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Understanding Political Rigidity: Exploring the Epistemic Underpinnings of Political Ideology

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UNDERSTANDING POLITICAL RIGIDITY: EXPLORING THE EPISTEMIC

UNDERPINNINGS OF POLITICAL IDEOLOGY

A DISSERTATION SUBMISSION TO

THE FACULTY OF THE GRADUATE SCHOOL

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DOCTOR OF PHILOSOPHY

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BY

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Man is by nature a political animal.

<div align="right">—Aristotle</div>

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ABSTRACT

The ideology as motivated social cognition model conceptualizes conservatism in terms of two unique constructs: political conservatism and psychological conservatism. The former pertains to a predisposition to specific ideological beliefs (e.g., resistance to change), while the latter pertains to the psychological traits that are associated with particular ideologies (e.g., negativity bias). Experimental research demonstrates the mechanistic relationship of epistemic motivations and emergent political behavior. Much of the evidence lies in explicitly ideological outcomes. The current proposal seeks to test the fundamental assumption in this body of work. This is the assumption that increased epistemic motivation should lead to a preference for simple and decisive over more complex and ambiguous stimuli in order to satiate threats and uncertainty. Specifically, I sought to explore this by situationally manipulating threat (Study 1) and uncertainty (Study 2) and measuring participants' level of epistemic motivations and preferences for simple and decisive candidates without any overt political information present.

The results of this work largely support the claim that participants with high epistemic motivations prefer candidates with characteristics that satiate their needs for certainty, order, structure, and closure. Tentative findings suggest different epistemic motivations may have varying importance depending on dispositional versus situational influences. Furthermore, uncertainty may be more tied to existential rather than epistemic motivations. Future work should continue to explore the influence of social cognitive motivators and political judgements.

CHAPTER I

THE PROBLEM

We find ourselves living in strange and uncertain times. Crises of the climate, democracy,

and countless other alarming headlines inundate our news headlines and social media pages daily

- reminding us on a near constant basis of the current threats and uncertainties that we face today.

Previous research suggests that ideology may serve the functional purpose of helping us cope

and interact with this chronic stream of stimuli that make us feel uncertain and threatened. The

Political Ideology as Motivated Social Cognition model asserts that threat and uncertainty are

managed by three social cognitive motivators, which in turn manifest into the two facets of

emergent ideology: resistance to change and endorsement of inequality (Jost et al., 2003a;

2003b). The three social cognitive motivators include epistemic, existential, and relational. Each

of these three can be affected by both individual differences and situational factors, and each

manages influences of threat and uncertainty in unique ways. Exactly how these different social

cognitive motivators are activated and addressed produce a proclivity or attraction towards

different types of political rhetoric and approaches that "satiate" the activated motivational need.

For example, epistemic motivations relate to how we acquire information and beliefs (Jost,

2009). When epistemic motivation is high in response to stimuli of threat and uncertainty (e.g.,

high need for cognitive closure; Kruglanski & Webster, 1996), this engenders attraction towards

political rhetoric that is clear, concise, and offers simple solutions to political problems that do

not entail excessive thought about nuance, trade-offs, and other complexities. And, insofar as a

conservative ideological posture (e.g., right-wing authoritarianism) provides the individual with

simple solutions of this nature, conditions that produce high need for cognitive closure will engender increased attraction toward typically conservative rhetoric and conservative politicians. This chain of reasoning is what often underlies the notion of political ideology as motivated social cognition model.

Facets of this psychological process can readily be seen in the form of echo chambers and the rampant spread of misinformation, largely in the form of conspiracy theories such as those pertaining to COVID-19, QAnon, and others (e.g., Haghtalab, Jackson, & Procaccia, 2021; Gawronski, 2021). It is important to note that the most pervasive contemporary conspiracy theories are those that address the greatest uncertainties and threats that the world has been experiencing such as the COVID-19 pandemic and political unrest. Conspiracy theories can satiate epistemic motivations for certainty during uncertain times - regardless of their validity (van Prooijen, 2015). While conspiracy theories and echo chambers may help satiate our epistemic motivations for many, they have also resulted in greater political dogmatism and animosity; with social media algorithms only exacerbating these issues as they are tailored to increase engagement without consideration for the information that is being shared with the over 3.6 billion people who use it worldwide (e.g., Bake-Coleman et al., 2021; Johnson, et al., 2020; Kemp, 2020; Pew Research Center, 2016; Priniski, et al., 2021). Understanding the psychological mechanisms of this process is vital to overcoming the emergent issues of misinformation and political animosity.

The primary purpose of this dissertation is to more closely examine the initial steps of the aforementioned chain of reasoning, steps that are often assumed to mediate effects on an individual's ideological orientation, but that are rarely explicitly tested. That is, to demonstrate

that situational conditions that involve high levels of threat and uncertainty produce higher

epistemic motivations, when in turn, produce a preference for political candidates who provide

clear, concise, unambiguous and simple solutions to political problems.

Political Conservatism as Motivated Social Cognition

Jost and colleagues' (2003a; 2003b; 2009) model of political conservatism as motivated

social cognition asserts that an interrelated set of epistemic, existential, and relational motives

manage threat and uncertainty, ultimately predicting expressions of political conservatism. The

model is often framed in terms of the degree to which someone is resistant to change and accepts

inequality and, as such, is thought of how politically Right someone is. This framing has been

broadened in subsequent work to not be centered so directly on political conservatism and thus is

often interchangeably referred to as "ideology as motivated social cognition". This model is

unique in that it not only considers situational influences on ideology (e.g., uncertainty and

threat), but also individual differences such as needs and motives that can be temporarily or

chronically accessible when predicting political conservatism. The model can thus be broken

down into three distinct sections: environmental stimuli (i.e., situational stimuli), social-cognitive

motives, and ultimately political conservatism (Figure 1). We have already discussed political

conservatism as a function of the two key constructs of resistance to change and relationship to

hierarchy, but we will also define this construct more specifically in the contexts of this model.

We will also touch on the distal influence of environmental factors as they pertain to political

ideology. Socio-cognitive motives, however, act as the most proximal influence on the emergent

construct of political ideology and, as such, these motives will be explored in the greatest detail.

Political conservatism is specifically conceptualized within this model as the summation of both environmental factors and social-cognitive motives that culminate in both core and peripheral aspects of conservative ideology. Core elements of political conservatism are those that are stable, while peripheral elements of political conservatism are those that are malleable (Jost et al., 2003a; Jost, 2003b). The core elements include a resistance to change and an endorsement of inequality. This conceptualization is consistent with past literature that has associated conservatism with an endorsement for traditionalism and a hostility towards disruptive changes in the social, economic, legal, religious, political, or culture order (e.g., Conover & Feldman, 1981; Rokeach, 1954; Rossiter, 1968; Sidanius et al., 2004). Endorsement, and not just acceptance, of inequality is also a critical aspect of conservatism. Previous research on preferences for inequality has consistently found that the political Right views hierarchy as inevitable and essential, while the Left favors equality (e.g., Jost, Nosek, & Gosling, 2008; Pratto, et al., 1994; Sidanius et al., 2004).

Here I would like to make the explicit distinction between an active endorsement and passive acceptance of inequality. Constructs such as social dominance orientation (SDO) and system justification (SJ) are occasionally conflated within the contexts of describing conservatism (Jost, Banaji, & Nosek, 2004a; Pratto et al., 1994). The key distinction between these constructs is SDO is an individual's predisposition to actively enhance or attenuate hierarchy, while SJ is an individual's level of motivation to rationalize and justify the status quo. In this way, SJ largely serves to decrease uncertainty, threat, and fear as it actively reduces factors such as cognitive dissonance (Jost et al., 2004a). This seems to indicate that SJ is distinctly a relational socio-cognitive motive predicting political conservatism, while SDO is

distinctly a part of the emergent political conservatism construct within the contexts of the

ideology as motivated social cognition model.[1]

Figure 1. Adapted schematic illustration of the theory of political ideology as motivated social cognition (Jost et al., 2009; Jost et al., 2014)
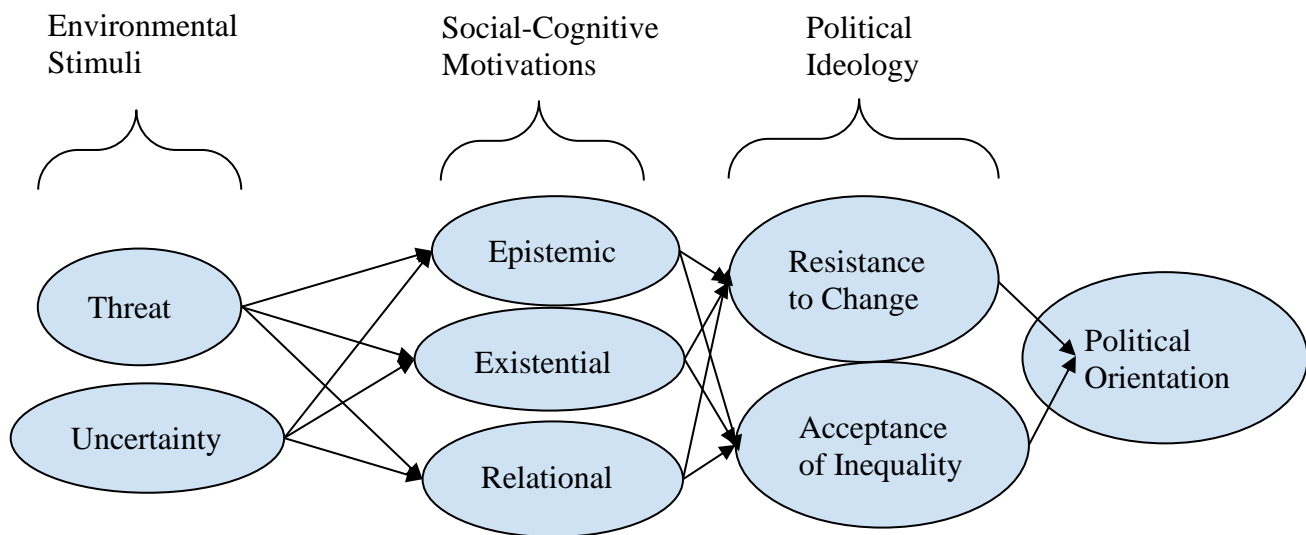
The ideology as motivated social cognition model organizes social-cognitive motivations

into the three distinct categories of epistemic, existential, and relational motives (Jost et al.,

2003a; Jost, 2003b; Jost, Federico, & Napier, 2009; Jost & Krochik, 2014). Epistemic

motivations primarily pertain to social-cognitive motivations of certainty. It is for this reason that

I will be primarily focusing on epistemic motivations as existential and relational social

cognitive motivations primarily serve with managing threats and uncertainty relating to security

and group solidarity (Jost et al., 2009). While such social cognitive motivations would

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[1] System justification was originally theorized as an ideological motive predicting political conservatism (e.g., Jost et al., 2003a). The model has since been updated to convey that ideological motives are now conceptualized under the superordinate construct of relational motives that predict political conservatism (Jost, Federico, & Napier, 2009).

potentially have an effect on one's need for cognitive closure, they are more distantly related than epistemic motivations. For this reason, I will be providing only a brief summary for both existential and relational social cognitive motivations in order to provide context, but then provide a much more detailed review of epistemic motivations.

Overview of Relational, Existential, and Epistemic Motives

Relational motives serve to attain a shared reality with significant others, facilitating solidarity across ingroup members (e.g., friends, family, and reference groups; Jost, 2009). There are several past theories and constructs that fall into this broader social-cognitive motivation umbrella, but the perhaps the most prominent are Social Identity Theory (Tajfel, 1978), Self-Categorization Theory (see review Hornsey, 2008) Moral Foundations Theory (MFT; Haidt & Graham, 2007) and System Justification Theory (Jost et al., 2004a; Jost et al., 2004b). Social Identity Theory and Self-Categorization Theory are often cited in tandem when attempting to explore interpersonal and intergroup behavior. Similarly, MFT and System Justification Theory are often considered within similar psychological domains within the study of political cognition. While these relational motives provide an exceptional framework for understanding the influence of interpersonal and intergroup interactions on emergent properties of ideology, they do not provide a strong basis for understanding the information processing mechanisms that are central to this dissertation. To do this, we must look to the relevant theories captured under the superordinate construct of existential and epistemic motives.

Existential motivations involve psychological motivations for security and meaning making (Jost et al., 2003a). Humans are inherently predisposed to seek safety and security while avoiding danger and threats to their survival. Thus, any situational condition that reminds an

individual of a threat to their safety or survival will activate a motivation to reduce danger and increase feelings of safety and security. Jost and colleagues (2003a) originally posited theories pertaining to self-esteem, mortality salience, loss prevention, and affect as key subordinate constructs within existential motivations. Self-esteem has been theorized as an existential motivation as threats to our sense of self (i.e., ego-threats) can lead to a sense of inferiority or insecurity, which is associated with our own sense of security and agency (e.g., Altmeyer, 1998; Boshier, 1969; Wilson, 1973b). While self-esteem has been theorized to be an aspect of existential motivation, the empirical evidence for this seems inconsistent outside of those pertaining to cognitive dissonance - discussed in the contexts of relational motives[2]. By and large the most reliable aspects of existential motivation appear to be an individual's responsiveness to threat (e.g., economic, political, or social) and the roles of affect (Jost et al., 2003a; Jost et al., 2007).

Though existential motives require further exploration as to how they theoretically manage uncertainty and threat, the research pertaining to the connection between epistemic motivations and political conservatism provides a clearer theoretical framework from which to generate the core hypotheses investigated in this dissertation. Epistemic motives relate to how an individual acquires information and beliefs. Within the ideology as motivated social cognition model, this pertains to how information processing relates to management of threat and uncertainty (Jost., 2009). Motivations that fall under the umbrella of epistemic motivations can include motivations for certainty, order, structure, and closure (e.g., Jost & Amodio, 2011).

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[2] The studies contained within the original Jost and colleagues (2003a) article supporting self-esteem as a significant existential motive were most often underpowered when larger effect sizes were reported (e.g., Boshier, 1969) or non-significant when the study was properly powered (e.g., Altmeyer, 1998).

While existential motives are perhaps more related to managing threat than uncertainty, epistemic motivations are perhaps theoretically more related to managing uncertainty than threat (e.g., Jost et al., 2003a; Jost et al., 2007). Considering this, epistemic motives encompass the most directly relevant set of constructs for understanding information processing within the context of political cognition.

CHAPTER II

EPISTEMIC MOTIVATIONS: COGNITIVE STYLE AND

OPENNESS TO COMMUNICATION

As noted previously, motivations that fall under the umbrella of epistemic motivations can include motivations for certainty, order, structure, and closure (e.g., Jost & Amodio, 2011). While existential motives are perhaps more related to managing threat than uncertainty, epistemic motivations are perhaps theoretically more related to managing uncertainty than threat (e.g., Jost et al., 2003a; Jost et al., 2007). Epistemic motives relate to how an individual acquires information and beliefs (Jost., 2009). Individual epistemic motives can vary both by trait and across states. Individual differences in epistemic motives can be explored in terms of information processing style and openness to communication.

Systematic versus Heuristic Process Style

One of the most foundational concepts in the study of information processing is that of the distinction between heuristic and systematic information processing. Systematic processing is "a comprehensive, analytic orientation in which perceivers access and scrutinize all information input for its relevance and importance to their judgment task and integrate all useful information in forming their judgements" (p. 212, Chaiken, Liberman, & Eagly, 1989). How extensive this process is can vary across individuals and situations but is assumed to involve greater levels of effort and cognitive capacity than heuristic processing. Heuristic processing requires less effort and capacity as it often acts as a set of "cognitive short-cuts". Specifically, "when processing

heuristically, people focus on that subset of available information that enables them to use simpleinferential rules, schemata, or cognitive heuristics to formulate their judgements and decisions" (p. 213, Chaiken et al., 1989). We can draw further distinctions here and consider that systematic processing is often thought to be controlled and intentional, while heuristic processing is generally less deliberate, more automatic, and more unconscious (Chaiken, 1987; Chaiken et al., 1989). Subsequent dual-process models have categorized information processing in a similar manner with low effort processing (e.g., stereotyping, associative, associative access) and high effort processing (e.g., individualization, suppression, rational; see review by Smith & DeCoster, 2000).

Automatic versus Deliberative Process Style

Perhaps the most contemporary model of information processing within the attitude literature is that of the MODE model (Fazio & Olson, 2014). The MODE model asserts how attitudes can affect judgment and decision making in terms of the individual's level of motivation and opportunity. These two factors in turn will determine whether the individual will operate in a spontaneous (i.e., automatic), deliberative (i.e., controlled), or mixed attitude-to-behavior process (Fazio & Olson, 2014). The spontaneous process activates an individual's automatic attitudes towards a given attitude-object. What specific attitude will be activated often depends on the salience and utility of a relevant category. Previous attitudes can subsequently affect the encoding, interpretation, and retrieval of information pertaining to the attitude object (Wyer & Srull, 1986). This process overall is unconscious, automatic, and does not require any effort in its activation (Fazio & Olson, 2014). Behavior and judgements are then a consequence of the activated and salient attitudes. An example of this could be one's immediate reaction to being offered sushi; either a disgust or positive association will be elicited immediately, which will

then predict whether the individual would accept or reject the offer for sushi. Deliberative

processes are the opposite of spontaneous processes in many ways.

Deliberative processing involves a deeper consideration of the costs and benefits of a

particular judgment or behavior and thus, elicits a more thorough consideration of one's attitudes

(Ajzen & Fishbein, 1980). In order for an individual to engage in deliberative processing, they

must have both the motivation and the opportunity to do so (Fazio & Olson, 2014). An

individual's level of motivation to deliberately process may be influenced by such factors as their

desire to be accurate, accountability, and social desirability (see review Fazio & Olson, 2014).

Opportunity pertains to the individual's ability to deliberately process and can encompass factors

such as time and cognitive resources. Fazio and Olson (2014) argue that one must have the

"opportunity" in order to be able to deliberately process - if one is motivated to do so. In the

contexts of the MODE model then, "mixed" processing is any combination of automatic

spontaneous processes and controlled deliberative processing. One may have a negative racial

attitude activated, but if this individual is both motivated to not be racist *and* has the opportunity

(i.e., time and resources), then this individual may counter their automatic attitude - ultimately

leading to a judgment or behavior that is not just an outcome of their spontaneous racial attitudes

(e.g., Fazio & Olson, 2014). If, however, the individual is under a time constraint, cognitively

fatigued, or otherwise does not have the "opportunity" to deliberately process, then their

judgements and behaviors will be subject to their initial spontaneous attitudes despite any

motivations they may have.

Tenability Range

Measures of individuals' personal tenability range are currently limited within the

psychological and political science literatures. The Overton Window from political science specifically operationalizes this personal tenability range in terms of an individual's range of differing political policies on a spectrum of freedom (Lehman, 2010). For example, complete government outlaw of alcohol on one end (low freedom), to no regulation of any facet of alcohol sales or consumption on the other (high freedom). Though potentially insightful, this measure is limited to just an individual's policy positions and operationalizes the ideological spectrum only in terms of freedom (e.g., Jost, 2006; Rokeach, 1973, Sidanius, 1990). Some have suggested that this measure is biased in terms of a Libertarian perspective and possesses methodological shortcomings (see Szałek, 2013; for a review).

Simonovits (2017) created a unique measure of ideological space by having individuals choose between "extreme" and "moderate" policies in order to establish what policies the individual is willing to consider. The issue with this measure however is that the approach is closer to a manipulation than an outcome measure with the intention being to explore how exposing individuals to "extreme" policy positions will affect their thermometer rating of other political policies going forward. For example, exposing participants to a policy proposing complete government control over healthcare made participants rate policies like the Affordable Care Act as more moderate than if they had not seen the more "extreme" left policy.

Fazio and colleagues (1977) also developed an interesting measure attempting to determine the spectrum of ideas people are willing to consider, and where they draw the line on the political spectrum and would reject any ideas that fall outside of their identified range - this is referred to as the *latitude of acceptance*. This measure allows individuals to not only identify their own political identification, but then asks participants to identify what political identities

are acceptable and unacceptable to hold in their view. Fazio and colleagues (1977) then explore

how this range may be shifted in terms of the cognitive dissonance and self-perception theories.

Though dated, this measure provided a unique conceptualization of tenability range, but also

demonstrated that this range is malleable[1].

Open-Minded Cognition versus Dogmatic Cognition

Open-mindedness has also been researched as a unique cognitive style. While previous

works on attitudes have explored differences in cognitive style in terms of when individuals may

participate in more shallow or systematic processing (i.e., depth of processing), very little has

explicitly explored factors that influence an individual's width of processing. Research regarding

open-minded cognition (OMC) has sought to address this gap in the literature. One's level of

OMC is conceptualized on a bipolar dimension ranging from open-mindedness to closed

mindedness (i.e., dogmatism; Ottati et al., 2015; Price et al., 2015). OMC is broadly theorized as

a cognitive style with open-minded cognition being marked by a willingness to consider a variety

of intellectual perspectives and views (e.g., values and beliefs), including those that contradict

one's own opinions. Conversely, a closed-minded cognitive style is marked by a tendency to

attend to and process information in a way that reinforces one's prior opinion or expectation (i.e.,

confirmatory bias). In this way, the constructs of open-minded cognition and depth of processing

can be considered as orthogonal to one another. That is, one could deeply process information

pertaining to a political issue (high depth of processing), but only seek out and consider

---

[1] The latitude of acceptance measure was previously explored by Osteen and Ottati (unpublished manuscript) as a possible correspondent DV to manipulations of the Earned Dogmatism Effect (Ottati et al., 2018). Two pilot studies were run and although SOMC had a small correlation with the latitude of acceptance ($r = .19$), neither the optimal success vs. failure nor recall manipulations demonstrated an effect on the latitude of acceptance. The results of these two pilot studies can be provided to the committee upon request.

information from sources that will support their existing beliefs (low OMC). Furthermore, it should be clarified that just because one has an open-minded cognitive style does not necessarily mean that they will develop a positive attitude towards differing opinions. For example, a pro-choice advocate could consider the perspectives of a pro-life advocate to understand their position to a greater degree, but still not change their overall stance on the issue of abortion. OMC has been explored both in terms of individual differences and its malleability across differing situations.

It is proposed that everyone has a trait level of OMC that is constant across different situations (i.e., general open-minded cognition; GOMC). There is however evidence that OMC may differ across domains, including that of political (political open-minded cognition; POMC) and religious (religious open-minded cognition; ROMC) domains, as well as situationally (Price et al., 2015; Ottati, 2015). The ways in which OMC may be affected by factors of the situation have been explored in terms of the Flexible Merit Standard Model (Ottati, 2015). This model provides a useful framework and has identified the characteristics of the situation, role expectations, personal attitude convictions, and individual differences as factors that may significantly affect an individual's level of situation-specific OMC (or SOMC). This may include considerations of the open-minded norms of the situation, reciprocal open-mindedness and politeness, and the tenability of the message (Ottati, 2015). Perhaps the most robust findings from this model pertain to role expectations in the form of the Earned Dogmatism effect (Ottati et al., 2015; Ottati, Wilson, Osteen, & Distefano, 2018). That is, individuals who believe they are experts on a topic *relative* to another will engage in more closed-minded processing as they

believe they have earned the socially acceptable norm to be dogmatic on a topic by merit of being an expert on a topic compared to another.

Openness to Following or Sharing: A Comparative Standard Measure

Early work by Osteen, Ottati, and Moaz (unpublished manuscript)[2] developed a novel measure based upon previous work by Ottati et al. (forthcoming, 2021). This measure was developed with consideration of selective exposure and sharing within the contexts of online spaces and social media. In general, people choose to engage with articles and content that they already agree with, or that specifically target one of their social identities - including their political identification (Hart et al., 2009; Stroud, 2010; Wojcieszak, 2021). Interestingly, a study conducted in Norway by Johannesson and Knudsen (2021) showed that, while participants were unbiased in their selection of reading material, participants were significantly more likely to share agreeable material. Though it is interesting to note that, in this same study, the likelihood of both reading and sharing information increased when the source of the information was seen as knowledgeable. This seems to suggest that, while following and sharing do seem to be unique constructs, they both seem to be affected by how knowledgeable the source is seen as being - a construct very much within the domain of epistemic motivations.

The work by Osteen, Ottati, and Moaz (unpublished manuscript) involves telling participants that they will be reading political content from varying groups that have posted on social media. They are asked to complete the situation-specific open-minded cognition (SOMC) measure for each group and complete a measure of how likely they will be to share and follow content from each group. All groups are simply referred to as "Group" followed by the number

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[2] Data and write up available upon request.

which designates the order in which is presented to the participant (i.e., the first group they see is referred to as Group 1, the second group is referred to as Group 2, etc.). Participants are told this is to protect the identity of these political groups and organizations, but these groups and messages are actually fictitious and solely constructed for the purposes of the experiment. For all participants, Group 1 provides a tenable message. Participants are then randomly assigned to read either a tenable or untenable description of Group 2's message, a tenable or untenable version of Group 3's message, and so on. In this case, an untenable group is a group that makes a claim that is extremely unrealistic or morally objectionable (e.g., a ludicrous conspiracy theory, denying citizens' rights to vote if they are a minority). Conversely, a tenable group's claims are realistic and consistent with mainstream values and norms, such as US voting rights being based on foundational US documents. Though tenability was manipulated between participants, the same topic was covered within each group (Ottati et al., forthcoming, 2021). For example, Group 5's message always pertained to the issue of privacy with participants being randomly assigned to receive either a tenable or untenable message pertaining to privacy.

After reading the information from each group, participants completed a measure of SOMC. That is, for each group, participants rated the extent to which they would be open to acquiring additional information pertaining to each group. For Groups 2-5, after completing the SOMC measure, participants made a comparative rating indicating the degree to which they would be willing to follow and share information pertaining to the Group. In all cases, these ratings were made relative to Group 1. That is, Group 1 served as the common standard of comparison when making these ratings for Groups 1, 2, 3, 4, and 5. For example, after completing the SOMC rating for Group 2, participants completed the follow and share

preference ratings on a bipolar 10-point scale ranging from 1, *First Group*, to 10, *Second Group*. Subsequently, after completing the SOMC rating for Group 3, participants completed the follow and share ratings for Group 3 on a bipolar 10-point scale ranging from 1, *First Group*, to 10, *Third Group*. This process would be repeated for Groups 4 and 5.

When rating Groups 2-5, results indicated that participants reported significantly higher levels of SOMC towards tenable groups than untenable groups. Furthermore, when making the comparative follow and share ratings, participants preferred to follow and share information pertaining to the second group (over Group 1) when the second group provided tenable (as opposed to untenable) information[3]. The results of this preliminary work seem to be correspondent with past work in the selective exposure and sharing literature. More generally, this measure provides an interesting basis for developing measures in future research that examines follow and share behavior[4].

Lay Epistemic Theory and Need for Cognitive Closure

Kruglanski's (1989) Lay Epistemic Theory (LET) asserts that knowledge and beliefs are determined through a process of motivated informational search. The construct of need for cognitive closure was developed as a part of this theory. Kruglanski and Webster (1996) suggest that the need for cognitive closure is induced by the perceived benefits of closure. Furthermore, they suggest that the need for cognitive closure can take either the form of urgency or

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[3] The effect of tenability condition on both follow and share items was mediated by SOMC, with the exception of Group 2 for both the follow and share].

[4] Some individuals are not followers of sharers of anything on the internet (e.g., old folks who shy away from computers, people who do not like computer technology in general, etc.). Other individuals are avid followers and sharers of a great deal of information that appears on the internet (i.e., avid internet users). The comparative measure controls for individual differences of this nature when measuring the likelihood of following or sharing information pertaining to any of the above-mentioned groups.

permanency tendency; with urgency being the tendency to seize on closure quickly and accept the first answer that is available and permanency being a tendency to want to perpetuate an already achieved closure - to "freeze" past knowledge. For example, a student who wants to complete his homework early may want to look up the first answer he finds (urgency) and not see if there are any other sources supporting his first find (permanency) since he will likely see completing his homework as soon as possible as a benefit. Webster and Kruglanski (1994) ultimately developed a 42-item scale operationalizing this construct into the Need for Cognitive Closure Scale (NFCS). This scale also contains five factors (or subscales) including need for order, need for predictability, decisiveness, avoidance of ambiguity, and closed-mindedness (see also Roets & Van Heil, 2007). The scale has been found to have predictive validity at both the state and trait levels (e.g., Jost et al., 2003a; Kruglanski & Webster, 1996; Webster & Kruglanski, 1994). Most relevant to this review, the NFCS has been investigated in terms of uncertainty and threat, with increased threat corresponding with higher reported NFCS (e.g., Jost et al., 2007; Thórisdóttir & Jost, 2011), and increased uncertainty also corresponding with higher NFCS (e.g., Berebaum et al., 2008; Disatnik & Steinhart, 2015; Jung, & Kellaris, 2004; Marchlewska et al., 2018)[5].

While the ideology as motivated cognition model considers all of the reviewed models in some form when defining epistemic motivations, Kruglanski's (1989) work is perhaps one of the most central to understanding when we are motivated to consider greater and more complex amounts of information, and when we are motivated to just consider simple and definitive answers. Jost and colleagues (2003a) make the following claim in their initial paper

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[5] Jost et al., 2003a found the weighted mean effect size for the relationship between the needs for order, structure, and closure and political conservatism, was significantly positive with a medium effect size ($d = 0.54$).

positing the ideology as motivated social cognition model, "Specifically, contents that promise or

support epistemic stability, clarity, order, and uniformity should be preferred by high-need-for-

closure persons over contents that promise their epistemic opposites (i.e., instability, ambiguity,

chaos, and diversity). In this sense, a need for closure that is impartial or nonspecific (i.e.,

content free) becomes partial or specific with regard to contents that are explicitly related to

closure (Kruglanski, 1989). To the extent that there is a match between the need for closure and

certain politically conservative attitudinal contents, then conservative attitudes should be

generally preferred by people who have a high need for closure (Jost et al., 1999)." (p. 348). This

passage does two things. First, it asserts that individuals who are high in the Need for Cognitive

Closure (NFCS; Webster & Kruglanksi, 1994) should prefer messages that essentially satiate the

epistemic needs for certainty, order, structure, and closure. Second, it asserts that, while this

effect is theoretically apolitical, conservatives may be more prone to this as conservatives are by

trait higher on their needs to certainty, order, structure, and closure.

To clarify, previous theory and research can be depicted in terms of the mediational

model depicted in Figure 2. The model depicted in Figure 2 suggests that uncertainty, threat, and

need for cognitive closure increase preference for conservatism because conservatism functions

(at least in part) to provide simple and orderly solutions to social and political problems (Jost et

al., 1999). This model pertains to conditions in which there is a match between the need for

closure and certain politically conservative cognitive elements (i.e., order, simplicity) - a

condition that many suggest exists within contemporary political life in the U.S.

Figure 2. Epistemic Model of Determinants of Conservative Candidate Preference
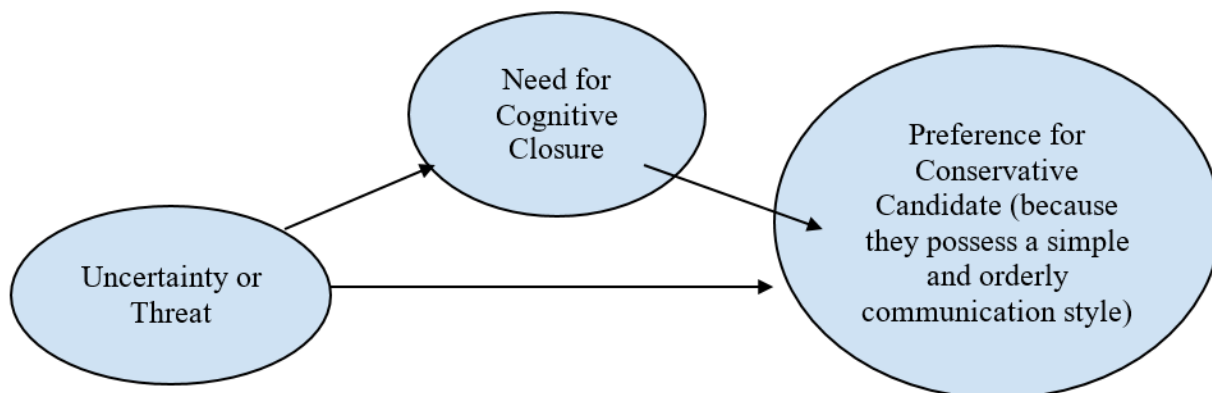
Importantly, although the model portrayed in Figure 2 is supported in previous work (e.g., Conover & Feldman, 1981; Jost, 2006; Rokeach, 1973, Sidanius, 1990), no empirical evidence has been provided for the underlying assumption made by Kruglanski (1989). That is, that high NFCS (Webster & Kruglanski, 1994) elicits a preference for candidates who project simple and orderly solutions to social and political problems. Although this assumption clearly underlies the aforementioned model, and clearly lies at the heart of differences between political Left and Right orientations, it has not been directly tested or demonstrated empirically. That is, prior research suggests that increased situational threat and uncertainty leads to increased NFCS, with the political Right often providing messages that satiate the epistemic needs for certainty, order, structure, and closure more so than the political Left. If this claim is true, then it ought to be possible to demonstrate that threat and uncertainty will increase attraction to politicians who provide messages that satiate epistemic needs for certainty, order, structure, and closure- even when the politician's message is devoid of any ideological content. That is, it ought to be possible to obtain evidence that supports the following model depicted in Figure 3.

Figure 3. Epistemic Model of Determinants of Non-Ideological Candidate Preference
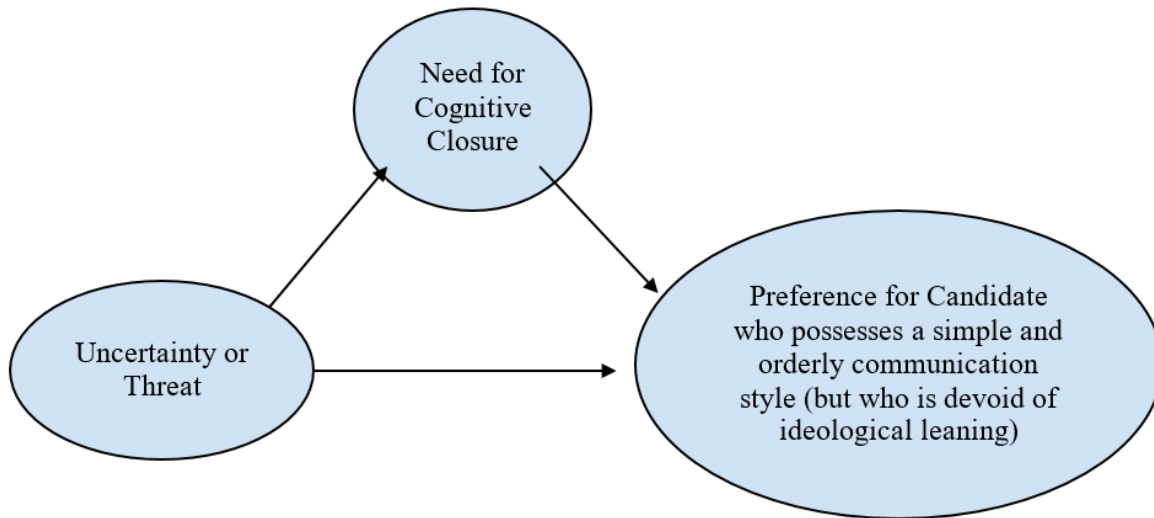
CHAPTER III

THE PROPOSED RESEARCH

Previous research that is compatible with the motivated social cognition account, has

demonstrated that increased threat and uncertainty elicit effects on political beliefs and behavior

that serve to increase the individual's desire to maintain order, structure, and closure in political

affairs. More specifically, these studies commonly presume that certain political orientations

tend to satiate the need for order structure and closure in political affairs. These include

endorsement of right-wing economic beliefs, conservatism, right-wing nationalism, and right-

wing political attitudes. Given this presumption, these studies demonstrate that threat or

uncertainty increase conservative political ideological orientations of this nature (see Figure 2).

Demonstration of these effects has been obtained in research performed in an impressive number

of countries, including Poland, the U.S., Italy, Germany, and Iceland (Chirumbolo, 2002, Golec

2001; Jost et al., 1999; Kemmelmeier, 1997). In this work, NFCS is the most common measure

used to capture one's level of epistemic motivation (Webster & Kruglanski, 1994). This

ostensibly would provide support for the model depicted in Figure 4.

Figure 4. Previous Research Regarding Determinants of Conservative Candidate Preference
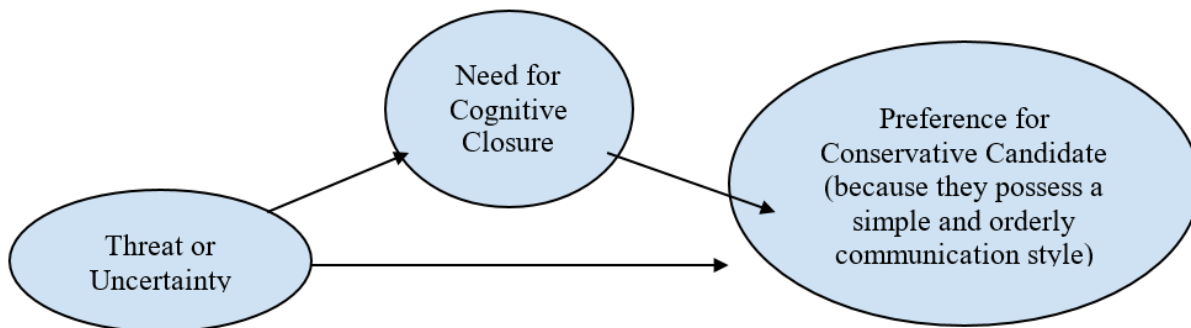
Of course, if the *psychological* interpretation of these motivated social cognition effects is truly valid, it should be possible to demonstrate that manipulations of threat and uncertainty activate a need to maintain order, structure, and closure- even when such needs can be met within a non-ideological context. That is, it should be possible to demonstrate that threat and uncertainty increase preference for a political spokesperson who displays a communication style that is clear and concise, and that directly addresses the citizen's increased need for order, structure and closure. This should be the case*, even when the substantive content of the political spokesperson's message is not explicitly ideological*. This dissertation examines this possibility, which can be summarized in Figure 5.

