

Dogmatism and the Need for Closure

- [Amber M. Gaffney](#)
- and [Natasha La Vogue](#)
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Summary

Research and both applications of theories of dogmatism and the need for closure implicate the importance of closed belief systems in cognition, social interactions, and decision-making. Research traditionally examines dogmatism as a personality trait wherein people vary in the extent to which they actively justify and maintain their closed belief systems through ideological rigidity. The need for cognitive closure is a related concept, but research and theorizing in this area provides an account of an epistemic motivation to obtain knowledge and answers rapidly—to find information quickly and hold fast to the conclusions drawn from that information. Research on both dogmatism and the need for cognition hold significant implications for and applications to political decision-making and ideology, in-group favoritism and out-group derogation, and resistance to change.

Keywords

- [dogmatism](#)
- [need for closure](#)
- [epistemic motivation](#)
- [uncertainty](#)
- [ambiguity](#)
- [beliefs](#)

Subjects

- Social Psychology

Dogmatism

On December 24, 2017, the United States president Donald Trump tweeted, The Fake News refuses to talk about how Big and how Strong our BASE is. They show Fake Polls just like they report Fake News. Despite only negative

reporting, we are doing well—nobody is going to beat us. MAKE AMERICA GREAT AGAIN! (Trump, [2017](#))

This tweet may easily imply that any data that shine a negative light on the president are, in fact, not facts at all. Indeed, a 2018 Knight Foundation/Gallup poll found that 42% of American Republicans believe that any news “casting politicians or political parties in a negative light” is “fake” news (Knight Foundation/Gallup, [2018](#)). Taken broadly, examples of partisans denying the veracity of facts in an effort to support and maintain their current belief system illustrates dogmatism. Altemeyer ([2002](#), p. 718) defines “dogmatism” as “relatively stable, unjustified certainty.” People high in dogmatism maintain “unjustified certainty” or ideological rigidity, even when they encounter clear evidence that contradicts their cherished belief systems (see Rokeach, [1954](#)).

In 1954, Rokeach outlined and defined dogmatism as a psychological construct, carefully asserting that dogmatism is an individual difference in thinking style, which can be characteristic of individuals on both the right and left of the political spectrum. He viewed Adorno, Frenkel-Brunswik, Levinson, and Sanford’s ([1950](#)) *The Authoritarian Personality* as a right-wing phenomenon, and he thus proposed dogmatism as a general measurement of authoritarianism and resistance to altering belief systems. Scales that measure dogmatism as an individual difference are not without critiques, one being that they are “too broad and vague” (Duckitt, Bizumic, Krauss, & Heled, [2010](#), p. 686).

In Rokeach’s conceptualization of dogmatism, people can express religious, political, academic, intellectual, scientific, and other beliefs—the actual domain is less important than the structure of the construct and its implications for consuming information, thinking, and expressing actions (see also Kossowska, Czernatowicz-Kukuczka, & Sekerdej, [2017](#)).

Unconcerned with the context that gives rise to dogmatism, Rokeach focused his 1954 conceptualization of dogmatism specifically on its cognitive structure.

Cognitive System of Beliefs

Rokeach ([1954](#)) posited that dogmatism is characterized by a cognitive system that is structured along two belief systems: what the individual believes to be true and what the individual believes to be false—that is, a belief versus a disbelief system. As a result of the either/or nature of this system, the belief system should be relatively independent from the disbelief system.

People high in dogmatism can maintain independence between systems by cognitively accentuating the differences between what they believe is true and what they believe is false, ignoring or downplaying information that draws similarities between beliefs and disbeliefs or points out overlap between the two, denying the veracity of verifiable facts that seek to disconfirm the belief system, and holding contradictory beliefs without seemingly experiencing dissonance. For example, an individual may simultaneously believe in the importance of the United States' First Amendment while believing that some groups do not have the right to demonstrate their views publicly—particularly groups who hold beliefs that are different from the individual's own cherished beliefs (e.g., White & Crandall, [2017](#)). Not only do people high in dogmatism endorse the veracity of their own beliefs, but they also tend to believe that their beliefs are superior to other beliefs, particularly those that propose alternative viewpoints (Raimi & Leary, [2014](#)).

The tendency to adhere to beliefs in the face of contradicting facts is the hallmark of dogmatism. For example, Altemeyer ([1996](#)) showed that among people holding anti-gay prejudice, only those high in dogmatism were unaffected by strong evidence that sexual orientation is biologically determined. On the other hand, among people high in anti-gay prejudice, those low in dogmatism became more tolerant toward homosexuals when provided with the same evidence regarding the biological determinism of sexual orientation. Altemeyer ([1996](#)) provided contradictory passages in the Bible to students who claimed that the Bible was written by God and adamantly denied the existence of inconsistencies in the Bible.

