; (4) “On a scale from 1 (not at all) to 9 (very much),

how similar to each other (in terms of beliefs and values) do you feel the students are at School #2”.

Next, the dependent variable was measured in two parts: college group ratings and then college characteristic ratings. First, college group ratings were measured: “On a scale of 1 (not at all) to 10 (very much), how much would you like to attend a college like School #1”; “On a scale from 1 (not at all) to 10 (very much), how much would you like to attend a college like School #2”. Second, the appeal of various college characteristics was measured. Participants were asked to rate 16 different college characteristics, each one asking “On a scale of 1 (not important) to 10 (very important), how important is this at your ideal college”. The included college characteristics represented different dimensions of entitativity, and were adapted from previous research measuring group entitativity and identification (Hogg et al, 2007). These items included college characteristics such as, “the students show school spirit and pride”, “all students share the same beliefs in what is right and wrong and are ready to defend their beliefs”, “the coursework is challenging and stimulating”, and “the college encourages diverse beliefs and opinions (which may differ from your own)” (see Appendix B for full stimuli).

Next, participants completed a manipulation check for the self-uncertainty prime from the beginning of the survey. This was assessed with one question: “Think back to the 3 aspects of your life that you were asked to think and write about at the beginning of the survey. On a scale of 1(very certain) to 10 (very uncertain), how did this make you feel about your identity, your life and your future”. This was placed at the end of the survey in order to prevent this check from interfering with the uncertainty manipulation throughout the survey.

Finally, participants were also asked to report where they were in the college application process at the time, their age, if they were still in high school or not, their gender identity and

their ethnic affiliations. They then finished the survey and were shown the research debriefing statement.

Results

After excluding participants who did not provide all survey responses or did not meet demographic criteria ($n = 27$), data from 70 participants was analyzed. Participants were randomly assigned into the uncertainty condition ($n = 39$) or the certainty condition ($n = 31$).

Uncertainty manipulation check:

To prime self-uncertainty, participants were asked to think and write about the three aspects of their life which make them feel either most uncertain or most certain “about their identity, life and future” (see Appendix C for full priming). The effectiveness of this priming was investigated using a question at the end of the survey which asked participants to “think back to the three 3 aspects of your life that you were asked to think and write about at the beginning of the survey. On a scale of 1 (very certain) to 10 (very uncertain), how did this make you feel about your identity, your life, and your future?”. Participants in all conditions rated how uncertain this task made them feel. An independent means t-test revealed a significant difference where the uncertainty group reported feeling more self-uncertain ($M = 6.89$) than the certainty group ($M = 4.74$), $t(1,69) = -3.45$, $p < 0.05$, as shown in *Figure 1*. On a scale of 1 (very certain) to 10 (very uncertain), participants in the Certainty group on average rated their uncertainty at 4.74 while participants in the Uncertainty group on average rated their uncertainty at 6.89. Thus, the uncertainty manipulation was effective in making participants feel different levels of uncertainty. This is consistent with results that have used this paradigm elsewhere (Hogg et al., 2007; Hogg et

al., 2010; Grant & Hogg, 2012). Therefore, the prime served to effectively impact participant levels of uncertainty.

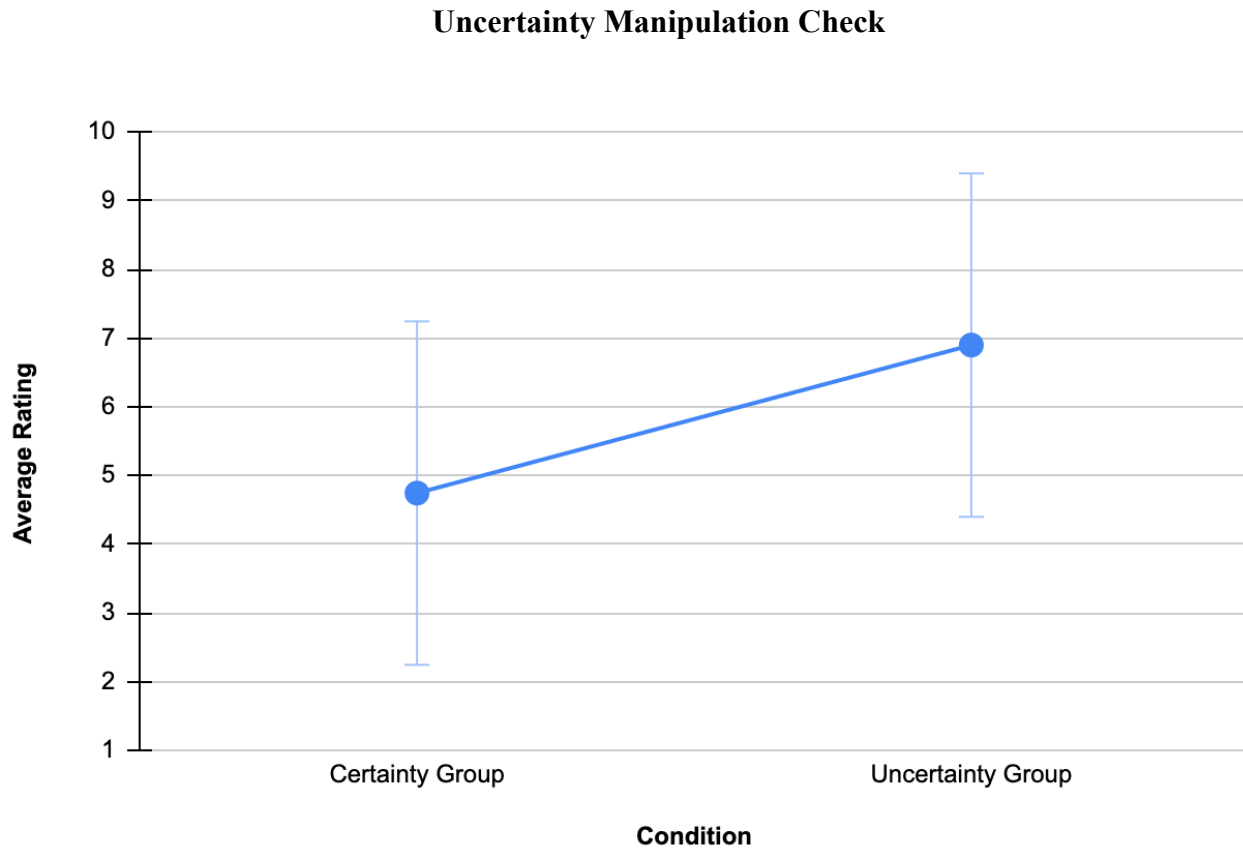


Figure 1. Average rating of uncertainty by condition, as measured by ratings out of ten. Participants in the Uncertainty condition ($M= 6.88$, $SD= 2.46$) rated their uncertainty as significantly higher than participants in the Certainty condition ($M= 4.74$, $SD= 2.77$), $p<0.05$.