Figure 5. Epistemic Model of Determinants of Non-Ideological Candidate Preference
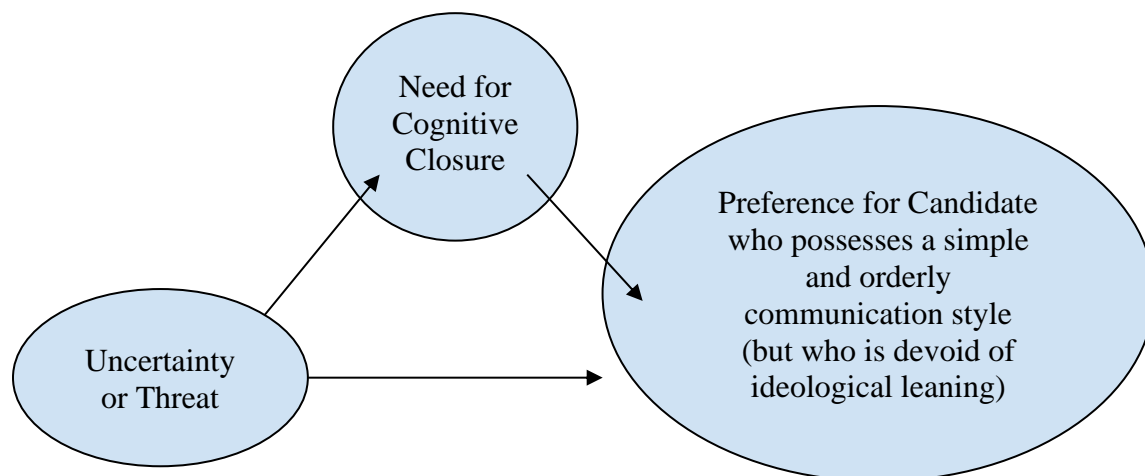
Put simply, the assertion that increased situational threat and uncertainty produce an increase in need for political order, structure, and closure has been demonstrated (e.g., Jost et al., 2003a; Thórisdóttir & Jost, 2011). However, this assertion has been primarily examined under conditions in which order, structure, and closure exist in the form of a conservative ideological

orientation (e.g., Jost et al., 2003a; Thórisdóttir & Jost, 2011). Instead, I intend to test a more

fundamental assertion claimed by this body of work, as it pertains to how we consider political

information. This means I will be focusing on the epistemic social cognitive motivators and will

seek to demonstrate that high threat and uncertainty increases one's desire for order, structure,

and closure, (e.g., NFCS; Kruglanksi; 1999) Jost et al., 2003a; Thórisdóttir & Jost, 2011). I

however also seek to expand on this literature by specifically exploring the fundamental

mechanism of this relationship in how these factors may result in behavior that motivates us to

satiate these desires even when they are free of ideological content. That is, higher threat and

uncertainty should increase one's desire for order, structure, and closure. This should lead to a

preference for messages and content that satiate these desires; namely, messages that are simpler

and definitive, rather than complex and ambiguous. This should occur even when the messages

are free of ideological content.

Ideological Flexibility in Need for Order, Simplicity, and Structure

The Need for Cognitive Closure measure (NFCS) is perhaps one of the most common

measures developed to capture one's level of epistemic motivation (Webster & Kruglanski,

1994). In addition to its relationship with measures of political ideology that was covered

previously, NFCS has also been shown to correlate with underlying psychological variables and

policy positions such as authoritarianism and capital punishment - these findings also being

replicated across a number of countries including Italy, the US, and Poland (Chirumbolo, 2002;

Golec, 2001; Jost et al., 1999; see review by Jost et al., 2003a).

Thus, previous work strongly suggests that the political Right often addresses epistemic

needs for order, structure, and closure more intrinsically than the political Left by virtue of the

political Right being associated with factors, such as authoritarianism, that more directly satiate

these desires by offering order, unambiguous messages, and clear structure. Importantly,

however, Jost et al. (2003b) qualify this assertion by stating that appeal to the status quo is truly

what lies at the center of this - essentially that of SDO (e.g., Pratto et al., 1994; Sidanius et al.,

2004). Jost et al. (2003b) argue that the Political Left can actually satiate these epistemic needs in

a way similar to the political Right - though it is perhaps less salient in the modern day. For

example, they argue that the Bolsheviks of 1917 would not have been motivated by simplicity,

certainty, and security as being open to change and higher uncertainty is a hallmark of "young"

(particularly revolutionary) political movements. It is then argued though that this would have

then shifted once the Bolsheviks gained power and the USSR's socialist government became the

status quo, with this now "old" political movement/ regime not being open to change and

uncertainty (see Figure 1, Jost et al., 2003b). In other words, the political Left only addresses

epistemic motivations when they are in power.

I would argue that the political Left can satiate these regardless of whether they are in

power, and thus have the benefit of the status quo, or not. There exist many examples of this

such as the American workers "Eight-Hour-Day" movement (see Kaye, 2020; Whaples, 1990)

and European revolutionaries being motivated by common appeals for "Bread, Freedom, and

Peace" across several European nations during the early 20th century (see Lenin 1961; Le Blanc,

2016; Marx & Engels, 1970; 2011; Pelz, 2018). This distinction is important as this showcases

that, on the broader level, while the political Right may satiate epistemic needs through

authoritarianism and conservative policies, this does not mean that the political Left cannot

satiate these same epistemic needs in different ways - particularly during highly threatening or

uncertain times.

We can also refer to Kruglanski and Webster (1996) that suggest the need for cognitive closure is induced by the perceived benefits of closure - taking either the form of urgency or permanency tendency; with urgency being the tendency to seize on closure quickly and accept the first answer that is available and permanency being a tendency to want to perpetuate an already achieved closure - to "freeze" past knowledge. We can consider "freezing" past knowledge and wanting to perpetuate knowledge we already have as, in a political sense, perpetuating what we as individuals have already decided regarding political beliefs - which is not inherently Left or Right. The present status quo does more than likely provide a schema for politics that is often much easier to retrieve and thus may provide an easier basis for "past knowledge" for most individuals to want to "freeze". This would support Jost and colleagues (2003a; 2003b) claims of epistemic needs being met by appealing to the status quo. However, one could also want to urgently seek an alternative to the uncertain or threatening political system they currently live in, as was the case in the historical examples, and thus not be linked to the status quo.

Kruglanski et al. (2014; 2017) work on Significance Quest Theory (SQT) further makes the case that epistemic motivations can be satiated outside of appeals to the status quo. SQT suggests that the pathway to radicalization is rooted in an event that induces humiliation in one's social groups or one's own personal circumstances. For example, a study by Jasko et al. (2016) found that US domestic terrorists were more likely to commit a violent crime if they experienced a significant economic or relational loss. Such feelings of loss increase our epistemic motivations for needs of order, structure, and closure, and radicalism that stands apart from any status quo

can provide ways to satiate these in the form of ideologies that offer solutions and beliefs that address immediate concerns (urgency) in a consistent and dogmatic way (permanence).

The aforementioned historical examples and reviewed psychological literature highlight the current gaps in our understanding of epistemic motivations within the political domain. I have primarily focused on research that focuses on how threat and uncertainty can have an influence on preferences for messages that better satiate epistemic needs for order, structure, and closure, removed from more political measures - and I have suggested that *both* the political Left and Right have capitalized off of this across varying historical circumstances.

Testing the Epistemic Model Within a Non-Ideological Context

The theory and research described above lay the foundation for a core assumption tested in this dissertation. Namely, it should be possible to obtain support for the epistemic model of political preference, even when the need for order, structure, and closure are satiated by political stimuli that are "decoupled" from ideology. That is, it should be possible to obtain support for the epistemic model of political preference when participants are provided with an opportunity to choose a simple and orderly political candidate over a more complex or nuanced political candidate - even when such candidates are depicted in a completely non-ideological fashion. The present research will operationalize preference in the form of support for a candidate in an election. The full pre-registration in social psychology can be found here: https://osf.io/5ebj9.

<div align="center">

Hypotheses

</div>

Hypothesis 1a: Participants will be more likely to express preferences that satiate one's epistemic needs following a threat manipulation. That is, participants under high threat should prefer candidates who offer simple and definitive messages (i.e., epistemic satiating) over

candidates who offer complex and ambiguous messages (i.e., non-epistemic satiating) compared to participants under low threat.

Hypothesis 1b: Participants will be more likely to express preferences that satiate one's epistemic needs following an uncertainty manipulation. That is, participants under high uncertainty should prefer candidates who offer simple and definitive messages (i.e., epistemic satiating) over candidates who offer complex and ambiguous messages (i.e., non-epistemic satiating) compared to participants under low uncertainty.

Hypothesis 2a: Participants will report a higher motivation to satiate epistemic needs following a threat manipulation. That is, participants under high threat should score higher on the Need for Cognitive Closure Scale (NFCS) compared to those under low threat.

Hypothesis 2b: Participants will report a higher motivation to satiate epistemic needs following an uncertainty manipulation. That is, participants under high uncertainty should score higher on the Need for Cognitive Closure Scale (NFCS) compared to those under low uncertainty.

Hypothesis 3: Participants that score higher on the Need for Cognitive Closure Scale (NFCS) will report a greater preference for candidates who offer simple and definitive messages (i.e., epistemic satiating) over candidates who offer complex and ambiguous messages (i.e., non-epistemic satiating).

Hypothesis 4a: Increased threat will lead to increased motivation to satiate epistemic needs at both the psychological and behavioral level. Participants under high threat should prefer candidates who offer simple and definitive messages over candidates who offer complex and ambiguous messages (compared to participants under low threat). This effect will be mediated by

NFCS such that higher threat will lead to scoring higher on NFCS, and higher NFCS will predict

a preference for a candidate who offers simple and definitive messages over a candidate who

offers complex and ambiguous messages (see Figure 6).

Figure 6. Epistemic Model of Threat Management and Candidate Preference
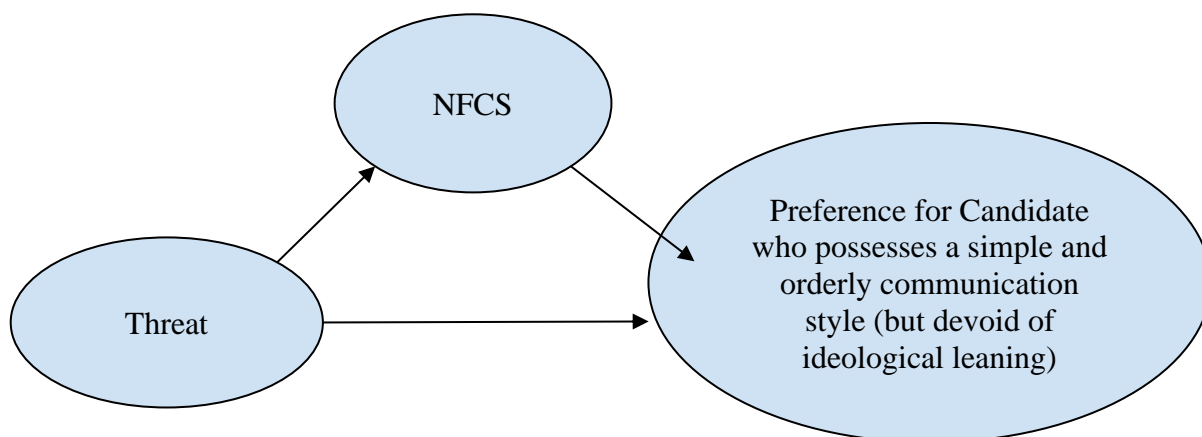
Hypothesis 4b: Increased uncertainty will lead to increased motivation to satiate

epistemic needs at both the psychological and behavioral level. Participants under high

uncertainty should prefer candidates who offer simple and definitive messages over candidates

who offer complex and ambiguous messages (compared to participants under low uncertainty).

This effect will be mediated by NFCS such that higher uncertainty will lead to scoring higher on

NFCS, and higher NFCS will predict a preference for a candidate who offers simple and

definitive messages over a candidate who offers complex and ambiguous messages (Figure 7).

Hypothesis 5: This exploratory hypothesis will seek to determine the distinction between

trait and state level influence of threat, uncertainty, and NFCS on a preference for simple vs.

complex messaging (i.e., epistemic satiating vs, non-epistemic satiating) by including political

ideology as a covariate. Using political ideology as a covariate should control for trait level

ideological differences (i.e., trait level differences in epistemic motivations) across participants

and thus results should indicate specifically state level differences across participants.

Figure 7. Epistemic Model of Uncertainty Management and Candidate Preference
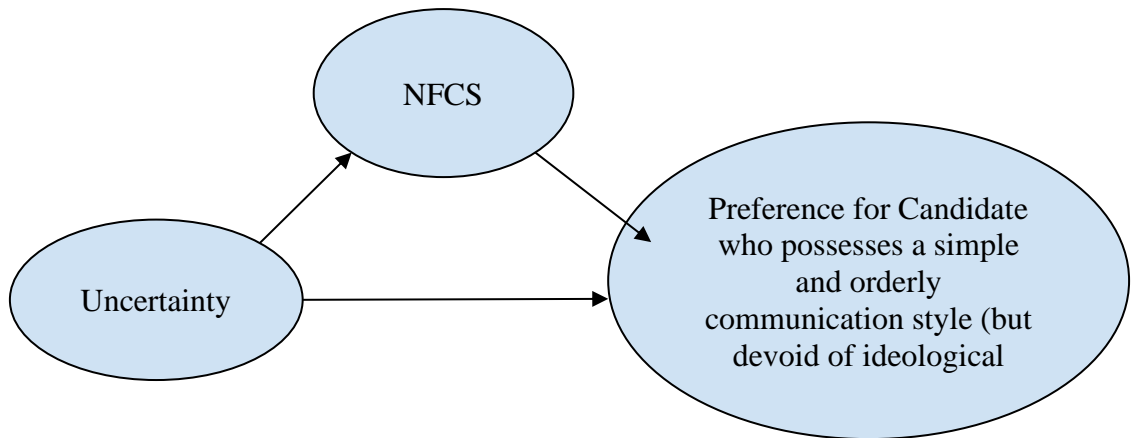
CHAPTER IV

PILOT STUDY 1 - THREAT

While prior research has demonstrated successful situational manipulations of threat and uncertainty, there remains limited evidence that such manipulations will be successful online and in an American sample. Past research has suggested that participants do not follow directions online as well (in part due to online bots) and that effect sizes are smaller online versus in-person (e.g., Chuey et al., 2022). As the proposed threat and uncertainty studies intend to collect data using the online platform of Cloud Research, pilot studies were run in order to accomplish two goals. The first is to determine if online participants will complete the intended uncertainty and threat writing manipulation tasks in good faith. That is, actually follow the prompt that they are provided and provide thoughtful responses. Second, to determine the efficacy of the manipulations relative to the purported effect in previous literature - most of which were conducted in person and outside of the US. Pilot Study 1 will focus on Theat.

Threat

Thórisdóttir and Jost (2011) previously used a threat manipulation where participants were asked to come into the lab to recall and write down either 3 (low threat) or 12 (high threat) real life past threatening experiences in studies 1a and 1b using an Icelandic sample. In Study 1a, all participants in the low threat condition generated all 3 requested experiences, while participants in the high threat condition recalled 11.08 ($SD = 2.37$) on average. Participants then answered the 1-item manipulation check item of "how threatened do you feel right now?" measured from 1 ("*Not at all threatened*") to 10 ("*Very threatened*"). Though participants did

successfully follow directions for the threat manipulation, a t-test examining the effect of threat condition on self-reported feelings of threat were non-significant, t (46) = 1.53, p = .13, with participants in the high threat condition (M = 2.32, SD = 1.82) not reporting significantly higher levels of threat than the low threat condition (M = 1.68; SD = .84). Participants then completed the full 42-item Need for Cognitive Closure Scale (NFCS; Webster & Kruglanski, 1994), which included the closed-mindedness, order, predictability, ambiguity, decisiveness, and reliability subscales. Despite the lack of success of the manipulation check, the threat condition had a significant effect specifically on the closed-mindedness subscale of NFCS, t (46) = 2.24, p < .05, two-tailed. Study 1b used the same threat manipulation with 2.89 (SD = .41) experiences generated in the low threat condition, and 9.85 (SD = 4.17) experiences in the high threat condition. Study 1b did not include a feeling of threat manipulation check but did once again demonstrate a significant effect of threat on the closed-minded NFCS subscale, $F(1, 48) = 5.82$, p < .05, two-tailed.

The present pilot study seeks to replicate the same kind of threat manipulation that Thórisdóttir and Jost (2011) used, while also introducing new levels to the threat manipulation variable with the intent of finding what levels of threat condition may elicit the greatest differences in feelings of threat using an expanded threat manipulation check measure in the hopes of creating the most effective set of threat manipulation conditions for an online American sample. Thórisdóttir and Jost (2011) found that the number of threatening past events did not always match the full number that was requested. As such, we will include conditions asking participants to generate the original 3 and 12 past threatening experiences, but also 2, 7 and 9

experiences, respectively. Additionally, we will be adding a novel "safe" condition as well, which will ask participants to recall a past situation where they felt safe.

Two additional items were added to the manipulation check used by. Thórisdóttir and Jost (2011) as well in order to increase the measures validity. So, all participants who are assigned a threat condition will complete the original item of "how threatened do you feel right now" as well as "how safe do you feel right now?" (reverse-scored) and "how afraid do you feel right now". All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores would then be used to determine the efficacy of the threat manipulation on feelings of threat. No measure of NFCS was included in this pilot study.

Method

Design

A between-subjects design involving the independent variable of threat (high vs. low) on the correspondent threat mood manipulation check scale was examined.

Participants

No a priori power analysis was conducted for Pilot Study 1 as the main intent of this study was to determine if participants would complete the provided task in an online environment and the efficacy of the manipulations using an American sample. Moreover, an adequately powered manipulation check analysis was performed in the main study investigating the effect of threat, which revealed the utilized manipulation of threat was successful. For Pilot Study 1, a sample of 184 participants (i.e., workers) were recruited from Cloud Research[1] (see

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[1] There is considerable debate on whether MTutk (i.e., Amazon's Mechanical Turk), Cloud Research, or Prolific provides the highest quality data for researchers (see Litman et al., 2021; Peer et al., 2022). At this time evidence suggests that both Prolific and Cloud Research provide similarly high-quality data, as long as the recommended filters are turned on for Cloud Research. Considering this and the fact that Cloud Research is cheaper compared to Prolific, Cloud Research was chosen for participant recruitment.

Appendix A). Participants were current United States citizens that were at least 18 years or older

and spoke English fluently. No other qualifications were included. Participants were

compensated $1.00 for completing the survey, with the survey expected to take less than 15

minutes (see recruitment information, Appendix A). Participants were excluded if they did not

complete the study in good faith (i.e., they followed the prompt and/or did not provide irrelevant

responses) and if more than 10% of the survey was left not completed. A total of 164 participants

were left after exclusions, demonstrating an attrition rate of ~11%.

Procedure

Participants were informed that this study was about well-being and interested in

collecting their real-life past experiences. Consenting participants were then told they would be

completing a two-part study (Appendix B). In Part 1, they would be asked to recall real-life past

experiences. In Part 2, they would be asked to complete a series of questionnaire items. For Part

1, participants were randomly assigned to one the seven threat conditions. For Part 2, participants

completed a mood manipulation check relating to their current feelings of threat. Participants

were then debriefed and informed that the intent of this study was to determine the efficacy of

different threat manipulations and not to collect their past experiences (Appendix E).

Materials and Measures

Participants were told that they are going to complete a two-part study: Part 1 pertaining

to well-being and Part 2 pertaining to some psychological questionnaire items.

Threat Manipulation. The threat manipulations used in Part 1 replicate materials from

the Thórisdóttir and Jost (2011) study, while adding additional conditions. Participants were told

that they would be completing a study pertaining to well-being. Researchers are interested in

their real-past life-threatening experiences and participants would be asked to volunteer said experiences. Participants were asked to recall either 1, 2, 3, 7, 9, or 12 threatening experiences, or recall 1 safe experience. Participants were not forced to fill out all requested experiences, but rather were encouraged to fill out as many as possible. Participants were timed to determine how long they spent on the task (see Appendix D).

   Mood Manipulation Check - Threat. All participants completed a 3-item self-report measure of how threatened they felt. All participants completed the previously used "how threatened do you feel right now" (Thórisdóttir & Jost, 2011) as well as "how safe do you feel right now?" (reverse-scored) and "how afraid do you feel right now" items. All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores was then used to determine the efficacy of the threat manipulation on feelings of threat. The measure did not meet the conventional thresholds for reliability of 0.7, Cronbach's Alpha α = 0.673 (Appendix F).

<div align="center">Results</div>

   The manipulation check for threat (α = .673) did not meet the traditional criteria for reliability (α = .70). The original Thórisdóttir and Jost (2011) was conducted in-person, with participants largely completing close to the full number of requested threatening situations. The results of low versus high number of threat situations recalled elicited different but non-significant results in terms of mean threat differences. Table 1 Summarizes the results from this original work. The present results of Pilot Study 1 differ in two important ways from past research: mean number of situations recalled and mean threat reported.

Table 1. Thórisdóttir and Jost (2011) Threat Manipulation Results

Threat Condition	n	Mean # (SD) of Situations Recalled	Mean Threat
Threat 3[1]	22	3 (0)	1.67 (.84)
Threat 3[2]	28	2.89 (.41)	NA
Threat 12[1]	26	11.08 (2.37)	2.32 (1.82)
Threat 12[2]	22	9.85 (4.17)	NA

[1] From Thórisdóttir and Jost (2011) Study 1a
[2] From Thórisdóttir and Jost (2011) Study 1b

While Thórisdóttir and Jost (2011) used a 1-10 scale measure of threat and the present Pilot Study 1 used a 0-10 point scale, the mean threat reported in the present study is still noticeably higher across all levels of threat condition (including the safe condition) compared to both studies conducted Thórisdóttir and Jost (2011). The results of Thórisdóttir and Jost (2011) threat conditions can be seen in Table 1. Furthermore, participants generally produced fewer recalled threatening events compared to the original work. This trend became particularly noticeable when participants were asked to produce more than three past threatening events and reported less than four on average. This said, the novel "safe" condition did produce the lowest mean threat compared to the rest of the threat conditions (Table 2).

Table 2. Pilot Study 1 Threat Condition Summary

Threat Condition	n	Mean # (SD) of Situations Recalled	Mean Threat
Safe	18	1 (0)	4.14 (2.84)
Threat 1	21	1 (0)	5.06 (2.24)
Threat 2	17	1.47 (.51)	5.03 (2.61)
Threat 3	18	1.56 (1.04)	5.00 (2.73)
Threat 7	14	2.73 (2.09)	4.40 (2.77)
Threat 9	13	3.38 (2.18)	4.28 (2.47)
Threat 12	17	3.71 (3.50)	5.37 (3.08)

A one-way ANOVA revealed a non-significant effect of threat condition on mean feelings of threat, $F(5, 96) = 0.589$, $p = .708$, $\eta^2 = .30$. Follow-up independent samples t-test analyses then examined the magnitude of the effect on pairs of threat conditions on mean feelings of threat (Table 3). The results of these analyses suggest that, while the effects of threat condition on the threat manipulation check were non-significant, the effects were in the intended direction. That is, threat conditions were higher than the safe condition with effect sizes meeting the criteria for a small to medium effect (with the exception of Threat Conditions 7 and 9).

Table 3. Pilot Study 1 Threat Condition Comparison T-Tests

Threat Condition	T-Test
Threat 3 vs. Threat 12 *Thórisdóttir and Jost (2011) Study 1a*	$t(46) = 1.53, p = .13, d = .45$
Safe vs. Threat 1	$t(40) = 1.149, p = .258, d = .36$
Safe vs. Threat 2	$t(34) = .949, p = .349, d = .33$
Safe vs. Threat 3	$t(35) = .939, p = .354, d = .31$
Safe vs. Threat 7	$t(31) = .267, p = .791, d = .10$
Safe vs. Threat 9	$t(30) = .146, p = .885, d = .05$
Safe vs. Threat 12	$t(34) = 1.250, p = .220, d = .42$

Discussion

The results of Pilot Study 1 largely corroborate past research that suggests that participants' adherence to study directions and subsequent effect sizes decrease from moving from in-person to online. This is most evident in the results of the threat conditions with the 11% attrition rate and participants recalling significantly fewer past situations than in the original Thórisdóttir and Jost (2011) study. This said, the results for threat do largely satiate the goals of this pilot study. These goals being to determine if online participants will complete the intended threat writing manipulation task in good faith and follow the instructions they are provided and second, to determine the efficacy of the manipulations relative to the purported effect in previous literature.

As mentioned previously, Thórisdóttir and Jost (2011) also found a non-significant effect of high threat (i.e., Threat 12; $M = 1.67, SD = .84$) compared to those in the low threat (i.e., Threat 3; $M = 2.32, SD = 1.82$) in study 1a, $t(46) = 1.53, p = .13, d = .45$. What is then perhaps

the most important point of comparison between past work and the present results is the difference in effect size, which the high effect sizes achieved in this work were with the Safe vs. Threat 1 ($d = .36$) and the Safe vs. Threat 12 ($d = .42$) pairs. This indicates that the online sample tended to lean towards a small to medium effect size compared to that of the original study 1a with an almost medium effect size of $d = .45$. However, the effect size only suggests a small decrease in effect size. A much more significant difference is perhaps the number of situations recalled. Where Thórisdóttir and Jost (2011) had participants recall at least 9 past events in the high threat (12) condition across their studies, only a maximum of about 3.71 ($SD = 3.50$) were recalled in the present Pilot Study 1. This may suggest that asking people to recall more than 3 past events may provide diminishing returns in online spaces. So, while effect size is very slightly higher for the Threat 1 and Threat 3, along with the outlier of Threat 12, when paired with the safe condition, the fact that the number of recalled events does not go above 3.71 may suggest that 3 may be the highest number of events that should be requested online for this manipulation.

The safe condition demonstrated noticeably different (though not significant) Mean Threat scores compared to the threat conditions (see Table 2). It should however be noted that these findings are underpowered. An a priori power analysis was conducted for the main threat study (Appendix M) that hypothesized Threat effect on the MV (NFCS) to be a medium effect size ($d = 0.6$) and its effect on the DV (Candidate Support) to be a small effect size ($d = 0.2$), G*Power analyses suggest that a sample size of 38 participants per condition would be needed to detect a medium effect ($d = 0.6$) and thus this may suggest why a non-significant result was found across Threat conditions. Though these results do accomplish the goal of demonstrating to what degree

online participants will follow directions appropriately and that the effect is emerging in the intended direction. In sum, I will be using the Safe and Threat 3 Conditions in the main Study 1 given that an adequate sample size is acquired in order to create the most optimal effect of threat. Importantly, the main study employing the threat manipulation was adequately powered and revealed that the threat manipulation did indeed significantly influence threat ratings (i.e., manipulation check) in the predicted direction. The results of Pilot Study 1 will be used to inform the design of the main Study 1. Pilot Study 2 was then conducted to determine the optimal manipulation of feelings of uncertainty.

CHAPTER V

PILOT STUDY 2 - UNCERTAINTY

Pilot Study 2 sought to determine the optimal manipulation of feelings of uncertainty

using a variety of manipulations and was conducted as a follow-up to a preliminary uncertainty

pilot (see Appendix G). The same materials used by Webber et al. (2018) of Loss of Significance

(LoS) and control condition (i.e., Control 1) were used in Pilot Study 2. Only one small edit was

made to the original control condition from Webber et al. (2018) with the addition of the passage

"...and/or a show on a streaming service" after "Think back to the last time you watched TV".

This was added as many individuals consume media content online via streaming services rather

than just their TV's. The same 3-item self-report measure of feelings of uncertainty that were

used in the preliminary uncertainty pilot was used again in Pilot Study 2. These include the

items, "How uncertain do you feel right now?", "How insecure do you feel right now?", and

"How confident do you feel right now?" (reverse-scored) on a scale from 0 ("*Not at all*"), to 10

("*Extremely*").

Uncertainty

Webber et al. (2018) used a writing task to manipulate feelings of uncertainty in their

participants across a multitude of samples, including an American sample. However, unlike

Thórisdóttir and Jost (2011) where participants were asked to list a number of events,

participants were asked to complete a more essay based open-response prompt rooted in the

cognitive dissonance literature. Participants in the uncertainty condition were asked to recall a

past experience that made them (or a close other) feel humiliated or ashamed. The dissonance

between asking participants to recall events that make them perceive themselves negatively and the innate motivation to view ourselves positively leaves the participant with a feeling of uncertainty, with this kind of manipulation referred to as a Loss of Significance or LoS manipulation (e.g., Kruglanski et al., 2014; McGregor et al., 2001; Webber et al., 2018). Participants in the control condition were simply asked to recall details from the last time they watched TV - which ought to elicit no such feelings of internal dissonance and thus low uncertainty.

In the Webber et. al (2018) pilot study for Study 3 (N = 161), they then measured mean feelings of insignificance by asking participants to complete a revised version of the PANAS (Waton et al., 1988) that included the additional items of ashamed, humiliated, and insignificance measured on a scale from 1 ("*very slightly or not at all*") to 5 ("*extremely*"; α = .86). The average scores on these three items were used to determine the average insignificance experienced by the participant. Results reveal that participants in the LoS condition did report feeling more insignificant (M = 1.87, SD = 1.02) than those in the control condition (M = 1.25, SD = .60); $F(1, 159)$ = 21.63, p < .001, η^2 = .12.

For Pilot Study 2, in addition to the original LoS and control conditions used by Webber et al., 2018), two novel conditions were also added to evaluate other ways to manipulate feelings of uncertainty. These included a novel uncertainty condition and a second version of the control condition (i.e., Condition 2). The novel uncertainty condition sought to manipulate uncertainty more directly than the original LoS condition but still used a writing task approach by asking participants to, "Think back to a situation in which you were feeling uncertain. Please provide a detailed description of what you were feeling uncertain about, what the context was, what you

did in this situation, and how you felt during this experience. You will have five [5] minutes to write and respond". This new manipulation lacks the theoretical background found within the LoS condition (Webber et al., 2018) but is more direct in its language in asking participants to recall times they felt uncertain rather than humiliated. The novel Control 2 condition is almost identical to the original Control 1 condition and asks, "Think back to the last time you watched an entertaining show on TV and/or a streaming service. Please provide a detailed description of what you watched and how it made you feel. You will have five [5] minutes to write and respond". The key difference between Control 1 & 2 conditions is the inclusion of the word "entertaining" to the prompt in Control 2. The purpose of this addition is to ensure participants are recalling positively valanced memories and thus will specifically elicit a more positive effect. It may be the case that participants are recalling frightening or otherwise negative mood valanced media without this prompt, such as horror movies.

The purpose of Pilot Study 2 was to determine the best pair of experimental uncertainty conditions (i.e., novel uncertainty or LoS condition) and control condition (i.e., Control 1 or Control 2) to manipulate uncertainty. The optimal pairing of uncertainty and control condition was to be used for the main Study 2.

Method

Design

A between-subjects design involving the independent variable of uncertainty (LoS, uncertainty, Control 1, and Control 2) on the mood manipulation check scale was examined.

Participants

No a priori power analysis was conducted for Pilot Study 2 as the main intent of this study was to determine if participants would complete the provided task in an online environment using a variety of manipulations. However, as will soon become apparent, the pilot test yielded significant effects on uncertainty, as did the more well powered uncertainty manipulation check in the main uncertainty study (i.e., Study 2). For Pilot Study 2, a sample of 104 participants (i.e., workers) were recruited via Cloud Research (see Appendix I & J). Participants were current United States citizens that were at least 18 years of age or older, were current US residents, and spoke English fluently. No other qualifications were included. Participants were compensated $0.60 for completing the survey with the survey expected to take less than 10 minutes (see recruitment information, Appendix H). Participants were excluded if they did not complete the study in good faith (i.e., they followed the prompt and/or did not provide irrelevant responses) and if more than 10% of the survey was left not completed. A total of 97 participants were left after exclusions, demonstrating an attrition rate of ~7%.

Procedure

Participants were informed that the present research was interested in collecting Americans' real life past experiences. Participants that consented to participate were then told they would be completing a two-part study (Appendix I). In Part 1, participants were asked to recall real-life past experiences. In Part 2, they were asked to complete a series of questionnaire items (Appendix J). For Part 1, participants were randomly assigned to one of the four possible uncertainty conditions. For Part 2, participants were then asked to complete a mood manipulation check relating to their current feelings of uncertainty. Participants were then debriefed and

informed that the intent of this study was to determine the efficacy of different mood

manipulations and not to collect their past experiences (Appendix L).

Materials and Measures

      Loss of Significance (LoS) Manipulation. Two uncertainty conditions used in Part 1

replicate materials from Webber et al. (2018). These two uncertainty conditions include the Loss

of Significance (LoS) condition and the original control condition (i.e., Control 1). Participants

in the LoS condition were asked to "Think back to a situation in which you were feeling

humiliated and ashamed because (you felt like) people were laughing at you. Please provide a

detailed description of who humiliated you, what this (these) person(s) did, and how you felt

during this experience. If you have never experienced such a situation, then please describe a

similar situation that someone you care deeply about (like a child, spouse, etc.) may have gone

through." with an open-response question. Participants were given 5 minutes to write until the

survey automatically progressed (Appendix K).

      Novel Uncertainty Manipulation. This novel manipulation of uncertainty sought to

more directly manipulate uncertainty. Participants were asked to, "Think back to a situation in

which you were feeling uncertain. Please provide a detailed description of what you were feeling

uncertain about, what the context was, what you did in this situation, and how you felt during

this experience". Participants were given 5 minutes to write until the survey automatically

progressed (Appendix K).

      Control 1 - Manipulation. The Control 1 manipulation used in Part 1 replicates the

original control condition materials from the Webber et al. (2018). Participants who were

randomly assigned to this condition were asked to "write about the last time they watched TV

and/or streaming service. Please provide a detailed description of what you watched and how it made you feel. "with an open-response question. Participants were given 5 minutes to write until the survey automatically progressed (Appendix K).

Control 2 - Manipulation. In order to address the concern that participants may be recalling media that was threatening or otherwise evoking negative affect, the original control materials used in Webber et al (2018) were edited. Specifically, participants were asked to, "Think back to the last time you watched an *entertaining* show on TV and/or a streaming service. Please provide a detailed description of what you watched and how it made you feel.". This specifically emphasizes that the show must have been entertaining. Participants were given 5 minutes to write until the survey automatically progressed (Appendix K).

Mood Manipulation Check - Uncertainty. All participants completed a 3-item self-report measure of how uncertain they felt. These items included, "How uncertain do you feel right now?", "How insecure do you feel right now?", and "How confident do you feel right now?" (reverse-scored). All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores was then used to determine the efficacy of the uncertainty manipulation on feelings of uncertainty. The measure did meet the conventional thresholds for reliability of 0.7, Cronbach's Alpha = 0.812 (Appendix F - UNCERTAINTY PARTICIPANTS).

Age. Participants were asked to report their age in an open-response question. This was included to ensure that all participants were at least 18 years of age or older (Appendix J).

Results

A one-way ANOVA was conducted to determine if there existed any significant

difference across all four conditions. Results of the omnibus text reveal a significant effect of condition on self-reported feelings of uncertainty, $F(3, 96) = 4.87$, $p < .01$, $\eta^2 = .14$. Importantly, the 3-item measure of uncertainty was found to be reliable in the present study (Cronbach's Alpha = 0.812). Investigation into the mean levels of reported uncertainty within each condition reveal that the means of the Loss of Significance condition (LoS; $M = 4.35$, $SD = 2.60$) and novel Uncertainty Condition ($M = 4.71$, $SD = 2.63$) both convey noticeably higher self-reported mean uncertainty levels compared to the Control Condition 1 ($M = 2.64$, $SD = 2.08$) and Control Condition 2 ($M = 2.91$, $SD = 1.95$; see Table 4). The LoS and novel Uncertainty conditions did not significantly differ from one another in terms of mean uncertainty reported, $t(43) = -.36$, $p = .605$, $d = .14$, nor did Control 1 and Control 2 conditions, $t(50) = -.27$, $p = .642$, $d = .13$. This suggests that there was not a significant difference between the uncertainty manipulation conditions or the control conditions, respectively.

Table 4. Pilot Study 2 Uncertainty Condition Summary

Uncertainty Condition	n	Mean Uncertainty
Loss of Significance (LoS)	21	4.35 (2.60)
Uncertainty	24	4.71 (2.63)
Control 1	27	2.64 (2.08)
Control 2	25	2.91 (1.95)

Follow-up independent samples t-tests were conducted to determine the effect each uncertainty condition had on both control conditions, respectively. Participants in the LoS condition ($M = 4.35$, $SD = 2.60$) reported significantly greater feelings of uncertainty compared to those in the Control 1 condition ($M = 2.64$, $SD = 2.08$), $t(46) = .1.71$, $p = .013$, $d = .73$. Furthermore,

participants in the LoS (M = 4.35, SD = 2.60) also reported greater feelings of uncertainty

compared to those in the Control 2 condition (M = 2.91, SD = 1.95), t(44) = 1.44, p = .038, d =

.63. Results of the novel Uncertainty condition revealed similar effects to the LoS condition, with

slightly larger effects. Participants in the novel Uncertainty condition (M = 4.71, SD = 2.63)

reported significantly greater feelings of uncertainty compared to those in the Control 1 condition

(M = 2.64, SD = 2.08), t(49) = 2.07, p = .002, d = .87. Similarly, participants in the novel

Uncertainty condition (M = 4.71, SD = 2.63) reported significantly higher levels of uncertainty

compared to those in the Control 2 condition (M = 2.91, SD = 1.95), (47) = 1.80, p = .008, d = .78.