Contradictory passages had little effect on those who held this belief structure (although it did on those who held more flexible views of the Bible). Admitting contradictions in a firmly held and strongly guarded belief system poses a threat to the entire cognitive structure of the belief.

If you hold that you have found a perfect system of beliefs, have you not painted yourself into a dogmatic corner? Should just one imperfection be admitted, then other things can be untrue as well, and the sublime comfort of knowing you are completely right evaporates. (Altemeyer, [1996](#), p. 719)

One seemingly effective way for “strong believers” to defend themselves against evidence that contradicts their espoused belief structures is to construe those structures in an unfalsifiable way. For example, Friesen, Campbell, and Kay ([2015](#)) provide evidence that when people who are religious are presented with factual information that threatens their world view, they tend to respond by supporting unfalsifiable justifications for their religious beliefs (e.g., “Living a moral life would be impossible without God,” p. 520) rather than falsifiable justifications (e.g., “Scientific evidence demonstrates that God exists,” p. 521).

Moreover, these effects are not limited to religious domains—political partisans are more likely to explain their political beliefs through moral convictions (i.e., unfalsifiable justifications) than falsifiable justifications when their political world view is under threat. Although these findings do not speak specifically to an individual difference in dogmatism as an explanatory factor in defending belief structures, it does provide evidence that people are protective of and maintain their belief systems in a way similar to that which Rokeach ([1954](#)) outlined, in which dogmatic individuals construe factual belief disconfirming evidence.

Given the nature of this belief system, it is unsurprising that people who are high in dogmatism tend to hold more polarized (extreme) attitudes than people low in dogmatism (see Leone, [1989](#)). Attitude polarization can occur when people high in dogmatism reflect on their own attitudes—when given this opportunity, their attitudes tend to become more extreme than when they do not reflect on their attitudes.

Moreover, after thinking about their own attitudes, people high in dogmatism express more consistency in their attitudes and beliefs than people low in dogmatism (Leone, [1989](#)). However, these relationships appear to attenuate when people high in dogmatism are in the presence of “reality constraints” (i.e., the presence of the actual person they are rating; Leone, Taylor, & Adams, [1991](#)).

Dogmatism might be associated with supporting a rigid view of the interpretation of a salient group’s norms rather than with specific group memberships. Although, as a concept, dogmatism is colloquially related to religious dogma (see, e.g., the 1999 Kevin Smith film *Dogma*), Gurney, McKeown, Churchyard, and Howlett ([2013](#)) found that, among Christians, dogmatism is negatively related to openness to experience; however, among atheists, dogmatism is positively related to openness to experience.

Among people who claimed no beliefs in these areas, dogmatism was negatively associated with openness to experience. This work suggests that people’s social identities (see Tajfel & Turner, [1986](#)) might act on how they construct and defend their belief systems, particularly those relevant to strongly held and important identities. When people become dogmatic, they may do so with respect to beliefs that are embedded in the normative structure of their group memberships. In some groups these beliefs give rise to prejudicial attitudes toward out-groups, often resulting in bias and derogation.

Predicting Prejudice

People actively seek to maintain and defend dogmatic beliefs and disbeliefs in the face of persuasive evidence. It follows that individuals high in dogmatism will derogate others whom they perceive as being oppositional to their belief structures, making dogmatism both conceptually and theoretically related to prejudice toward out-groups (Rokeach, [1960](#)). The threatening nature of contradictory evidence applies to other individuals and groups who either realistically or symbolically demonstrate the potential flaws or contradictions in the system, which may result in the

derogation of those who appear different or oppositional to the belief system.

For example, Kirtley and Harkless ([1969](#)) found that dogmatism predicted rejection of minority groups and groups that participants viewed as unconventional. Moreover, Strickland and Weddell ([1972](#)) found a strong correlation among Southern Baptists' level of dogmatism and their expression of prejudice toward African Americans. However, the relationship between dogmatism as a personality variable and prejudice appears somewhat tenuous (e.g., Hoge & Carrol, [1973](#)) and is perhaps explained through group-based factors (e.g., religious norms, as in Strickland & Weddell's [1972](#) work) or factors such as political orientation and a general bias against disconfirmatory evidence (Bronstein, Dovidio, & Cannon, [2017](#)).