Entitativity Ratings:

The perceived entitativity of each school description was checked by asking, first, how “unified” they found participants at each school to be and, second, how “similar in terms of beliefs and values” they found the students at each school to be. Participants in both conditions

rated this for each of the two schools on a likert-style rating scale (1 not unified at all, 10, very unified). Using a paired-samples t-test, the average ratings of how unified the students at each school seemed was compared across schools and the high-entitativity school students was rated as significantly more unified than the students of the low-entitativity school, $t(1, 69) = 6.566, p < 0.05$, as shown in *Figure 2*. When the average ratings of how “similar in terms of beliefs and values” the students at each school were compared, the high-entitativity school students were also rated as seeming significantly more similar than the students of the low-entitativity school. $t(1, 69) = 5.733, p < 0.05$, also shown in *Figure 2*. These results confirmed that participants perceived the high-entitativity school to be significantly more entitative than the other, as entitativity is defined in previous studies (Newheiser et al., 2009, Lickel et al., 2000, Hogg et al., 2007).

Using a correlational analysis, the internal consistency of these items was confirmed. For the High-Entitativity School, participant ratings of the unity among students and similarity among students were found to be positively correlated, $r(1, 69) = .49, p < 0.01$. For the Low-Entitativity School, participant ratings of the same items were also found to be positively correlated, $r(1, 69) = .46, p < 0.01$.

College Entitativity Ratings

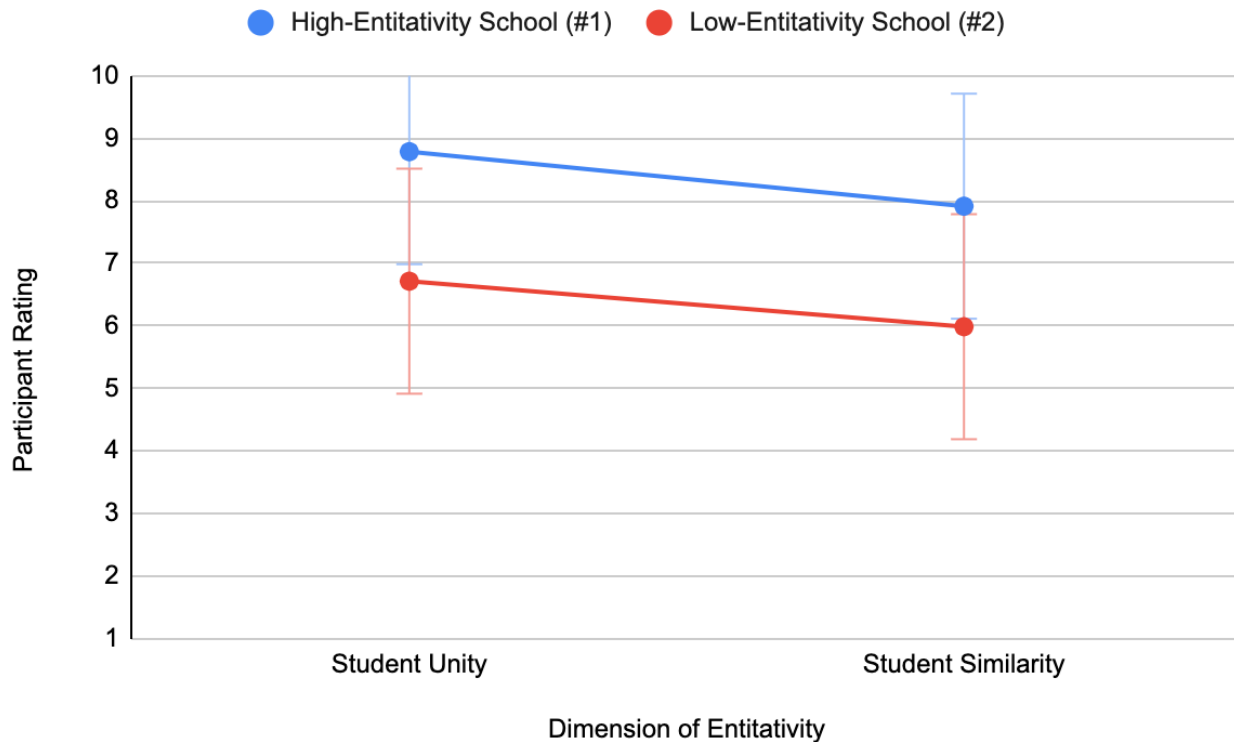


Figure 2. Average entitativity ratings of each school option. Participant ratings confirmed that they perceived the students of the High-Entitativity School to be significantly more “unified” ($M= 8.79$, $SD= 1.45$) than the students at the Low-Entitativity School ($M= 6.714$, $SD= 2.04$), $p < 0.05$. Participants also rated the High-Entitativity School students as seeming significantly more “similar in terms of their beliefs and values” ($M=7.91$, $SD= 1.81$) than the students at the Low-Entitativity School ($M=5.99$, $SD= 1.81$), $p < 0.05$.

These results showed that the members of the highly entitative college option were perceived to be significantly more unified and similar than the members of the less entitative college option. This confirms that the two college options were successfully constructed to differ in level of perceived entitativity.

College Ratings:

Group selection was measured in two parts: participants were asked how much they would like to attend each college option, as well as how important “at their ideal college” each of 16 college characteristics were.

In terms of college ratings between the two conditions, an independent samples t-test revealed findings which were contrary to what was hypothesized: for the high-entitativity school ratings, there was no significant difference found between groups in the desire to attend this school, though the uncertainty-group rated this school slightly higher on average, $T(1,69) = -.784$, $p = 0.436$, shown in *Figure 4*. Comparing the ratings of the low-entitativity school between groups also revealed no significant difference, though the uncertainty-group actually rated this school as slightly more appealing than the certainty-group, $T(1,69) = -1.784$, $p = .093$, also shown in *Figure 4*. No significant correlation was found between participant level of uncertainty recorded from the uncertainty manipulation check and their desire to attend either school. Participant ratings of their uncertainty even showed a slightly stronger positive correlation with ratings of the low-entitativity school (School #2) than the high-entitativity school (School #1). These results show that, contrary to the hypothesis, participant college ratings were not significantly different between uncertainty conditions.