All comparisons between uncertainty conditions and control conditions convey an effect size of

medium-to-large or large (see Table 5).

Table 5. Pilot Study 2 Uncertainty Condition T-Tests

Uncertainty Conditions	T-Test Result
LoS vs. Uncertainty	t(43) = -.36, p = .605, d = .14
LoS vs. Control 1	t(46) = .1.71, p = .013, d = .73
LoS vs. Control 2	t(44) = 1.44, p = .038, d = .63
Uncertainty vs. Control 1	t(49) = 2.07, p = .002, d = .87
Uncertainty vs. Control 2	t(47) = 1.80, p = .008, d = .78
Control 1 vs. Control 2	t(50) = -.27, p = .642, d = .13

Discussion

The results of Pilot Study 2 present an optimistic picture of the efficacy of the uncertainty

manipulation methods used by Webber et al. (2018). Only 7 participants were removed from the

100-participant sample for not completing the survey in good faith. Cronbach's alpha for the

uncertainty manipulation check presented as reliable at α = .812. Furthermore, the results of the one-way ANOVA (and subsequent independent sample t-tests) suggest significant differences between those in the control conditions and both respective uncertainty manipulations.

The effect size for the original Webber et al. (2018) study found evidence of large effect size (η^2 = .12) between the LoS and control condition. Results from Pilot Study 2 provide evidence for medium to large effect sizes across varying uncertain and control conditions Table 5). The results of Pilot Study 2 are promising in that the difference between LoS and Control Condition 1 and 2 both fall within the standards for a medium to large effect size. Furthermore, the effect sizes for differences in the Novel Uncertainty condition and Control Condition 1 and 2 both essentially meet the criteria for a large effect size in terms of the manipulation check. Additionally, the uncertainty conditions and control conditions did not significantly differ from one another, suggesting that one was not significantly more effective than another.

The a priori power analysis that was conducted as part of the main Study 2 hypothesized that the Uncertainty effect on the MV (NFCS) would be a medium effect size (d = 0.5), and its effect on the DV (Candidate Support) would be a small effect size (d = 0.2) - with G*Power analyses suggesting that a sample size of 51 participants per condition would be needed to detect a medium effect (d = 0.5). So, while these results were found to be significant, it should be noted that this study should still be considered underpowered, particularly for detecting small effect sizes (see Appendix X).

In sum, based upon these results, using the novel Uncertainty condition and previously used Control 1 condition elicits the greatest uncertainty effect. However, it should be highlighted that this novel manipulation has only been used once and represents essentially a data-driven

argument for its use within limited theoretical framework. Alternatively, the LoS and Control 1 condition reflect the same materials previously by Webber et al. (2018) and still reflect a medium to large effect - with Webber et al. (2018) finding a large effect size ($\eta^2 = .12$). So the LoS and Control 1 condition pair not only include a fairly similar effect size to the original body of research, but also come from a stronger theoretical framework (i.e., Kruglanski et al., 2014). Considering that there are no significant differences between the uncertainty manipulation conditions and the control conditions respectively, and that the original LoS condition and Control 1 condition pair used in previous research still approached a large effect size in the present study, I decided to use the original LoS and Control 1 pair used in the Webber et al. (2018) study for the main Study 2. This decision was made due to the existing precedent of their use and present evidence of their continued success.

CHAPTER VI

STUDY 1—THREAT

Past research has demonstrated that greater epistemic threats lead to greater political

conservatism, as modeled by the ideology as motivated social cognition model (e.g., Jost et al.,

2003a; 2007). However, the fundamental claim that individuals who are experiencing greater

epistemic threat will prefer behaviors and attitudes that satiate epistemic needs (e.g., simple over

complex messaging) regardless of political alignment has yet to be empirically tested. The

purpose of Study 1 is to specifically test the role of threat on the common measure of epistemic

motivation, Need for Cognitive Closure (NFCS; Webster & Kruglanski, 1994), and behavioral

manifestations of how individuals seek to satiate epistemic threat - in this case via Candidate

Support. Previous research has demonstrated a positive relationship between greater threat and

increased epistemic social cognitive motivators with constructs such as open-mindedness,

cognitive rigidity, heuristic processing, and preference for authoritarianism (Colbert, Peters, &

Garety, 2006; DeDreu, Koole, & Oldersma, 1999; Jost et al., 2003a; Kruglanski, 2004; Webster

& Kruglanski, 1994). Thórisdóttir and Jost (2011) demonstrated evidence of mediation with

threats effect on political ideology being mediated by NFCS—particularly that of the closed-

mindedness subscale, replicated multiple times (Thórisdóttir & Jost, 2011) across different

operationalizations of conservatism (e.g., self-reported issue stances, ideology, and attitudes)[1].

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[1] Manipulations of threat were oftentimes found to elicit non-significant differences within the threat mood manipulation check item - though Thórisdóttir and Jost (2011) argued this may suggest that the effect was implicit and not explicit as the effect of threat on closed-mindedness was significant. Furthermore, no power analysis was reported for any of the 4 studies included in this paper. Three of the four studies had less than 75 subjects total, which calls into question if these studies were properly powered to conduct a mediation analysis.

Though past research has looked at similar models testing the effect of threat on types of epistemic social-cognitive motivators and political ideology, none have looked at the more fundamental claim that individuals under high threat, and thus higher epistemic motivation, should prefer stimuli that satiate these epistemic motivations even when these stimuli are "decoupled" from ideology. That is, when stimuli are "ideologically free" (i.e., free of overtly political content), participants should still prefer stimuli that support or promise to satiate their epistemic needs (i.e., need for stability, clarity, order, and uniformity) when they are threatened or uncertain (Kruglanksi, 1989). Study 1 will test this claim by focusing on the threat piece of this claim and introduce a novel behavioral measure capturing the outcome of how individuals will seek to satiate their epistemic needs when threatened.

This novel dependent measure seeks to capture participants Candidate Support in terms of whether the candidates are described as being high in characteristics that will satiate epistemic needs (e.g., simple, decisive, clear, etc.) versus a candidate who does not satiate these needs (e.g., complex, indecisive, ambiguous). The materials for this measure were developed in part by Doherty et al. (2019) conjoint experimental design and Osteen et al. (unpublished manuscript). The first part of this measure is based upon Doherty et al. (2019) materials and will involve presenting participants with hypothetical pairs of candidates. Candidates will be presented in a table where the columns will list characteristics of each of the candidates. Participants will be asked to imagine that each pair of candidates are running against one another in a primary election for their state legislature. Characteristic descriptions of the candidate pairs will differ from one another in terms of different ways of operationalizing satiating epistemic needs. This is done by taking the conceptualization and wording from each of the subscales from the original

Webster and Kruglanski (1994) NFCS article (i.e., need for order, need for predictability, decisiveness, avoidance of ambiguity, and closed-mindedness). This will create a total of five candidate pairs. For example, one pair of candidates will be operationalized in terms of decisiveness where one candidate is described as decisive and quick, while the other is described as indecisive and slow.

Importantly, this new measure further deviates from the Doherty et al. (2019) materials as rather than having a dichotomous outcome of support for the pairs of candidates (i.e., selecting which candidate they would vote for), support for candidates is modeled after the Osteen et al. (unpublished manuscript) measure. The measure is such that, after seeing each pairing, participants will be asked which of the candidates they would be more likely to support in terms of following on social media, sharing on social media, and voting for the candidate on a continuous scale. Each of these questions will range from 1, *total support for Candidate* X, to 10, *total support for Candidate Y*. Please see Appendix S for the full measure.

Study 1 will thus involve replications of past work, while adding on this novel behavior measure of Candidate Support. First, I will test Hypothesis 2a by replicating past work conducted by Thórisdóttir and Jost (2011). This pertains to the prediction that participants in the high threat condition will score higher on NFCS compared to those in the low threat condition. Following this are the novel predictions involving the new measure of candidate support. Consistent with Jost et al. (2003a) and Kruglanksi (1989), individuals should perform behaviors that address one's epistemic needs following threat. Hypothesis 1a thus predicts that participants under high threat should prefer candidates with characteristics that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous)

compared to participants in the low threat condition. Hypothesis 3 predicts that participants who score higher on NFCS will be more likely to support candidates with characteristics that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous). Hypothesis 4a then combines these claims into a prediction of mediation that increased threat will lead to increased motivation to satiate epistemic needs at both the psychological and behavioral level. Participants under high threat should be more likely to support candidates who have characteristics that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous) compared to participants under low threat. This effect will be mediated by NFCS such that higher threat will lead to scoring higher on NFCS, and higher NFCS will predict a preference for a candidate who have characteristics that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous). See *Figure 2*. Epistemic Model of Threat Management and Candidate Support. Finally, the exploratory Hypothesis 5 posits that the mediation of Hypothesis 4a should still remain significant, even when controlling for political ideology as a covariate. This study was also pre-registered via the Open Science Foundation using the van't Veer and Giner-Sorolla (2016) pre-registration in social psychology template prior to data collection (Osteen, 2023).

Method

Design

A between-subjects design involving an independent variable of threat (threat vs. safe) and effects of threat on NFCS (MV) and Candidate Support (DV) will be examined.

Prospective Power Analysis

A series of a priori (i.e., prospective) power analyses were conducted using G*power (Faul et al., 2007) and the Schoemann et al. (2017) Monte Carlo Power Analysis for Indirect Effects (i.e., mediation). Power analyses were conducted based upon prior research (e.g., Thórisdóttir & Jost, 2011) and small effect sizes when the effect size was unknown (Cohen, 1988). For all power analyses, power was set to .80 (i.e., beta = .20) and alpha (α) was set to .05 (i.e., Confidence Level = 95%). The result of these power analyses indicated that the largest adequate sample size to achieve .80 power for any given analysis in this study was 788 (see Appendix A for full power analysis details), or 394 participants per threat condition. In anticipation that some participants may be dropped before any analyses are conducted, for reasons such as not completing the study in good faith, an additional 10% will be added to the original estimated sample size, resulting in a total of 867 participants. See Appendix M for the full details of Study 1's power analyses.

Participants

A sample of 1104 participants (i.e., workers) were recruited from Cloud Research[1] (see Appendix N & O). Participants were current United States citizens that were at least 18 years or older and fluent in English. No other qualifications were included. Participants were compensated $1.75 for completing the survey that was anticipated to take less than 30 minutes (see recruitment information, Appendix P). Participants were excluded if they did not meet the

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[2] There is considerable debate on whether MTutk (i.e., Amazon's Mechanical Turk), Cloud Research, or Prolific provides the highest quality data for researchers (see Litman et al., 2021; Peer et al., 2022). At this time evidence suggests that both Prolific and Cloud Research provide similarly high-quality data, as long as the recommended filters are turned on for Cloud Research. Considering this and the fact that Cloud Research is cheaper compared to Prolific, Cloud Research was chosen for participant recruitment.

eligibility criteria, pass all attention checks (i.e., reporting age and year born; provide a short description of one task they completed during the study), and if they did not complete the study in good faith (i.e., follow directions for the writing task and completing at least 90% of the study).

Initial data collection recruited 1064 participants with a total of 290 participants meeting at least one of the exclusion criteria and were thus excluded from the final data set. This left a total of 774 participants, which fell below the required 788 participants needed as indicated by the power analysis. A second wave of data collection was then conducted in order to attain the minimum number of participants needed for all data analysis. A total of 40 participants were recruited in this second wave rather than just 11 in order to still be able to drop any participants that met the exclusion criteria and still meet the minimum requirements for data analyses. Of the 40 that were recruited in this second wave, no participants were dropped due to meeting the exclusion criteria. This left a total of 814 participants, with 405 assigned to the threat condition, and 409 being assigned to the safe condition. This was above the recommended sample size of 394 participants per condition and 788 total participants that was identified by the a priori power analysis for Study 1 (Appendix M). The test requiring the largest minimum sample size was the effect of the IV on the DV. A post-hoc power analysis using G*Power (Faul et al., 2007) examining the real power obtained revealed a power of .82. The present study is properly powered to detect the hypothesized effects.

A majority of the sample identified as women (58.1% woman, 37.2% man, 3.8% prefer not to specify, <1% non-binary, <1% transgender) and White (69.4% White, 9.2% Black, 6.0% Hispanic, 5.9% Multiracial, 4.3% Asian, 3.6% Middle Eastern, <1% Other, <1% Prefer Not to

Specify), and held at a 4-year degree (37.1% 4-year degree, 13.8% Master's degree, 19.3% some college, 11.4% 2-year degree, 9.5% High School or GED, 1.7% professional degree - MD/JD, 2.6% Doctoral degree, >1% some High School, 4.3% other). The average age of the sample leaned middle-aged ($M = 43.6$, $SD = 13.3$). There was also a very slight left leaning to sample with both political party ($M = 4.56$, $SD = 2.30$) and political ideology ($M = 4.56$, $SD = 2.44$) just left of center with 5 as the midpoint for both scales. This indicated that the combined political identity (i.e., composite measure of party and ideology) leaned just slightly left for the sample on average ($M = 4.57$, $SD = 2.31$).

Procedure

Participants were recruited from Cloud Research and asked to complete a study using the survey software Qualtrics (Appendix N). Participants were first asked to complete an informed consent form (Appendix O). The cover story for the study, and manipulation used, was similar to that of Thórisdóttir and Jost (2001) modified based upon the results of Pilot Study 1. Participants were told that the study would include three parts, with the first relating to research on well-being (Appendix P). Participants were informed that Part 1 of the survey was interested in collecting individuals' real-life past instances of threatening life experiences and that they would be asked to volunteer these experiences if they wished to participate. For Part 2, they would be asked to fill out some questionnaire items. For Part 3, participants would be told that they would then be asked questions about their political attitudes.

Part 1 of this survey used similar manipulation as Thórisdóttir and Jost (2001), with edits made as a result of Pilot Study 1. That is, participants were randomly assigned to either a high or low threat condition wherein participants in the high threat condition were asked to recall 3

threatening experiences, while participants in the low threat condition were asked to recall 1 safe past experience. Random assignment was done automatically by the Qualtrics survey and thus randomization was blind to both participant and research at time of data collection. Participants were not required to fill out all of the requested experiences, but rather encouraged to fill out and list as many as possible.

Part 2 began with asking participants to fill out a 3-item measure of how threatened they felt currently from 0, (*not all)* to 10 (*extremely)* - this served as the manipulation check. Then, similar to Thórisdóttir and Jost (2001), Part 2 of this study measured Need for Cognitive Closure (NFCS), however with some alterations. In Study 1a of Thórisdóttir and Jost (2001), measured the full 42-item NFCS scale but found that the threat manipulation only significantly affected the closed-mindedness subscale. Then, in studies 2 and 4, they asked participants to complete only the closed-mindedness NFCS subscale and demonstrate an effect of threat on the subscale. As such, this survey only included the 15-item reduced NFCS and the 8-item closed-mindedness NFCS subscale for a total of 20-items with redundant items excluded between scales (Roets & Van Hiel, 2011; Webster & Kruglanski, 1994). Items included questions such as, "I don't like situations that are uncertain" with participants rating their responses from 1 (*completely disagree)* to 6 (*completely agre*e).

Finally for Part 3, participants were presented with five hypothetical pairs of candidates. They were asked to imagine that each pair of candidates was running against one another in a primary election for a seat in their state legislature. Each pair of candidates came with descriptions of both candidates. Both the ordering of the candidates and irrelevant characteristics (e.g., name and occupation) were randomized by the Qualtrics software automatically. After each

candidate pair, participants were tasked with indicating their support for the candidate in the form of how likely they were to follow the candidate on social media, share content from the candidate over the next year, and vote for the candidate. Each of these three items ranged from 1 (*total support for one candidate*; e.g., Candidate X) to 10 (*total support for the other candidate in the candidate pair*; e.g., Candidate Y).

Participants then completed attention check items. Finally, participants completed a series of demographic measures including age, gender, race, education background, openness to experience, ideology, and political party (see Appendix T). Participants were then debriefed (see Appendix U).

Materials and Measures

Participants were told that they would be completing a three-part study: Part 1 pertaining to well-being, Part 2 pertaining to some psychological questionnaire items, and Part 3 pertaining to their opinions on politics.

Eligibility. Participants were asked a total of three eligibility questions following the completion of the consent form. These are related to the previously stated inclusion criteria. First, participants were asked, "Are you currently a U.S. Resident?". Second, participants were asked, "Are you fluent in English?". Third and finally, participants were asked, "Are you at least 18 years of age?". Participants selected either "*yes*" or "*no*" for each question. Participants that selected "*no*" for any of these three items would be directed to the end of the survey (Appendix P).

Threat Manipulation. The threat manipulation used in Part 1 was similar to the Thórisdóttir and Jost (2011) study with some modifications based upon the results of Pilot Study

1. Participants were told that they would be completing a study pertaining to well-being. Researchers were interested in their real-past life-threatening experiences and that they would be asked to volunteer said experiences. Participants in the high threat condition would be asked to list 3 threatening experiences while participants in the low threat condition would be asked to recall 1 safe past experience. Participants would not be forced to fill out all three threatening experiences in the high threat condition, but rather would be encouraged to fill out as many as they can (see Appendix Q).

Mood Manipulation Check - Threat. All participants completed a 3-item self-report measure of how threatened they felt. All participants completed the previously used "how threatened do you feel right now" (Thórisdóttir & Jost, 2011) as well as "how safe do you feel right now?" (reverse-scored) and "how afraid do you feel right now" items. All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores was then used to determine the efficacy of the threat manipulation on feelings of threat (Appendix F).

Need for Cognitive Closure Scale (NFCS). Participants were asked to complete the 15-item reduced measure of Need for Cognitive Closure scale, along with the 8-item closed-mindedness subscale items from the original NFCS in Part 2 (Roets & Van Hiel, 2007; Webster & Kruglanski, 1994). These scales were presented together as one series of questionnaire items to complete with redundant items between scales being removed for a total of 20 items. Participants would rate their responses from 1, *strongly disagree,* to 6, *strongly agree*, for all items. Ordering of items was based on the original Webster & Kruglanski (1994) 42-item measure (see Appendix R).

Candidate Support. Participants were presented with five hypothetical pairs of candidates in Part 3. They were asked to imagine that each pair of candidates were running against one another in a primary election for a seat in their state legislature. Each pair of candidates came with descriptions of both candidates. Candidates were described as the same gender and age but differed in the general description provided. Irrelevant details (e.g., name and gender) and order were randomized. The key differences across pairs of candidates would correspond to one of the five conceptual subscales that comprise Need for Cognitive Closure (see Kruglanski & Webster, 1996; Webster & Kruglanski, 1994). That is, for one pair of candidates, one was described such that they satiated a high need for order, while the other was described such that they satiated a low need for order. For a second pair of candidates, one was described such that they satiated a high need for predictability, while the other was described such that they reflected a low predictability. For a third pair of candidates, one was described such that they satiated a high need for decisiveness, while the other was described such that they reflected a low decisiveness. For a fourth pair of candidates, one was described such that they satiated an avoidance of ambiguity, while the other was described such that they reflected higher ambiguity. For the fifth and final pair of candidates, one was described such that they reflected high closed-mindedness, while the other was described such that they reflected low closed-mindedness. See Appendix S for all Candidate Support materials.

Participants were then asked which of the two candidates they would be more likely to support after being shown each pair of candidates. Support for candidates was measured in terms of following on social media, sharing on social media, and preference for voting for a candidate. The items are specifically as follows, 1) "FOLLOW: We would like to know which

CANDIDATE you are more likely to "follow" on social media. That is, if given a choice

between following CANDIDATE X or CANDIDATE Y, which CANDIDATE'S social media

account would you be more likely to follow throughout the next year?"; 2) "SHARE: We would

like to know which CANDIDATE'S content you would be more likely to "share" on social

media. That is, if given a choice between sharing the content posted by CANDIDATE X or

CANDIDATE Y, which CANDIDATE'S social media content would you be more likely to

share throughout the next year?"; 3) "VOTE: We would like to know which CANDIDATE'S

content you would be more likely to "vote" for. That is, if given a choice between

CANDIDATE X or CANDIDATE Y to vote for within the next year, which candidate would

you prefer to vote for?". Each of these three items ranged from 1, *total support for one candidate*

(e.g., Candidate X), to 10, *total support for the other candidate* (e.g., Candidate Y).

Attention Checks. Participants were asked two attention check questions in the

Demographics section of the study. First, participants were asked to both report their age in an

open-ended question, but also select the year they were born. The age they reported, and their

birth year, were examined to see if they corresponded to the same age. Participants whose age

did not match were considered to have failed the manipulation check. Second, participants would

be asked to answer the open-ended question, "Provide at least two sentences describing the main

task that you completed in this experiment." in order to see if the participants completed the

survey in good faith. Responses were screened following the completion of data collection.

Participants who did not complete this task and/or provided irrelevant responses (e.g., answered

"good" or offer a completely unrelated response) were considered as not having completed the

survey in good faith and thus were excluded from the final data analysis (see Appendix T).

Hypothesis Guess and Feedback. Participants were probed for any guesses they had on the purpose of the survey, any feedback they had for the researchers, and any questions they had. These open-ended questions include: "Do you have any thoughts or guesses about what this study was about?" and "Do you have any thoughts or comments for the researchers?". Responses were screened following the completion of data collection. Participants who correctly guessed the hypotheses of the study were removed from final data analysis (see Appendix T).

Demographics. Participants were asked to respond to a series of demographic items including their age, gender, ethnicity, education background, political ideology, and political party (see Appendix T).

Age was measured as an open response item. Participants were asked to select their gender from the following options: *Male, Female, Transgender, Non-Binary, Other, Prefer not to say*. Racial identity was assessed by the item "how would you describe your race" and participants were asked to select from the following options, *Native American; Asian or Asian American; Black or African American; Hispanic or Latina/o/x; White; Mixed Race; Pacific Islande*r; *Other*. Education level was assessed by asking participants to choose from the following options: *some high school; high school or GED; some college; 2-year degree; 4-year degree; Master's degree; Doctoral degree; Professional degree (MD or JD); Other*. If the participant selected "*other*" to any of these questions, they were asked to specify.

Participants were then asked where they would place themselves on the political spectrum in terms of political party from 1, *strong Democrat*, to 9, *strong Republican*. They were also asked this in terms of political ideology 1, *strong liberal*, to 9, *strong conservative*.

Debriefing. Finally, all participants were presented with a debriefing document (see Appendix U) before inputting their Cloud Research ID for compensation.

Results

First, the reliability and validity of the data was determined. This was done by determining the reliability of all measures used within the present study and the efficacy of the threat manipulation. Second, a series of tests were conducted to determine if the data met the necessary assumptions for all planned statistical tests prior to any hypothesis testing being conducted. Third, main effect analyses were conducted. Fourth, mediation analyses were conducted. Fifth and finally, the exploratory analysis was conducted. All analyses involving the mediating variable were run twice - one for each version of the scale (i.e., 15-item reduced NFCS scale and 8-item closed-minded NFCS subscale). Additionally, any analyses involving the dependent variable of Candidate Support were run four times - one for each individual item including share, follow, and vote, and once for the combined three-item composite measure of Candidate Support. That is, separate analyses were conducted for each of the three items in the Candidate Support dependent measure items individually, and also the combined composite measure. This was to determine the unique outcomes of the share, follow, and vote outcome items, respectively, as well as the combined composite measure as a composite measure of the Osteen et al. (unpublished manuscript) has yet to be used. All other analyses were conducted as described pertaining to the relevant hypothesis.

Reliability and Validity

Each of the measures included within the present study were investigated in terms of their reliability. A Cronbach's alpha (α) of .70 or greater indicates that a measure meets conventional

standards of reliability (Griethuijsen et al., 2014). The 3-item measure of threat was found to be

reliable (α = .870). Next, both of the NFCS measure's reliability was investigated. The 15-item

reduced NFCS measure was found to be reliable (α = .903; Roets & Van Hiel, 2007) but the 8-

item closed-mindedness NFCS subscale measure was found to be just shy of reliable (α = .672;

Webster & Kruglanski, 1994). The measure did just meet the criteria for reliability at α = .700

based on standardized items. The reliability of the combined Candidate Support measures was

then determined. This involved taking the mean average of the combined follow, share, and vote

items for each of the candidate pairs (i.e., need for order, need for predictability, decisiveness,

avoidance of ambiguity, and closed-mindedness). The reliability for the composite measures of

support for the Need for Order (α = .960), Need for Predictability (α = .962), Decisiveness (α =

.950), Avoidance of Ambiguity (α = .949), and Closed-Mindedness (α = .956) candidate pairs all

met the criteria for high reliability.

A manipulation check was conducted using an independent samples t-test with

uncertainty condition as the predictor and mean uncertainty as the outcome. The results indicate

the Levene's Test for equality of variances was significant ($p < .001$). As the assumption of equal

variance was violated, a t statistic not assuming homogeneity of variance was computed. The

result was that participants in the threat condition ($M = 2.67$, $SD = 2.14$) reported significantly

greater amounts of threat compared to those within the safe (control) condition ($M = 1.98$, $SD =$

1.70), $t(812) = 5.06$, $p < .001$; $d = .36$. The manipulation of threat was thus successful. These

results convey findings that are similar to those found in Pilot Study 1 ($d = .31$), with the effect

size once again almost meeting the criteria for a small to medium effect size. This demonstrates a

more effective manipulation of threat, at least in terms of a manipulation check of threat,

compared to that of the original Thórisdóttir and Jost (2011) study which found no significant

effect of their threat manipulation on their threat manipulation check.

A series of ANOVAs were then conducted to determine if the order in which the

participant received each candidate pair, or the version they received, significantly affected their

ratings of candidates. In other words, to test for ordering effects and efficacy of

counterbalancing. The results of these analyses can be seen in Table 6. In sum, there is only

evidence that the closed-mindedness order affected candidate responses with a small effect size,

but no other evidence of ordering effects present in the data and results seem to suggest

counterbalancing was largely successful.

Assumption Testing

A number of tests were conducted to determine if the data met the assumptions for t-tests,

regression and ultimately mediation.

Table 6. Study 1 ANOVA Counterbalancing and Ordering Effect Check

Analysis		df (between groups, within groups)	F	η^2	p
Need for Order	Order	4, 804	.447	.002	.774
	Version	7, 804	1.102	.015	.105
Need for Predictability	Order	4, 803	1.716	.008	.144
	Version	7, 800	.298	.003	.955
Decisiveness	Order	4, 803	.815	.004	.516
	Version	7, 801	.994	.009	.434
Avoidance of Ambiguity	Order	4, 804	.203	.001	.937
	Version	7, 801	.869	.008	.530
Closed-Mindedness	Order	4, 806	3.745	.018	<.001
	Version	7, 803	.213	.012	.213

These tests are functionally similar to each other in many ways and include many of the same

statistical assumptions (Pituch & Stevens, 2015; Tabachnick, & Fidell, 2001). Assumptions

across all tests include the following: data is acquired via randomly sampling from the population, sufficient sample size, data is continuous, independent variables are measured without error, normalcy. linearity, homoscedasticity, and an absence of outliers, multicollinearity, singularity, and error terms.

Overall, the present study data meets all necessary assumptions for all intended analyses. The only exception to this is normalcy, but the effects of using possibly non-normal data may arguably be negligible given the large sample size of several hundred participants per condition. Previous work has examined the effect that violating multivariate normality rules has on the type 1 error using "small to moderate" sample sizes (Everitt, 1979; Hopkins & Clay, 1963; Mardia, 1971; Olson, 1973). Results suggest that deviations from normality only affect α by .02 on average for significance levels of .05 and .10. This also applies to univariate analysis and has the most substantial evidence for F tests, which many of the present analyses fall under. This is due to the central limit theorem, which claims that the sum of independent observations having any distribution whatsoever approaches a normal distribution as the number of observations increases, beginning even past 50 observations (Pituch & Stevens, 2015). However, there exists debate in the literature regarding the significance of using non-normal data as non-normal data may still significantly impact power. Olson (1973) found that a more platykurtic (or flatter) distribution (i.e., negative kurtosis) drops power by .10 when kurtosis was present in just one group and by .45 when kurtosis was present in 3 groups. Though more recent research has demonstrated that samples containing several hundreds of observations reduce the problem of non-normal data to extremely negligible levels (Altman, 1995; Eliot & Woodward, 2007; Field, 2009). Considering the large sample size of the present study, it can be reasonably assumed that

type 1 error was not meaningfully affected during the present study and parametric procedures

are still acceptable to follow (Ghasemi & Zahedisal, 2012; Pituch & Stevens, 2015). As such, all

analyses were conducted as planned (see Appendix V for assumption testing statistics).

Main Effects

Main effect analyses were conducted to test Hypothesis 1a using independent samples t-

tests to determine the effect of threat condition (IV) on total Candidate Support (DV; see "Total"

rows in Table 7). This was conducted for each of the five candidate pairs. Participants in the high

threat condition ($M = 5.07$, $SD = 2.49$) showed a significantly greater preference for the high

Decisiveness over the low Decisiveness candidate compared to participants in the low threat

condition ($M = 4.68$, $SD = 2.52$), $t(806) = 2.191$, $p < .05$, $d = .16$. No other significant effect of

threat condition on total candidate support was found. In sum, Hypothesis 1a was only supported

for the Decisiveness candidate pair but no other candidate pairs. That is, participants in the high

threat condition showed greater total support for the more decisive candidate compared to those

in the low threat condition, with this effect being just under the typical threshold of a small effect

size of $d = .20$.

These analyses were repeated using the individual items of follow, share, and vote, in

addition to the total candidate support measure. The results of these subsequent analyses largely

do not differ greatly from the main support analyses, with a few notable differences. The

individual share item consistently elicited a bigger effect than any other measure of candidate

support (including total support) with follow and vote occasionally trending in the opposite

direction that what the total Candidate Support ended up indicating, though the effect remained

non-significant across measures. The exception to this trend was for the Decisiveness candidate

pairs. Here the individual follow item captured the largest effect and was the only significant

individual item, suggesting the follow item was driving the effect of threat conditions on total

support for Decisiveness candidate (see Preference for Decisiveness rows, Table 7).

Table 7. Threat Condition (IV) effect on Candidate Support (DV) as Mediated by Need for Cognitive Closure (MV)

Pair Rated	Dependent Measure	Candidate Support					
		Threat (n = 405) $M(SD)$	Safe (= 409) $M(SD)$	*T-TEST*	d	Closed-Mindedness NFCS Subscale $r_{mv,dv}$ / (Mediate .95 CI)	Reduced NFCS $r_{mv,dv}$ / (Mediate .95 CI)
Preference for High Need for Order	Total	6.37 (2.45)	6.27 (2.48)	$t(810) = .570$	.04	.269** (-.10/ .07)	.232** (-.12/ .07)
	Follow	6.30 (2.56)	6.25 (2.57)	$t(812) = .240$	.02	.256**(-.10/ .07)	.220** (-.12/ .07)
	Share	6.31 (2.39)	6.18 (2.43)	$t(812) = .769$	.05	.257** (-.09/ .06)	.212** (-.12/ .06)
	Vote	6.52 (2.67)	6.42 (2.70)	$t(812) = .533$	.04	.266** (-.11/ .07)	.237** (-.14/ .07)
Preference for High Need for Predictability	Total	4.47 (2.60)	4.56 (2.52)	$t(806) = -.491$	.04	.248** (-.13/ .09)	.307** (-.11/ .07)
	Follow	4.42 (2.68)	4.48 (2.62)	$t(809) = -.221$	.02	.239** (-.13/ .09)	.294** (-.11/ .07)
	Share	4.54 (2.54)	4.67 (2.50)	$t(811) = -.754$	.05	.231** (-.11/ .08)	.274** (-.11/ .06)
	Vote	4.48 (2.83)	4.57 (2.76)	$t(810) = -.427$	.03	.246** (-.15/ .11)	.318** (-.13/ .07)
Preference for High Decisiveness	Total	5.07 (2.48)	4.68 (2.52)	$t(806) = 2.191^*$	.15	.035 (-.02/ .02)	.030 (-.03/ .02)
	Follow	5.11 (2.62)	4.70 (2.59)	$t(807) = 2.247^*$	.16	.030 (-.03/ .02)	.031 (-.03/ .02)
	Share	5.22 (2.44)	4.88 (2.57)	$t(811) = 1.962$	.14	.040 (-.02/ .02)	.028 (-.03/ .02)
	Vote	4.83 (2.78)	4.49 (2.77)	$t(812) = 1.716$	.12	.043 (-.03/ .02)	.027 (-03/ .02)
Preference for High Avoidance of Ambiguity	Total	7.17 (2.28)	7.27 (2.26)	$t(807) = -.598$	.04	.256** (-.06/ .04)	.143** (-.11/ .05)
	Follow	7.17 (2.43)	7.24 (2.41)	$t(809) = -.406$	.03	.236** (-.06/ .04)	.136** (-.11/ .06)
	Share	7.04 (2.31)	7.14 (2.28)	$t(810) = -.621$	.04	.251** (-.05/ .04)	.134** (-.11/ .06)
	Vote	7.33 (2.43)	7.43 (2.41)	$t(812) = -.602$	.04	.242** (-.06/ .04)	.134** (-.11/ .06)
Preference for High Closed-Mindedness	Total	3.70 (2.36)	3.66 (2.36)	$t(809) = .209$	.04	.163** (-.11/ .08)	.290** (-.07/ .04)
	Follow	3.61 (2.44)	3.63 (2.47)	$t(810) = -.136$	.01	.157** (-.12/ .09)	.295** (-.07/ .04)
	Share	3.94 (2.41)	3.81 (2.39)	$t(812) = .752$	.05	.135** (-.10/ .07)	.260** (-.06/ .03)
	Vote	3.53 (2.53)	3.51 (2.52)	$t(811) = .119$	.01	.166** (-.12/ .08)	.270** (-.08/ .04)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

Main effect analyses were then conducted to test Hypotheses 2a using independent samples t-tests in order to test the effect of threat condition (IV) on both versions of NFCS (MV). The results of these analyses can be seen in Table 8 with threat condition having neither a significant effect on the Closed-Mindedness NFCS scale nor the Reduced NFCS. Overall, no main effect of threat condition (IV) on NFCS (MV) was found, thus Hypotheses 2a was not supported.

Table 8. Study 1 Effect of Threat Condition (IV) on NFCS (MV)

	Threat $_{(n\ =\ 405)}$ M(SD)	Safe $_{(\ =\ 409)}$ M(SD)	T-TEST	d
Closed-Mindedness NFCS Subscale	24.83 (5.47)	24.97 (5.79)	$t(803) = -.349$	.03
Reduced NFCS	60.57 (13.97)	61.12 (12.95)	$t(794) = -.577$	.04

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

Hypothesis 3 was then tested. Correlation (see $r_{mv,dv}$, Table 7) and regression analyses (Table 9) were conducted to determine the effect of NFCS (MV) on Candidate Support (DV). This is reported using the 15-item reduced NFCS scale, 8-item closed-minded NFCS subscale, paired with the five candidate pairs measures, respectively. Each of these falls under Hypothesis 3 which predicts that participants with higher NFCS will show a greater preference for candidates that have high NFCS characteristics compared to those who are low in NFCS. Results reflect unstandardized regression coefficients.

Table 9. Study 1 Effect of Need for Cognitive Closure (MV) on Candidate Support (DV)

Candidate Support (N = 814)	Closed-Mindedness NFCS Subscale				Reduced NFCS			
Variable	B	SE	t	R^2	B	SE	t	R^2
NfO – Follow	.10**	.02	$t(801) = 6.369$	.048	.05**	.01	$t(792) = 7.442$	.065
NfO – Share	.09**	.02	$t(803) = 6.139$	.045	.05**	.01	$t(794) = 7.505$	.066
NfO – Vote	.11**	.02	$t(803) = 6.900$	.056	.05**	.01	$t(794) = 7.775$	.071
NfO – Total	.10**	.02	$t(801) = 6.748$	.054	.05**	.01	$t(792) = 7.853$	.072
NfP – Follow	.14**	.02	$t(800) = 8.706$	.087	.05**	.01	$t(791) = 6.923$	.057
NfP – Share	.12**	.02	$t(802) = 8.080$	.075	.04**	.01	$t(793) = 6.691$	.053
NfP – Vote	.16**	.02	$t(801) = 9.501$	.101	.05**	.01	$t(792) = 7.148$	.059
NfP – Total	.14**	.02	$t(797) = 9.102$	.094	.05**	.01	$t(788) = 7.174$	.061
D – Follow	.01	.02	$t(798) = 864$	.001	.01	.01	$t(789) = .839$	.001
D – Share	.01	.02	$t(802) = .796$	.001	.01	.01	$t(793) = 1.132$	.002
D – Vote	.01	.02	$t(803) = .774$	.001	.01	.01	$t(794) = 1.209$	.002
D – Total	.01	.02	$t(797) = .853$	.001	.01	.01	$t(788) = .990$	.001
A – Follow	.06**	.02	$t(800) = 3.887$	.019	.04**	.01	$t(793) = 6.953$	.056
A – Share	.06**	.01	$t(801) = 3.834$	.018	.04**	.01	$t(792) = 7.303$	.063
A – Vote	.06**	.02	$t(803) = 3.840$	.018	.04**	.01	$t(794) = 7.026$	.059
A – Total	.06**	.01	$t(798) = 4.080$	.020	.04**	.01	$t(791) = 7.439$	.065
CM – Follow	.13**	.02	$t(801) = 8.722$	.087	.03**	.01	$t(793) = 4.467$	.025
CM – Share	.11**	.02	$t(803) = 7.617$	.067	.02**	.01	$t(794) = 3.836$	.018
CM – Vote	.12**	.02	$t(802) = 7.95$	.073	.03**	.01	$t(793) = 4.738$	.028
CM – Total	.12**	.01	$t(780) = 8.563$	.084	.03**	.01	$t(792) = 4.646$	.027

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

Overall, we find strong support for Hypothesis 3, with the exception of the Decisiveness candidate pair. That is, across the various candidate pairs and NFCS versions, participants with higher NFCS showed greater overall support for candidates with greater NFCS characteristics compared to those candidates with lower NFCS characteristics. The closed-mindedness NFCS subscale demonstrated the greatest effect sizes ranging from approximately 5% to 10%; except for Avoidance of Ambiguity where the reduced NFCS demonstrated an effect size of 6.5%. So while greater NFCS predicts greater support for all higher NFCS candidates except for the decisiveness candidate, only the threat condition predicts greater preference for the high Decisiveness candidate. These analyses were repeated for the follow, share, and vote items individually and found similar results (Table 9).