Interestingly, with respect to work on self-generated attitude change models (e.g., Leone et al., [1991](#)), contact with people who can actively constrain the original perceptions that dogmatic people have of members of an out-group may lead to less prejudicial attitudes, or perhaps limit the ability of the dogmatic person to generalize prejudiced attitudes initially held toward one member to an entire group. More specifically, when dogmatic people are forced to interact with an out-group member who contradicts their perception of the out-group, it might help to reduce negative attitudes toward the out-group.

Political Ideology

Much of the research on dogmatism, particularly research that employs Altemeyer's dogmatism measurement, "DOG," tends to point toward dogmatism being more of a right-wing than a left-wing phenomenon (Altemeyer, [2002](#)). Similarly, White-Ajmani and Bursik ([2011](#)) provide evidence that dogmatism and the related construct, intolerance (i.e., a rejection of the beliefs and perspectives of different others, including their fundamental rights and choices; see Guindon, Green, & Hanna, [2003](#)),

predicts conservatism. These correlations are consistent with Jost, Glaser, Kruglanski, and Sulloway's (2003) work on social conservatism as motivated social cognition, which suggests that dogmatism and tolerance for ambiguity reliably predict conservatism.

Moreover, they assert that motivations to avoid uncertainty and ambiguity can manifest in the adoption of belief systems, such as political conservatism, which limits exposure to diverse opinions and creates a drive toward support for traditionalism. As a result, work on conservatism as motivated social cognition, similar to earlier work on dogmatism (see Altemeyer, 2002), suggests that dogmatism is an individual difference, which is sometimes related to conservatism (although it should theoretically be related to polarized liberalism as well).

Indeed, using both European and United States samples, van Prooijen and Krouwel (2017) provide strong evidence that both left-wing and right-wing political extremism strongly predicts dogmatic and intolerant beliefs, which is also associated with support for antisocial behavior, protest intentions, and denial of free speech (incidentally, indicating support for illiberalism). Dogmatism and intolerance, then, are likely less indicative of conservatism per se and more indicative of a strongly embedded belief system (see also Gurney et al.'s, 2013 findings for atheists, which suggest a link between dogmatism and support for group normative values and traits).

A construct that is also related to conservatism, and often intolerance, is the need for cognitive closure (NCC; Kruglanski, 1990). Kruglanski proposed NCC as an epistemic motivation that people employ to avoid ambiguity and uncertainty and to attain predictability. Therefore, NCC should appear most strongly under time pressure and difficult decision-making conditions (see Kruglanski, 1990), when constraining decision alternatives and even openness to a variety of viewpoints appear threatening. High NCC is a general desire to quickly find and employ clear and unambiguous answers (Kruglanski & Webster, 1996). Kruglanski and colleagues have grounded this work and used it to expand the field of motivated social cognition—a field of

inquiry that examines the psychological needs that underpin belief systems (see Jost, Glaser, Kruglanski, & Sulloway, [2003](#)).

Although conceptually related to dogmatism, NCC is most frequently defined as a motivation rather than an individual difference. In practice, however, NCC is often measured and treated as an individual difference. There is clearly overlap between NCC and dogmatism, yet NCC is both conceptually and statistically different from dogmatism.

Whereas both reference belief systems, NCC is grounded in the literature on epistemic motivation and motivated social cognition—it is not the belief system, but rather a motivated way of defending a belief system when it is beneficial for the individual. Indeed, Webster and Kruglanski ([1994](#)) reported a correlation of 0.29 between their individual difference measure of NCC and Rokeach's dogmatism scale (Rokeach, [1960](#)). Whereas the similarities between dogmatism and NCC are evident, there are clear differences in theory and methodology that make each approach unique.

Need for Cognitive Closure

Kruglanski ([1990](#)) defined NCC as a continuum along which four typologies fall: avoidance of specific closure, need for specific closure, avoidance of nonspecific closure, and need for nonspecific closure. Need for specific closure is when people desire feedback or information that has particular content or valence. For example, Kruglanski ([1990](#)) suggests that self-enhancement and a desire to boost one's self-esteem is an epistemic motivation for specific closure.

Need for nonspecific closure is a general motivation to obtain knowledge on a given topic regardless of the content of the information or even the valence of the feedback. NCC refers specially to a desire to obtain resolution, (e.g., Kruglanski, [1990](#); Webster & Kruglanski, [1994](#)), often quickly, (e.g., Kruglanski & Freund, [1983](#)) and with little effort (Klein & Webster, [2000](#)). Alternatively, need to avoid closure is often predicated by fear of invalidity, accountability, and evaluation apprehension (see Kruglanski &

Webster, [1996](#); Livi, Kruglanski, Pierro, Mannetti, & Kenny, [2015](#)). Given that NCC is conceptualized along a continuum, the research and theorizing surrounding this construct suggests that the higher one's need for cognitive closure, the more likely the individual will “seize” on early information that denotes answers to questions and “freeze” on this information rather than considering alternative viewpoints (see Kruglanski & Webster, [1996](#)).