Desire to Attend Each College Option

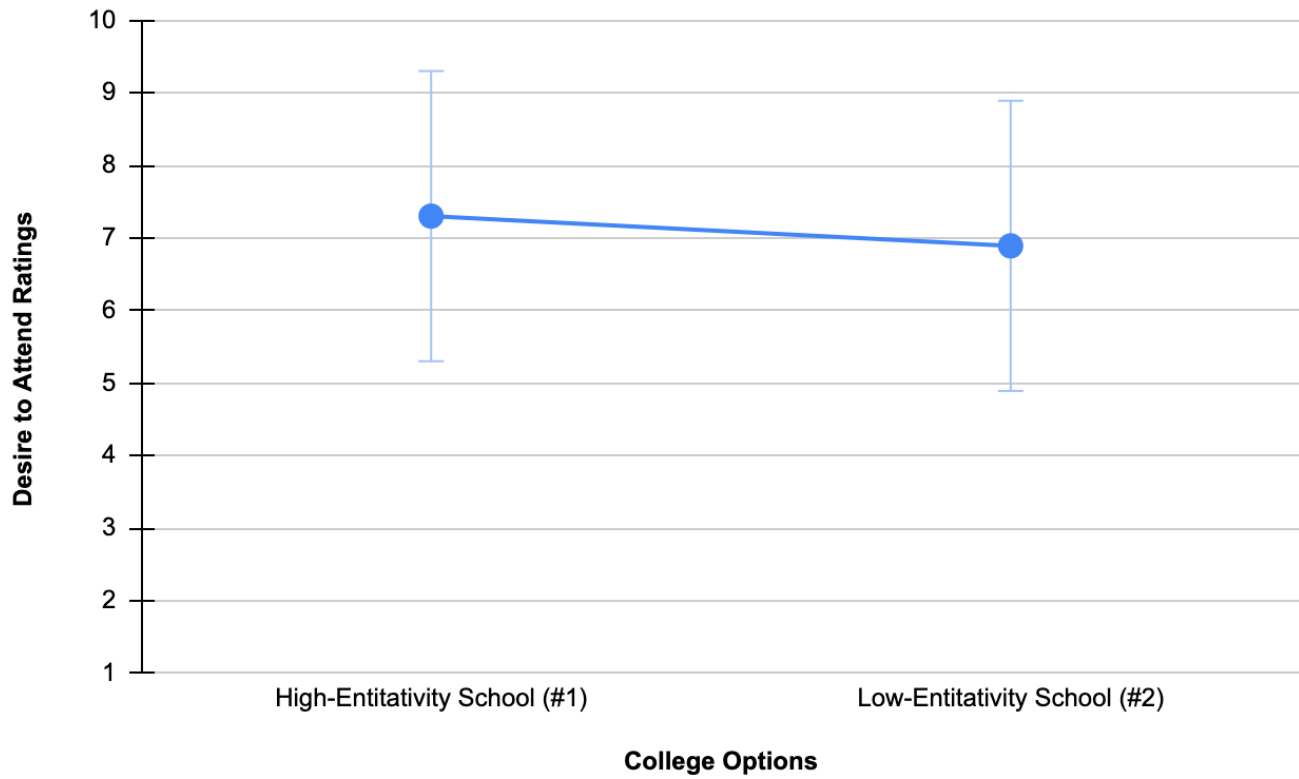


Figure 3. Average ratings of participants' desire to attend each school option. Ratings of the High-Entitativity School ($M= 7.3$, $SD= 2.2$) were not significantly different from ratings of the Low-Entitativity School ($M= 6.8$, $SD= 2.06$).

Desire to Attend Each College Option by Condition

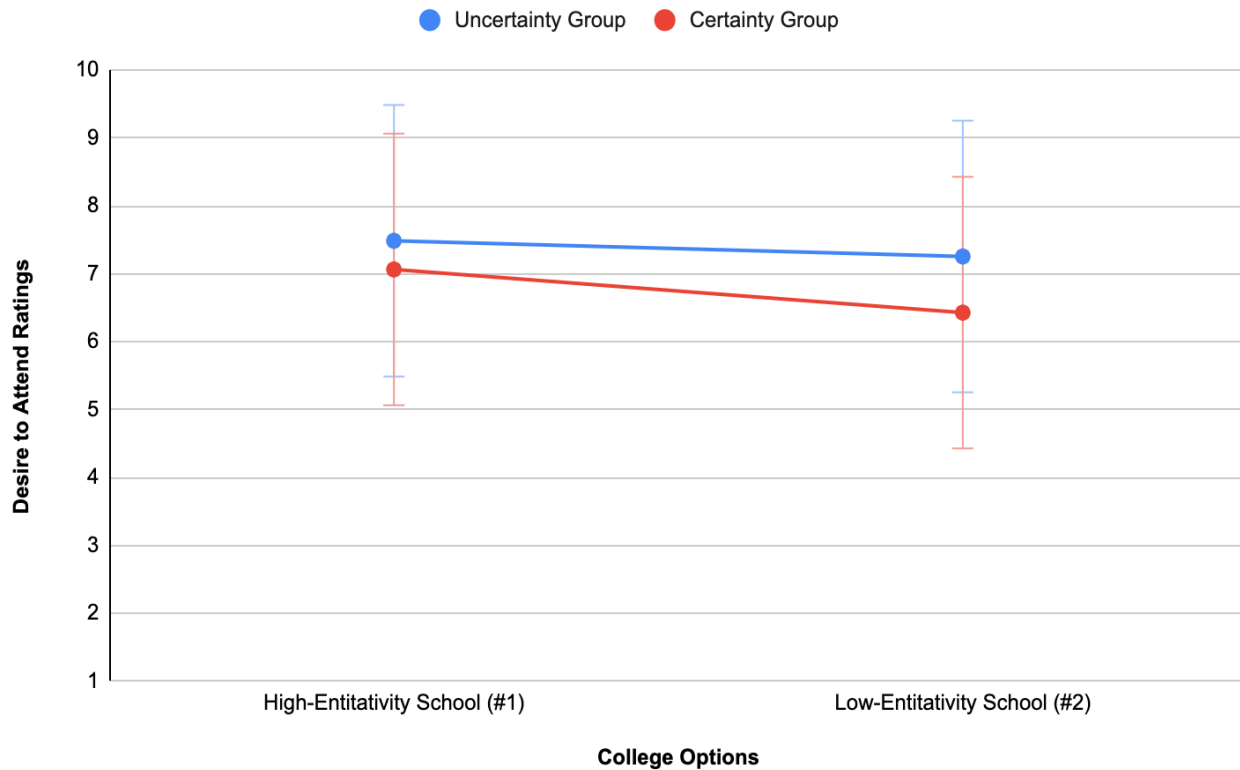


Figure 4. Desire to attend each school option by condition. Participants in the uncertainty condition rated the high-entitativity school at 7.48 on average and the low-entitativity school at a 7.26 on average. Participants in the certainty condition rated the high-entitativity school at a 7.06 on average and the low entitativity school at a 6.42 on average. The desire to attend each either school option did not differ significantly by condition.