Mediation Analyses

To test Hypothesis 4a that NFCS will mediate the effect threat condition has on the Candidate Support, I used the PROCESS macro for SPSS which estimates a process model for mediation (Preacher, Rucker, & Hayes, 2007; Model 4) with bootstrapping (10,000). Threat condition served as the independent variable, Candidate Support served as the dependent variable, and NFCS served as the mediator. A total of 40 mediation analyses were conducted to accommodate the two different versions of the NFCS mediator, and the five different versions of the Candidate Support measure for each of the five characteristics.

The full mediation results can be seen in Table 7. The results suggest no support for Hypothesis 4a such that neither the Closed-Mindedness NFCS Subscale nor the Reduced NFCS (MV) successfully mediated the effect of Threat Condition (IV) on Candidate Support (DV). This includes when examining the individual items of candidate support of follow, share, and

vote in addition to total support. This suggests that NFCS does not mediate the relationship of

threat conditions on any form of Candidate Support.

Exploratory Analyses

The exploratory Hypothesis 5 was then tested following similar methods as Hypothesis

4a, with the exception being that political ideology was included as a covariate into the model.

Specifically, mediation analyses were conducted looking how either version of NFCS (MV;

closed-mindedness and reduced forms) may mediate the relationship between threat condition

(IV) and candidate support (DV). The covariate of Political Identity was created by taking the

mean combined score of participants self-reporting their political ideology (1 = *Strong Liberal*,

9 = *Strong Conservative*) and party (1 = *Strong Democrat*, 9 = *Strong Republican*). As such,

lower scores in this new variable indicate right left-wing alignment, and higher scores indicate

greater right-wing alignment and the new variable found to meet conventional levels for high

reliability (Cronbach's α = .942). These mediation analyses examined both the total score as the

DV and the individual items of candidate support (e.g., follow, share and vote).

Overall, there is no support for Hypothesis 5 and the findings remain similar to that of

the results from Hypothesis 4a. That is, there is no evidence that Threat Conditions (IV) effect

on Candidate Support (DV) is mediated by forms of NFCS (MV), even when controlling for

political identity. This initially demonstrates a lack of support for the theorized distinction

between state and trait that was hypothesized to emerge between models of Hypothesis 4a and

5. The full table of these mediation analyses can be found in Appendix W.

There are, however, a few notable findings here. The first is that the effect size of the

mediation models generally increased to at or around 10% with the addition of Political Identity.

Furthermore, Political Identity significantly predicted higher levels of both measures of NFCS

and Candidate Support. Specifically greater levels of right-wing alignment predicted greater results in these outcomes. The outlier was the Decisiveness candidate pair, as it was the case for Hypothesis 4a analyses as well, with Political Identification improving the model very little and having no significant ability to predict Decisiveness Candidate Support.

To further explore the possible effects of Political Identity on epistemic motivations and candidate support, subsequent additional exploratory regression analyses were conducted. Specifically, regression analyses using Political Identity as the predictor variable and both versions of the NFCS and all five total support score measures as the outcome, respectively. The table of these results can be found in Appendix W with results generally suggesting that greater right-wing identification was associated with greater epistemic motivation and epistemic satiating candidate support. The outlier was once again the Decisiveness candidate pair, with Political Identification having no significant effect on Decisiveness candidate support.

Additionally, Thórisdóttir and Jost (2011) explored how the closed-mindedness NFCS subscale mediates the relationship between manipulations of threat and political identity. To determine the extent to which the present work replicates this past research, a mediation analysis was conducted investigating how NFCS (MV) mediates the relationship between Political Identity (DV) and Threat Condition (IV). The table of these results can also be found in Appendix W and indicate an unsuccessful replication of past work such that neither measure of NFCS successfully mediated the relationship between Threat Condition on Political Identity.

Discussion

The threat manipulation was found to successfully manipulate and influence the manipulation check measure of self-reported threat. All measures except for closed-mindedness NFCS subscale measure were found to be reliable. The only present ordering effect found in of

the Closed-Mindedness candidate pair. The data from the present study was found to meet conventional standards for the a priori analyses - save for normalcy that should however have had little impact on results.

　　Main effect analyses indicated support for Hypothesis 1a for only the Decisiveness candidate pair but no other candidate pairs. That is, participants in the high threat condition showed greater support for the more decisive candidate compared to those in the low threat condition. It should be noted that means for the high ($M = 5.07$, $SD = 2.49$) and low ($M = 4.68$, $SD = 2.52$) threat conditions were right around the scale midpoint. Furthermore, the effect size did not even meet the typical criteria for a small effect size, explaining less than 1% of the variance ($d = .16.$ or $R^2 = .006$). While the remainder of the candidate pairs were non-significant, the direction of the means for each of the respective pair's difference is still of note. On average, participants reported a higher level of support for the high Need for Order ($M = 6.32$, $SD = 2.46$) and Avoidance of Ambiguity ($M = 7.2$, $SD = 7.22$) candidates. This may suggest that there is a general preference for candidates who present themselves as unambiguous and orderly rather than more variable and complex in their approach to governance. Conversely, participants generally reported a preference for the low Closed-Mindedness, or open-minded, political candidate ($M = 3.68$, $SD = 2.36$). The remaining candidate pair of Need for Predictability fell just below the scale midpoint ($M = 4.52$, $SD = 2.56$), indicating a slight (to perhaps no) preference for candidates that are more open to trying new strategies than more traditional or previously utilized strategies.

　　No support was found for Hypothesis 2a with threat conditions showing no significant effect on any of the NFCS conditions. This is not consistent with the past research conducted by Thórisdóttir and Jost (2011) that conversely found no significant difference in their threat

manipulation check but did on specifically the closed-mindedness NFCS subscale. This could be due to the difference of conducting the experiment online vs. in-person as Thórisdóttir and Jost (2011) did. However, Pilot Test 1 demonstrated that the selected threat manipulation created the most optimal difference in self-reported threat that was larger than the original study. Another possibility is the difference in the sample. Thórisdóttir and Jost (2011) recruited from an Icelandic sample where the present study recruited an American sample. It may be the case that different manipulation strategies of threat may have varying degrees of efficacy across different samples. Further research will be required to determine this.

Participants who scored higher in measures of NFCS expressed a greater preference for candidates who were described as high in NFCS characteristics, except in the case of the Decisiveness candidate pair where no significant effect was found. This suggests a strong degree of support for Hypothesis 3 for four of the five candidate pairs. This is particularly interesting considering that the effect of Threat Condition (IV) was only significant for the Decisiveness candidate pairs. This may suggest trait and state level differences of support for candidates. It is also of note that the closed-mindedness NFCS subscale did not consistently predict more variance compared than the reduced NFCS scale despite Thórisdóttir and Jost (2011) showing evidence for the closed-mindedness subscale previously. Each scale only predicted 10% or less of the variance in candidate support, with the closed-mindedness explaining more variance for the Need for Predictability and the Closed-Mindedness candidate pairs, and the reduced NFCS scale explaining more variance for the Need for Order and Avoidance of Ambiguity candidate pairs. Though these differences were only about 2-5% different on average while all still reached significance.

The multitude of mediation analyses that were conducted did not reveal any support for Hypothesis 4a such that any measure of NFCS mediated the relationship between threat condition and candidate support for any candidate. Subsequent mediation models that were run to include Political Identification as a covariate to test Hypothesis 5 also revealed no successful mediations. Though regression analyses conducted looking at the main effect of Political Identification as a predictor on NFCS and candidate support revealed that great right-wing alignment is associated with greater NFCS (for both scales) and support for the high NFCS candidates. Political Identification explained 24.6% of the variance in need for predictability. Political Identification is theorized in the ideology as socially motivated cognition model to be an emergent construct from epistemic, existential, and relational motives and as such this may explain why Political Identification may be explaining more variance in candidate support on its own that the hypothesized epistemic motivation models (e.g,, Jost et al., 2007).

Study 1 focused exclusively on the role of threat on NFCS and candidate support and revealed only main effects. Study 2 will now focus on uncertainty as a manipulation to determine if it elicits unique effects compared to the role of threat. Only the manipulation will change while the mediator NFCS scales, dependent candidate support items, and covariate of Political Identity will remain the same.

CHAPTER VII

STUDY 2 - UNCERTAINTY

The present study will continue to test the fundamental claim that was tested in Study 1, namely that individuals who are experiencing greater epistemic threat and uncertainty will prefer behaviors and attitudes that satiate epistemic needs (e.g., order, certainty, and clarity; Jost et al., 2003a; Jost et al., 2007) regardless of political alignment. However, Study 2 specifically focuses on uncertainty. Uncertainty has been theorized and demonstrated to affect epistemic motivations and ideology in a way that is similar to threat. Like threat, increased uncertainty can increase epistemic motivations and this relationship has been shown to coincide with greater support with conservative policies and attitudes (e.g., Jost et al., 2003a; Jost et al., 2007), but there has been limited research of this relationship in less partisan contexts testing the underlying core assertion. The purpose of Study 2 is to specifically examine the effect of uncertainty on Need for Cognitive Closure (NFCS; Webster & Kurglanski, 1994), as well as its effect on the previously described candidate selection measure.

Webber et al. (2018) have previously demonstrated that experimentally inflating one's sense of uncertainty can not only increase NFCS but also political extremism. This was demonstrated across four studies which replicated findings across samples that included both members from extremist groups but also regular online participants from MTurk. The Webber et al. (2018) experimental manipulation of uncertainty involves asking participants to either write about a past experience that made them feel humiliated or ashamed (uncertainty condition), or

about the last time they watched TV (control condition). This kind of manipulation is referred to as a Loss of Significance or LoS manipulation (Kruglanski et al., 2014; Webber et al., 2018). The theoretical underpinnings of this manipulation are rooted in the cognitive dissonance literature. That is, it is assumed that individuals are motivated to perceive themselves positively and making salient times of humiliation leads to feelings of inconsistency (Festinger, 1957; Leary et al., 1995; McGregor et al., 2001). This discrepancy between the individuals' present state and desired state of themselves leads to feelings of uncertainty - which thus leads to greater motivation to reduce the discrepancy and ambiguity and restore certainty. Webber et al. (2018) demonstrated this relationship both with participants in the uncertainty condition scoring higher on the mood items of "ashamed", "humiliated", and "insignificant" (i.e., PANAS; Watson et al., 1988), but also higher in NFCS compared to the control condition.

The importance of including a delay period between the LoS manipulation and completion of an outcome measure was also highlighted by Webber et al. (2018). Theoretically, it is asserted that the LoS manipulation makes salient the discrepancy between our ideal selves and the less positive way individuals feel about themselves due to the manipulation. Without a delay, individuals are more likely to use more proximal avoidance-based defenses to deal with the discrepancy directly by removing it from attention. With a delay, individuals are likely to use more distal approach-based defenses that deal with the discrepancy indirectly. Such an approach seeks to reduce the uncertainty in a way that is unrelated to the threatened domain - which in this case is one's sense of self (Jonas et al., 2015; Pyszczynski et al., 1999). Previous research has used both the PANAS and the NFCS scales to introduce a "delay" period before the dependent variable successfully (e.g., Watson et al., 1988; Webber et al., 2018). As such, this study will

follow a similar methodology and have participants complete the NFCS measure before completing the dependent variable of epistemic satiating Candidate Support.

Study 2 will thus seek to replicate past work conducted by Webber et al. (2018) while building on this literature by including the novel outcome measure of Candidate Support described in Study 1. Hypothesis 2b predicts that participants will report a higher motivation to satiate epistemic needs following an uncertainty manipulation (i.e., LoS). That is, participants under high uncertainty should score higher on the Need for Cognitive Closure Scale (NFCS) compared to those under low uncertainty. All remaining hypotheses build upon both this literature and the ideology as motivated social cognition literature by testing the fundamental claim that individuals should prefer candidates that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous) - even when the candidate descriptions are devoid of partisanship or ideology. Hypothesis 1b predicts that Participants will be more likely to perform behaviors that satiate one's epistemic needs following an uncertainty manipulation. That is, participants under high uncertainty should prefer candidates who offer simple and definitive messages over candidates who offer complex and ambiguous messages compared to participants under low uncertainty and will be tested by using the LoS manipulation and Candidate Support dependent measure from Study 2.

Hypothesis 3 predicts that participants who score higher on NFCS will support candidates with characteristics that satiate epistemic needs (e.g., simple and definitive) over candidates who do not have these characteristics (e.g., complex and ambiguous) and will be tested in the same way as Study 1. Hypothesis 4b then combines these claims into a prediction of mediation that increased uncertainty will lead to increased motivation to satiate epistemic needs at both the

psychological and behavioral level. This will be tested in the present study with participants in

the uncertainty should support candidates who offer simple and definitive messages over

candidates who offer complex and ambiguous messages (compared to participants under low

uncertainty). This effect will be mediated by NFCS such that the uncertainty condition will

correspond with higher scores on the NFCS, and higher NFCS will predict greater support for a

candidate who offers simple and definitive messages over a candidate who offers complex and

ambiguous messages (See *Figure 3.* Epistemic Model of Uncertainty Management and

Candidate Support). Finally, the exploratory Hypothesis 5 posits that the mediation of

Hypothesis 4b should still remain significant, even when controlling for political ideology as a

covariate. This study was also pre-registered via the Open Science Foundation using the van't

Veer and Giner-Sorolla (2016) pre-registration in social psychology template prior to data

collection (Osteen, 2023).

Method

Design

There is one manipulated between subject's independent variable, uncertainty (LoS vs.

control). Effects of uncertainty on NFCS (MV) and Candidate Support (DV) were examined.

Prospective Power Analysis

A series of a priori (i.e., prospective) power analyses were conducted using G*power

(Faul et al., 2007) and the Schoemann et al. (2017) Monte Carlo Power Analysis for Indirect

Effects (i.e., mediation). Power analyses were conducted based upon prior research (e.g., Webber

et al., 2018) and small effect sizes when the effect size was unknown (Cohen, 1988). For all

power analyses, power was set to .80 (i.e., beta = .20) and alpha (α) was set to .05 (i.e.,

Confidence Level = 95%). The result of these power analyses indicated that the largest adequate

sample size to achieve .80 power for any given analysis in this study was 620. In anticipation

that some participants may be dropped before any analyses are conducted for reasons such as not

completing the study in good faith, an additional 10% will be added to the original estimated

sample size, resulting in a total of 682 participants. See Appendix X for full details regarding the

power analyses for Study 2.

Participants

A sample of a sum total of 736 participants (i.e., workers) from Cloud Research were

recruited (see Appendix Y). Participants were current United States citizens that were at least 18

years of age or older and were fluent in English. Participants were only allowed to participate in

this study once and could not have taken Pilot Study 1, Pilot Study 2, or Study 1 - Threat. No

other qualifications were included. Participants were compensated $1.75 for completing the

survey that was anticipated to take about 30 minutes (Appendix Y). Participants were excluded if

they did not meet the eligibility criteria, pass all attention checks (i.e., reporting age and year

born; provide a short description of one task they completed during the study), and if they did not

complete the study in good faith (i.e., follow directions for the writing task and completing at

least 90% of the study).

A total of 21 participants met at least one of the exclusion criteria and were thus excluded

from the final dataset. Additionally, a technical error was found within the Qualtrics survey

following making the study live on MTurk with a total of 61 participants (2 of which met criteria

for exclusion) having taken the survey before the Qualtrics survey was fixed. In sum, this left a

total of 80 participants being removed from the dataset before data analysis began. Additional

participants were recruited above the 682-sample size in order to compensate for rejected participants and those who received an incorrect version of the survey. This left a total of 655 participants included in the final data set. The split between those assigned to the LoS experimental condition ($n = 322$) and the control condition ($n = 333$) differed by less than 1%. This was above the recommended sample size of 310 participants per condition and 620 total participants that was identified by the a priori power analysis for Study 2 (Appendix X). The test requiring the largest minimum sample size was the effect of the IV on the DV. A post-hoc power analysis using G*Power (Faul et al., 2007) examining the real power obtained revealed a power of .82. The present study is properly powered to detect the hypothesized effects.

A majority of the sample identified as women (61.2% woman, 37.3% man, 1% non-binary, >1% transgender, >1% prefer not to specify) and White (76.5% White, 8.2% Black, 5.2% Asian, 4.1% Hispanic, 3.4% Multiracial, 1.4% Other, >1% Middle Eastern, >1% Prefer Not to Specify), and held at a 4-year degree (40.9% 4-year degree, 15.7% Masters degree, 14.5% some college, 13.8% 2-year degree, 9.9% High School or GED, 2.6% professional degree - MD/JD, 1.4% Doctoral degree, >1% some High School, >1% other). The average age of the sample leaned middle-aged ($M = 46.6$, $SD = 13.4$). There was also a very slight left leaning to sample with both political party ($M = 4.36$, $SD = 2.40$) and political ideology ($M = 4.46$, $SD = 2.49$) just left of center with 5 as the midpoint for both scales. This indicated that the combined political identity (i.e., composite measure of party and ideology) leaned just slightly left for the sample on average ($M = 4.41$, $SD = 2.35$).

Procedure

Participants were recruited from Cloud Research and asked to complete a study using the

survey software Qualtrics. Participants first completed an informed consent form (Appendix Z).

Participants then completed three eligibility questions relating to the eligibility criteria that the

participant must be a current US resident who is at least over the age of 18 and a fluent English

speaker. The cover story for the study was similar to that used in Study 1 - Threat. Participants

were told they would be completing a two-part study (see Appendix AA). Part 1 used materials

similar to that of Webber et al. (2018) with the cover story slightly changed to tell participants it

is a study about well-being (similar to that of Thórisdóttir & Jost, 2001). In Part 1, participants

were informed that the survey would pertain to collecting individuals' real-life past experiences

and that they would be asked to volunteer these experiences. A similar manipulation to the

original Loss of Significance (LoS) manipulation used by Webber et al. (2018) was then used.

That is, participants were randomly assigned to write for five minutes about either the last time

they watched television (control), or about a situation where they last felt humiliated and

prompted to give details. Qualtrics automatically randomly assigned the participant to either

condition; both the participant and an experimenter were thus blind to the condition.

Additionally, participants were asked to complete some questionnaire items in Part 1.

Specifically, participants were first asked to complete a 3-item manipulation check measure of

their current feelings of uncertainty. Then, participants were asked to complete the 15-item

reduced measure of Need for Cognitive Closure scale (NFCS), as well as the 8-item subscale

measure of closed-mindedness[1] (Roets & Van Hiel, 2007; Webster & Kruglanski, 1994). This

further replicates the Webber et al. (2018) study materials as they previously measured NFCS

using the same shortened NFCS measure (Webster & Kruglanski, 1994) as a "delay" task prior

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[1] Some items of the 8-item NFCS closed-mindedness subscale are redundant with the 15-item reduced NFCS measure. This leaves a sum total of 20 questions.

to introducing their dependent variable, just as I am using it before introducing my dependent variable in Part 2.

For Part 2, participants were presented with five hypothetical pairs of candidates. They were asked to imagine that each pair of candidates was running against one another in a primary election for a seat in their state legislature. Each pair of candidates came with descriptions of both candidates. After reading about each candidate pair, participants were tasked with indicating their level of support within each candidate pair in the form of how likely they were to follow the candidate on social media, share content from the candidate over the next year, and vote for the candidate. Each of these three items range from 1, *total support for one candidate* (e.g., Candidate X), to 10, *total support for the other candidate in the candidate pair* (e.g., Candidate Y). The order and irrelevant characteristics of the candidates (e.g., name and occupation) were randomized by the Qualtrics software automatically.

Participants then completed two attention checks. The first of which asked the participant to both state their age and select the year they were born. Second, participants were asked to describe a task they completed during the study. Finally, participants completed a series of demographic items other than age including gender, race, education background, ideology, and political party. Participants were also given the opportunity to provide any comments they had for the researcher as well as provide a guess as to what the intent of the study was (see Appendix R). Participants were then debriefed (See Appendix S).

Materials and Measures

Participants completed the following sets of measures as part of this study.

Eligibility. Participants were asked a total of three eligibility questions following the completion of the consent form. These are related to the previously stated inclusion criteria. First, participants were asked, "Are you currently a U.S. Resident?". Second, participants were asked, "Are you fluent in English?". Third and finally, participants were asked, "Are you at least 18 years of age?". Participants selected either "*yes*" or "*no*" for each question. Participants that selected "*no*" for any of these three items would be directed to the end of the survey (Appendix AA).

Loss of Significance (LoS) Manipulation. The uncertainty manipulation utilized materials from Webber et al. https://www.youtube.com/watch?v=XGJwCUHVgc0 (2018) study involving the Loss of Significance (LoS) manipulation. These materials are also the same as the LoS and Control 1 condition uncertainty materials used in Pilot Study 2. Participants were told that they would be completing a study pertaining to well-being and that researchers were interested in the real-past experiences and asked to volunteer said experiences.

Participants were randomly assigned to either the LoS (high uncertainty) or control (low uncertainty) condition. Participants in both conditions were given a prompt and asked to write for five minutes. Participants randomly assigned to the LoS condition were asked to "Think back to a situation in which you were feeling humiliated and ashamed because (you felt like) people were laughing at you. Please provide a detailed description of who humiliated you, what this (these) person(s) did, and how you felt during this experience. If you have never experienced such a situation, then please describe a similar situation that someone you care deeply about (like a child, spouse, etc.) may have gone through." with an open-response question.

Participants who were randomly assigned to the control condition were asked to "write about the last time they watched TV and/or streaming service. Please provide a detailed description of what you watched and how it made you feel." with an open-response question. Participants were given 5 minutes to write until the survey automatically progressed (Appendix D).

Mood Manipulation Check - Uncertainty. All participants completed a 3-item self-report measuring how uncertain they felt. These items included, "How uncertain do you feel right now?", "How insecure do you feel right now?", and "How confident do you feel right now?" (reverse-scored). All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores was then used to determine the efficacy of the uncertainty manipulation on feelings of uncertainty. The measure did meet the conventional thresholds for reliability of 0.7, Cronbach's Alpha = 0.812 (Appendix F).

Need for Cognitive Closure scale (NFCS). Participants were asked to complete both the 15-item reduced measure of NFCS measure and the 8-item closed-minded subscale measure from the full NFCS measure (Roets & Van Hiel, 2007; Webster & Kruglanski, 1994). This amounts to a total of 20-items as some items are redundant between measures. Participants will rate their responses from 1, *strongly disagree,* to 6, *strongly agree* (see Appendix R).

Candidate Support. Participants were presented with five hypothetical pairs of candidates in Part 3 just as they were in Study 1 - Threat. They were asked to imagine that each pair of candidates were running against one another in a primary election for a seat in their state legislature. Each pair of candidates came with descriptions of both candidates. Candidates were described as the same gender and age but differed in the general description provided. The key

differences across pairs of candidates would correspond to one of the five conceptual subscales

that comprise Need for Cognitive Closure (see Kruglanski & Webster, 1996; Webster &

Kruglanski, 1994). That is, for one pair of candidates, one was described such that they reflected

a high need for order, while the other was described such that they reflected a low need for order.

For a second pair of candidates, one was described such that they reflected a high need for

predictability, while the other was described such that they reflected a low predictability. For a

third pair of candidates, one was described such that they reflected a high need for decisiveness,

while the other was described such that they reflected a low decisiveness. For a fourth pair of

candidates, one was described such that they reflected an avoidance of ambiguity, while the other

was described such that they reflected a higher ambiguity. For the fifth and final pair of

candidates, one was described such that they reflected high closed-mindedness, while the other

was described such that they reflected low closed-mindedness. See Appendix S for all Candidate

Support materials.

Participants were then asked which of the two candidates they would be more likely to

support after being shown each pair of candidates. Support for candidates was measured in terms

of following on social media, sharing on social media, and preference for voting for a candidate.

The items are specifically as follows, 1) "FOLLOW: We would like to know which

CANDIDATE you are more likely to "follow" on social media. That is, if given a choice

between following CANDIDATE X or CANDIDATE Y, which CANDIDATE'S social media

account would you be more likely to follow throughout the next year?"; 2) "SHARE: We would

like to know which CANDIDATE'S content you would be more likely to "share" on social

media. That is, if given a choice between sharing the content posted by CANDIDATE X or

CANDIDATE Y, which CANDIDATE'S social media content would you be more likely to share throughout the next year?"; 3) "VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between CANDIDATE X or CANDIDATE Y to vote for within the next year, which candidate would you prefer to vote for?". Each of these three items ranged from 1, *total support for one candidate* (e.g., Candidate X), to 10, *total support for the other candidate* (e.g., Candidate Y).

The order in which each candidate pair was shown to the participant was randomized (order). Irrelevant details, such as the name of the candidates and ages, were also completely randomized (version). This was done to prevent crossover and ordering effects. See Appendix S for all Candidate Support materials.

Attention Checks. Participants were asked two attention check questions in the Demographics section of the study. First, participants were asked to select the year that they were born following the typical open response question "what is your age?" item. The year they identified should correspond to their current age. Second, participants were asked to answer the open-ended question, "Provide at least two sentences describing the main task that you completed in this experiment." in order to see if the participants completed the survey in good faith. Responses were screened following the completion of data collection. Participants who did not complete this task and/or provided irrelevant responses (e.g., answer "good" or offer a completely unrelated response) would be considered as not having completed the survey in good faith and thus would be excluded from the final data analysis (see Appendix T).

Hypothesis Guess and Feedback. Participants were probed for any guesses they made regarding the purpose of the survey, any feedback they had for the researchers, and any other

questions they may have. These open-ended questions included: "Do you have any thoughts or guesses about what this study was about?" and "Do you have any thoughts or comments for the researchers?". Responses will be screened following the completion of data collection. Participants who correctly guess the hypotheses of the study will be removed from final data analysis (see Appendix T).

Demographics. Participants were asked to respond to a series of demographic items including their age, gender, ethnicity, education background, political ideology, and political party (see Appendix T).

Age was measured as an open response item. Participants were then asked to select their gender from the following options: *Male, Female, Transgender, Non-Binary, Other, Prefer not to say*. Racial identity was assessed by the item "how would you describe your race" and with participants being asked to select from the following options: *Asian or Asian American; Black or African American; Hispanic or Latina/o/x; Middle Eastern, White; Mixed Race; Other*. Education level was assessed by asking participants to choose from the following options, s*ome high school; high school or GED; some college; 2-year degree; 4-year degree; Master's degree; Doctoral degree; Professional degree (MD or JD); Other*. If the participant selected "*other*" to any of these questions, they were asked to specify. Participants were asked to report their Amazon Mechanical Turk (MTurk) ID in order to aid in facilitating compensation in an open response question.

Participants were asked where they would place themselves on the political spectrum in terms of political party from 1, *strong Democrat*, to 9, *strong Republican*. They were also asked this in terms of political ideology 1, *strong liberal*, to 9, *strong conservative*.

Debriefing. Finally, all participants were presented with a debriefing document (see Appendix BB) before inputting their Cloud Research ID for compensation.

<div align="center">

Results

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First, the reliability of all measures used within the present study was determined followed by the efficacy of the uncertainty manipulation. Second, a series of tests were conducted to determine if the data met the necessary statistical assumptions for all planned analyses prior to any hypothesis testing being conducted. Third, main effect analyses were conducted. Fourth, mediation analyses were conducted. Fifth and finally, the exploratory analysis was conducted. All analyses involving the mediating variable were run twice; one for each version of the scale (i.e., 15-item reduced NFCS scale and 8-item closed-minded NFCS subscale). Additionally, any involving the dependent variable of Candidate Support were run four times - one for each individual item including share, follow, and vote, and once for the combined three-item composite total measure of Candidate Support. That is, separate analyses were conducted for each of the three items in the Candidate Support dependent measure individually, and also the combined composite measure. This was to determine the unique outcomes of the share, follow, and vote outcome items, respectively, as well as the combined composite measure. All other analyses will be conducted as described pertaining to the relevant hypothesis.

Reliability and Validity

Each of the measures included within the present study were investigated in terms of their reliability. A Cronbach's alpha (α) of .70 or greater indicates that a measure meets conventional standards of reliability (Griethuijsen et al., 2014). The 3-item measure of uncertainty was found

to be reliable (α = .854). Next, the two NFCS measure's reliability were investigated. The 15-item reduced NFCS measure was found to be reliable (α = .897; Roets & Van Hiel, 2007) however the 8-item closed-mindedness subscale of the full NFCS measure was once gain found to be just shy of reliable (α = .687; Webster & Kruglanski, 1994). The measure did just meet the criteria for reliability at α = .700 based on standardized items. The reliability of the combined Candidate Support measures was then determined. This involved taking the mean average of the combined follow, share, and vote items for each of the candidate pairs (i.e., need for order, need for predictability, decisiveness, avoidance of ambiguity, and closed-mindedness). The reliability for the composite measures of support for the Need for Order (α = .961), Need for Predictability (α = .965), Decisiveness (α = .952), Avoidance of Ambiguity (α = .949), and Closed-Mindedness (α = .956) candidate pairs all met the criteria for reliability.

A manipulation check was conducted using an independent samples t-test with uncertainty condition as the predictor variable and mean uncertainty as the outcome. The results indicate the Levene's Test for equality of variances was significant ($p < .001$). As the assumption of equal variance was violated, a t statistic not assuming homogeneity of variance was computed. The result was that participants in the LoS condition ($M = 4.79$, $SD = 2.64$) reported significantly greater amounts of uncertainty compared to those within the control condition ($M = 3.09$, $SD = 2.11$), $t(652) = 1.70$, $p < .05$; $d = .71$. The manipulation of uncertainty was thus successful. These results convey results largely similar to those found in Pilot Study 2, with the effect size once again almost meeting the criteria for a large effect size and being slightly smaller than the effect size reported by Webber et al. (2018; $\eta^2 = .12$).

Table 10. Study 2 ANOVA Counterbalancing and Ordering Effect Check

Analysis		df (between groups, within groups)	F	η^2	p
Need for Order	Order	4, 645	.838	.002	.838
	Version	7, 648	.710	.007	.710
Need for Predictability	Order	4, 647	1.27	.008	.281
	Version	7, 644	.505	.005	.831
Decisiveness	Order	4, 648	1.794	.011	.128
	Version	7, 645	1.361	.015	.219
Avoidance of Ambiguity	Order	4, 642	.602	.004	.661
	Version	7, 639	1.281	.014	.257
Closed-Mindedness	Order	4, 648	1.291	.008	.272
	Version	7, 645	.474	.005	.854

A series of ANOVAs were then conducted to determine if the order in which the participant received each candidate pair, or the version they received, significantly affected their ratings of candidates. In other words, to test for ordering effects and efficacy of counterbalancing. The results of these analyses can be seen in Table 10. In sum, there is no evidence of ordering effects present in the data and results seem to suggest counterbalancing was successful[2].

Assumption Testing

As with Study 1, a number of tests were conducted to determine if the data met the assumptions for t-tests and mediation, and in effect, multi regression analysis (Pituch & Stevens, 2015; Tabachnick, & Fidell, 2001). Assumptions across all tests include the following: data is acquired via randomly sampling from the population, sufficient sample size, data is continuous, independent variables are measured without error, normalcy. linearity, homoscedasticity, and an absence of outliers, multicollinearity, singularity, and error terms.

[2] Means and standard deviations for each of the groups was not reported for the sake of space and that such values are largely irrelevant given the purpose of the ANOVA's and non-significance of all respective tests. These values may be provided upon request.

Overall, the data for Study 2 is similar to that of Study 1 in that it meets all necessary assumptions for all intended analyses, with the exception of normalcy. Though again this may arguably not have significant impacts on the results. Please see Assumption Testing in Study 1 for this discussion. All information pertaining to the statistical assumption testing, along with all pertinent plots, can be found in Appendix CC.

Main Effect Analyses

Independent samples t-test were first conducted in order to test Hypothesis 1b. That is, the effect of uncertainty condition (IV) on measures of Candidate Support (DV) such that participants under increased uncertainty ought to prefer epistemic satiating candidates. The results of these analyses can be seen in Table 11. Interestingly the Avoidance of Ambiguity candidate pair was significant when using the "Follow" outcome of Candidate Support. The effect was however in the opposite of the hypothesized direction and no other forms of Avoidance of Ambiguity were significant. This suggests that participants in the control condition supported the candidate that was high in Avoidance of Ambiguity significantly more than participants in the uncertainty condition. Though it is possible that this could simply be a result of multiple consecutive analyses (i.e., type 1 error) and should be interpreted with caution. In sum, support for Hypothesis 1b was not supported for any of the candidate pairs such that greater uncertainty did not lead to greater epistemic motivation in the form of NFCS.

Table 11. Uncertainty Condition (IV) effect on Candidate Support (DV) as Mediated by Need for Cognitive Closure (MV)

Pair Rated	Dependent Measure	Candidate Support					
		Uncertainty (n = 320) M(SD)	Control (= 335) M(SD)	*T-TEST*	*d*	Closed-Mindedness NFCS Subscale $r_{mv,dv}$ / (Mediate .95 CI)	Reduced NFCS $r_{mv,dv}$ / (Mediate .95 CI)
Preference for High Need for Order	Total	6.02 (2.50)	6.02 (2.51)	$t(648) = -.211$	.02	.195** (-.04/ .12)	.275** (-.16/ .06)
	Follow	5.97 (2.65)	6.05 (2.60)	$t(648) = -.386$	.03	.186** (-.04/ .12)	.283** (-.18/ .06)
	Share	5.93 (2.45)	5.96 (2.50)	$t(653) = -.199$	.02	.191** (-.04/ .12)	.252** (-.14/ .05)
	Vote	6.18 (2.67)	6.16 (2.74)	$t(653) = .085$	.01	.181** (-.04/ 13)	.250** (-.16/ .06)
Preference for High Need for Predictability	Total	4.36 (2.56)	4.59 (2.54)	$t(650) = -1.151$	.09	.285** (-.07/ .17)	.210** (-.13/ .04)
	Follow	4.29 (2.65)	4.57 (2.63)	$t(651) = -1.382$	.11	.286** (-.07/ .18)	.202** (-.13/ .04)
	Share	4.48 (2.58)	4.61 (2.47)	$t(652) = -.613$	.05	.255** (-.06/ .15)	.188** (-.12/ .04)
	Vote	4.30 (2.74)	4.60 (2.74)	$t(653) = -1.413$	.11	.283** (-.07/ .17)	.218** (-.12/ .04)
Preference for High Decisiveness	Total	4.94 (2.54)	4.65 (2.40)	$t(651) = 1.475$	.12	.036 (-.02/ .04)	-.056 (-.01/ .05)
	Follow	5.01 (2.62)	4.68 (2.51)	$t(651) = 1.643$	.13	.033 (-.02/ .04)	-.045 (-.02/ .05)
	Share	4.98 (2.51)	4.75 (2.41)	$t(653) = 1.218$	.10	.034 (-.02/ .04)	-.061 (-.01/ .05)
	Vote	4.81 (2.80)	4.52 (2.68)	$t(653) = 1.373$	.10	.033 (-.02/ .04)	-.055 (-.02/ .05)
Preference for High Avoidance of Ambiguity	Total	6.95 (2.40)	7.27 (2.21)	$t(645) = -1.758$	.14	.131** (-.03/ .08)	.201** (-.11/ .04)
	Follow	6.96 (2.52)	7.35 (2.34)	$t(646) = -2.028*$	.16	.140** (-.03/ .08)	.213** (-.13/ .04)
	Share	6.74 (2.53)	7.05 (2.27)	$t(650) = -1.663$	.13	.120** (-.03/ .07)	.193** (-.11/ .04)
	Vote	7.19 (2.50)	7.40 (2.34)	$t(652) = -1.131$	.09	.109** (-.02/ .07)	.164** (-.10/ .03)
Preference for High Closed-Mindedness	Total	3.67 (2.38)	3.57 (2.25)	$t(651) = .538$	.04	.300** (-.06/ .16)	.119** (-.07/ .03)
	Follow	3.60 (2.44)	3.58 (2.34)	$t(651) = .106$	.01	.296** (-.06/ .16)	.129** (-.08/ .03)
	Share	3.86 (2.43)	3.65 (2.23)	$t(652) = 1.158$	.09	.291** (-.06/ .15)	.091* (-.06/ .02)
	Vote	3.56 (2.59)	3.47 (2.45)	$t(653) = .459$	.04	.282**(-.06/ .16)	.115** (-.08/ .03)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval. $$

Independent samples t-tests were then conducted to test Hypothesis 2b that participants in the uncertainty condition would report greater epistemic motivation compared to those in the control condition measured in the form of each of the NFCS measures. The results of which can be seen in Table 12. Results indicate that uncertainty (i.e., LoS) condition did not have a significant effect on epistemic motivation as measured by either the Closed-Mindedness NFCS subscale or the reduced NFCS scale. Thus, Hypothesis 2b was not supported.