College Characteristics Ratings:

A paired samples t-test was used to first compare the ratings of the college characteristics among all participants. To do the following analyses, the ratings of all high-entitativity items and the ratings of all low-entitativity items were averaged separately for each participant. It was found that the less-entitative college characteristics on average were rated as significantly more “important in your ideal college” than high-entitativity college characteristics were, $t(1,69) =$

9.480, $p < 0.01$, as shown in *Figure 5*. When this test was used to compare average ratings of each type of characteristic between the two conditions, no significant differences were found for either the high-entitativity characteristics or of the low-entitativity characteristics. In fact, for both types of college characteristics, each condition's average rating was nearly exactly the same, as shown in *Figure 6*.

A correlational analysis also revealed that there were no significant correlations between participant rated level of uncertainty (recorded from the manipulation check) and their ratings of any of the individual college characteristics (all r values < 0.08). In terms of the high-entitativity characteristics, the hypothesized negative (yet statistically insignificant) correlation between level of uncertainty and item rating was only found for the items "large student population", "Special school traditions are important", "Most other students at this college share your religious affiliation", "Your parents approve of this college", and "Friends and/or family attend or have attended this college". For the low-entitativity items, only the items "The faculty encourages diverse beliefs and opinions" was found to have a positive relationship with rated uncertainty, despite also being statistically insignificant. These results show that, contrary to the hypothesis, reported level of rated uncertainty did not significantly affect participant interest in any entitative group characteristics.

College Characteristics Ratings Within Groups

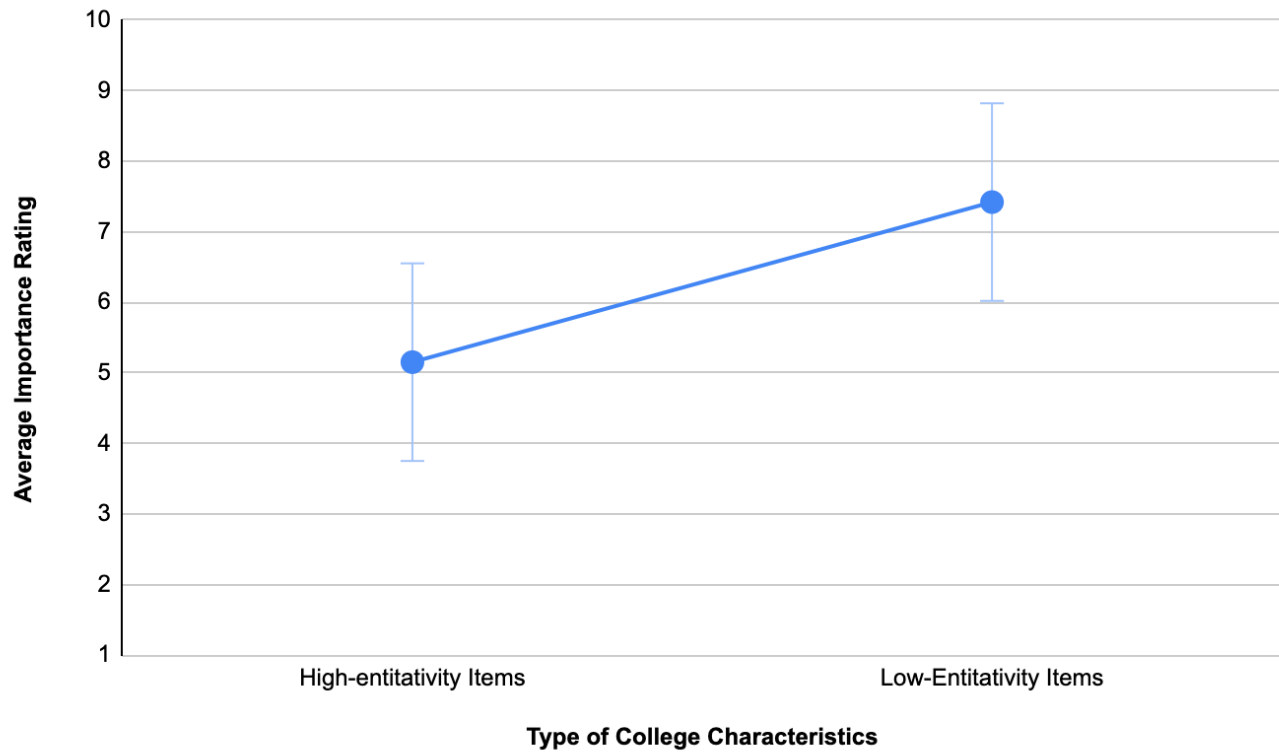


Figure 5. Average ratings of each type of college characteristics across all participants. Ratings of the Low Entitativity college characteristics ($M= 7.42$, $SD= .18$) were found to be significantly higher than ratings of the High-Entitativity college characteristics ($M= 5.15$, $SD = .15$), $p < 0.05$).

College Characteristics Ratings by Condition

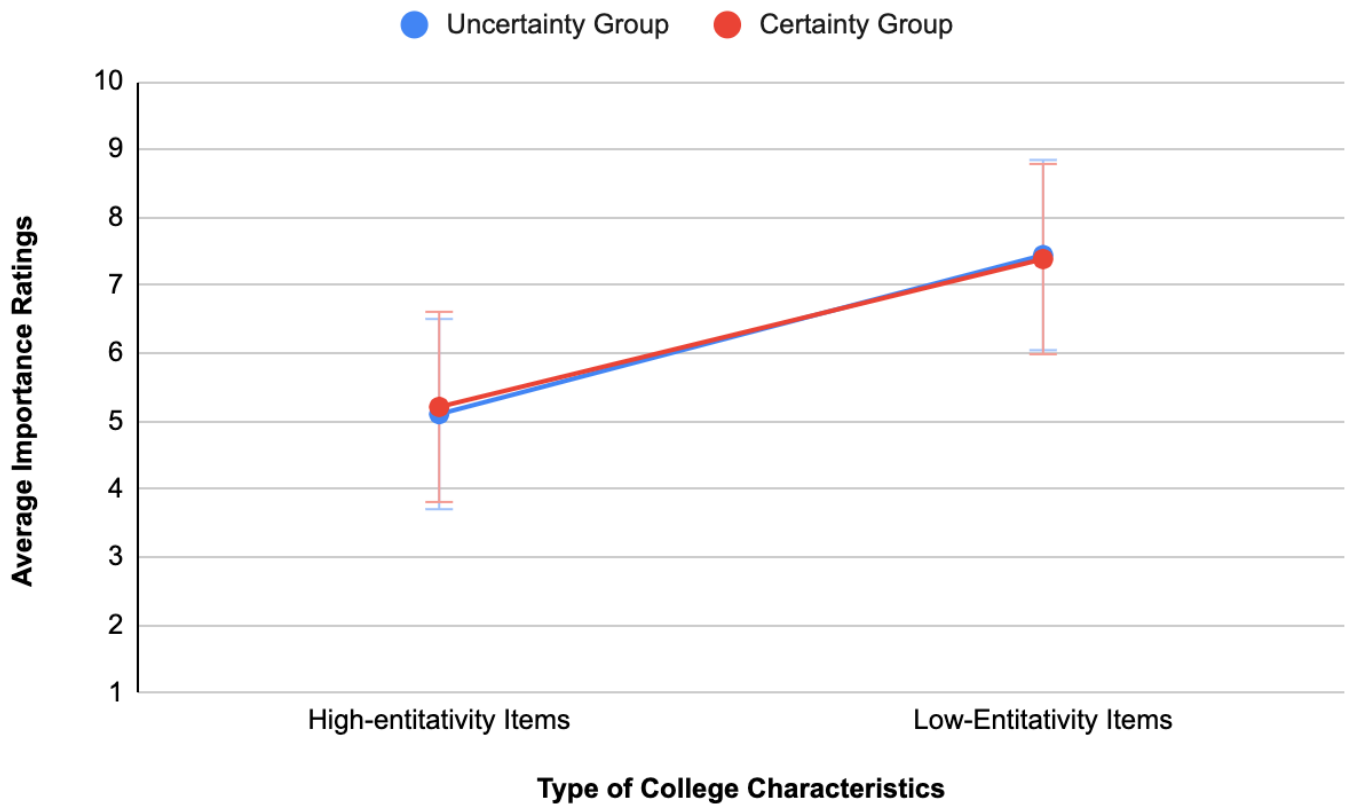


Figure 6. Average College characteristic ratings, by condition. Participants in the certainty condition rated the high-entitativity items a 5.21 on average and low-entitativity items a 7.39 on average. Participants in the uncertainty conditions rated high-entitativity items a 5.11 on average and low-entitativity items a 7.45 on average. Neither type of college characteristics were rated significantly differently by participants between conditions.

Interaction effects of College Application Process:

One-way Analysis of Variance (ANOVA) with College Application Process (already applied, still applying, already decided, still deciding, will apply later, or other) revealed that this had no effect on the desire to attend the more entitative school (School #1), $F(1,69) = 1.522$, $p = 0.186$. The same test done to determine if the college application process had an effect on the

desire to attend the less entitative school (School #2) found a marginally significant effect, $F(1,69) = 2.217, p = 0.053$. Closer analysis of a post-hoc test revealed that none of the groups differed significantly.

Overall, the data collected in this study show that participant ratings of interest in the high-entitativity and low-entitativity schools, as well as the two types of school characteristics, did not significantly differ by level of uncertainty.

Discussion

This study's hypothesis was based on Uncertainty-Identity theory, which argues that self-uncertainty motivates people to identify with groups, particularly high-entitativity groups, in order to reduce their uncertainty (Hogg et al., 2007). Groups, through prototypes, prescribe behavior and attitudes to all group members. This removes the pressure of determining the appropriate way to behave and think on one's own. Group identification can happen to an extreme level when the group is perceived to be highly entitative. Entitative groups are those which are formed by clear boundaries, internal homogeneity, clear internal structure, common goals and tightly shared prototypes (Hogg, 2009; Hogg, 2014). In other words, the more entitative a group is, the more well-equipped it is to resolve identity-uncertainty and therefore the more strongly self-uncertain people will likely identify with it. As extremist groups have these same characteristics, this may explain why individuals are more likely to identify with extremist groups when they are experiencing high self-uncertainty (Hogg, 2009).

The current study extended this analysis by examining specifically how this phenomena might affect adolescents and, more specifically, how entitativity moderates the relationship between adolescent uncertainty and new group selection. To test these ideas, I conducted a

conceptual replication of the manipulation in a study by Grant & Hogg (2012), in which self-uncertainty was primed. It was expected that, as argued by Uncertainty-Identity theory, adolescents who are primed to feel self-uncertainty would feel a greater need to resolve their identity-uncertainty. Therefore, they would feel more motivated to join a group which would provide them with a clear social-concept through tightly-shared behavioral-prototypes and goals. Thus, both the highly-entitative school and high-entitativity school characteristics were expected to be rated higher by participants in the uncertainty condition than those in the certainty condition.

In the present study, this effect did not emerge for adolescents. The hypotheses of this study were not supported by the data. Although the uncertainty priming appeared to be effective, there was no significant effect of condition observed on the measures. Neither ratings of the two schools nor ratings of the two types of college characteristics differed significantly between participants assigned to the uncertainty and certainty conditions.

Limitations

The sample size gathered for the current study (N=70) could be considered relatively small considering that each condition contained fewer than 40 participants. In addition, to ensure that all participants were at the age when most college decisions are made, I required all participants to be age 18. As a result of this design though, the sample size and range were limited. Previous research for example has found that adolescents experienced the strongest period of identity crisis between ages 15-17 (Becht et al., 2016). Further research should therefore aim to obtain a larger and wider age range of adolescents in participant samples.

One possible explanation for finding no significant differences between colleges ratings is how the rating questions were framed in the survey. Within the survey, participants were asked to rate each school individually but were not specifically asked to compare or contrast the options in any way. It is possible that this made it easy to simply rate the two options the same way or similarly to each other. In further research, participants should be asked specifically to compare or rank the options, rather than considering them separately. Alternatively, group choice could be made into a second independent variable, where each participant is only asked to rate one group option rather than all of them.

Additionally, it could be that the description of the “less entitative” school unintentionally paralleled the qualities of many highly exclusive colleges in real-life. The description of the less-entitative school (School #2) could have been seen as prioritizing academics slightly more than the high-entitativity school (School #1), which might have reminded participants of the kind of highly-exclusive universities which are known for their academics. Especially in comparison to School #1, School #2 might have sounded similar to how an “Ivy-League” university might be described. The general high-exclusivity and therefore high entitativity of many Ivy-league colleges in real-life might therefore have actually caused School #2 to be perceived as highly-entitative as well. Indeed, the “less-entitative” college characteristics in the survey were overall rated as significantly more desirable than the “high-entitativity” characteristics. Exclusivity has been found in previous research to be a key determinant of group-identification, engaging more group loyalty due to being perceived as more distinctive (Hogg, Adelman & Blagg, 2010). This characteristic serves to meet a need for both inclusion in a group, as well as a need to still feel “special” and differentiate oneself from others. In addition, incorporating the qualities or properties of a high-status group into one’s own

self-concept through group-membership indirectly provides a self-esteem boost. In other words, the fact that the characteristics of the school meant to be “less entitative” resembled those of a highly-exclusive and therefore highly-respected university might have influenced participant ratings. It could be speculated that this reality of college status-comparison for adolescents in real life might have unintentionally influenced participants’ perceptions of the groups and group characteristics. As the original “high-entitativity” school option (School #1) was designed based on previous research to be perceived as highly-entitative in other ways, this may explain why both schools ended up being rated as equally attractive by participants. Furthermore, as college choice is a real and very consequential decision that adolescents across America make at this age, it could be considered that expectations of college choice trump many adolescents’ true desires. While adolescents might genuinely want to join groups that they believe would offer them a clear identity and sense of social belonging, adolescents are often pressured to attend a college with the best academic reputation possible, or to attend the same or a similar college to the ones their parents attended.