Table 12. Study 2 Effect of Uncertainty Condition (IV) on NFCS (MV)

Variable	Uncertainty (n = 405)	Control (= 409)	T-TEST	d
	M(SD)	M(SD)		
Closed-Mindedness NFCS Subscale	25.73 (5.87)	25.33 (5.79)	$t(640) = .868$	.06
Reduced NFCS	60.35 (13.19)	61.32 (12.90)	$t(633) = -$	.07

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

Hypothesis 3 that participants with higher NFCS would show a greater preference for candidates that have high NFCS characteristics compared to those who are low in NFCS was then tested. Regression analyses were used to determine the effect of NFCS (MV) on measures of Candidate Support (DV), with correlations also shown in Table 11 (see $r_{mv,dv}$ in last two columns). This is reported using the 15-item reduced NFCS scale and 8-item closed-minded NFCS subscale, respectively. Results reflect unstandardized regression coefficients. These regression analyses included the total support measure for the DV of candidate support but also examined the individual items of follow, share, and vote for candidate support. Regression results are shown in Table 13. Overall, support was found for Hypothesis 3 for all but the Decisiveness candidate pairs. All other candidate pairs demonstrated significant results in the predicted direction such that those who scored higher in NFCS showed greater support for candidates that satiated their epistemic needs (i.e., the epistemic satiating candidate).

Table 13. Study 2 Effect of Need for Cognitive Closure (MV) on Candidate Support (DV)

Candidate Support (N = 655)	Closed-Mindedness NFCS Subscale				Reduced NFCS			
Variable	B	SE	t	R^2	B	SE	t	R^2
NfO – Follow	.08**	.02	$t(635) = 4.759$	.03	.06**	.01	$t(628) = 7.400$	.08
NfO – Share	.08**	.02	$t(640) = 4.927$	.04	.05**	.01	$t(633) = 6.545$	.06
NfO – Vote	.08**	.02	$t(640) = 4.659$	.03	.05**	.01	$t(633) = 6.506$	.06
NfO – Total	.08**	.02	$t(635) = 5.010$	.04	.05**	.01	$t(628) = 7.180$	.08
NfP – Follow	.13**	.02	$t(638) = 7.539$	.08	.04**	.01	$t(631) = 5.172$	.04
NfP – Share	.11**	.02	$t(639) = 6.668$	.07	.04**	.01	$t(632) = 4.810$	.04
NfP – Vote	.13**	.02	$t(640) = 7.462$	.08	.05**	.01	$t(633) = 5.631$	.05
NfP – Total	.13**	.02	$t(637) = 7.512$	.08	.04**	.01	$t(630) = 5.379$	.04
D – Follow	.01	.02	$t(638) = .828$	.00	-.01	.01	$t(631) = -1.133$	.00
D – Share	.01	.02	$t(640) = .853$	.00	-.01	.01	$t(633) = -1.537$	.00
D – Vote	.02	.02	$t(640) = .846$	.00	-.01	.01	$t(633) = -1.379$	.00
D – Total	.02	.02	$t(638) = .905$	.00	-.01	.01	$t(631) = -1.417$	.00
A – Follow	.06**	.02	$t(634) = 3.556$	.02	.04**	.01	$t(627) = 5.462$	.05
A – Share	.05**	.02	$t(637) = 3.050$	.01	.04**	.01	$t(630) = 4.927$	.04
A – Vote	.05**	.02	$t(639) = 2.765$	.01	.03**	.01	$t(632) = 4.187$	.03
A – Total	.05**	.02	$t(633) = 3.312$	.02	.04**	.01	$t(626) = 5.133$	.04
CM – Follow	.12**	.02	$t(638) = 7.815$	.09	.02	.01	$t(631) = 3.280$	.02
CM – Share	.12**	.02	$t(639) = 7.678$	.08	.02	.01	$t(632) = 2.288$	.01
CM – Vote	.12**	.02	$t(640) = 7.424$	.08	.02	.01	$t(633) = 2.903$	.01
CM – Total	.12**	.02	$t(638) = 7.950$	.09	.02**	.01	$t(631) = 3.011$	.01

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

Mediation Analyses

To test Hypothesis 4a that NFCS will mediate the effect uncertainty condition has on the Candidate Support, I used the PROCESS macro for SPSS which estimates a process model for mediation (Preacher, Rucker, & Hayes, 2007; Model 4) with bootstrapping (10,000). Uncertainty conditions served as the independent variable, Candidate Support served as the dependent variable, and NFCS served as the mediator. The full mediation results can be seen in Table 11.A total of 40 mediation analyses were conducted to accommodate the two different versions of the NFCS mediator, and the five different versions of the Candidate Support measure for each of the five characteristics.

The results suggest no support for Hypothesis 4a such that neither the Closed-Mindedness NFCS Subscale nor the Reduced NFCS (MV) successfully mediated the effect of Uncertainty Condition (IV) on Candidate Support (DV). This includes when examining the individual items of candidate support of follow, share, and vote in addition to total support. This suggests that NFCS does not mediate the relationship of uncertainty conditions on any form of Candidate Support.

Exploratory Analysis

Exploratory Hypothesis 5 was then tested following similar methods as Hypothesis 4a, with the exception being that political identification was included as a covariate into the model. Specifically, mediation analyses were conducted looking how either version of NFCS (MV; closed-mindedness and reduced forms) mediates the relationship between uncertainty condition (IV) and candidate support (DV). The covariate of Political Identity was created by taking the mean combined score of participants self-reporting their political ideology (1 = *Strong Liberal*, 9

= *Strong Conservative*) and party (1 = *Strong Democrat*, 9 = *Strong Republican*). As such, lower scores in this new variable indicate right left-wing alignment, and higher scores indicate greater right-wing alignment and the new variable found to meet conventional levels for high reliability (Cronbach's α = .925). These mediation analyses did not look at how the individual items (e.g., follow, share and vote) within the total candidate support measure for each candidate pair individually given the results of the analyses testing Hypothesis 4a and finding little difference between total candidate support and each individual item.

A summarized table of the significance of these mediation analyses can be found in Appendix DD. Overall, there is no support for Hypothesis 5 and the findings remain similar to that of the results from Hypothesis 4a. That is, there is no evidence that Uncertainty Conditions (IV) effect on Candidate Support (DV) is mediated by forms of NFCS (MV), even when controlling for political ideology. This demonstrates a lack of support for the theorized distinction between state and trait that was hypothesized to emerge between models of Hypothesis 4a and 5.

It ought still be noted that the effect sizes (i.e., R^2) generally increased in the models including political identity from the mediation models that did not - with model including political identity generally falling near or about .10 and those without if fall under .10. Follow-up exploratory analyses were conducted similar to Study 1, conducting regression analyses using Political Identity as the predictor and measures of epistemic motivation and candidate support as the outcomes. The full results of these analyses can be seen in Appendix DD and show that Political Identity significantly predicts higher levels of both measures of NFCS and total candidate support such that all three of these measures were predicted by great right-wing

alignment. Though political identity only explained about 1% of the variance for both total Decisiveness Candidate support and the reduced NFCS scale.

Furthermore, similar to Study 1, an additional mediation analysis was conducted to determine the extent to which the present work replicates this past research. In this case, Webber et al. (2018) used different measures of political identity, particularly focusing on political extremism, in their work examining how the effects of uncertainty on this outcome may be mediated by the generalized measure of NFCS. As such, a mediation analysis examining how NFCS (MV) mediates the relationship between Political Identity (DV) and Uncertainty Condition (IV) was conducted with the table of results found in Appendix DD. Results indicate an unsuccessful replication of past work such that neither measure of NFCS successfully mediated the relationship between Uncertainty Condition on Political Identity.

Discussion

The manipulation of uncertainty was successful as participants in the Loss of Significance (i.e., Uncertainty) condition reported greater feelings of uncertainty compared to those in the control condition, and the self-report uncertainty scale was found to be reliable. All measures were found to be reliable with no ordering effects. The data from Study 2 was also found to meet conventional standards for the a priori analyses with the exception of normalcy which arguably should not significantly have affected the findings of this study due to the large sample size collected.

Hypothesis 1b was not supported such that participants in the LoS (uncertainty) condition did not report significantly greater support for candidates that satiated their epistemic needs (i.e., higher Candidate Support scores) compared to those in the control condition. Counter to this

prediction even, Candidate Support in the form of the Follow measure of the Avoidance of Ambiguity candidate was higher for those in the control condition compared to the uncertainty condition - though the fact this only occurred for the Follow item and no other measure of support for the Avoidance of Ambiguity candidate, this ought to be considered skeptically as perhaps being a finding of type 1 error rather than a true finding indicative of a the relationship between uncertainty and candidate support.

Despite the lack of support for Hypothesis 1b the trend in general support for each candidate pair is once again perhaps indicative of general trends of Candidate Support as was the case in Study 1. On average, participants reported a higher level of support for the high Need for Order ($M = 6.05$, $SD = 2.50$) and Avoidance of Ambiguity ($M = 7.11$, $SD = 2.31$) candidates. Participants generally reported a preference for the low Closed-Mindedness, or open-minded, political candidate ($M = 3.62$, $SD = 2.31$). The remaining candidate pair of Need for Predictability fell just below the scale midpoint ($M = 4.47$, $SD = 2.55$) and Decisiveness mean support appearing similar ($M = 4.79$, $SD = 2.47$). These trends in mean support across candidate pairs are almost identical to study 1. The directions of these means once again indicating that people may generally prefer open-minded candidates that show a need for order and an avoidance of ambiguity in their characteristics, but that a need for decisiveness and predictability in a candidate may not be a significant factor in Candidate Support.

Hypothesis 2a was not supported as uncertainty conditions showed no significant effect on any of the NFCS conditions. This is not consistent with the past research conducted by Webber et al. (2018) that successfully demonstrated that inflating one's sense of uncertainty can increase one's NFCS. Webber et al. (2018) conducted their study online and also used an MTurk

sample and while they used the PANAS measure to measure uncertainty and negative emotion instead of the self-report measure used in this study, this should have not created a large impact on subsequent measures of NFCS. Perhaps a difference was that the PANAS includes more items and thus takes longer to complete than the uncertainty measure used in this study. Webber et al. (2018) discuss the importance of a delay period between the uncertainty manipulation and measuring an outcome, such as NFCS, in order to elicit a sense of cognitive dissonance (Jonas et al., 2015; Pyszczynski et al., 1999). Thus, it could potentially be the case that the delay period using the present uncertainty manipulation check item was not a long enough delay period and replicated the results (e.g., Watson et al., 1988; Webber et al., 2018). Further work will be needed to determine if this is a confound of using two different measures of what is essentially affect and most importantly uncertainty, or another influencing factor. Though NFCS was used previously as part of the delay task, having both a measure of NFCS and mood may have also impacted the result on both NFCS and Candidate Support.

Hypothesis 3 was supported such that both measures of NFCS significantly predicted support for candidates and in the predicted direction with greater NFCS predicting greater support for the epistemic satiating candidate, though the effect size was consistently below an R^2 of .10. Some notable exceptions to these findings is that neither measure of NFCS predicted support for the Decisiveness candidate, and the reduced NFCS scale only predicted total support for the Closed-Mindedness candidate pair and not the individual items of follow, share, and vote. Additionally, the reduced NFCS explained more variance for the Need for Order and Avoidance of Ambiguity candidates, while the closed-mindedness subscale measure of NFCS explained

more for variance for the Closed-Mindedness and Need for Predictability candidates - though these differences were often an R^2 of .02 to .04 differences.

Neither Hypothesis 4b nor Hypothesis 5 were supported across the numerous mediation analyses that were conducted investigating if the effect of Uncertainty Condition on Candidate Support may be mediated by measures of NFCS, and if this mediation would be affected by including the covariate of Political Identity (i.e., mean combined score of participants political ideology and party identification). Subsequent regression analyses exploring the potential main effect of Political Identification as a predictor on measures of NFCS and candidate support revealed that great right-wing alignment is associated with greater NFCS (for both scales) and support for the high NFCS candidates. Political Identification explained 25.6% of the variance in need for predictability. Political Identification is theorized in the ideology as socially motivated cognition model to be an emergent construct from epistemic, existential, and relational motives and as such this may explain why Political Identification may be explaining more variance in candidate support on its own that the hypothesized epistemic motivation models (e.g., Jost et al., 2007).

Study 2 specifically investigated the role of uncertainty on NFCS and candidate support and found support for Hypothesis 3. Though a possible relationship of greater right-wing identification predicting a preference of epistemic satiating candidates in follow up exploratory analyses. This may lay the foundation for future work to explore how political identity may be further broken down to explore how facets of it predict forms of candidate support.

CHAPTER VIII

GENERAL DISCUSSION

The ideology as motivated social cognition model theorizes that environmental stimuli that elicit feelings of threat and uncertainty are managed via epistemic, existential, and/or relational social cognitive motives. Exactly how environmental stimuli are managed by social cognitive motivators is theorized to lead to manifestations of facets of psychological conservatism (i.e., resistance to change and acceptance to inequality) and ultimately political ideology (Jost et al., 2009; Jost et al., 2015). The goal of the present work was to use this existing theoretical framework to gain a deeper understanding of the psychological mechanisms that underlie political information processing. The results of this work suggest that, while greater epistemic motivation is related to greater psychological conservatism and preference for epistemic satiating candidates, it does not manage the effects of threat or uncertainty to a significant degree.

The present work sought to test the fundamental assumption that increased epistemic motivations leads to a preference for epistemic satiating stimuli (e.g., Kruglanski 1989). Epistemic motivations specifically relate to the degree to which an individual is motivated to come to a conclusion (or decision) quickly, which manifests in a greater desire for certainty, order, structure, and closure when high (Kruglanksi & Webster, 1996; Jost & Amodio, 2011). Testing this fundamental assumption involved gaining a better understanding of how epistemic social cognitive motivations serve as mechanisms in managing increased threat (Study 1) or uncertainty (Study 2), respectively. Previous research within the domain of political psychology

has demonstrated that increased threat and uncertainty elicited an increased a preference for conservative policies and candidates (e.g., Disatnik & Steinhart, 2015; Jost et al., 2007; Marchlewska et al., 2018) but had yet to test the underlying basic assumption that increased threat and uncertainty increases a preference for epistemic satiating stimuli even without overtly political information - such as policy positions or party affiliation.

Based upon previous research and the existing theoretical framework of the ideology as motivated social cognition mode, I first predicted that participants who were experiencing increased uncertainty and threat using a state-based manipulation should uniquely prefer political candidates that are described as having characteristics that satiate epistemic motivations (i.e., Need for Order, Need for Predictability, Decisiveness, Avoidance of Ambiguity, and Closed-mindedness) compared to a control. Similarly, participants who were experiencing increased threat or uncertainty would report greater epistemic motivation in the form of Need for Cognitive Closure. This was captured in the form of the reduced Need for Cognitive Closure Scale (NFCS) and closed-mindedness NFCS subscale based upon previous research (e.g., Thórisdóttir & Jost, 2011). Next, I predicted that participants who were higher in epistemic motivation, that is, participants who scored higher in NFCS, would seek to satiate their increased epistemic motivations by supporting candidates that were described as having characteristics that satiated these motivations. I then predicted a mediated relationship that mirrors the causal flow within the ideology as motivated social cognition model such that increased threat and uncertainty would increase preference for epistemic satiating candidates and that this relationship will be managed (i.e., mediated) by NFCS. Finally, I wanted to explore the possible distinction between trait and state level differences in epistemic motivations by using political ideology as a covariate - with

political identification serving as a measure of trait level epistemic motivations and my experimental manipulations of uncertainty and threat serving as situational state differences in epistemic motivations.

The Role of Threat and Uncertainty in Candidate Support

Hypothesis 1 predicted that situational manipulations of threat (1a) and/or uncertainty (1b) would elicit greater support for epistemic satiating candidates. Minimal support was found for both parts of Hypothesis 1. Participants in the Threat condition were more likely to support the high Decisiveness candidate compared to those in the safe condition, but no other high epistemic satiating candidates and only for the total support measure ($p < .05$). Furthermore, given the number of analysis involving each of the candidate pairs, there is a high probability of Type I error. This possibility should be greatly considered for this finding particularly as the significance level was only that of $p < .05$, or a 1-in-20 chance.

Counter to what was predicted, participants in the LoS (uncertainty) condition were actually more likely to support the more ambiguous candidate compared to the control condition. This effect was only present for the follow item of candidate support and only significant to $p < .05$. Interestingly, both of these significant effects had the exact same effect size of just below the standards for a small effect ($d = .16$). Though not significant, it is of note that only the Need for Order, Decisiveness, and Closed-Mindedness candidate pairs were in the predicted direction for threat, and only Decisiveness and Closed-Mindedness candidates for uncertainty, leaving Avoidance of Ambiguity and Need for Predictability candidates consistently in the opposite direction.

Given the general lack of significance and extremely small effect sizes in the present

research it is difficult to make confident generalizable claims. That said, it is interesting that

previous work by Thórisdóttir and Jost (2011) found that the situational manipulation of threat

affected the closed-mindedness NFCS subscale, but in the present work the direction of the

effect reversed. Kruglanski and Webster (1996) argued that at the root of a need for cognitive

closure lies a drive to "freeze" past knowledge and an urgency to seize an answer quickly.

Considering the directions of the present study's findings, this could suggest that state

manipulations of threat and uncertainty may pertain to more of the urgency for an answer and

less so on the drive to "freeze" past knowledge, with participants seemingly reporting greater a

preference for decisive candidates but also a tendency to prefer more ambiguous and less

predictable candidates when under threat or increased uncertainty. However, such distinctions

should be stated with great caution given the unclear results.

Webber et al. (2018) found that use of the LoS manipulation led to increased preference

for radical political beliefs via the indirect effect of higher NFCS when excluding political

orientation as a covariate (direct effect was non-significant). This makes it particularly peculiar

that participants in the present study demonstrated a preference for the more ambiguous

candidate (i.e., more complex and verbose) when the foundational uncertainty-identity theory

posits that it is personal (and/or collective) struggles that drives individuals towards radicalism

by addressing their feelings of uncertainty with direct and simple answers (e.g., Hogg et al.,

2007; Webber et al., 2018). While the candidates provided were not "radical" in nature, they did

possess qualities that satiate epistemic motivations for quick and decisive answers with an

avoidance of ambiguity that underlies the reasoning of why it is theorized individuals are drawn to more radical groups and movements during times of uncertainty.

One possibility is that, while Webber et al. (2018) used NFCS in their study, they argue that Significance Quest Theory (SQT) underlies the LoS effect. In short, experiencing a LoS event (e.g., loss, shame, dishonor) directed at one's personal circumstances (and/or social group) can motivate one to restore or gain a sense of significance, importance, or effectiveness (Kruglanksi et al., 2014; 2017). This may suggest that LoS effects may correspond more to greater existential motives (i.e., motivation for purpose) than to epistemic motivations. It is possible that uncertainty manipulations may then more specifically affect existential motivations while threat affects epistemic motivations to a greater degree. Future research ought to measure existential motivations in addition to epistemic motivations to see if this distinction exists.

Situational Manipulations of Epistemic Motivation

Hypothesis 2 was not supported as neither the situational manipulation of threat nor uncertainty was shown to significantly affect one's levels of epistemic motivation as measured by the reduced NFCS or closed-mindedness NFCS subscale. Though the effects were trending in the opposite direction, they were also non-significant with small effect sizes most $d = .08$ or less), suggesting the best interpretation to simply be a null result. These results fail to replicate past work despite using very similar manipulation strategies.

Thórisdóttir and Jost's (2011) manipulation of threat successfully manipulated the closed-minded NFCS subscale despite a null finding on their manipulation check - arguing that this was because the effect of the threat manipulation was implicit and not explicit. It is perhaps the case that the significant manipulation check in the present study indicates that the effect was perhaps

explicit, leading to a non-significant effect on epistemic motivations. Though Thórisdóttir and Jost (2011) asked participants to recall far more threatening past events in the low (3) versus high (12) conditions which would seemingly be more likely to make the intended threat effect salient. Implicit measures of feelings of threat should be used in future work to determine the importance of explicit versus implicit feelings of threat on epistemic motivation. Correspondence of threat to outcome may be critical and as such, system threat manipulations may be more effective in subsequent work (Jost et al., 2003)

Similarly, the present research failed to replicate past effects by Webber et al. (2018) using the same manipulation of Loss of Significance (LoS) manipulation approach to elicit cognitive dissonance and thus increase feelings of uncertainty that led to greater epistemic motivations as measured by the reduced NFCS scale. It is possible that this may once again be an issue of correspondence between the manipulation and the outcome as Webber et al. (2018) measured political radicalism and not candidate support. This means that eliciting uncertainty in the political system and instability may be a more correspondent manipulation of uncertainty rather than personal cognitive dissonance. Though, if issues of correspondence lie at the root cause issue for the failure of replication for both Thórisdóttir and Jost (2011) and Webber et al. (2018), then this would represent boundary conditions within the ideology as motivated social cognition model such that general threat and uncertainty is not processed through all three (or perhaps not equally) by all three social cognitive motivators, but only via social motivators that are perhaps more correspondent.

Epistemic Motivations Effect on Apolitical Candidate Support

Hypothesis 3 was supported with participants who reported higher epistemic motivation

 (i.e., NFCS) indicating greater support for all epistemic satiating candidates, except for the Decisiveness candidate pair. This effect persisted across both Study 1 and 2 and for both measures of NFCS, though the effect size was consistently below the standard criteria for a small effect size with the largest effect only reaching $d = .10$. Additionally, greater epistemic motivations elicited the greatest increases in support for the high Need for Predictability and Closed-Mindedness candidates across both studies and particularly when including the reduced NFCS.

It is interesting to point out that only the Decisiveness candidate pair was affected by the situational manipulation of threat in Study 1, with greater threat eliciting a greater preference for the more decisive candidate ($d = .16$). This result almost mirrors the results found in Hypothesis 3 with all but the Decisiveness candidate pair being significantly predicted by measures of NFCS. This may suggest that while the degree to which decisiveness is seen as an appealing trait corresponds to the levels of situational threat being experienced by an individual, the other remaining aspects of epistemic motivation are more stable across situations – at least across levels of threat. Though this distinction will require further research and should be approached with some skepticism given, as stated previously, the significant effect for the Decisiveness candidate only reached a $p < .05$ and only for the total Candidate Support measure.

If this effect is in fact replicable, then this could imply a nuanced difference between state versus trait mechanisms of epistemic motivations such that the ideology as motivated social cognition model does not presently highlight. Past work has highlighted some aspects of situational versus dispositional differences in epistemic motivations such that individuals with higher dispositional uncertainty motivation, personal need for structure, and NFCS are more

likely to hold more conservative attitudes (e.g., rationalizing inequality; see review by Jost et al., 2013), while situational factors (e.g., time pressure) have been demonstrated to increase hallmarks of "conservative cognition" such as greater stereotyping and dogmatism (e.g., Jost & Banaji, 2014a; Webster & Kruglanski, 1994). However, this past work still largely fails to demonstrate the underlying assumption of the ideology as motivated social cognition model that political candidates are directly satiating greater epistemic motivation thus creating the preference. In other words, it may be clear that participants who score higher on NFCS prefer more conservative candidates, but it is unclear which aspects of epistemic motivations are most relevant and being satiated during candidate selection due to explicitly political always being present. Identification of exactly which sub constructs within each of the social cognitive motivators are most applicable across varying situations versus traits would allow for more targeted interventions and recommendations.

Epistemic Model of Threat and Uncertainty Management on Candidate Support

Hypothesis 4 was not supported as neither measure of epistemic motivation successfully mediated the relationship between threat or uncertainty and Candidate Support. Previous work using the ideology as motivated social cognition model has often shown a lack of direct effects of manipulations on political outcomes but consistently demonstrated the crucial indirect effect of social cognitive motivators (e.g., Jost et al., 2003; Jost et al., 2014; Webber et al., 2018). It is thus still of note that no measure of NFCS successfully mediated the effect of the threat nor uncertainty manipulation on candidate support.

The inclusion of political identity as a covariate in the mediation model, as described in Hypothesis 5, was to delineate effects due to state versus trait of epistemic motivations.

However, the inclusion of the political identity as a covariate to the mediation models did not change the overall null results of the mediation models thus the exploratory Hypothesis 5 was not supported. Though the inclusion of political identity did increase the total amount of variance explained by the models drastically, often up to a total of 20% or more (i.e., $R^2 = .20$) with the relationship between measures of NFCS and candidate support previously described remaining significant. This may suggest that the inclusion of political identity may explain a greater amount of variance in Candidate Support by capturing the remaining variance of specifically trait levels of epistemic motivations, as well as existential and relational motives.

Political Identifications Role in Candidate Support

Further exploratory analyses were conducted investigating the effect of political identity on epistemic motivations and candidate support due to the significant influence it had in increasing the overall predicted variance in the mediation models. Political Identity was shown to positively predict both measures of epistemic motivations and candidate support outcomes, with only the Decisiveness candidate pair being non-significant in Study 1. The effect sizes of political identity on each respective outcome were largely the same across both studies, indicating a consistent effect of political identity, though these effects were quite small, with political identity predicting less than 10% of the variance for most outcomes. The exceptions to this were political identity explaining ~25% of the variance in Need for Predictability and ~12% of the variance in Closed-Mindedness across both studies. This suggesting that greater right-wing identification coincides with particularly higher levels in Need for Predictability and Closed-Mindedness, which would be consistent with past literature.

Interestingly, Need for Predictability and Closed-Mindedness candidate support were

shown to be the least influenced (i.e., smallest effect size) by uncertainty and particularly threat manipulations, while Decisiveness candidate support was significantly affected by both. This may be further evidence that specifically Decisiveness satiates state dependent increases in threat but not uncertainty. This could potentially suggest that the other aspects of epistemic motivations (i.e., NFCS) are more stable across situations, at least in terms of situational threat and uncertainty.

Across a number of different measures of open-mindedness (e.g., open-minded cognition, openness to experience, etc.), conservatives have been shown to be more dogmatic and have more rigid cognitive styles compared- to liberals (Deyoung et al., 2007; Deyoung et al., 2009; Oleynick et al., 2017; Ottati et al., 2018; Price et al., 2015). It is interesting that Need for Predictability stands so apart from all other outcomes across both studies - even from Need for Order that is conceptually similar and yet has such little variance explained comparatively. While Need for Order may be best compared with Social Dominance Orientation (SDO) due to its association with hierarchy, perhaps Need for Predictability is more similar to System Justification (SJ). The key words used in the high Need for Predictability candidates included "traditional", "person of habit", "supports policies that have previously been utilized". These share conceptual similarities with a hallmark of high system justifiers being legitimization of existing social arrangements (Jost & Banaji, 1994). System justification is also not necessarily linked to the political Left or Right, just the status quo - which could theoretically be Left leaning as it was under the Soviet Union (e.g., Jost et al., 2003b, Lenin 1961; 1971).

New Insights on Candidate Support

Outside of the a priori hypotheses, an interesting finding in the data emerged in the form

of participants' average degree of support for the candidate pairs across studies. Interestingly, participants generally showed support for the high Need for Order and Avoidance of Ambiguity candidates, low support for the Closed-Mindedness candidate, and rather neutral feelings towards the Decisiveness and Need for Predictability candidate pairs. Overall, this suggests that participants generally prefer candidates that are open-minded, orderly, and avoid ambiguity (e.g., clear and concise), but are indifferent to how decisive or predictable a candidate is.

Comments on the Ideology as Motivated Social Cognition Model

In sum, the present work indicates limited support for the ideology as motivated social cognition model as theorized by Jost et al. (2003a; 2003b), at least in respect to epistemic motivators. The fundamental assumption within this aspect of the model that increased epistemic motivation ought to lead to a preference for simple and decisive over more complex and ambiguous stimuli in order to satiate threats and uncertainty was not supported. Despite successful manipulation checks for both threat and uncertainty, neither significantly affected any measure of NFCS or preference for an epistemic satiating candidate. While there is an exception to this, with Threat Condition eliciting a greater preference for the Decisive candidate, concerns have already been raised that this may be more of a result of Type I error than a meaningful finding. Moreover, none of the mediation models conducted within the work, including that of exploratory analysis using Political Identity as an outcome, demonstrated support for the theorized relationship of epistemic motivation managing the influence of threat or uncertainty on political outcomes such as Candidate Support and ideology. This raises questions about the validity of the model, at least in respect to the role epistemic motivation.

Greater epistemic motivation (i.e., NFCS) did still predict greater preference for the epistemic satiating candidate as theorized, but no other aspects of the model were supported. While a number of possible interpretations have been provided for these findings, it is still important to consider that there may be other factors that are driving the effects on political outcomes, such as policy attitudes and ideology, that have been found in past work. Other antecedents to the theorized social cognitive motivators ought be investigated in future work. At this time, only the direct of effect of the social cognitive motivator of epistemic motivation can be said to elicit changes in political preferences, but not threat or uncertainty.

Limitations and Future Directions

Though the manipulations in Study 1 and 2 were pilot tested, there are potential limitations present. A modified version of the Thórisdóttir and Jost (2011) threat manipulation was used in Study 1 based upon the findings of Pilot Study 1. Thórisdóttir and Jost (2011) implemented their manipulation in-person and achieved essentially a medium effect size of threat condition on their manipulation check ($d = .45$; Study 1a) while the present study used online data collection methods and achieved a small-to-medium effect size of threat condition on the manipulation check ($d = .36$; see Study 1). Thórisdóttir and Jost (2011) only used a single item to measure self-reported feelings of threat while the present Study 1 used a more comprehensive and reliable three-item manipulation check of threat. Neither the original work nor the present work demonstrated an effect of threat on a manipulation check, though Thórisdóttir and Jost (2011) did demonstrate an effect of threat on NFCS. The present work fails to replicate past work and calls into question the reliability of this effect. It is possible that this failure of replication may be an artifact difference of using in-person vs. online data collection

methodology. Subsequent research should repeat Study 1 using in-person data collection to determine if situational threat manipulations truly do not have a significant effect on NFCS or Candidate Support or if this is an issue of manipulation strength due to method of data collection.

The failure to replicate the effect of uncertainty condition on either NFCS or measures of candidate support may be due to a reduced "delay-period" used in Study 2. The delay period used in Study 2 differed from that of the Webber et al. (2018) in the form of the manipulation check. Webber et al. (2018) used the PANAS scale (Watson et al., 1988) to measure the efficacy in manipulating uncertainty and argue the importance of a delay-period between the LoS manipulation and measuring NFCS (and other subsequent measures) as the delay allows space for the feeling of cognitive dissonance due to making the participants feelings of humiliation salient (e.g., McGregor et al., 2001). The PANAS scale involves several more items than the three-item manipulation check measure of uncertainty used in Study 2. This shorter measure of uncertainty may not have been a long enough delay-period to elicit the intended cognitive dissonance effect. It is also possible that the findings of Study 2 do indicate an unreliable relationship of using the LoS manipulation to elicit changes in NFCS as LoS may be more effectively manipulating outcomes such as existential motivations or sadness rather than specifically uncertainty. Future research ought to explore varying delay periods to determine if the lack of replication was in-part due to differences in delay period or truly due situational manipulations of uncertainty eliciting little to null effects on NFCS and candidate support.

Present work took care to create an outcome measure that was unique from previous work in that the political outcome measure was decoupled from ideology to test the fundamental claim within the ideology as motivated social cognition model pertaining to epistemic motivation

(Jost et al., 2003a). However previous work examining this relationship included political outcome measures that were more explicitly coupled with ideology, such as policy attitudes (e.g., legalization of marijuana, greater taxation on the wealthy, privatization of services, etc.), political beliefs, support for extremism, and party identification, ideological identification (e.g., Bonanno & Jost, 2006; Hogg et al., 2013; Jost et al., 2003; Jost et al., 2007; Webber et al., 2018). The difference on whether political ideology is coupled or decoupled from the dependent measure could be presenting a critical difference effecting replication. Future research should investigate the importance of this difference in political outcome measurement by including two distinct measure, one that is similar to the measure used in the present study where ideology is decoupled from the measure, and one more conventional measure that has been used in the past to research that couple's ideology with the measure. Such research may highlight possible boundary conditions for past work, such as under what conditions threat and uncertainty may affect epistemic motivations and political attitudes.

Analyses were conducted to ensure the present data had met all relevant assumptions necessary to conduct multiple regression analyses, and thus mediation analyses. Both Study 1 and Study 2 met all assumptions except for the assumption of normality with significant Kolmogrov-Smirnov and more conservative Shapiro-Wilk tests (Tabachnick & Fidell, 2001). There exists debate as to how much of a concern violating this assumption is, especially when including large sample sizes as Study 1 and 2 did (e.g., Pituch & Stevens, 2015). These concerns largely pertain to the risk of increased type 1 error and reducing power. While the issue of type 1 error seems to largely pertain to small sample sizes (e.g., Everitt, 1979), the greater concern may be power. It may be the case that despite the completion of an a priori power analysis for each

study, power could have been reduced due to the non-normality of the data. Future work should take care to attend to the issue of normality of the data to determine the full extent of potential issues due to violating this assumption.

<div align="center">**Strengths**</div>

Despite the aforementioned limitations of the present studies there were also many strengths, first of which pertain to the use of two pilot studies to test facets of the methodology prior to running the main Study 1 and 2. Pilot studies 1 and 2 tested the efficacy of previous manipulations of threat (Thórisdóttir & Jost, 2011) and uncertainty (Webber et al., 2018) to determine their efficacy using an online American sample. A number of threat and uncertainty conditions were tested before implementing the most successful pair in the main studies. The success of the manipulations was further supported via successful manipulation check analyses for each respective main study. So, while effect of threat and uncertainty respectively largely did not elicit the hypothesized effect on neither epistemic motivation nor Candidate Support, I can be fairly confident that both manipulations did indeed significantly impact the intended construct, just perhaps the effect was not great enough or there truly is a weak relationship between state manipulations of threat and uncertainty on NFCS and Candidate Support.

The internal validity of this study was also increased by using counterbalancing techniques and by reporting the reliability of the scales used. All measures met the standard criteria for reliability (i.e., Cronbach's $\alpha > .7$) except for the reduced NFCS scale (Study 1 $\alpha = .672$; Study 2 $\alpha = .687$). Across both Study 1 and 2, the order in which participants received the candidate pairings, and which candidate was shown as being on the high or low end of the scale were completely crossed to control for ordering effects. Results of subsequent ANOVA's

investigating the efficacy of the counter-balancing technique found no significant effect of order of candidate pairs nor placement of candidates at the high or low end of scales, with the exception of the order in which they received the Closed-Mindedness candidate pair in Study 1, Though, the size of the effect ($\eta^2 = .018$) fell only slightly above the conventional guidelines for negligible size ($\eta^2 < 0.01$; Cohen, 1988) and thus is unlikely to have greatly affected any results pertinent to the Closed-Minded candidate pair in Study 1.

The samples for both studies were recruited from Cloud Research and, in effect, the Amazon Mechanical Turk participant pool. Using Cloud Research for recruitment increased both studies' external validity, particularly in comparison to using a university participant pool, as a more representative sample of the US. This can be seen in the demographic information for each study, such as the mean age for both studies being in the 40's rather than being late teens as it would be in a university sample. Furthermore, both samples contained only a very slight bias towards left-wing identification, allowing better generalization across political identification. The sample size for each was also determined based upon a priori power analyses.

While the present body of work does call into question the role of threat and uncertainty on epistemic motivation and political attitudes, these results do provide partial support for the claims made by Kruglanksi (1989) and Jost et al (2003a) in that individuals who are high in NFCS ought to prefer stimuli that satiate epistemic motivations even when the stimuli is "content-free" - in this case, free of overt political association either in the form of policy position, ideology, or party affiliation. Early evidence was also shown for the assertion that conservatives (i.e., greater right-wing identification) do prefer candidates who satiate epistemic motivations - even given the "content-free" stimuli.

Coda

In summary, these studies suggest that there are important nuances between situational increases in threat and uncertainty, and their impact on epistemic motivation and candidate support. Threat manipulations may be associated more with epistemic motivations while uncertainty may ultimately have a bigger influence on existential motivations. There also exists important dispositional versus state differences in the mechanisms that lead to candidate support. People will demonstrate greater support for decisive candidates during situationally increased feelings of threat, while people with higher trait epistemic motivation will support candidates that appear more predictable and dogmatic. The present study has helped identify what the specific psychological mechanisms are that address epistemic threat and lead to greater candidate support by removing overtly political stimuli. Now due to this disentangling we can gain a deeper understanding of not just why people prefer the political Left or Right during the present political landscape, but what the underpinning psychological reasons are going forward.

Kruglanski (1989) and Jost et al (2003a) theorized that those with greater epistemic motivation ought to prefer candidates and messages that satiate needs for certainty, order, structure, predictability, and closure even without explicitly political content. This assumption is built into the ideology as motivated social cognition model and is used to further theorize why individuals who are high in epistemic motivations are more likely to be conservative and support right-wing candidates and policies. The present work tested this assumption and found early evidence that individuals with great epistemic motivations support candidates that possess epistemic satiating characteristics, except for decisiveness. Furthermore, people generally prefer candidates that are orderly, avoid ambiguity (e.g., clear and concise), and open-minded, but are

indifferent to how decisive or predictable a candidate is in terms of baseline support. This largely supports the assumptions of past work but provides further new avenues by looking at more nuanced ways at how the political Left may satiate epistemic motivations or the how the Right may fail to – rather than simply attributing high and low epistemic motivation and/or other social cognitive motivators to more general ideological categories.

The information we choose to attend to and consider, and what we choose to ignore, has radical consequences on our own political alignments and judgements. Current social media algorithms exacerbate existing partisan biases in information seeking by magnifying echo chambers and partisan differences in order to stir conflict between political groups and ultimately increase engagement. This is all occurring while ignoring the consequences of building these algorithms that continue to stock political violence and spread harmful misinformation (Bak-Coleman et al., 2021; Haghtalab et al., 2021; Gawronski, 2021). This built-in aspect of modern social media only seeks to stoke our feelings of fear, uncertainty, and threat across the political spectrum, further leading to a breakdown of deeply necessary nuanced and complex dialogues that must occur in a healthy democracy. Understanding the mechanisms of how uncertainty, threat, and social cognitive motivations influence our information seeking behavior allows us to understand the extent of the issue and create meaningful interventions to facilitate honest political communication that is essential to a functional democracy.