Additionally, future research should attempt to use richer measures of participant perceptions of group entitativity. In the current study, only two entitativity checks were used in order to minimize the effort and time required by participants to complete the online survey. These checks asked participants to rate their perceptions of how “unified” groups members seemed and then also how “similar” they seemed in terms of their beliefs and values. While these questions captured perceptions of homogeneity and common goals, two crucial dimensions of entitativity, perceptions of other important dimensions such as clear boundaries, social interaction, and clear internal structure were not measured. Although the two school options

were constructed to differ on these other dimensions as well, it could be that they were not actually perceived as differing enough in entitativity across all of its dimensions.

There were also limitations of using an online survey for this research. For instance, it is possible that, as many participant samples collected through online participants pools are, the participants recruited for the present study were a biased sample. As my sample was not large, it is possible that a portion of survey responses came from participants who happened to be online at the time the study was launched, or in the hours immediately afterwards. In addition, it is possible that some of the participants of the paid online survey primarily took it as a way to make money and therefore did not care about the quality of their responses, finishing the study as quickly as possible. In addition, using an online survey created limitations on the manipulation of uncertainty. As carrying out a lengthy task or series of tasks in order to manipulate uncertainty becomes more difficult to carry out through an online survey, the uncertainty manipulation in the current study was kept short and simple. Although levels of uncertainty were found to be significantly different between the two conditions, in neither condition did the participants report being uncertain or certain in an absolute sense: participants in the uncertainty condition on average rated their uncertainty as a 4.74 on a 10-point scale where 1 is “very uncertain” and 10 is “very certain”. This rating falls barely below the midpoint. Participants in the certainty condition on average only rated their uncertainty as a 6.89 on the same scale. The default position of the rating scale was set at 6, at the midpoint, when each participant began the survey. Given these relatively non-extreme levels of uncertainty for both conditions, it may be considered that stronger effects could be anticipated with more extreme levels of uncertainty. It is possible that the uncertainty priming used in the current study, although effective in creating differences in

self-uncertainty, did not create extreme enough levels of uncertainty to influence differences in group selection within the survey.

Furthermore, with group selection in the current study being using an online survey rather than with an in-person simulation of real groups, it is possible that the results of the current study might not reflect how adolescents would actually behave when faced with the same situation in real-life. As the groups described and offered within the survey were both hypothetical and relatively ambiguous compared to real-life groups, the group selection itself was also clearly hypothetical and therefore might not have been convincing as a potential solution against self-uncertainty. In other words, the opportunity for participants to actually join a real entitative-group in order to resolve their high-uncertainty was not possible to simulate within an online survey. The significant effects of self-uncertainty found on group-identification in previous research might have been partially due to this crucial difference in design and methodology. Unfortunately, due to the target-population of the current study being graduating high-school students, in addition to the challenges of carrying out research during the Covid-19 pandemic, carrying out the research design in-person as a simulation of a real-time group choice was not possible.

Implications for Further Studies

The results of this study found no differences in either college ratings or college characteristic ratings between participants in the uncertainty and certainty conditions. This data could be implying that adolescent self-uncertainty is not something that influences which new groups they choose to join after all, or that adolescents at age 18 do not seek out new groups which are highly entitative. This could mean that adolescents at age 18 are not as susceptible to

the appeal of highly entitative groups as was predicted, and that identity at this age late in adolescence is more or less already stable.

For obvious reasons, it is difficult to conduct experiments regarding uncertainty and extremism that incorporate real extreme groups and extreme behavior, like that of terrorist groups or cults. Therefore, the current study used college choice as a safer and more appropriate, though still relevant alternative. Given the results of this study, future research should be conducted on a wider age range of adolescents and a larger sample size. Future studies should also aim to utilize an in-person simulation of group-choice to both create more effective manipulations of uncertainty as well as ensure that participants actually view the given group options as viable ways to resolve uncertainty.

Conclusion

The groups that people belong to can be a lens through which they see not only the world but also themselves. Those who feel uncertain about who they are and how to relate to the world are therefore motivated to join the types of groups which fill those gaps in for them. Highly entitative, extremist groups excel at this task. During times of extreme societal or personal uncertainty, these are the groups that flourish.

Despite this effect not emerging for adolescents in the present study, this study's hypothesis is still relevant and should be explored further. Adolescence is a time often plagued with existential uncertainty and a need for belonging, which makes these individuals easy targets for exploitation by extremist groups. These groups often look to recruit youth specifically, who may be experiencing isolation, family instability, financial instability, or all of the above (Levine, 1981). At the current writing of this paper, the Covid-19 pandemic is an overwhelming source of

both societal and personal uncertainty. Many adolescents around the world are now experiencing isolation from friends and family, reduced social support, a lack of daily routine and structure, unemployment, and loss, further exacerbating the uncertainty that they already experience. With increasing reports of extremism, polarization and domestic terrorism in the U.S., it's clear that youth are finding their way into these groups (O'Harrow, 2021; Heltzel & Laurin, 2020).

As such, further research and interventions for this age group should focus on helping them reduce uncertainty constructively as a priority. To nurture resilient adolescents, society should be providing youth with a community who can support them as well as offer them guidance and resources to build complex, multifaceted social identities (Hogg & Adelman, 2013). Both High-school and Colleges, where adolescents are transitioning to adulthood, have an important role in providing these resources for their students too. In an uncertain world, these institutions can provide youth with the resources they need to control and resolve their uncertainty so that they may explore their choices and shape their identity confidently and independently.

Dangerous cults and terrorist groups will always exist, but vulnerable individuals are often only motivated to join groups like these when they feel they have no other alternative. Adolescents who do join extreme groups therefore might be understood not as rebellious or foolish, but rather as suffering from agonizing self-uncertainty and being ready to seek out the most effective way of resolving it.

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Appendix A:
IRB Proposal Form

Section 1: Contact Information

1. **Name:** Isabela Cruz-Vespa
2. **Email:** ic8783@bard.edu
3. **Academic Program:** Psychology
4. **Status:** undergraduate student
5. **Advisor:** Thomas Hutcheon
6. **Advisor email:** thutcheo@bard.edu
7. **Individuals involved in this project:** Isabela Cruz-Vesa, student

Section 2: External Funding

No. Only requesting funding from the Bard Psychology Department.

Section 3: Title of Project and Dates of Project

The College Choice: Adolescent Identity-Uncertainty and Group Entitativity

Start Date: December 15th, 2020

Section 4: Research Question

Are adolescents who are experiencing self-uncertainty more likely than self-certain adolescents to be attracted to groups that exhibit strong entitativity cues? More specifically, are graduating high-school seniors who are experiencing self-uncertainty more likely than self-certain students to be attracted to college options that exhibit strong entitativity cues?

Section 5: Specific population and Recruitment Procedure

I plan to recruit graduating high-school seniors who are 18 years or older, from two schools in the College Station School District: A&M Consolidated High School and College Station High School. This will require first seeking approval from the College Station Research Request Review Committee [CSRRC] (See in Contact Emails form). Once I have received approval from this school district, I plan to recruit participants by contacting the administrators of each school and asking for how I might distribute my survey to students. I expect that this process might take the form of emailing the survey link to all students, having the survey link placed on a school website or platform for all students to access, or the survey might be distributed through the administrators themselves to students. I plan to first distribute the parent informed-consent form to all parents of graduating seniors. At the end of this form, the email address of their child (only those who are 18 years old) will be asked for, to directly distribute the survey. I also plan to recruit participants using Prolific, an online data collection service. I will utilize a prescreening to ensure that each participant is at least 18 years old.

Section 6: Vulnerable or protected populations?

No

Section 7: Estimated Number of Participants

About 30-50

Section 8: Procedure

About 10 minutes will be expected of each participant. In a survey link, each participant will be asked to read and sign the consent form. In order to manipulate self-uncertainty, a priming procedure will be used. Depending on which condition (Identity-Uncertainty or Identity-Certainty) that they are randomly placed in, participants will first be asked to spend a few moments thinking about the aspects of their life that make them feel uncertain (certain) about themselves, their lives and their future. Then they will be asked to type in the space provided a few sentences about the 3 aspects that make them feel most uncertain (certain). Next, participants will be asked to read bullet-point descriptions of two made-up college options. For each option, they will be asked to rate on a scale of 1-10, “How much of a unified group do you feel they are?” as well as “How similar to each other (in terms of beliefs and values) do you feel the students are?” They will be asked to also rate each college on how much they would like to attend a school like it. The next task will be to rate each of several common college characteristics on how important each one is to them, in an ideal college institution. The final task will ask participants to think back to the 3 aspects that make them the most uncertain (certain), which they had initially typed in the 1st task of the study, and to rate from 1-10 how uncertain this made them feel about themselves. After completing this, participants will be asked to give their gender, age, and ethnicity. Once submitting these answers, they will be debriefed about the purpose of the study, given information about when they will be able to access the results of this study, and shown how to enter into the raffle for a gift card compensation.

Section 9 : Risks and Benefits for Participants

It is possible that the Identity-uncertainty manipulation of this study might have a negative impact on participants. Previous studies using these prompts have shown that any negative

effects are temporary. Participants will be placed in a raffle to win age appropriate prizes (e.g. Amazon gift card). While no other direct benefits to participants are expected, compensated participants may receive indirect benefits from learning about the research process as well as about the background motivating the present work on college choice.

Section 10: Plan to Mitigate Risks

A debriefing process will be included at the very end of the survey in order to inform participants about the manipulation of uncertainty as well as the overall purposes of the study.

Section 11: Consent Process

The Consent form will be the first section of the survey. It will be explained first that the this form will inform them about the possible risks and benefits of participating in this study and that their informed consent to participate will be asked before continuing to the survey. **See Appendix C.**

Section 12: Confidentiality Procedure

All the information that participants provide will be both anonymous and confidential. Survey responses will not be linked to individual names or email addresses. Survey data will be kept on secure in a password-protected file on my personal computer. Only my faculty adviser and I will have access to this information. Upon completion of this project, all written responses to the first question of the survey will be destroyed.

Section 13: Deception

No deception will be used in this study. I will be telling participants that I am studying social attitudes and perceptions of groups and that they will be asked to think about issues of social identity.

Section 15: Debriefing Statement

Please see the attached debriefing statement in **Appendix D**.

Appendix B:

Informed Consent Form

This form will inform you about the possible risks and benefits of participating in this study.

Your informed consent will be asked for before continuing to the survey.

Project Title: The College Choice: Adolescent Identity-Uncertainty and Group Entitativity

Researcher: Isabela Cruz-Vespa

Faculty Adviser: Thomas Hutcheon

I am a student at Bard College and I am studying social attitudes and perceptions of groups.

If you agree to participate in this study, I will first ask you to think about issues of social identity.

I will then ask you to rate two different college options based on two different topics, and also to rate several different common college characteristics. This survey is designed to last approximately 10 minutes. Your answers will be completely anonymous and confidential. The survey will take place online once you sign your consent and press “continue” to the next page.

Potential risks of participation include feelings of discomfort when asked to recall things that make you feel uncertain. If I ask any questions that you do not want to answer or feel uncomfortable answering, please skip it and move on to the next question, or exit the survey.

After completion of the survey, you will be given a new, separate survey link in which you may enter your email address. This will be used to enter you into a raffle for prizes. You may also receive indirect benefits from learning about the research process as well as about the background research motivating the present work on college choice.

All the information you provide will be confidential. I will keep all survey data secure in a password-protected file on my personal computer. Only my faculty adviser and I will have access to this information. Upon completion of this project, all typed responses to the first task of the survey will be destroyed.

Participant's Agreement:

I understand the purpose of this research. My participation in this interview is voluntary. If I wish to exit the survey for any reason, I may do so without having to give an explanation.

The researcher has reviewed the relevant risks and potential direct/indirect benefits with me, to the extent there are any. I am aware the information will be used in a Senior Project that will be publicly accessible online and at the Stevenson Library of Bard College in Annandale, New York. I have the right to review, comment on and withdraw information prior to May, 2021.

The information gathered in this study is confidential with respect to my personal identity. I understand that complete confidentiality cannot be guaranteed, since the researcher may be required to surrender data if served with a court order.

If I have questions about this study, I can contact the researcher at ic8783@bard.edu or the faculty adviser at thutcheo@bard.edu. If I have questions about my rights as a research participant, I can contact the chair of Bard's Institutional Review Board at irb@bard.edu.

_____ I am at least 18 years of age and I consent to participate in today's survey.

Appendix C

Uncertainty Manipulation & Manipulation Check

Certainty Condition Priming

Please spend a few moments thinking about the aspects of your life that make you feel certain about your identity, your life and your future. Then, type in the space below **a few sentences about the 3 aspects that make you feel most certain**. Your answers will be kept anonymous and confidential.