APPENDIX A

PILOT STUDY 1 ONLINE RECRUITMENT MATERIALS

Title: Well-Being

Description: First, recall a real-life event and answer follow-up personality questionnaire items

Criteria/Qualification Required: Must be age 18 and over, White, a United States resident and fluent in English.

Reward: $1.00

Time Allotted: 15 minutes

Keywords: research, survey, surveys, questionnaire, attitudes, well-being

Survey Link: [QUALTRICS LINK]

Please note: You must provide a participant code for the HIT to be approved

Text on HIT page:

IMPORTANT: Leave this window open while you take the survey You will need to enter the HIT completion code to receive payment

You are being asked to complete a two-part survey. In Part 1 you will complete a survey about well-being. We are interested in collecting Americans' real-life experiences. You will then complete some personality questionnaire items. Part 2 will involve answering some personality questionnaire items. This study should take less than 15 minutes to complete.

Please only take this survey once.

If you are interested in completing this survey or wish to receive additional information before deciding, please click on this link to proceed to the Informed Consent:
[QUALTRICS LINK]

If you decide to participate in this study, you will be given a unique code at the end of the task. Please copy and paste this code into the text box below to verify that you completed the survey. Please note: You must provide this code for HIT to be approved.

UNIQUE CODE IS ENTERED HERE UPON COMPLETION ____

Click here to proceed to the study **[<QUALTRICS LINK>]**

APPENDIX B

PILOT STUDY 1 CONSENT FORM

CONSENT TO PARTICIPATE IN RESEARCH

Title: *Well-Being Study*

Researcher: *Chad Osteen*

Faculty Sponsor: *Victor C. Ottati*

Introduction: You are being asked to take part in a research study being conducted by Chad Osteen for a dissertation under the supervision of Dr. Victor Ottati in the Department of Psychology at Loyola University Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in this study. and Victor Ottati for a research project under the supervision of Victor C. Ottati, Ph.D. in the Department of Psychology at Loyola University of Chicago.

Purpose: You are invited to participate in a study on well-being. We are interested in collecting Americans real-life experiences.

Procedures: If you agree to participate in this study, you will be asked to the following:

- Recall real-life past experiences.
- Fill out a series of questionnaire items.

Risks/Benefits: Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves minimal risk. You will be asked to recall real-life past instances of threatening life experiences and thus you may experience feelings of distress. You are free to provide as much or as little detail as you would like during this task. All other tasks involve risks that are similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations.

Time Commitment: This experiment will take no more than 15 minutes to complete.

Compensation: You will receive $1.00 to compensate you for your participation upon completion of this study. At the end of the survey, you will be given a short code, which you will enter into the MTurk page. This will ensure you are correctly identified as having completed the study and so you can receive payment. If you choose to end participation before completing the study, you will not be compensated. The researcher reserves the right to deny payment if the study is not completed. Payments are made via Amazon's payment system.

Confidentiality: Personally identifiable information, such as IP addresses, will be collected in order to remove bots and other such false responses from data collection. This information will however be immediately deleted from the data upon the end of data collection. All data will be associated with a unique identification number (e.g., 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. As such, the researcher will be unable to extract anonymous data from the database should the participant wish it to be withdrawn**.** All information obtained during the

study will remain confidential. The deidentified data file will be kept indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty.

Contacts and Questions: This study has been approved by the Loyola Institutional Review Board for the Protection of Human Subjects. If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

If you have questions about this research study, please feel free to contact Chad Osteen (email: costeen@luc.edu) or Dr. Victor C. Ottati, Ph.D. email: vottati@luc.edu; phone 773-508-3024).

Statement of Consent: I have read the explanation provided to me and I understand that by clicking the survey link, I am verifying that I am at least 18 years of age and that I voluntarily agree to participate in this study.

[ ] I agree

[ ] No, thank you

APPENDIX C

PILOT STUDY 1 INTRODUCTION

[INTRODUCTION]

You are being asked to complete a two-part study. Part one will pertain to well-being. We are interested in collecting Americans' real-life experiences. Part two of the survey will involve your opinions on politics.

PART ONE: You will be asked to recall real-life past experiences.

PART TWO: Complete a series of questionnaire items.

Click "Next" to begin.

APPENDIX D

PILOT STUDY 1 THREAT MANIPULATION

[THREAT CONDITIONS]

[-1 Threat Condition]

PART 1:

We would like you to recall a real-life instance of an experience that made you feel safe. Please provide enough information to provide a brief overview of the experience. Where were you? Who was involved? When did it occur? Etc.

We encourage you to recall as many details as possible so that we may create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

[OPEN-RESPONSE]:_____

[1 Threat Condition]

PART 1:

We would like you to recall a real-life instance of a threatening experience you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

We encourage you to recall as many details as possible so that we may create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

[OPEN-RESPONSE]:_____

[2 Threat Condition]

PART 1:

We would like you to recall up to 2 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 2, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____

[3 Threat Condition]

PART 1:

We would like you to recall up to 3 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 3, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____
3. _____

[7 Threat Condition]

PART 1:

We would like you to recall up to 7 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 7, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

. --

[9 Threat Condition]

PART 1:

We would like you to recall up to 9 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 9, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

[12 Threat Condition]

PART 1:

We would like you to recall up to 12 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 12, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

APPENDIX E

PILOT STUDY 1 DEBRIEFING

Debriefing

Thank you for participating in our study! The present study investigates how different levels of uncertainty and threat affect one's mood and is part of the ongoing project titled, "Understanding Political Rigidity: Explorations of Epistemic Underpinnings of Ideology". We understand that recalling past situations in which you (or someone you care about) felt humiliated or threatened can be distressing. Please follow this NAMI National HelpLine Resource link for mental health resources if you are experiencing any psychological distress.

Thank you for your attention throughout this experiment. We ask that you not discuss this experiment with other participants, as that may bias individuals who may become participants in this study at a later time. If you would like to learn more about this research, please contact Chad Osteen, costeen@luc.edu, or Dr. Victor Ottati, vottati@luc.edu. For information or questions regarding research ethics and guidelines the Office of Research Services at Loyola University Chicago (email: ORS@luc.edu; phone: 773-508-2689).

APPENDIX F

THREAT AND UNCERTAINTY MANIPULATION CHECKS

[UNCERTAINTY PARTICIPANTS]

Part 2:

Please read each of the following statements and decide how much you agree with each. Please respond according to the following scale:

0   1   2   3   4   5   6   7   8   9   10

Very Slightly or not at all   *Moderately*   *Extremely*

1.   How uncertain do you feel right now?
2.   How insecure do you feel right now?
3.   How confident do you feel right now?

[THREAT PARTICIPANTS]

Part 2:

Please rate each of the statements below on the following scale:

0   1   2   3   4   5   6   7   8   9   10

Very Slightly or not at all   *Moderately*   *Extremely*

1.   How safe do you feel right now?
2.   How threatened do you feel right now?
3.   How afraid do you feel right now?

APPENDIX G

PRELIMINARY UNCERTAINTY PILOT STUDY

Preliminary Uncertainty Pilot Study

The present study seeks to replicate the manipulation conducted by Webber et al. (2018) with some edits to the manipulation check measure. Webber et al. (2018) used the revised PANAS measure during their past research (Watson et al., 1988). This measure includes a number of items irrelevant to the present study (e.g., strong). Furthermore, the intent of this manipulation is to ultimately manipulate uncertainty specifically. As such, while feelings of shame and humiliation are of theoretical importance to understand why this manipulation may work at the level of psychological mechanism, they are not ultimately the feelings I seek to manipulate. To this end, I am creating a more sensitive measure that only asks participants to rate, "How uncertain do you feel right now?", "How insecure do you feel right now?", and "How confident do you feel right now?" (reverse-scored) on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores were then used to determine the efficacy of the uncertainty manipulation on feelings of uncertainty. This provides a more targeted manipulation check of the construct of interest rather than perhaps more peripheral or a priori emotions that are ultimately not of interest to the present research.

Method

Design

A between-subjects design involving the independent variable of uncertainty (LoS vs. control) on the correspondent uncertainty mood manipulation check scale was examined.

Participants

No a priori power analysis was conducted for Pilot Study 1 as the main intent of this study was to determine if participants would complete the provided task in an online environment and the efficacy of the manipulations using an American sample. A sample of 184

participants (i.e., workers) were recruited from Cloud Research (see Appendix A). Participants were current United States citizens that were at least 18 years or older and spoke English fluently. No other qualifications were included. This sample is the same as that which was collected for Pilot Study 1, with a portion of this sample being assigned to the present uncertainty preliminary study. Participants were compensated $1.00 for completing the survey, with the survey expected to take less than 15 minutes (see recruitment information, Appendix A). Participants were excluded if they did not complete the study in good faith (i.e., they followed the prompt and/or did not provide irrelevant responses) and if more than 10% of the survey was left not completed. A total of 164 participants were left after exclusions, demonstrating an attrition rate of ~11%.

Procedure

After completing an eligibility screener, participants were informed that this study was about well-being and interested in collecting their real-life past experiences (Appendix C). Consenting participants were then told they would be completing a two-part study (Appendix B). In Part 1, they would be asked to recall real-life past experiences. In Part 2, they would be asked to complete a series of questionnaire items. For part 1, participants were randomly assigned to either one of the two uncertainty conditions, or to one of the seven threat conditions. For part 2, participants would be asked to complete a mood manipulation check relating to their current feelings of uncertainty, Participants were then debriefed and informed that the intent of this study was to determine the efficacy of different mood manipulations and not to collect their past experiences (Appendix E).

Materials and Measures

Uncertainty Manipulation. The uncertainty manipulations used in Part 1 replicate

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materials from Webber et al. (2018). The uncertainty conditions include the Loss of Significance (LoS) condition (i.e., uncertainty condition) and the corresponding control condition. Participants in the LoS condition were asked to "write about a past experience that made them feel humiliated or ashamed" while participants in the uncertainty control condition were asked to "write about the last time they watched TV" with an open-response question. Participants were given 5 minutes to write until the survey automatically progressed (see Appendix K; LoS & Control 1).

Mood Manipulation Check - Uncertainty. All participants were asked to complete a 3-item self-report measure of how uncertain they felt. These items included, "How uncertain do you feel right now?", "How insecure do you feel right now?", and "How confident do you feel right now?" (reverse-scored). All items were measured on a scale from 0 ("*Not at all*"), to 10 ("*Extremely*"). The mean average of these scores was then used to determine the efficacy of the uncertainty manipulation on feelings of uncertainty. The measure did not meet the conventional threshold for reliability of 0.7, Cronbach's Alpha α = 0.665 (Appendix F).

Results

The manipulation check for uncertainty (α = .665) did not meet the traditional criteria for reliability (α = .70). An independent samples t-test analysis was then conducted to determine the effect of uncertainty condition on mean feelings of uncertainty. Results indicate mean feelings of threat did not significantly differ from the LoS condition (M = 5.57, SD = 2.36) to the control condition (M = 4.92, SD = 2.79), $t(40)$ = .806, p = .425, d = .25. Though the effect was in the intended direction, the results do not indicate a replication of the previous work by Webber et al. (2018), with the original work finding a large effect size (^{2} = .12; or d = 74) and the present work only demonstrating a small effect size (d = .25).

APPENDIX H

PILOT STUDY 2 ONLINE RECRUITMENT MATERIALS

Title: Well-Being

Description: First, recall and write about a real-life event. Second, answer follow-up personality questionnaire items

Criteria/Qualification Required: Must be age 18 and over, a United States resident, and fluent in English.

Reward: $0.60

Time Allotted: 10 minutes.

Keywords: research, survey, surveys, questionnaire, attitudes, well-being

Survey Link: [QUALTRICS LINK]

> **Please note:** You must provide a participant code for the HIT to be approved.

Text on HIT page:

IMPORTANT: Leave this window open while you take the survey You will need to enter the HIT completion code to receive payment

You are being asked to complete a two-part survey. In Part 1 you will complete a survey about well-being. We are interested in collecting Americans' real-life experiences. You will then complete some personality questionnaire items. Part 2 will involve answering some personality questionnaire items. This study should take less than 15 minutes to complete.

Please only take this survey once.

If you are interested in completing this survey or wish to receive additional information before deciding, please click on this link to proceed to the Informed Consent:
[QUALTRICS LINK]

If you decide to participate in this study, you will be given a unique code at the end of the task. Please copy and paste this code into the text box below to verify that you completed the survey. Please note: You must provide this code for HIT to be approved.

UNIQUE CODE IS ENTERED HERE UPON COMPLETION ____

Click here to proceed to the study **[<QUALTRICS LINK>]**

APPENDIX I

PILOT STUDY 2 CONSENT FORM

CONSENT TO PARTICIPATE IN RESEARCH

Title: *Past Experience Study*

Researcher: *Chad Osteen*

Faculty Sponsor: *Victor C. Ottati*

Introduction: You are being asked to take part in a research study being conducted by Chad Osteen for a dissertation under the supervision of Dr. Victor Ottati in the Department of Psychology at Loyola University Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in this study.

Eligibility: You must be a US resident who is fluent in English and at least 18 years old to participate in this study.

Purpose: You are invited to participate in a study on well-being. We are interested in collecting Americans' real-life experiences.

Procedures: This experiment will take no more than 10 minutes to complete. If you agree to participate in this study, you will be asked to complete the following via an online survey:

- Recall and write about real-life past experiences.
- Fill out a series of questionnaire items.

There are no computer or privacy requirements needed for the completion of this survey.

Risks/Benefits: We anticipate that your participation in this survey presents no greater risk than everyday use of the Internet. You will be asked to recall real-life past instances of threatening life experiences and thus you may experience feelings of distress. All other tasks involve risks that are similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations. Please follow this NAMI National HelpLine Resource link for mental health resources if you are experiencing any psychological distress.

Compensation: You will receive $0.60 as compensation for your participation upon completion of this study. At the end of the survey, you will be given a short code, which you will enter into the MTurk page. This will ensure you are correctly identified as having completed the study and so you can receive payment. If you choose to end participation before completing the study, you will not be compensated. Furthermore, participants must pass all attention checks and meet the eligibility criteria in order to receive compensation. The researcher reserves the right to deny payment if the study is not completed, eligibility criteria is not met, and/or attention checks are not passed. Please only complete this survey once as you can only be compensated for participating once. Payments are made via Amazon's payment system.

Confidentiality: Personally identifiable information, such as IP addresses, will be collected in order to remove bots and other such false responses from data collection. This information will

be immediately deleted from the data upon the end of data collection. All data will be associated with a unique identification number (e.g., 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. As such, the researcher will be unable to extract your data from the database should you wish to withdraw from participation in this research**.** The deidentified data file will be kept indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time. Please know that withdrawing from the study means that you will not receive compensation.

Contacts and Questions: If you have questions about this research study, please feel free to contact Chad Osteen (email: costeen@luc.edu) or Dr. Victor C. Ottati, Ph.D. email: vottati@luc.edu; phone 773-508-3024).

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent: By advancing, you indicate that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. You may save or print a copy of this form to keep for your records.

APPENDIX J

PILOT STUDY 2 INTRODUCTION

Are you currently a U.S. resident?   YES   NO

Are you a fluent in English?   YES   NO

Are you at least 18 years of age?   YES   NO

[NEXT PAGE]

[INTRODUCTION]

You are being asked to complete a two-part study. Part one will pertain to well-being. We are interested in collecting Americans' real-life experiences. Part two will include a short questionnaire.

PART ONE: You will be asked to recall and write about your real-life past experiences.

PART TWO: Complete a series of questionnaire items.

Click "Next" to begin.

APPENDIX K

PILOT STUDY 2 UNCERTAINTY MANIPULATIONS

[LOSS OF SIGNIFICANCE (LoS) CONDITION]

PART 1:

DIRECTIONS: Think back to a situation in which you were feeling humiliated and ashamed because (you felt like) people were laughing at you. Please provide a detailed description of who humiliated you, what this (these) person(s) did, and how you felt during this experience. If you have never experienced such a situation, then please describe a similar situation that someone you care deeply about (like a child, spouse, etc.) may have gone through. You will have five [5] minutes to write and respond.

[OPEN-RESPONSE]: _____

[CONTROL 1 CONDITION]

PART 1:

DIRECTIONS: Think back to the last time you watched TV and/or a show on a streaming service. Please provide a detailed description of what you watched and how it made you feel. You will have five [5] minutes to write and respond.

[OPEN-RESPONSE]: _____

[CONTROL 2 CONDITION]

PART 1:

DIRECTIONS: Think back to the last time you watched an entertaining show on TV and/or a streaming service. Please provide a detailed description of what you watched and how it made you feel. You will have five [5] minutes to write and respond.

[OPEN-RESPONSE]: _____

[UNCERTAINTY CONDITION]

PART 1:

DIRECTIONS: Think back to a situation in which you were feeling uncertain. Please provide a detailed description of what you were feeling uncertain about, what the context was, what you did in this situation, and how you felt during this experience. You will have five [5] minutes to write and respond.

[OPEN-RESPONSE]: _____

APPENDIX L

PILOT STUDY 2 DEBRIEFING

Debriefing

Thank you for participating in our study! The present study investigates how different levels of uncertainty one's mood and is part of the ongoing project titled, "Understanding Political Rigidity: Explorations of Epistemic Underpinnings of Ideology". We understand that recalling past situations in which you (or someone you care about) felt humiliated or uncertain times can be distressing. Please follow this [NAMI National HelpLine Resource](#) link for mental health resources if you are experiencing any psychological distress.

Thank you for your attention throughout this experiment. We ask that you not discuss this experiment with other participants, as that may bias individuals who may become participants in this study at a later time. If you would like to learn more about this research, please contact Chad Osteen, costeen@luc.edu, or Dr. Victor Ottati, vottati@luc.edu. For information or questions regarding research ethics and guidelines the Office of Research Services at Loyola University Chicago (email: ORS@luc.edu; phone: 773-508-2689).

APPENDIX M

STUDY 1 A PRIORI POWER ANALYSES

<p style="text-align:center">Study 1 A Prior Power Analyses</p>

Overview of Study 1
- Variables
  - IV = Threat Manipulation (low vs. high; 2-level categorical variable)
  - MV = Need for Cognitive Closure Scale (NFCS; continuous variable)
  - DV = Candidate Support (continuous variable)
- Software
  - G*Power
    - Threat Condition (IV) effect on NFCS (MV) (i.e., t-tests)
    - Threat Condition (IV) effect on Candidate Selection (DV) (i.e., t-tests)
    - NFCS (MV) effect on Candidate Selection (DV) (i.e., regression)
    - Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191
  - Monte Carlo Power Analysis for Indirect Effects ([link](#)):
    - IV -> MV -> DV (Mediation)
    - Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, 8(4), 379-386.
- For All Power Analyses
  - Power: .80 (i.e., beta = .20)
  - Alpha: .05 (i.e., 95% Confidence Level)
  - Type of Power Analysis: A Priori: Compute required sample size – given α, power, and effect size
- For G*Power
  - Test Family: T-Tests
    - Statistical Test: Means: Difference between two independent means (two groups)
    - Measure of Effect Size Used: Cohens *d*
    - Allocation Ratio (N2/N1) = 1
    - Two Tailed Tests
  - Test Family: F-Tests
    - Statistical Test: Means: Linear Multiple Regression: Fixed model R^2 deviation from zero
    - Type of Power Analysis: A priori
    - Measure of Effect Size Used: f^2
    - Number of Predictors: 2
- For Mediation:
  - Monte Carlo Power Analysis for Indirect Effects ([link](#)):
  - Measure of Effect Size Used: *r* correlations
  - Minimum $N = 50$, Maximum $N = 800$
  - Sample Size Steps: 1
  - Number of Replications: 1000
  - Monte Carlo Draws per Rep: 20000
  - Random Seed: 1234
- Effect Sizes for Study 1 A priori Analyses

- o Main Effects (i.e., direct effects) for Study 1
  - ▪ Effect of Threat Condition (IV) effect on Candidate Selection (DV)
    - ▪ Prior Effect Size: Unknown
    - ▪ Cohens *d* set to 0.2
      - ▪ Benchmark for "small" effect size (Cohen, 1988)
      - ▪ Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic
    - ▪ *r* = .10
  - ▪ Effect of Threat Manipulation (IV) on NFCS (MV)
    - ▪ Prior Effect Size; Cohens *d* = 0.66
      - ▪ *r* = .31
      - ▪ Thórisdóttir & Jost (2011)
  - ▪ Effect of NFCS (MV) effect on Candidate Selection (DV)
    - ▪ Effect Size: Unknown
    - ▪ Cohens f^2 set to 0.02
      - ▪ Benchmark for "small" effect size (Cohen, 1988)
      - ▪ Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic
    - ▪ *r* = .14
- o Monte Carlo Power Analysis for Indirect Effects (link) for Study 1
  - ▪ Correlations (Pearson's *r*) based upon direct values reported in the "Main Effects for Study 1" section (see above)
  - ▪ Inputs
    - ▪ IV (X) -> MV (M): *r* = .10
    - ▪ IV (X) -> DV (Y): *r* = .31
    - ▪ MV (M) -> DV (Y): *r* = .14
    - ▪ Standard Deviation(s): all Standard Deviations set to 1.00

Results of A Priori Power Analysis for Study 1
- Variables
  - o IV = Threat Manipulation (low vs. high; 2-level categorical variable)
  - o MV = Need for Cognitive Closure Scale (NFCS; continuous variable)
  - o DV = Candidate Support (continuous variable)
- Effect Sizes
  - o $RI_{IV,MV}$ = Cohen's *d* =0.66; *r* = .31
  - o $RI_{IV,DV}$ =Cohen's *d* = .20; *r* = .10
  - • $RI_{MV,DV}$ = Cohen's f^2 set to 0.02; *r* = .14
- T-Tests
  - o Effect of Threat Manipulation (IV) on NFCS (MV)
    - ▪ *N* = 76; 38 per condition
    - ▪ Actual Power: .81
  - o Effect of Threat Condition (IV) effect on Candidate Selection (DV)
    - ▪ *N* = 788; 394 per condition
    - ▪ Actual Power: .80
- Multiple Regression
  - o Effect of NFCS (MV) effect on Candidate Selection (DV)

- ▪ $N = 485$
- ▪ Actual Power: 0.80
- Monte Carlo Power Analysis for Indirect Effects (i.e., Mediation)
  - ○ $N = 783$

Conclusion
- The largest N (sample size) found from the A Priori power analysis was 788 (394 per condition) from the Effect of Threat Condition (IV) effect on Candidate Selection (DV).
- Sample size of 788 will be multiplied by 1.1 in order to add an additional 10% to the original estimated sample size. This is done in order to account for the assumption that some participants may need to be removed from the final analysis due to not them completing the study in good faith or not completing at least 50% of the study.
- 788 (minim required sample size) * 1.1 (accounting for attrition) = 866.8
- Final $N = 867$

APPENDIX N

STUDY 1 ONLINE RECRUITMENT MATERIALS

Title: Well-Being & Attitudes Study

Description: Recall a real-life threatening event, answer personality questionnaire items, answer political attitude items.

Criteria/Qualification Required: Must be age 18 and over, White, a United States resident and fluent in English.

Reward: $1.75

Time Allotted: 30 minutes

Keywords: research, survey, surveys, questionnaire, attitudes, well-being, politics

Survey Link: [QUALTRICS LINK]

> **Please note:** You must provide a participant code for the HIT to be approved

Text on HIT page:

IMPORTANT: Leave this window open while you take the survey You will need to enter the HIT completion code to receive payment

You are being asked to complete a combined three study survey. The first survey will be a study on well-being. We are interested in collecting Americans real-life instances of threatening life experiences. The second survey will involve some personality questionnaire items. The third survey will involve your opinions on politics. This study should take less than 30 minutes to complete.

Please only take this survey once.

If you are interested in completing this survey or wish to receive additional information before deciding, please click on this link to proceed to the Informed Consent:
[QUALTRICS LINK]

If you decide to participate in this study, you will be given a unique code at the end of the task. Please copy and paste this code into the text box below to verify that you completed the survey. Please note: You must provide this code for HIT to be approved.

UNIQUE CODE IS ENTERED HERE UPON COMPLETION ____

Click here to proceed to the study **[<QUALTRICS LINK>]**

APPENDIX O

STUDY 1 CONSENT FORM

CONSENT TO PARTICIPATE IN RESEARCH

Title: *Well-Being & Attitudes Study*

Researcher: *Chad Osteen*

Faculty Sponsor: *Victor C. Ottati*

Introduction: You are being asked to take part in a research study being conducted by Chad Osteen for a dissertation under the supervision of Dr. Victor Ottati in the Department of Psychology at Loyola University Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in this study. and Victor Ottati for a research project under the supervision of Victor C. Ottati, Ph.D. in the Department of Psychology at Loyola University of Chicago.

Purpose: You are invited to participate in a combined three study survey. The first survey will be a study on well-being. We are interested in collecting Americans real-life instances of threatening life experiences. The second survey will involve some personality questionnaire items. The third survey will involve your opinions on politics.

Procedures: If you agree to participate in this study, you will be asked to the following:

- Recall real-life past instances of threatening life experiences.
- Fill out a series of questionnaire items
- Read summaries of differing pairs of candidates. You will then be asked a series of questions about these candidates along with your voting preferences.

Risks/Benefits: Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves minimal risk. You will be asked to recall real-life past instances of threatening life experiences and thus you may experience feelings of distress. You are free to provide as much or as little detail as you would like during this task. All other tasks involve risks that are similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations.

Time Commitment: This experiment will take less than 30-minutes to complete.

Compensation: You will receive $1.75 to compensate you for your participation upon completion of this study. At the end of the survey you will be given a short code, which you will enter into the MTurk page. This will ensure you are correctly identified as having completed the study and so you can receive payment. If you choose to end participation before completing the study, you will not be compensated. The researcher reserves the right to deny payment if the study is not completed. Payments are made via Amazon's payment system.

Confidentiality: Personally identifiable information, such as IP addresses, will be collected in order to remove bots and other such false responses from data collection. This information will however be immediately deleted from the data upon the end of data collection. All data will be

associated with a unique identification number (e.g. 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. As such, the researcher will be unable to extract anonymous data from the database should the participant wish it withdrawn. All information obtained during the study will remain confidential. The deidentified data file will be kept indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty.

Contacts and Questions: This study has been approved by the Loyola Institutional Review Board for the Protection of Human Subjects. If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

If you have questions about this research study, please feel free to contact Chad Osteen (email: costeen@luc.edu) or Dr. Victor C. Ottati, Ph.D. email: vottati@luc.edu; phone 773-508-3024).

Statement of Consent: I have read the explanation provided to me and I understand that by clicking the survey link, I am verifying that I am at least 18 years of age and that I voluntarily agree to participate in this study.

[ ] I agree

[ ] No, thank you

APPENDIX P

STUDY 1 INTRODUCTION

Are you currently a U.S. resident?   YES   NO

Are you a fluent in English?   YES   NO

Are you at least 18 years of age?   YES   NO

[NEXT PAGE]

[INTRODUCTION]

You are being asked to complete a combined three study survey. The first survey will be a study on well-being. We are interested in collecting Americans real-life instances of threatening life experiences. The second survey will involve some personality questionnaire items. The third survey will involve your opinions on politics.

PART ONE: You will be asked to recall real-life past instances of threatening life experiences.

PART TWO: You will be asked to fill out a series of questionnaire items

PART THREE: You will read summaries of differing pairs of candidates. You will then be asked a series of questions about these candidates along with your voting preferences.

Click "Next" to begin

APPENDIX Q

THREAT MANIPULATION TASK

[LOW THREAT Condition]

PART 1:

We would like you to recall a real-life instance of an experience that made you feel safe. Please provide enough information to provide a brief overview of the experience. Where were you? Who was involved? When did it occur? Etc.

We encourage you to recall as many details as possible so that we may create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

[OPEN-RESPONSE]:_____

[HIGH THREAT Condition]

PART 1:

We would like you to recall up to 3 real-life instances of threatening experiences you have had. Please provide enough information to provide a brief overview of the experience. What happened? Who was involved? When did it occur? Etc.

You are not required to fill out all 3, but we encourage you to fill out as many as possible to help us create a fuller collection of experiences from Americans.

When you are finished, please click "Next".

1. _____
2. _____
3. _____

APPENDIX R

REDUCED NFCS AND CLOSED-MINDEDNESS NFCS

SUBSCALE COMBINED MEASURE

PART 3:

Measured on 1, *completely disagree*, to 6, *completely agree*
(R = item is reverse-scored)

1. Even after I've made up my mind about something, I am always eager to consider a different opinion. **R [CLOSED-MINDED SUBSCALE]**
2. I don't like situations that are uncertain.
3. I dislike questions which could be answered in many different ways. **[CLOSED-MINDED SUBSCALE]**
4. I find that a well-ordered life with regular hours suits my temperament.
5. I feel uncomfortable when I don't understand the reason why an event occurred in my life.
6. I feel irritated when one person disagrees with what everyone else in a group believes. **[CLOSED-MINDED SUBSCALE]**
7. I don't like to go into a situation without knowing what I can expect from it.
8. When I have made a decision, I feel relieved.
9. When I am confronted with a problem, I'm dying to reach a solution very quickly.
10. I would quickly become impatient and irritated if I would not find a solution to a problem immediately.
11. When considering most conflict situations, I can usually see how both sides could be right. **R [CLOSED-MINDED SUBSCALE]**
12. I don't like to be with people who are capable of unexpected actions.
13. When thinking about a problem, I consider as many different opinions on the issue as possible. **R [CLOSED-MINDED SUBSCALE]**
14. I dislike it when a person's statement could mean many different things.
15. I find that establishing a consistent routine enables me to enjoy life more.
16. I enjoy having a clear and structured mode of life.
17. I prefer interacting with people whose opinions are very different from my own. **R [CLOSED-MINDED SUBSCALE]**
18. I always see many possible solutions to problems I face. **R [CLOSED-MINDED SUBSCALE]**
19. I do not usually consult many different opinions before forming my own view. **[CLOSED-MINDED SUBSCALE]**
20. I dislike unpredictable situations.

APPENDIX S

CANDIDATE SUPPORT MEASURE

Instructions: On the next few pages you will be presented with five [5] hypothetical pairs of candidates. The pair of candidates will be presented in a table, where the columns will list characteristics of each candidate. For each pair, please imagine the candidates are running against one another in a primary election for a seat in your state's legislature. You will be asked a series of questions about each pair of candidates.

[ORDER OF CANDIDATES WILL BE RANDOMIZED]

Please click *next* to continue.

Instructions: Please read the below table summarizing a pair of candidates. On the next screen you will be asked a series of questions regarding these candidates. Once you have finished reading over the candidate descriptions in full, hit "Next".

[Need for Order]	Candidate A	Candidate B
Name	Daniel Nash	Mathew Roberts
Age	38	37
Description	consistent, organized, clear policy positions, support for more structure in governance	Variable in approach to tasks, policy positions are malleable, support for more flexibility in governance

[PAGE BREAK]

PART 3: CANDIDATE A AND CANDIDATE B PAIR

Which CANDIDATES are you more likely to support?

Instructions: Comparing the **CANDIDATE A** to the **CANDIDATE B**, we would now like to know which of these two CANDIDATES you would be more likely to support across a number of ways based upon the summarized content we have provided to you.

For the following questions, please compare the content from both **CANDIDATE A** and **CANDIDATE B** that you have encountered.

FOLLOW: We would like to know which CANDIDATE you are more likely to "follow" on social media. That is, if given a choice between following **CANDIDATE A** or **CANDIDATE B**, which CANDIDATE'S social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…

CANDIDATE A   1   2 3 4   5 6 7 8   9 10 CANDIDATE B

SHARE: We would like to know which CANDIDATE'S content you would be more likely to "share" on social media. That is, if given a choice between sharing the content posted by **CANDIDATE A** or **CANDIDATE B**, which CANDIDATE'S social media content would you be more likely to share throughout the next year?

170

I would be more likely to   share content from…

CANDIDATE A   1   2 3 4   5 6 7 8   9 10   CANDIDATE B

VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between **CANDIDATE A** or **CANDIDATE B** to vote for within the next year, which candidate would you prefer to vote for?

I would be more likely to   vote for…

CANDIDATE A   1   2 3 4   5 6 7 8   9 10   CANDIDATE B

Instructions: Please read the below table summarizing a pair of candidates. On the next screen you will be asked a series of questions regarding these candidates. Once you have finished reading over the candidate descriptions in full, hit "Next".

[Need for Predictability]	Candidate C	Candidate D
Name	Alex Steele	Nicholas Austin
Age	41	43
Description	Person of habit, traditional, supports for policies that have previously been utilized	open to new experiences, unique individuals, supports new policies that have yet to be tried

[PAGE BREAK]
PART 3: CANDIDATE C AND CANDIDATE D PAIR
Which CANDIDATES are you more likely to support?
Instructions: Comparing the **CANDIDATE C** to the **CANDIDATE D**, we would now like to know which of these two CANDIDATES you would be more likely to support across a number of ways based upon the summarized content we have provided to you.

For the following questions, please compare the content from both **CANDIDATE C** and **CANDIDATE D** that you have encountered.

FOLLOW: We would like to know which CANDIDATE you are more likely to "follow" on social media. That is, if given a choice between following **CANDIDATE C** or **CANDIDATE D**, which CANDIDATE'S social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…
CANDIDATE C   1   2 3 4   5 6 7 8   9 10   CANDIDATE D

SHARE: We would like to know which CANDIDATE'S content you would be more likely to "share" on social media. That is, if given a choice between sharing the content posted by **CANDIDATE C** or **CANDIDATE D**, which CANDIDATE'S social media content would you be more likely to share throughout the next year?

I would be more likely to   share content from…
CANDIDATE C   1   2 3 4   5 6 7 8   9 10   CANDIDATE D

VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between **CANDIDATE C** or **CANDIDATE D** to vote for within the next year, which candidate would you prefer to vote for?

I would be more likely to   vote for…
CANDIDATE C   1   2 3 4   5 6 7 8   9 10   CANDIDATE D

Instructions: Please read the below table summarizing a pair of candidates. On the next screen you will be asked a series of questions regarding these candidates. Once you have finished reading over the candidate descriptions in full, hit "Next".

[DECISIVENESS]	Candidate E	Candidate F
Name	Zachary Fitzpatrick	Christopher Schmidt
Age	39	40
Description	Decisive, quick to come to a decision, rapidly comes to a clear conclusion	Diligent, takes time to come to a decision, slow to come to a detailed conclusion

[PAGE BREAK]

PART 3: CANDIDATE E AND CANDIDATE F PAIR
<u>Which CANDIDATES are you more likely to support?</u>

Instructions: Comparing the **CANDIDATE E** to the **CANDIDATE F**, we would now like to know which of these two CANDIDATES you would be more likely to support across a number of ways based upon the summarized content we have provided to you.

For the following questions, please compare the content from both **CANDIDATE E** and **CANDIDATE F** that you have encountered.

FOLLOW: We would like to know which CANDIDATE you are more likely to "follow" on social media. That is, if given a choice between following **CANDIDATE E** or **CANDIDATE F**, which CANDIDATE'S social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…
CANDIDATE E   1   2 3 4   5 6 7 8   9 10   CANDIDATE F

SHARE: We would like to know which CANDIDATE'S content you would be more likely to "share" on social media. That is, if given a choice between sharing the content posted by **CANDIDATE E** or **CANDIDATE F**, which CANDIDATE'S social media content would you be more likely to share throughout the next year?

I would be more likely to   share content from…
CANDIDATE E   1   2 3 4   5 6 7 8   9 10   CANDIDATE F

VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between **CANDIDATE E** or **CANDIDATE F** to vote for within the next year, which candidate would you prefer to vote for?

I would be more likely to   vote for…
CANDIDATE A   1   2 3 4   5 6 7 8   9 10   CANDIDATE B
Instructions: Please read the below table summarizing a pair of candidates. On the next screen you will be asked a series of questions regarding these candidates. Once you have finished reading over the candidate descriptions in full, hit "Next".

[AVOIDANCE OF AMBIGUITY]	Candidate A	Candidate B
Name	Ryan Thompson	Timothy Bartlett
Age	47	45
Description	Simple and succinct communication style, this candidate's intent is easy to discern, intentions are clear, talks in a straight-forward manner	Complex and talkative communication style, this candidate's intent can require intelligence to understand, uses a sophisticated vocabulary

[PAGE BREAK]
PART 3: CANDIDATE G AND CANDIDATE H PAIR
Which CANDIDATES are you more likely to support?
Instructions: Comparing the **CANDIDATE G** to the **CANDIDATE H**, we would now like to know which of these two CANDIDATES you would be more likely to support across a number of ways based upon the summarized content we have provided to you.
For the following questions, please compare the content from both **CANDIDATE G** and **CANDIDATE H** that you have encountered.

FOLLOW: We would like to know which CANDIDATE you are more likely to "follow" on social media. That is, if given a choice between following **CANDIDATE G** or **CANDIDATE H**, which CANDIDATE'S social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…
CANDIDATE G   1   2 3 4   5 6 7 8   9 10   CANDIDATE H

SHARE: We would like to know which CANDIDATE'S content you would be more likely to "share" on social media. That is, if given a choice between sharing the content posted by **CANDIDATE G** or **CANDIDATE H**, which CANDIDATE'S social media content would you be more likely to share throughout the next year?

I would be more likely to   share content from…
CANDIDATE G   1   2 3 4   5 6 7 8   9 10   CANDIDATE H

VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between **CANDIDATE G** or **CANDIDATE H** to vote for within the next year, which candidate would you prefer to vote for?