Uncertainty Condition Priming

Please spend a few moments thinking about the aspects of your life that make you feel uncertain about your identity, your life and your future. Then, type in the space below **a few sentences about the 3 aspects that make you feel most uncertain**. Your answers will be kept anonymous and confidential.

Manipulation Check

Think back to the 3 aspects of your life that you were asked to think and write about at the beginning of the survey. On a scale of 1 (very certain) to 10 (very uncertain), **how did this make you feel about yourself, your life and your future?**

Appendix D:

School Descriptions & Questions

Please carefully read the descriptions below of two college options, assuming that you have been accepted to both institutions and that both institutions are affordable. Then answer the following questions.

School #1

- This very large school is popular among the youth in your community. You are very familiar with the name, and many of your friends plan to attend.
- This school offers a wide variety of majors in every discipline
- Students here are known for all wearing the school colors and using the school slang. Everyone recognizes this school name and symbols, which are seen on the special merchandise that all students and graduates wear with pride.
- Students here commit to the school values, including loyalty to each other, above all else.
- School traditions are very important; everyone gathers together for varsity sports games every week at the large stadium and sings the school song all together. Greek life is very important.
- Certain degrees here are very highly ranked
- Student housing is on campus and there are many dining locations.
- There is school rivalry with the college in the nearby city, which generally holds different political attitudes and beliefs. Students here all count on each other to help fight for what is right.
- Many internship opportunities are offered here
- The local city is mostly made up of alums of this university. Graduates stay connected to the university community and other alumni well past graduation.

School #2

- This school is popular among the youth in your community. You are very familiar with the name, and many of your friends plan to attend.
- This school offers a wide variety of majors in every discipline
- Students here are required to participate in all classroom discussion and complete a year-long senior project. Emphasis is placed on collaboration with peers. The school mission revolves around teaching and learning.
- This school hosts yearly social events and gatherings for students.
- This school has several libraries on campus.
- This school offers several dining options.

- Although there is no greek life, there are a wide variety of student-run clubs and organizations.
- This school values diversity in all things, including students and faculty. This school accepts many international students as well.
- Students are encouraged to express different opinions and beliefs
- Club Sports are available and students enthusiastically attend the games
- Students have the option to take online classes as well and study from home, rather than be on campus
- Many students choose this school because of the challenging and stimulating course work.

1. On a scale from 1 (not at all) to 10 (very much), how much of a unified group do you feel School #1 is?
2. On a scale from 1 (not at all) to 10 (very much), how much of a unified group do you feel School #2 is?
3. On a scale of 1 (not at all) to 10 (very much), how similar to each other (in terms of beliefs and values) do you feel the students at School #1 are?
4. On a scale of 1 (not at all) to 10 (very much), how similar to each other (in terms of beliefs and values) do you feel the students at School #2 are?
5. On a scale from 1 (not at all) to 10 (very much), how much would you like to attend a college like School #1?
6. On a scale from 1 (not at all) to 10 (very much), how much would you like to attend a college like School #2?

Appendix E: School characteristics Questions

On a scale of 1-10, how important are each of the following at your ideal college?

(Please answer this question for each of the following items)

1. How important is this at your ideal college?: ***The students show school spirit and pride***
2. How important is this at your ideal college?: ***The college is well-known***
3. How important is this at your ideal college?: ***The college has a respected reputation or ranking in academics***
4. How important is this at your ideal college?: ***Large student population***
5. How important is this at your ideal college?: ***All students share the same beliefs in what is right and wrong and are ready to defend their beliefs***
6. How important is this at your ideal college?: ***Most other students at this college share your political affiliation***
7. How important is this at your ideal college?: ***Special school traditions are important (eg Varsity sports events, greek life, homecoming)***
8. How important is this at your ideal college?: ***Most other students at this college share your religious affiliation***
9. How important is this at your ideal college?: ***Located in your home state***
10. How important is this at your ideal college?: ***Your parents approve of this college***
11. How important is this at your ideal college?: ***Friends and/or family attend or have attended this college***

12. How important is this at your ideal college?: ***The faculty encourages diverse beliefs and opinions (which may differ from your own)***
13. How important is this at your ideal college?: ***The coursework is challenging and stimulating***
14. How important is this at your ideal college?: ***Offers resources to start independent student-lead projects***
15. How important is this at your ideal college?: ***Diverse student body and faculty***
16. How important is this at your ideal college?: ***A wide variety of student organizations and clubs***

Appendix F:

Debriefing Form

Thank you for your participation in this experiment. The goal of this study is to determine how specific group characteristics, designed to make a group seem more cohesive, or “entitative”, affects group attractiveness to adolescents. In this experiment, you were asked to think about and write about 3 aspects that make you feel either the most certain or the most uncertain about your identity. This served the purpose of manipulating how certain you felt about your self-identity during the survey. At the end of the survey, the question asking how this task affected your self-certainty was included for the purpose of ensuring that the manipulation was effective. You were also asked about your current college application process so that the effect of a student’s actual college application process on their survey answers might be taken into account as well.

In the survey, you were asked to read the descriptions of two made-up college options and to rate each one on two different aspects. You were also asked to rate each of several different college characteristics. I am interested in knowing if each participant's ratings of the colleges and college characteristics depend on differences in two things: how certain you felt regarding your self-identity, as well as how each college or college characteristic was described. It was hypothesized that individuals who are less certain of their identity will select the more cohesive, or “entitative” college option. This would be interesting because it may give insight into how uncertainty affects the college application process, and also more broadly, if high levels of uncertainty can make an individual more vulnerable to highly-entitative, “extreme” groups.

If you have any additional questions about this study, please contact the researchers, Isabela Cruz-Vespa, at ic8783@bard.edu. Your participation is greatly appreciated and could possibly aid students in the future. Finally, please do not discuss this study with anyone else who is currently participating at a future point in time, which, as you could guess, would prevent the manipulation from being effective.

Appendix G:

IRB approval

Bard College

Institutional Review Board
irb@bard.edu

Date: November 13, 2020
To: Isabela Cruz-Vespa
Cc: Tom Hutcheon, Deborah Treadway
From: Brandt Burgess, IRB Administrator
Re: The College Choice: Adolescent Identity-Uncertainty and Group Entitativity

DECISION: APPROVED

Dear Isabela,

The Bard Institutional Review Board reviewed your proposal entitled "The College Choice: Adolescent Identity-Uncertainty and Group Entitativity". Your proposal was approved, and is active through November 13, 2021. Your proposal number is 2020NOV13-CRU.

Please notify the IRB if your methodology changes or any unexpected or adverse events arise.

We wish you the best of luck with your research.

Brandt Burgess

Brandt Burgess

IRB Administrator
bburgess@bard.edu