I would be more likely to vote for…
CANDIDATE G   1   2 3 4   5 6 7 8   9 10 CANDIDATE H

Instructions: Please read the below table summarizing a pair of candidates. On the next screen you will be asked a series of questions regarding these candidates. Once you have finished reading over the candidate descriptions in full, hit "Next".

[CLOSED-MINDEDNESS]	Candidate I	Candidate J
Name	Corey Kennedy	Garret Riddle
Age	49	48
Description	Dogmatic, principled, primarily considers views from people who think similarly to them when forming their own opinion	open-minded, possesses a malleable or changeable opinions, listens to many different people's perspectives on an issue before forming their own opinion

[PAGE BREAK]
PART 3: CANDIDATE I AND CANDIDATE J PAIR
Which CANDIDATES are you more likely to support?

Instructions: Comparing the **CANDIDATE I** to the **CANDIDATE J**, we would now like to know which of these two CANDIDATES you would be more likely to support across a number of ways based upon the summarized content we have provided to you.

For the following questions, please compare the content from both **CANDIDATE I** and **CANDIDATE J** that you have encountered.

FOLLOW: We would like to know which CANDIDATE you are more likely to "follow" on social media. That is, if given a choice between following **CANDIDATE I** or **CANDIDATE J**, which CANDIDATE'S social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…
CANDIDATE I   1   2   3   4   5 6 7 8   9 10   CANDIDATE J

SHARE: We would like to know which CANDIDATE'S content you would be more likely to "share" on social media. That is, if given a choice between sharing the content posted by **CANDIDATE I** or **CANDIDATE J**, which CANDIDATE'S social media content would you be more likely to share throughout the next year?

I would be more likely to share content from…
CANDIDATE I   1   2   3   4   5 6 7 8   9 10   CANDIDATE J

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VOTE: We would like to know which CANDIDATE'S content you would be more likely to "vote" for. That is, if given a choice between **CANDIDATE I** or **CANDIDATE J** to vote for within the next year, which candidate would you prefer to vote for?

I would be more likely to   vote for…
   CANDIDATE I   1   2   3   4   5   6   7   8   9 10   CANDIDATE J

APPENDIX T

DEMOGRAPHICS

Demographics

[All participants – end]

What is your age? ___

Please select your gender.

[Male, Female, Transgender, Non-Binary, Other (please specify)]

What is your ethnicity? Please select all that apply:

[White, Black, Asian, Hispanic, Middle Eastern, Other (please specify)]

What is the highest level of education you have completed?

[some high school; high school or GED; some college; 2-year degree; 4-year degree; Master's degree; Doctoral degree; Professional degree (MD or JD); Other]

If you had to choose, where would you place yourself on this political spectrum?

[1=Strong Democrat, 2, 3, 4, 5, 6, 7, 8, 9=Strong Republican]

If you had to choose, where would you place yourself on this political spectrum?

[1=Strong Liberal, 2, 3, 4, 5, 6, 7, 8, 9=Strong Conservative]

Provide at least two sentences describing the main task that you completed in this experiment.

[open-ended]_____

Do you have any thoughts or guesses about what this study was about?

[open-ended]_____

 Do you have any thoughts or comments for the researcher regarding the study?

[open-ended]_____

APPENDIX U

STUDY 1 DEBRIEFING

Debriefing

Thank you for participating in our study! The present study investigates how different levels of threat affect one's need for closure and ultimately, preferences for political candidates. Past research suggests that individuals are likely to experience a motivation for cognitive closure (i.e., simple and definitive answers) when they are experiencing increased threat. This increased need for cognition closure during threat has been shown in the past to also correspond with a greater tendency to support conservative policies and attitudes. However, research testing the fundamental claim that individuals ought to prefer political ideas and candidates that are simple and definitive over complex and ambiguous without explicit partisan or ideological context has remained limited.

This was tested in this study by first utilizing a task that either invoked low or high amounts of threat by asking all participants to list real-life past instances of threatening life experiences. We then used a common measure of one's motivation for cognitive closure. Finally, we used a novel measure of candidate selection in which each pair of political candidates varied in the way one could define being described as high or low in cognitive closure. We are curious if an individual's tendency to support one political candidate over another is driven, in part, one's motivation to address their need for closure when threatened. That is, if individuals will choose to support a candidate who is described as simpler and more definitive rather than complex and ambiguous when they are threatened and thus more motivated to seek closure.

We'd like to remind you that all political candidates are completely hypothetical and fictional. Furthermore, we understand that recalling past life-threatening events can be distressing. Please follow this NAMI National HelpLine Resource link for mental health resources if you are experiencing any psychological distress.

Thank you for your attention throughout this experiment. We ask that you not discuss this experiment with other participants, as that may bias individuals who may become participants in this study at a later time. If you would like to learn more about this research, please contact Chad Osteen, costeen@luc.edu, or Dr. Victor Ottati, vottati@luc.edu. For information or questions regarding research ethics and guidelines the Office of Research Services at Loyola University Chicago (email: ORS@luc.edu; phone: 773-508-2689).

You may also wish to read the following articles:

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.

Kruglanski, A. W. (1989). The psychology of being" right": The problem of accuracy in social perception and cognition. *Psychological bulletin*, *106*(3), 395.

Thórisdóttir, H., & Jost, J. T. (2011). Motivated closed-mindedness mediates the effect of threat on political conservatism. *Political Psychology*, 32(5), 785-811.

APPENDIX V

STUDY 1 STATISTICAL ASSUMPTION TESTING

SUMMARY OF STATISTICAL ASSUMPTION TESTING

DATA IS ACQUIRED VIA RANDOM SAMPLE FROM THE POPULATION & SUFFICIENT SAMPLE SIZE: Participants were recruited using MTurk from a pool of US residents who were at least 18 years of age and spoke English fluently. Participants were randomly assigned to experimental and ordering conditions. While considerations of sampling factors, such as self-selection of who is signed up on MTurk, ought to be considered, data recruitment can reasonably be said to have met the assumption of random sampling from the population. Furthermore, the total sample size collected for the present study was based upon an a priori power analysis in order to detect the hypothesized small effect. Considering this the assumption of sufficient sample size was met.

DATA IS CONTINUOUS & INDEPENDENT VARIABLES ARE MEASURED WITHOUT ERROR: As for the assumption that the data, be continuous and variables being measured without error, all mediators and Candidate Support measures were collected on continuous scales that were demonstrated to be reliable. So, while reaching the absence of error is nigh impossible, the measures used in the present study meet research standards for reliability. Threat condition was technically captured as a categorical variable as participants were either randomly assigned to the threat or safe (i.e., control) conditions, however, conditions were coded such that Threat condition = "1" and Safe = "0". This essentially dummy codes the variables such that "1" equals the experimental condition, and "0" equals "else" - which in this case only refers to the control condition. This coding scheme of dummy coding is commonly used to allow otherwise categorical variables to meet the assumptions of continuous data (Tabachnick, & Fidell, 2001).

ABSENSE OF OUTLIERS: This is typically tested for observations that fall beyond three standard deviations above or below the mean for a given distribution (Tabachnick, & Fidell, 2001). The absence of outliers is commonly ascertained via Cook's Distance, with a value of 1.00 or greater indicating that an included case is an influential outlier and ought to be addressed (Fox, 1991). Cook's distance did not meet or exceed 1.00 for any of the five total score measures for Candidate Support, nor for the corresponding follow, share, and vote individual items. Thus, the assumption of normality was met.

ABSENSE OF MULTICOLLINEARITY AND SINGULARITY: These are typically understood in terms of the collinearity statistics of the variance inflation factor (i.e., VIF) and tolerance scores (Miles, 2014; Tabachnick & Fidell, 2001). VIF ought to be no greater than 10 and tolerance ought not be less than .1 (or conservatively less than .6). Tolerance did not drop below 0.6 and VIF was never greater than 10 in the present dataset. Furthermore, while the different measures of the mediating variable of NFCS highly correlated with each other, they were never used in the same analysis and no other variables highly correlated with another to the extent that would suggest an issue of multicollinearity. As such, the assumption of no multicollinearity or singularity was met.

NORMALITY: This is typically accessed in terms of the amount of kurtosis and skewness present in the sample using the Kolmogrov-Smirnov and more conservative Shapiro-Wilk tests (Tabachnick & Fidell, 2001). Significant results for either of these tests suggest that the distribution is not normal and impact type 1 error and power. Both of these tests were found to be significant for the present sample and thus the assumption was not met. However, while assessing normality in terms of skewness and kurtosis is important to consider, previous
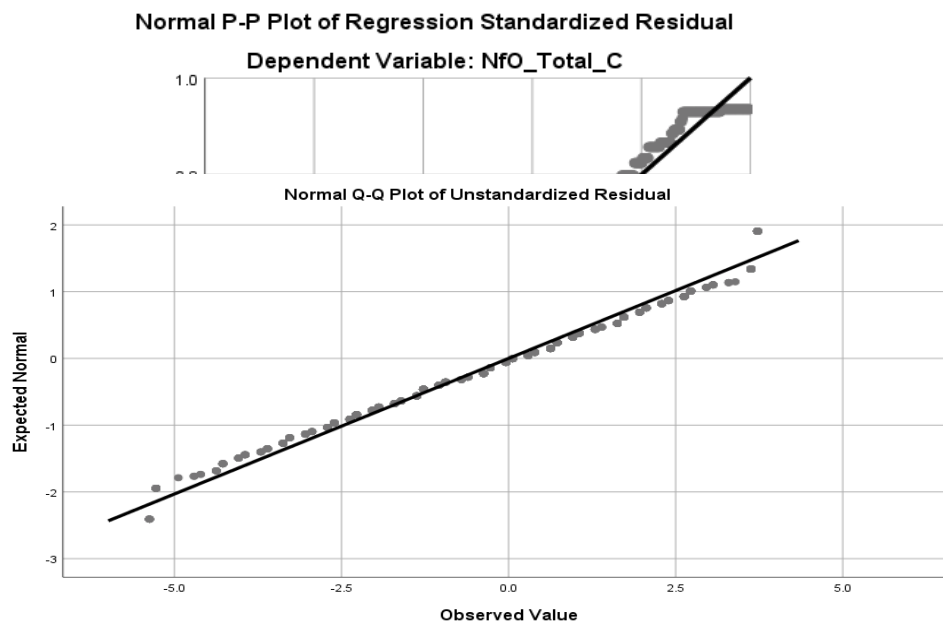
literature suggests that violating this assumption may only have minimal effects on outcomes. Particularly for studies with larger sample sizes, such as the present study.

NORMALITY, LINEARITY, AND HOMOSCEDASTICITY: P-P plots are provided below as a visual representation of the normalcy of the data (Ghasemi & Zahedisal, 2012). The plot reveals that the data does not significantly "fan-out" or funnel, nor does it strongly curve. and instead resembles a narrow, line-like cluster - indicating a proper homoscedastic distribution and linearity. This suggests homoscedasticity, linearity. and normal assumptions have been met using this visual inspection method of the data distribution (Fox, 1991; Tabachnick & Fidell, 2001).

INDEPENDENCE OF ERROR TERMS: The independence of error terms is tested using the Durbin-Watson statistic (Tabachnick & Fidell, 2001). The Durbin-Watson static ranges from 1-4 with 2 indicating no autocorrelation and 1.5-2.5 being the average acceptable range - though this depends on sample size (Durbin & Watson, 1992). The Durbin-Watson statistics for this sample did not fall below 1.5 or above 2.5 for any test. This suggests the present study meets the assumption of the independence of error terms.
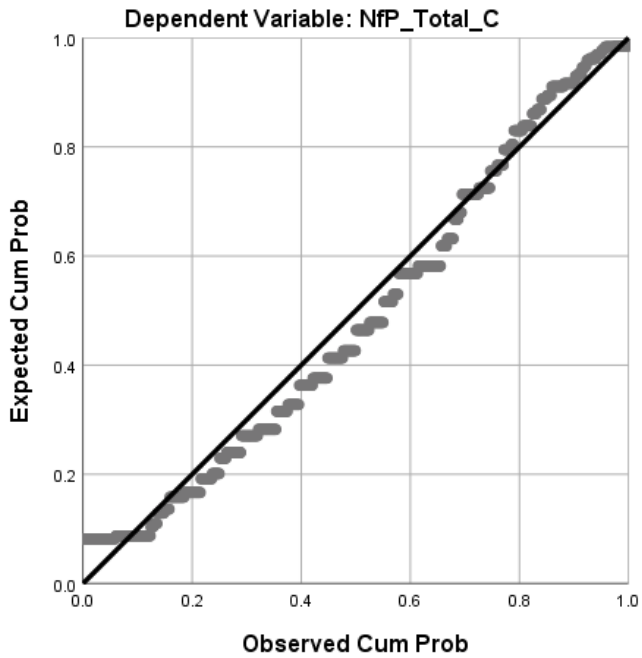
TABLES AND GRAPHS TESTING STUDY 1 STATISTICAL ASSUMPTIONS

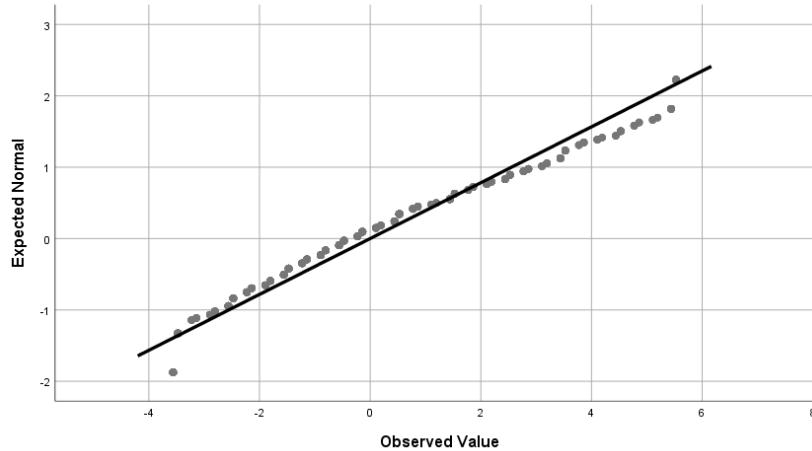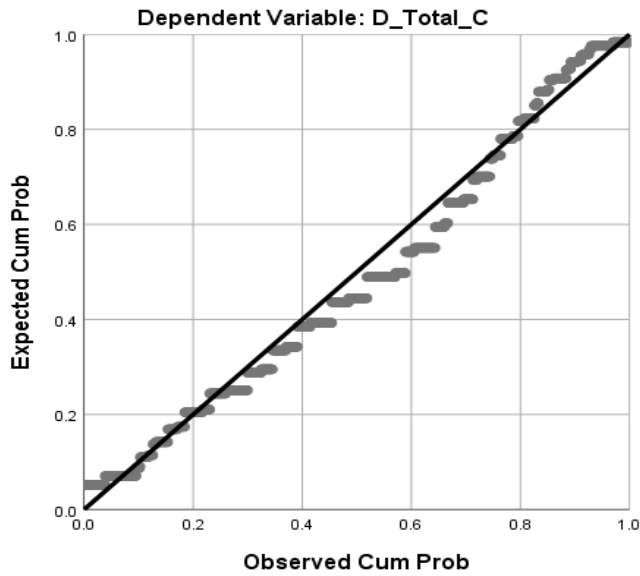| Threat Condition (IV) and total Need for Order Candidate Support Assumption (DV) Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.982
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: NfO_Total_C

Normal Q-Q Plot of Unstandardized Residual

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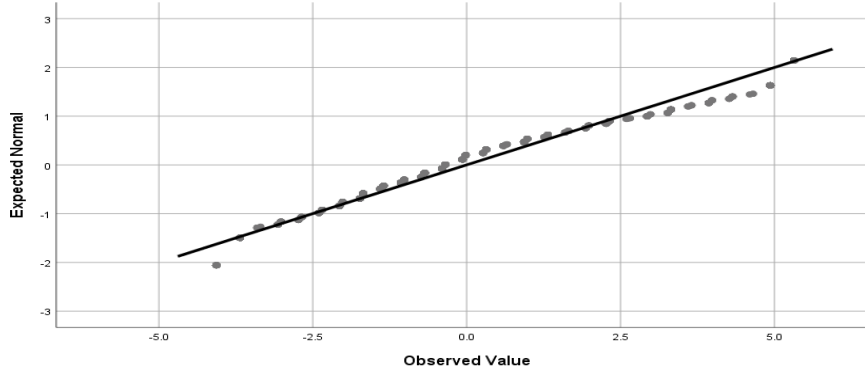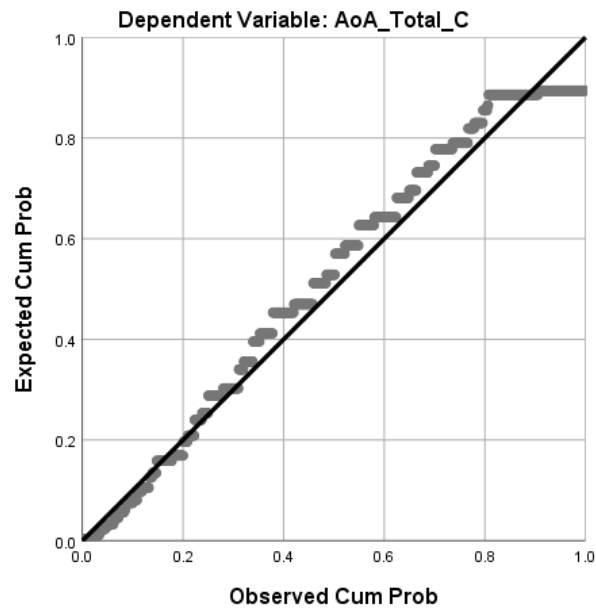| Threat Condition (IV) and total Need for Predictability Candidate Support (DV) Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.981
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: NfP_Total_C

Normal Q-Q Plot of Unstandardized Residual

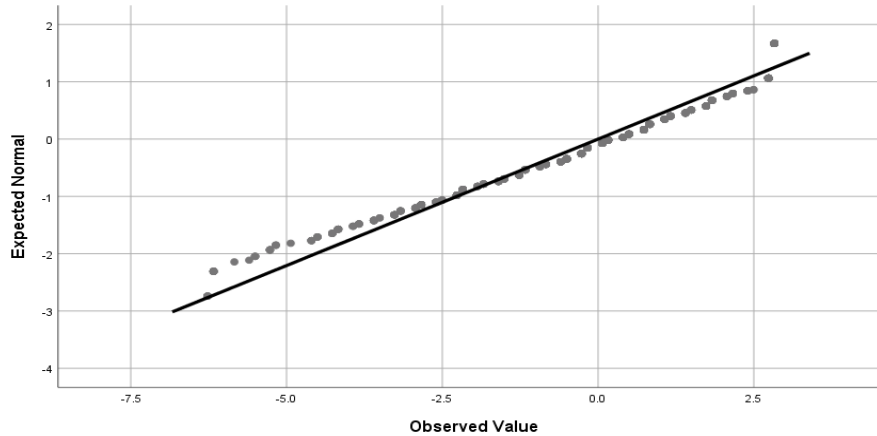| Threat Condition (IV) and total Decisiveness Candidate Support Assumption (DV) Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	2.072
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

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Normal P-P Plot of Regression Standardized Residual
Dependent Variable: D_Total_C

Normal Q-Q Plot of Unstandardized Residual

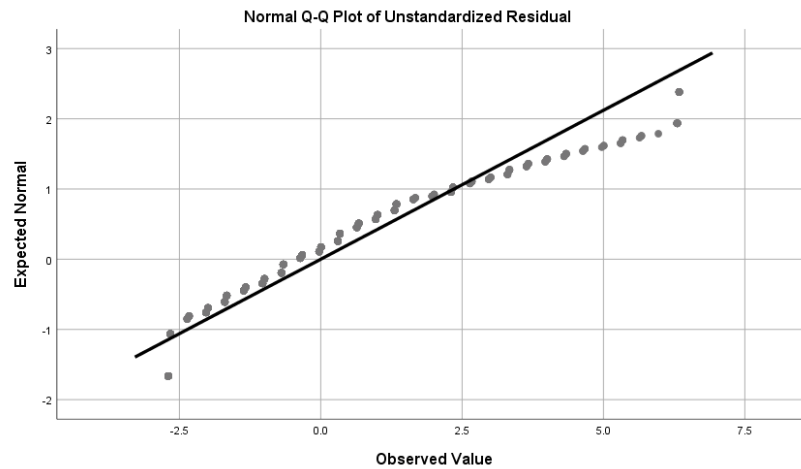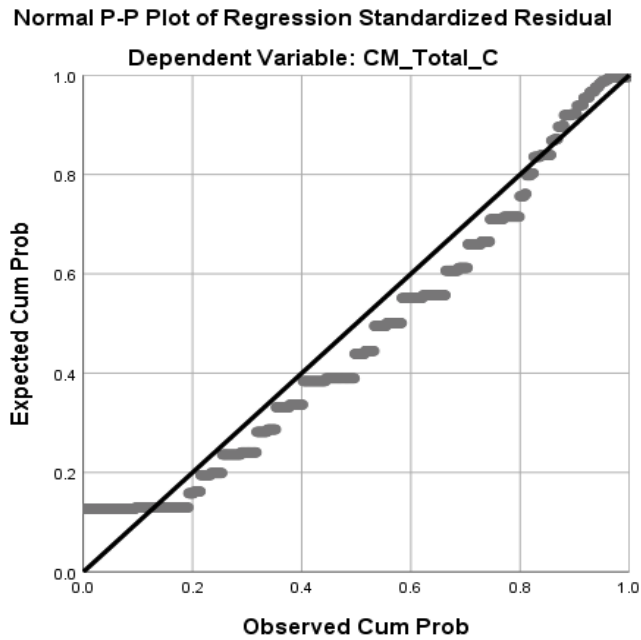| Threat Condition (IV) and total Avoidance of Ambiguity Candidate Support (DV) Assumption Testing		
Test	Acceptable Result	Result
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.903
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

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Normal P-P Plot of Regression Standardized Residual

Dependent Variable: AoA_Total_C

Normal Q-Q Plot of Unstandardized Residual

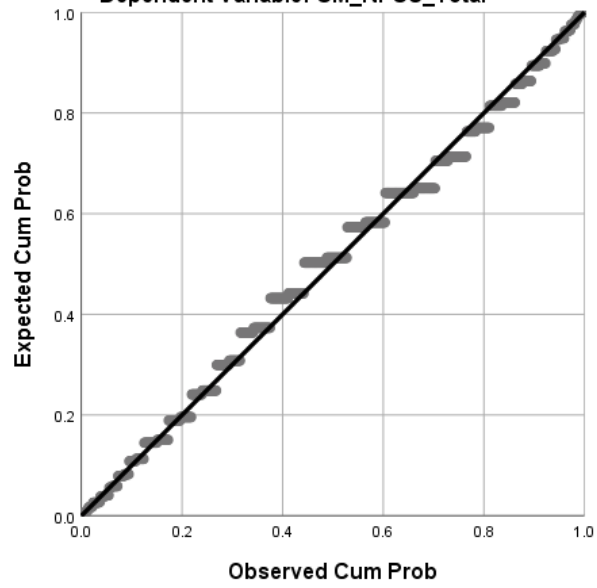| Threat Condition (IV) and total Closed-Mindedness Candidate Support (DV) Assumption Testing		
Test	Acceptable Result	Result
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	2.014
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: CM_Total_C

Normal Q-Q Plot of Unstandardized Residual

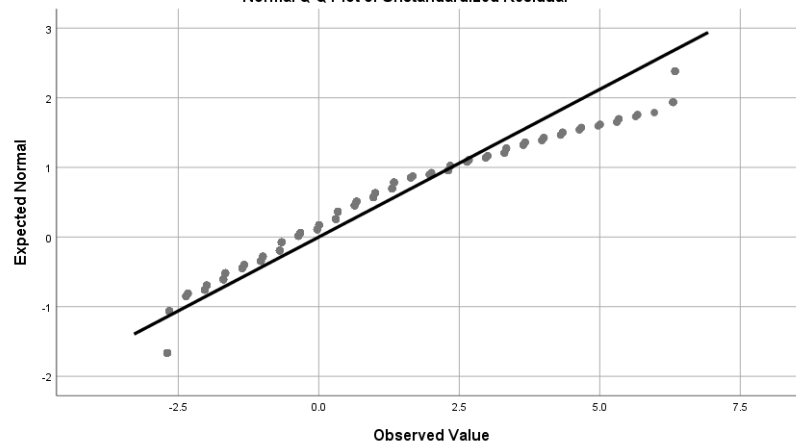| Threat Condition (IV) and Closed-Mindedness NFCS Subscale (MV) Candidate Support Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.979
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: CM_NFCS_Total

Normal Q-Q Plot of Unstandardized Residual

| Threat Condition (IV) and Reduced NFCS (MV) Candidate Support Assumption Testing		
Test	Acceptable Result	Result
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	2.043
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Reduced_NFCS_Total
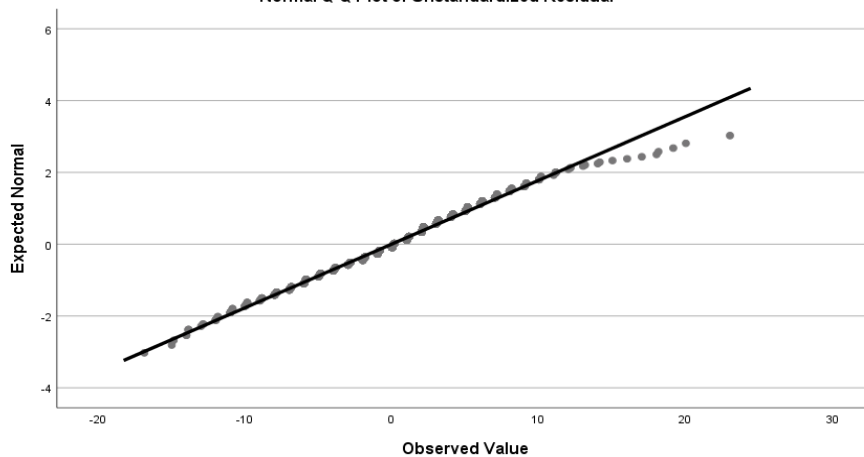

Normal Q-Q Plot of Unstandardized Residual

189
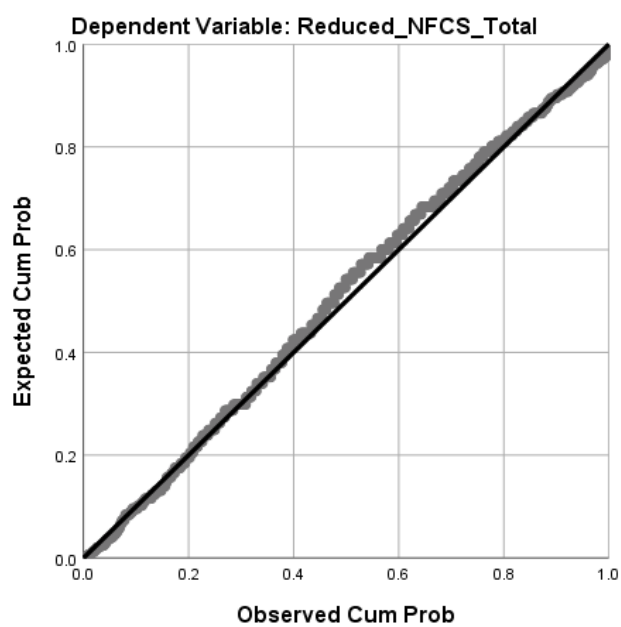
APPENDIX W

STUDY 1 ANALYSES INVOLVING POLITICAL IDENTITY

Threat Condition (IV) effect on Candidate Support (DV) as Mediated by Need for Cognitive Closure (MV) With Political Identity as a Covariate

Dependent	Measure	Candidate Support					
		Threat (n = 405) *M(SD)*	*Safe* (= 409) *M(SD)*	*T-TEST*	*d*	*Closed-Mindedness NFCS Subscale* $r_{mv,dv}$ / (Mediate .95 CI)	*Reduced NFCS* $r_{mv,dv}$ / (Mediate .95 CI)
Preference	Total	6.37 (2.45)	6.27 (2.48)	$t(810) = .570$	.04	.269** (-.08/ .05)	.232** (-.11/ .06)
for High	Follow	6.30 (2.56)	6.25 (2.57)	$t(812) = .240$	.02	.256** (-.08/ .05)	.220** (-.11/ .06)
Need for	Share	6.31 (2.39)	6.18 (2.43)	$t(812) = .769$	.05	.257** (-.07/ .05)	.212** (-.11/ .05)
Order	Vote	6.52 (2.67)	6.42 (2.70)	$t(812) = .533$	.04	.266** (-.10/ .06)	.237** (-.12/ -.06)
Preference	Total	4.47 (2.60)	4.56 (2.52)	$t(806) = -.491$	.04	.248** (-.10/ .07)	.307** (-.09/ .05)
for High	Follow	4.42 (2.68)	4.48 (2.62)	$t(809) = -.221$	.02	.239** (-.10/ .07)	.294** (-.09/ .05)
Need for	Share	4.54 (2.54)	4.67 (2.50)	$t(811) = -.754$	.05	.231** (-.09/ .06)	.274** (-.09/ .05)
Predictability	Vote	4.48 (2.83)	4.57 (2.76)	$t(810) = -.427$	.03	.246** (-.12/ .08)	.318** (-.10/ .05)
Preference	Total	5.07 (2.48)	4.68 (2.52)	$t(806) = 2.191^*$	.15	.035 (-.02/ .01)	.030 (-.02/ .02)
for High	Follow	5.11 (2.62)	4.70 (2.59)	$t(807) = 2.247^*$	.16	.030 (-.02/ .02)	.031 (.02/ .02)
Decisiveness	Share	5.22 (2.44)	4.88 (2.57)	$t(811) = 1.962$	.14	.040 (-.02/ .02)	.028 (-.03/ .01)
	Vote	4.83 (2.78)	4.49 (2.77)	$t(812) = 1.716$	.12	.043 (-.02/ .02)	.027 (-.03/ .02)
Preference	Total	7.17 (2.28)	7.27 (2.26)	$t(807) = -.598$	.04	.256** (-.05/ .03)	.143** (-.10/ .05)
for High	Follow	7.17 (2.43)	7.24 (2.41)	$t(809) = -.406$	.03	.236** (-.05/ .03)	.136** (-.10/ .05)
Avoidance of	Share	7.04 (2.31)	7.14 (2.28)	$t(810) = -.621$	.04	.251** (-.05/ .03)	.134** (-.10/ .05)
Ambiguity	Vote	7.33 (2.43)	7.43 (2.41)	$t(812) = -.602$	.04	.242** (-.05/ .03)	.134** (-.11/ .05)
Preference	Total	3.70 (2.36)	3.66 (2.36)	$t(809) = .209$	.04	.163** (-.10/ .07)	.290** (-.06/ .03)
for High	Follow	3.61 (2.44)	3.63 (2.47)	$t(810) = -.136$	.01	.157** (-.10/ .07)	.295** (-.06/ .03)
Closed-	Share	3.94 (2.41)	3.81 (2.39)	$t(812) = .752$	.05	.135** (-.09/ .06)	.260** (-.05/ .03)
Mindedness	Vote	3.53 (2.53)	3.51 (2.52)	$t(811) = .119$	.01	.166** (-.10/ .06)	.270** (-.06/ .03)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

FURTHER EXPLORATORY ANALYSES:

Study 1 Effect of Political Identification (Party & Ideology) on Mediators and Dependent Measures

Outcome	Political Identity as Predictor			
	B	SE	t	R^2
Closed-Minded NFCS Subscale	.345**	.085	$t(798) = 4.049$	.020
Reduced NFCS	.630**	.207	$t(791) = 3.050$	.012
Need for Order (NfO) Total	.293***	.036	$t(805) = 8.104$	.075
Need for Predictability (NfP) Total	.552***	.034	$t(801) = 16.163$	.246
Decisiveness (D) Total	.053	.038	$t(801) = 1.388$	.002
Avoidance of Ambiguity (A) Total	.217***	.034	$t(803) = 6.409$	.049
Closed-Mindedness (CM) Total	.333***	.064	$t(805) = 9.769$	.106

Note. $* p < .05$, $** p < .01$, $*** p < .001$; "±" refers to 95% Confidence Interval.

POLITICAL IDENTITY AS OUTCOME:

Threat Condition (IV) effect on Political Identity (DV) as Mediated by Need for Cognitive Closure (MV)

Dependent Measure	Threat (n = 405) *M(SD)*	Safe (= 409) *M(SD)*	*T-TEST*	*d*	Closed-Mindedness NFCS Subscale $r_{mv,dv}$ / (Mediate .95 CI)	Reduced NFCS $r_{mv,dv}$ / (Mediate .95 CI)
Political Identity	4.57 (2.19)	4.56 (2.42)	$t(807) = -.064$	.004	.142** (-.06/ .04)	.108** (-.05/ .03)

Note. $* p < .05$, $** p < .01$, $*** p < .001$; "±" refers to 95% Confidence Interval.

Note. Levene's Test of Equality of Variance was significant for the t-test - results convey equal variance is not assumed

APPENDIX X

STUDY 2 A PRIORI POWER ANALYSES

Study 2 A Prior Power Analyses

Overview of Study 2
- Variables
  - IV = Uncertainty Manipulation (Uncertain vs. Control; 2-level categorical variable)
  - MV = Need for Cognitive Closure Scale (NFCS; continuous variable)
  - DV = Candidate Support (continuous variable)
- Software
  - G*Power
    - Uncertain Condition (IV) effect on NFCS (MV) (i.e., t-tests)
    - Uncertain Condition (IV) effect on Candidate Selection (DV) (i.e., t-tests)
    - NFCS (MV) effect on Candidate Selection (DV) (i.e., regression)
    - Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191
  - Monte Carlo Power Analysis for Indirect Effects (link):
    - IV -> MV -> DV (Mediation)
    - Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, 8(4), 379-386.
- For All Power Analyses
  - Power: .80 (i.e., beta = .20)
  - Alpha: .05 (i.e., 95% Confidence Level)
  - Type of Power Analysis: A Priori: Compute required sample size – given α, power, and effect size
- For G*Power
  - Test Family: T-Tests
    - Statistical Test: Means: Difference between two independent means (two groups)
    - Measure of Effect Size Used: Cohens *d*
    - Allocation Ratio (N2/N1) = 1
    - Two Tailed Tests
  - Test Family: F-Tests
    - Statistical Test: Means: Linear Multiple Regression: Fixed model R^2 deviation from zero
    - Type of Power Analysis: A priori
    - Measure of Effect Size Used: f^2
    - Number of Predictors: 2
- For Mediation:
  - Monte Carlo Power Analysis for Indirect Effects (link):
  - Measure of Effect Size Used: *r* correlations
  - Minimum $N = 50$, Maximum $N = 800$
  - Sample Size Steps: 1
  - Number of Replications: 1000
  - Monte Carlo Draws per Rep: 20000
  - Random Seed: 1234

- Effect Sizes for Study 1 A priori Analyses
  - Main Effects (i.e., direct effects) for Study 1
    - Effect of Uncertain Condition (IV) effect on Candidate Selection (DV)
      - Prior Effect Size: Unknown
      - Cohens d set to 0.2
        - Benchmark for "small" effect size (Cohen, 1988)
        - Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic
      - $r = .10$
    - Effect of Uncertainty Manipulation (IV) on NFCS (MV)
      - Prior Effect Size; Cohens $d = 0.5$
        - $r = .24$
        - Webber et al. (2018) see Study 4
    - Effect of NFCS (MV) effect on Candidate Selection (DV)
      - Effect Size: Unknown
      - Cohens f^2 set to 0.02
        - Benchmark for "small" effect size (Cohen, 1988)
        - Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic
      - $r = .14$
  - Monte Carlo Power Analysis for Indirect Effects (link) for Study 1
    - Correlations (Pearson's r) based upon direct values reported in the "Main Effects for Study 1" section (see above)
    - Inputs
      - IV (X) -> MV (M): $r = .10$
      - IV (X) -> DV (Y): $r = .24$
      - MV (M) -> DV (Y): $r = .14$
      - Standard Deviation(s): all Standard Deviations set to 1.00

Results of A Priori Power Analysis for Study 2
- Variables
  - IV = Uncertainty Manipulation (uncertain vs. control; 2-level categorical variable)
  - MV = Need for Cognitive Closure Scale (NFCS; continuous variable)
  - DV = Candidate Support (continuous variable)
- Effect Sizes
  - $RI_{IV,MV}$ = Cohen's $d = 0.5$; $r = .24$
  - $RI_{IV,DV}$ = Cohen's $d = .20$; $r = .10$
  - $RI_{MV,DV}$ = Cohen's f^2 set to 0.02; $r = .14$
- T-Tests
  - Effect of Uncertainty Manipulation (IV) on NFCS (MV)
    - $N = 102$; 51 per condition
    - Actual Power: .81
  - Effect of Uncertainty Condition (IV) effect on Candidate Selection (DV)
    - $N = 620$; 310 per condition
    - Actual Power: .80

- Multiple Regression
  - Effect of NFCS (MV) effect on Candidate Selection (DV)
    - $N = 485$
    - Actual Power: 0.80
- Monte Carlo Power Analysis for Indirect Effects (i.e., Mediation)
  - $N = 525$

Conclusion
- The largest N (sample size) found from the A Priori power analysis was 620 (310 per condition) from the effect of Uncertainty Condition (IV) effect on Candidate Selection (DV).
- Sample size of 620 will be multiplied by 1.1 in order to add an additional 10% to the original estimated sample size. This is done in order to account for the assumption that some participants may need to be removed from the final analysis due to not them completing the study in good faith or not completing at least 50% of the study.
- 620 (minim required sample size) * 1.1 (accounting for attrition) = 682
- Final $N = 682$

APPENDIX Y

STUDY 2 ONLINE RECRUITMENT TEXT

Title: Well-Being & Politics Study

Description: First, recall a real-life event and answer follow-up personality questionnaire items, then answer political attitude items.

Criteria/Qualification Required: Must be age 18 and over, White, a United States resident and fluent in English.

Reward: $1.75

Time Allotted: 30 minutes

Keywords: research, survey, surveys, questionnaire, attitudes, well-being, politics

Survey Link: [QUALTRICS LINK]

Please note: You must provide a participant code for the HIT to be approved

Text on HIT page:

IMPORTANT: Leave this window open while you take the survey You will need to enter the HIT completion code to receive payment

You are being asked to complete a two-part survey. In Part 1 you will complete a survey about well-being. We are interested in collecting Americans' real-life experiences. You will then complete some personality questionnaire items. Part 2 will involve your opinions on politics. This study should take less than 30 minutes to complete.

Please only take this survey once.

If you are interested in completing this survey or wish to receive additional information before deciding, please click on this link to proceed to the Informed Consent:
[QUALTRICS LINK]

If you decide to participate in this study, you will be given a unique code at the end of the task. Please copy and paste this code into the text box below to verify that you completed the survey. Please note: You must provide this code for HIT to be approved.

UNIQUE CODE IS ENTERED HERE UPON COMPLETION _____

Click here to proceed to the study **[<QUALTRICS LINK>]**

APPENDIX Z

STUDY 2 CONSENT FORM

CONSENT TO PARTICIPATE IN RESEARCH

Title: *Well-Being & Politics Study*

Researcher: *Chad Osteen*

Faculty Sponsor: *Victor C. Ottati*

Introduction: You are being asked to take part in a research study being conducted by Chad Osteen for a dissertation under the supervision of Dr. Victor Ottati in the Department of Psychology at Loyola University Chicago. Please read this form carefully and ask any questions you may have before deciding whether to participate in this study. and Victor Ottati for a research project under the supervision of Victor C. Ottati, Ph.D. in the Department of Psychology at Loyola University of Chicago.

Purpose: You are invited to participate in a two-part survey. In Part 1 you will complete a survey about well-being. We are interested in collecting Americans' real-life experiences. You will then complete some personality questionnaire items. Part 2 will involve your opinions on politics. This study should take less than 30 minutes to complete.

Procedures: If you agree to participate in this study, you will be asked to the following:

- Recall a real-life past experience.
- Fill out a series of personality questionnaire items.
- Read summaries of differing pairs of candidates. You will then be asked a series of questions about these candidates along with your voting preferences.

Risks/Benefits: Confidentiality will be maintained to the degree permitted by the technology used. You will be asked to recall real-life past experiences and thus you may experience feelings of distress depending on the experience you are asked to recall. You are free to provide as much or as little detail as you would like during this task. All other tasks involve risks that are similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations.

Time Commitment: This experiment will take less than 30-minutes to complete.

Compensation: You will receive $1.75 to compensate you for your participation upon completion of this study. At the end of the survey you will be given a short code, which you will enter into the MTurk page. This will ensure you are correctly identified as having completed the study and so you can receive payment. If you choose to end participation before completing the study, you will not be compensated. The researcher reserves the right to deny payment if the study is not completed. Payments are made via Amazon's payment system.

Confidentiality: Personally identifiable information, such as IP addresses, will be collected in order to remove bots and other such false responses from data collection. This information will however be immediately deleted from the data upon the end of data collection. All data will be associated with a unique identification number (e.g. 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. As such, the researcher will be unable to extract anonymous data from the database should the participant wish it withdrawn. All information obtained during the study will remain confidential. The deidentified data file will be kept indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty.

Contacts and Questions: This study has been approved by the Loyola Institutional Review Board for the Protection of Human Subjects. If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

If you have questions about this research study, please feel free to contact Chad Osteen (email: costeen@luc.edu) or Dr. Victor C. Ottati, Ph.D. email: vottati@luc.edu; phone 773-508-3024).

Statement of Consent: I have read the explanation provided to me and I understand that by clicking the survey link, I am verifying that I am at least 18 years of age and that I voluntarily agree to participate in this study.

[ ] I agree

[ ] No, thank you

APPENDIX AA

STUDY 2 INTRODUCTION

[INTRODUCTION]

You are being asked to complete a two-part study. Part one will pertain to well-being. We are interested in collecting Americans' real-life experiences. Part two of the survey will involve your opinions on politics.

PART ONE: You will be asked to recall a real-life past experience. You will then complete a series of questionnaire items.

PART TWO: You will read summaries of candidates and their stances on a political topic. You will then be asked a series of questions on these candidates along with your voting preferences.

Click "Next" to begin

APPENDIX BB

STUDY 2 DEBRIEFING FORM

Debriefing

Thank you for participating in our study! The present study investigates how different levels of uncertainty affect one's need for closure and ultimately, preferences for political candidates. Past research suggests that individuals are likely to experience a motivation for cognitive closure (i.e., simple and definitive answers) when they are experiencing greater uncertainty. This increased need for cognition closure during increased uncertainty has been shown in the past to also correspond with a greater tendency to support conservative policies and attitudes. However, research testing the fundamental claim that individuals ought to prefer political ideas and candidates that are simple and definitive over complex and ambiguous without explicit partisan or ideological context has remained limited.

This was tested in this study by first utilizing a task that either did or did not elicit greater uncertainty by either asking people to recall tv they had just watched or a situation that involved feelings of shame and humiliation. We then used a common measure of one's motivation for cognitive closure. Finally, we used a novel measure of candidate selection in which each pair of political candidates varied in the way one could define being described as high or low in cognitive closure. We are curious if an individual's tendency to support one political candidate over another is driven, in part, one's motivation to address their need for closure when uncertain. That is, if individuals will choose to support a candidate who is described as simpler and more definitive rather than complex and ambiguous when they are uncertain and thus more motivated to seek closure.

We'd like to remind you that all political candidates are completely hypothetical and fictional. Furthermore, we understand that recalling past situations in which you (or someone you care about) felt humiliated can be distressing. Please follow this NAMI National HelpLine Resource link for mental health resources if you are experiencing any psychological distress.

Thank you for your attention throughout this experiment. We ask that you not discuss this experiment with other participants, as that may bias individuals who may become participants in this study at a later time. If you would like to learn more about this research, please contact Chad Osteen, costeen@luc.edu, or Dr. Victor Ottati, vottati@luc.edu. For information or questions regarding research ethics and guidelines the Office of Research Services at Loyola University Chicago (email: ORS@luc.edu; phone: 773-508-2689).

You may also wish to read the following articles:

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.

Kruglanski, A. W. (1989). The psychology of being" right": The problem of accuracy in social perception and cognition. *Psychological bulletin*, *106*(3), 395.

Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., ... & Gelfand, M. J. (2018). The road to extremism: Field and experimental evidence that significance loss-induced need for closure fosters radicalization. *Journal of Personality and Social Psychology*, 114(2), 270.

APPENDIX CC

STUDY 2 STATISTICAL ASSUMPTION TESTING

SUMMARY OF STATISTICAL ASSUMPTION TESTING

DATA IS ACQUIRED VIA RANDOM SAMPLE FROM THE POPULATION, SUFFICIENT SAMPLE SIZE, AND INDEPENDENT VARIABLES ARE MEASURED WITHOUT ERROR: Participants were recruited using MTurk from a pool of US residents who were at least years of age and spoke English fluently. While considerations of sampling factors, such as self-selection of who is signed up on MTurk, ought to be considered, data recruitment can reasonably be said to have met the assumption of random sampling from the population. As for the assumption that the data be continuous, all mediators and Candidate Support were collected on continuous scales. Uncertainty condition was technically captured as a categorical variable as participants were either randomly assigned to the LoS or control conditions, however, condition was coded such that LoS condition = "1" and control = "0". This essentially dummy codes the variables such that "1" equals the experimental condition, and "0" equals "else" - which in this case only refers to the control condition. This coding scheme of dummy coding is commonly used to allow otherwise categorical variables to meet the assumptions of continuous data (Tabachnick, & Fidell, 2001).

ABSENSE OF OUTLIERS: Outliers are typically defined as cases that fall beyond three standard deviations above or below the mean for a given distribution (Tabachnick, & Fidell, 2001). The absence of outliers is commonly ascertained via Cook's Distance, with a value of 1.00 or greater indicating that an included case is an influential outlier and ought to be addressed (Fox, 1991). No mediating or dependent measure was found to exceed a Cook's Distance of 1.00 (Appendix normalcy testing Study 2).
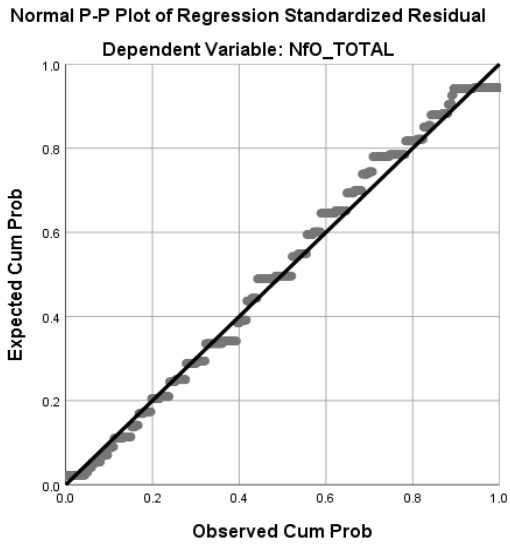
NORMALITY, LINEARITY, AND HOMOSCEDASTICITY: Both the Kolmogrov-Smirnov and Shapiro-Wilk tests were found to be significant in the present study, suggesting that the distribution is not normal for all dependent and mediating variables (see Appendix XX Normacy testing Study 2). As there is considerable debate in the literature as to what extent this will impact the data and more specifically power, the intended analyses will first still be conducted as planned. The limitations of such significant tests will be considered. P-P plots were still provided below are a visual representation of the normalcy of the data (Ghasemi & Zahedisal, 2012). The plot reveals that the data does not significantly "fan-out" or funnel, nor does it strongly curve. and instead resembles a narrow, line-like cluster - indicating a proper homoscedastic distribution and linearity. This suggests homoscedasticity, linearity. and normal assumptions have been met using this visual inspection method of the data distribution (Fox, 1991; Tabachnick & Fidell, 2001).
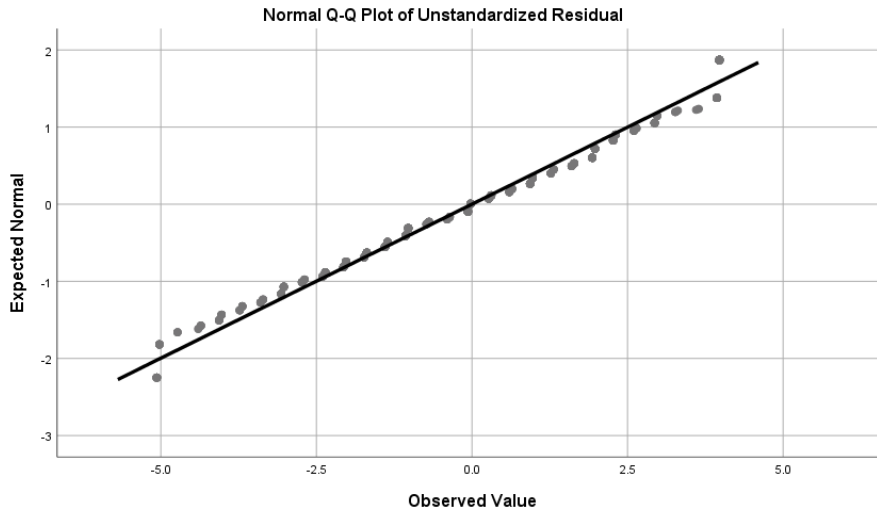
INDEPENDENCE OF ERROR TERMS: The Durbin-Watson static ranges from 1-4 with 2 indicating no autocorrelation and 1.5-2.5 being the average acceptable range - though this depends on sample size (Durbin & Watson, 1992). This test was run on all mediating and dependent variables, and all fell within the range of 1.5 to 1.5. This suggests there is an acceptable range of autocorrelation within the dataset.

ABSENSE OF MULTICOLLINEARITY AND SINGULARITY: The standard for VIF is that it should not exceed 10 and tolerance should not be less than 0.1, though more conservative estimates state that tolerance should not be less than 0.5 or 0.6 (Miles, 2014; Tabachnik & Fidell, 2001). All VIF analyses indicated a result of around 1.0, indicating no significant issue of multicollinearity.
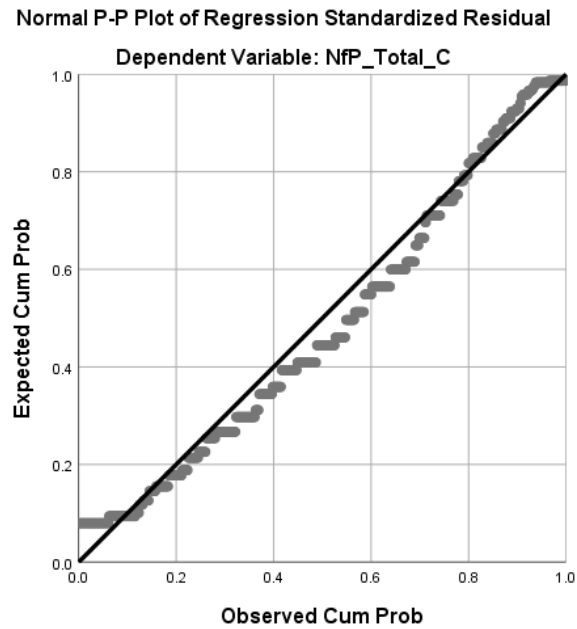
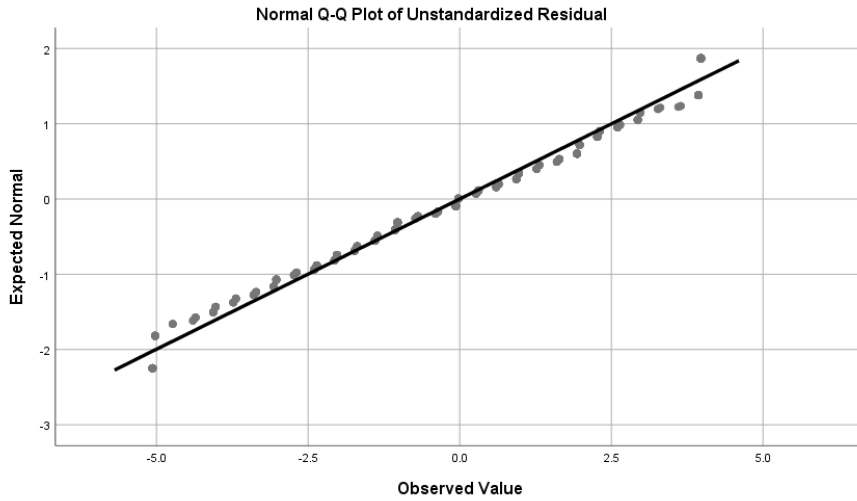# TABLES AND GRAPHS TESTING STUDY 2 STATISTICAL ASSUMPTIONS

Threat Condition (IV) and total Need for Order Candidate Support Assumption (DV) Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.002
Durbin-Watson	1.5 – 2.5	1.881
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: NfO_TOTAL

Normal Q-Q Plot of Unstandardized Residual

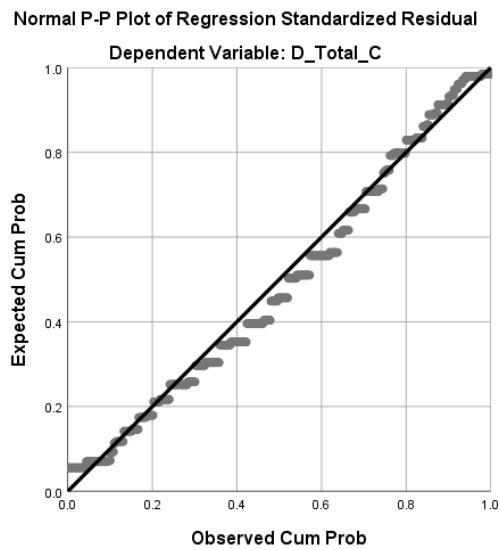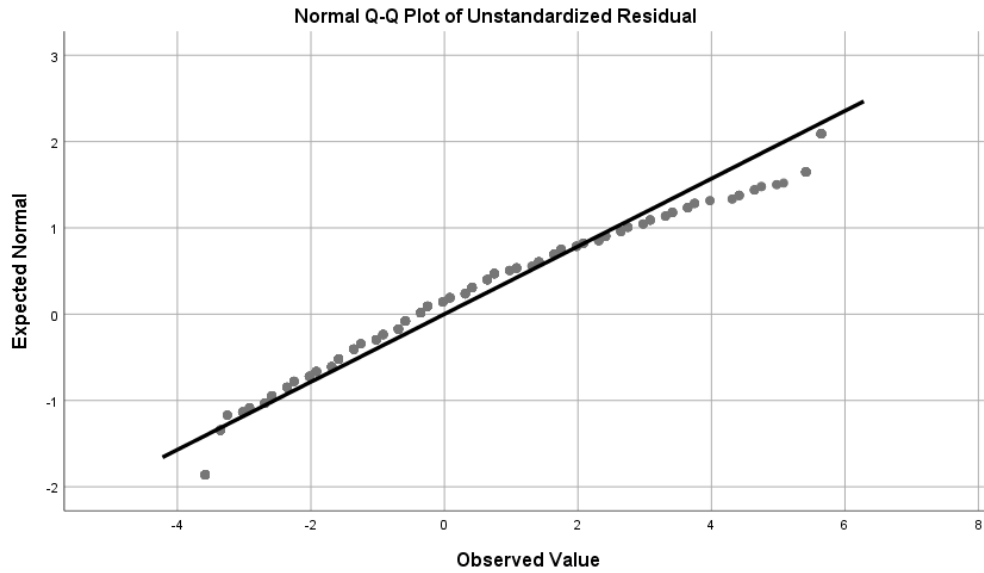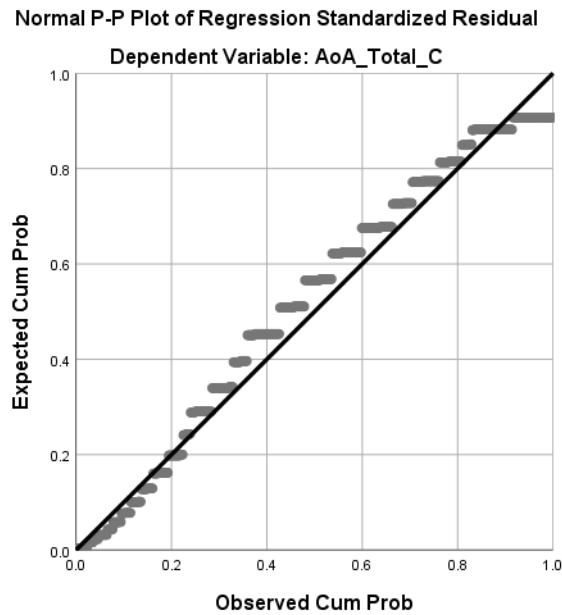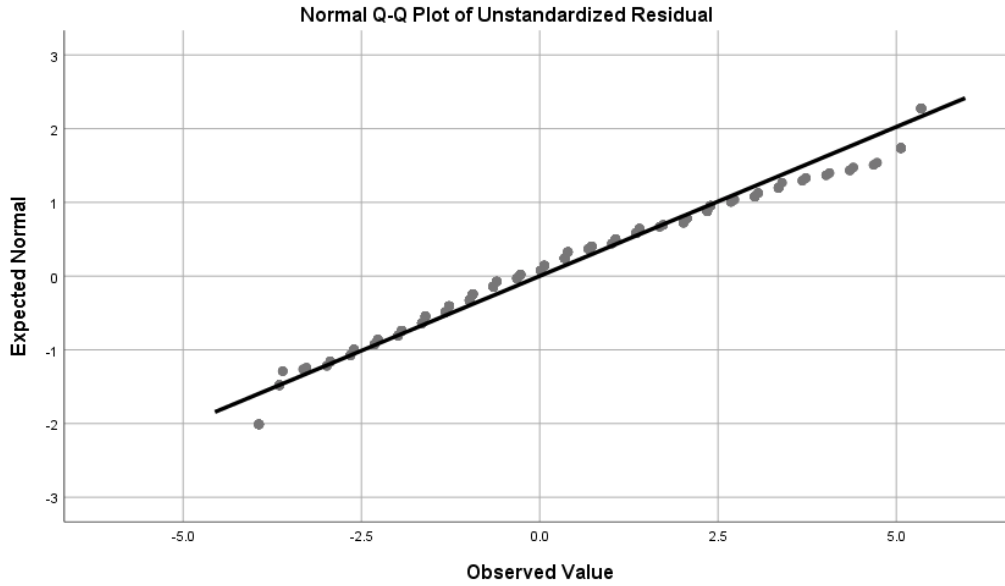| Threat Condition (IV) and total Need for Predictability Candidate Support (DV) Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.002
Durbin-Watson	1.5 – 2.5	1.904
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001.$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: NfP_Total_C

Normal Q-Q Plot of Unstandardized Residual

Threat Condition (IV) and total Decisiveness Candidate Support Assumption (DV) Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance $> .1$	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.002
Durbin-Watson	$1.5 - 2.5$	2.100
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: D_Total_C

Normal Q-Q Plot of Unstandardized Residual

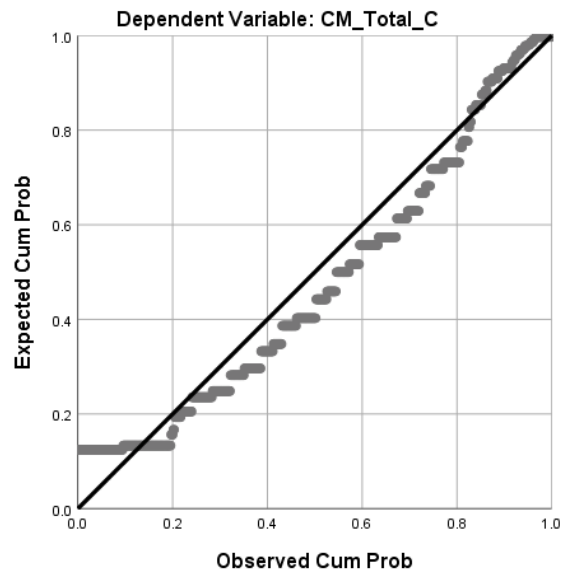| Threat Condition (IV) and total Avoidance of Ambiguity Candidate Support (DV) Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.002
Durbin-Watson	1.5 – 2.5	1.949
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: AoA_Total_C

Normal Q-Q Plot of Unstandardized Residual

Threat Condition (IV) and total Closed-Mindedness Candidate Support (DV) Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance $> .1$	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	$1.5 - 2.5$	1.963
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: CM_Total_C

Normal Q-Q Plot of Unstandardized Residual

Threat Condition (IV) and Closed-Mindedness NFCS Subscale (MV) Candidate Support Assumption Testing

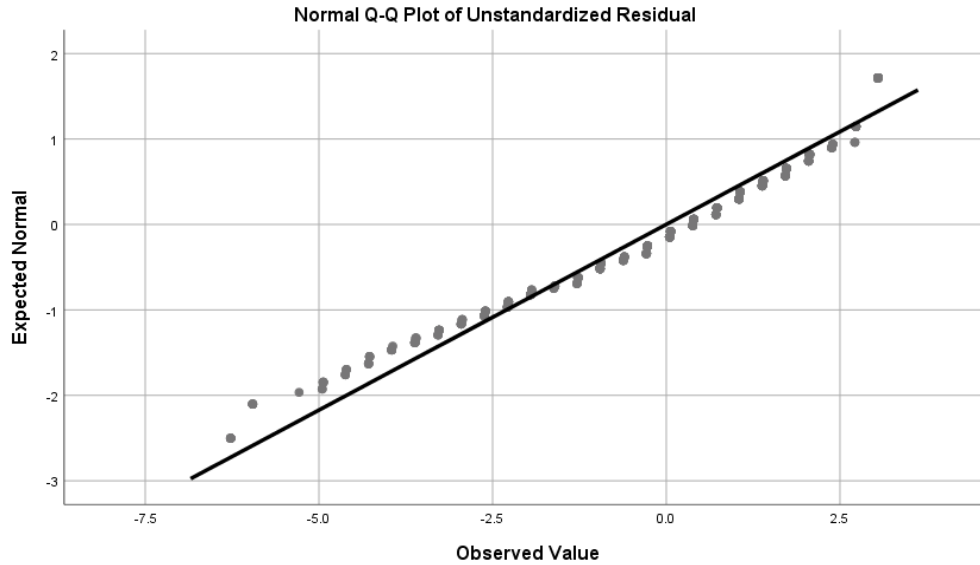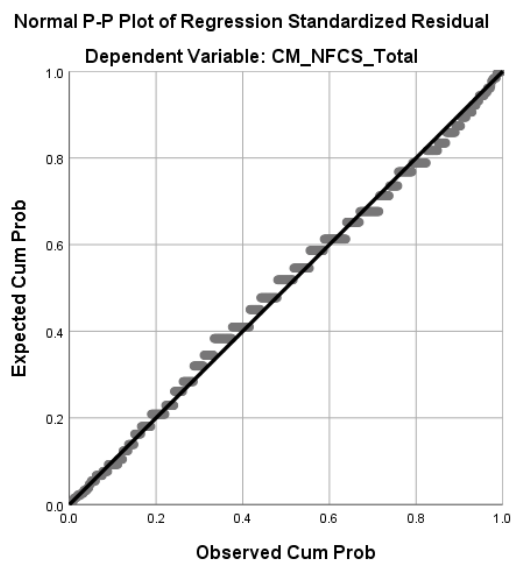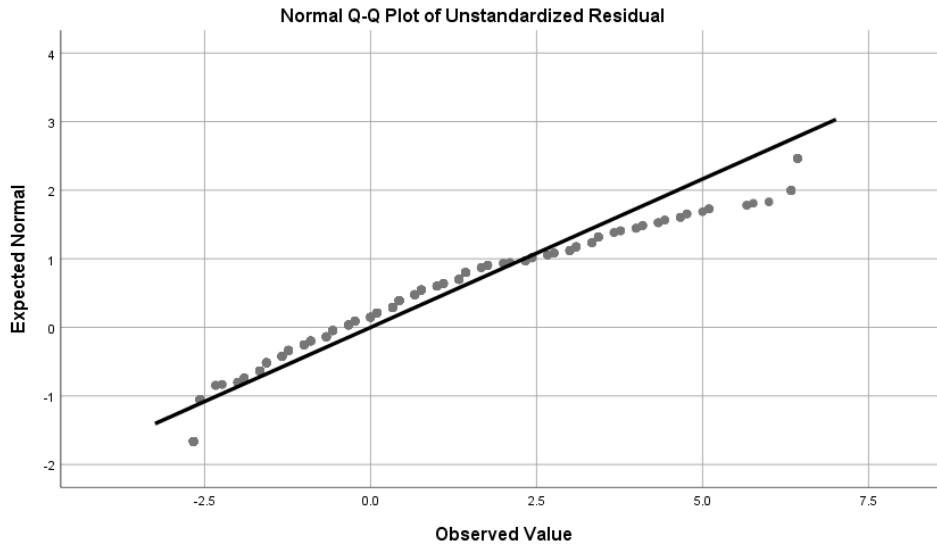| Test	Acceptable Result	Result
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.423
Kolmogorov-Smirnov	$p > .05$	$p < .001$
Shapiro-Wilk	$p > .05$	$p < .001$

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: CM_NFCS_Total

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Normal Q-Q Plot of Unstandardized Residual

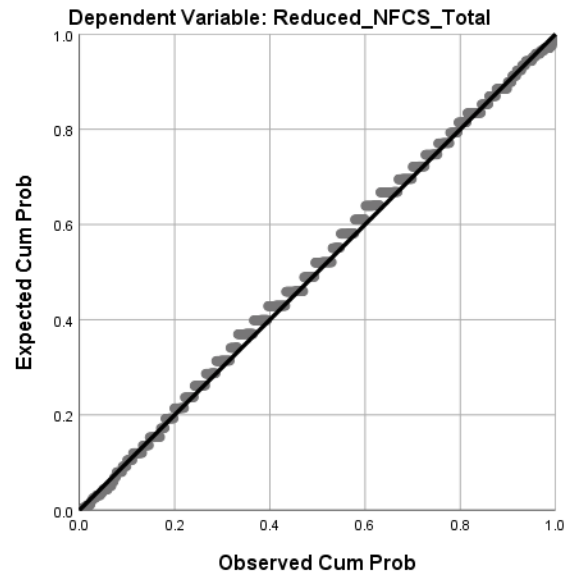| Threat Condition (IV) and Reduced NFCS (MV) Candidate Support Assumption Testing		
Test	**Acceptable Result**	**Result**
Tolerance	Tolerance > .1	1.00
VIF	VIF < 10	1.00
Cook's Distance (mean)	Cooks Distance < 1.00	.001
Durbin-Watson	1.5 – 2.5	1.083
Kolmogorov-Smirnov	$p > .05$	$p < .01$
Shapiro-Wilk	$p > .05$	$p < .01$

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Reduced_NFCS_Total

Normal Q-Q Plot of Unstandardized Residual
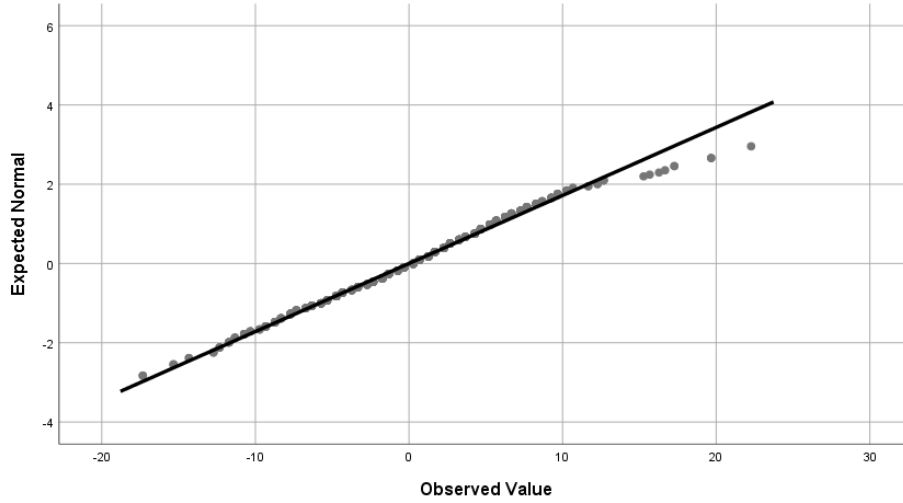
APPENDIX DD

STUDY 2 ANALYSES INVOLVING POLITICAL IDENTITY

Uncertainty Condition (IV) effect on Candidate Support (DV) as Mediated by Need for Cognitive Closure (MV) with Political Identity as Covariate

Dependent	Measure	Candidate Support					
		Uncertainty (n = 320) *M(SD)*	*Control* (= 335) *M(SD)*	*T-TEST*	*d*	*Closed-Mindedness NFCS Subscale* $r_{mv,dv}$ / (Mediate .95 CI)	*Reduced NFCS* $r_{mv,dv}$ / (Mediate .95 CI)
Preference for High Need for Order	Total	6.02 (2.50)	6.02 (2.51)	$t(648) = -.211$	.02	.195** (-.03/ .11)	.275** (-.15/ .05)
	Follow	5.97 (2.65)	6.05 (2.60)	$t(648) = -.386$	.03	.186** (-.03/ .10)	.283** (-.16/ .06)
	Share	5.93 (2.45)	5.96 (2.50)	$t(653) = -.199$	.02	.191** (-.03/ .11)	.252** (-.14/ .05)
	Vote	6.18 (2.67)	6.16 (2.74)	$t(653) = .085$	.01	.181** (-.03/ .11)	.250** (-.15/ .05)
Preference for High Need for Predictability	Total	4.36 (2.56)	4.59 (2.54)	$t(650) = -1.151$	.09	.285** (-.04/ .13)	.210** (-.10/ .03)
	Follow	4.29 (2.65)	4.57 (2.63)	$t(651) = -1.382$	.11	.286** (-.04/ .14)	.202** (-.12/ .04)
	Share	4.48 (2.58)	4.61 (2.47)	$t(652) = -.613$	.05	.255** (-.04/ .12)	.188** (-.09/ .03)
	Vote	4.30 (2.74)	4.60 (2.74)	$t(653) = -1.413$	.11	.283** (-.04/ .15)	.218** (-.12/ .04)
Preference for High Decisiveness	Total	4.94 (2.54)	4.65 (2.40)	$t(651) = 1.475$	.12	.036 (-.02/ .03)	-.056 (-.02/ .05)
	Follow	5.01 (2.62)	4.68 (2.51)	$t(651) = 1.643$	.13	.033 (-.02/ .03)	-.045 (-.01/ .05)
	Share	4.98 (2.51)	4.75 (2.41)	$t(653) = 1.218$	.10	.034 (-.02 .04)	-.061 (-.01/ .06)
	Vote	4.81 (2.80)	4.52 (2.68)	$t(653) = 1.373$	.10	.033 (-.03/ .03)	-.055 (-.02/ .06)
Preference for High Avoidance of Ambiguity	Total	6.95 (2.40)	7.27 (2.21)	$t(645) = -1.758$	.14	.131** (-.02/ .07)	.201** (-.10/ .04)
	Follow	6.96 (2.52)	7.35 (2.34)	$t(646) = -2.028*$	.16	.140** (-.02/ .07)	.213** (-.12/ .04)
	Share	6.74 (2.53)	7.05 (2.27)	$t(650) = -1.663$	.13	.120** (-.02/ .06)	.193** (-.10/ .03)
	Vote	7.19 (2.50)	7.40 (2.34)	$t(652) = -1.131$	.09	.109** (-.01/ .06)	.164** (-.09/ .03)
Preference for High Closed-Mindedness	Total	3.67 (2.38)	3.57 (2.25)	$t(651) = .538$	.04	.300** (-.04/ .14)	.119** (-.06/ .02)
	Follow	3.60 (2.44)	3.58 (2.34)	$t(651) = .106$	.01	.296** (-.05/ .14)	.129** (-.06/ .02)
	Share	3.86 (2.43)	3.65 (2.23)	$t(652) = 1.158$	.09	.291** (-.05/ .14)	.091* (-.05/ .01)
	Vote	3.56 (2.59)	3.47 (2.45)	$t(653) = .459$	.04	.282**(-.04/ .15)	.115** (-.06/ .02)

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; "±" refers to 95% Confidence Interval.

POLITICAL IDENTITY AS PREDICTOR:

Effect of Political Identification (Party & Ideology) on Mediators and Dependent Measures (Study 2)

Outcome	Political Identity as Predictor			
	B	SE	t	R^2
Closed-Minded NFCS Subscale	.375***	.098	$t(635) = 3.841$	.023
Reduced NFCS	.488*	.221	$t(628) = 2.207$	.008
Need for Order (NfO) Total	.292***	.040	$t(643) = 7.270$	.076
Need for Predictability (NfP) Total	.545***	.037	$t(645) = 14.835$	.254
Decisiveness (D) Total	.131**	.041	$t(646) = 3.197$	.016
Avoidance of Ambiguity (A) Total	.238***	.038	$t(640) = 6.331$	.059
Closed-Mindedness (CM) Total	.354***	.036	$t(646) = 9.854$	.131

Note. $* p < .05$, $** p < .01$, $*** p < .001$; "±" refers to 95% Confidence Interval.

POLITICAL IDENTITY AS OUTCOME:

Uncertainty Condition (IV) effect on Political Identity (DV) as Mediated by Need for Cognitive Closure (MV)

Dependent Measure	Uncertainty (n = 320) M(SD)	Control (= 335) M(SD)	*T-TEST*	d	Closed-Mindedness NFCS Subscale $r_{mv,dv}$ / (Mediate .95 CI)	Reduced NFCS $r_{mv,dv}$ / (Mediate .95 CI)
Political Identity	4.28 (2.39)	4.54 (2.31)	$t(648) = 1.405$	.11	.151** (-.06/ .02)	.088* (-.12/ .07)

Note. $* p < .05$, $** p < .01$, $*** p < .001$; "±" refers to 95% Confidence Interval.

REFERENCE LIST

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VITA

Dr. Osteen was raised just outside of Madison, WI in Waunakee. He attended the University of Wisconsin—Green Bay earning his Bachelor of Science in Psychology with an emphasis in brain, behavior, and health and a minor in Human Development in 2016. He then moved to Chicago, IL to attend Loyola University Chicago—initially being accepted into the Master's program and then gaining acceptance into the PhD program in Applied Social Psychology. He received his Master of Arts in 2019 and his Doctorate in 2024.

During his time at Loyola University Chicago, Dr. Osteen primarily worked with Dr. Victor Ottati in the Attitudes and Social Cognition Lab where he studied open-minded cognition, the Flexible Merit Standard Model, and collective action, in addition to his dissertation research on the ideology as motivated social cognition model and political information processing. He also had the opportunity to work with Dr. Yael Granot in her Justice, Attention, and Motivation (JAM) Lab using the Monitoring the Future (MtF) dataset to investigate predictors of youth collective action, and with Dr. Robert Morrison in his Cognitive & Affective Neuroscience (CAN) Lab using tDCS to research open-mindedness, creativity, and political cognition.

Dr. Osteen also received a number of awards during his time at Loyola University Chicago including the Social Psychology Graduate Student Research and Professional Development Scholarship in 2017, the Victor J. Heckler Fellowship in 2020, and the Frank Kobler Travel award in 2021 and 2023. Finally, he was awarded with the Professional and Adult Program of the Year award for his work in the Enhancing Diversity in Graduate Education (EDGE) organization in 2021, serving as the treasurer on the executive board.