These processes are often labeled “urgency” and “permanence” tendencies (see Kruglanski, Pierro, Mannetti, & De Grada, [2006](#)). Some individuals desire to achieve permanent solutions through closure, and as such, Kruglanski and Webster ([1996](#)) suggest that NCC is related to consensus seeking from similar others and rejecting alternative viewpoints from dissimilar others (see Kruglanski, Webster, & Klem, [1993](#)).

People who express a strong need for cognitive closure seek out quick information and resolutions. As a result, their search for information is generally rapid and anchors on early acquired information. Because of the quick and often shallow information search, there can be costs to seeking closure, such as poorly informed decision-making (see, e.g., Scholten, van Knippenberg, Nijstad, & De Dreu, [2007](#)) and reliance on stereotypes.

On the other hand, avoiding closure can be cognitively demanding and time consuming (Webster & Kruglanski, [1994](#)). This means that there is a cost-benefit analysis to seeking closure versus avoiding closure (see Kruglanski, [1990](#); Webster & Kruglanski, [1994](#))—when the benefits outweigh the costs of closure, people are motivated to obtain it.

The bulk of research on NCC focuses on a desire for nonspecific closure, and as a result the current overview focuses on this typology. Kruglanski and colleagues' early work (e.g., Kruglanski, [1990](#); Webster & Kruglanski, [1994](#)) provides evidence that NCC has important consequences for knowledge formation, knowledge utilization, and social interaction. Although consequences for NCC fall within the aforementioned three areas, the scope of research in these areas is large and diverse and implicates the importance

of NCC for leadership paradigms, prejudice, stereotyping, political decision-making, problem-solving, extremism, conspiratorial beliefs, intergroup reconciliation, and creativity (among others). Although the scope is broad, the work in these areas tends to examine NCC from specific theoretical and methodological paradigms. This review focuses on some of the most used paradigms and research that highlight the predictive value of NCC across some of the prominent areas of inquiry.

Methods

Early work examining the social cognitive and motivational underpinnings of NCC employed manipulations of the construct, including environmental noise, structure, and task attractiveness (see Webster & Kruglanski, [1994](#)). For example, Freund, Kruglanski, and Shpitzajzen ([1985](#)) instructed participants to answer a single question about a target person: Would the target be able to succeed at a given task? This was used to induce high need for structure, whereas participants in the low-need-for structure condition responded to multiple questions about the target person's ability to succeed (need for structure is presumably a part of NCC).

Kruglanski and colleagues ([1993](#)) assumed that because people are motivated toward cognitive closure in environments that induce a high degree of cognitive effort (see also, Kruglanski & Webster, [1991](#)), a noisy environment would stimulate high NCC. Participants held conversations with a confederate in either a noisy environment (high NCC) or a quiet environment (low NCC). Following the conversations, participants in the noisy environment reported feeling a greater need to come to an agreement with their conversation partner (a characteristic of high NCC) than those in the quiet environment.

Mental fatigue also appears to elicit NCC. Webster, Richter, and Kruglanski ([1996](#)) induced high NCC simply by including university student participants who had just taken a two-hour final exam. Students in the moderate condition participated in the experiment after a regular class, and students in the low NCC condition participated before class. Manipulation checks

showed that the manipulations did appear to induce low, medium, and high NCC, and moreover, results from the experiment showed that under high fatigue (presumably high NCC), rather than low fatigue, participants were more likely to “freeze” on early impression formation information of a target, suggesting that fatigue makes elaborative processing costly, and thus high NCC helps to reduce this cost.

Whereas situational factors such as time pressure and environmental noise can realistically create a subsequent desire to achieve cognitive closure, it also follows that individuals vary in NCC as a motivational tendency.

Research on culture (e.g., Mannetti, Pierro, Kruglanski, Taris, & Bezinovic, [2002](#)) and known groups (see Webster & Kruglanski, [1994](#)) suggests that some groups might be higher or lower in NCC, or they may express it differently based on cultural norms (e.g., Chao, Zhang, & Chiu, [2010](#)). Individual differences in NCC are assessed using the Need for Cognitive Closure Scale (NFCS; Webster & Kruglanski, [1994](#)).

This scale reliably measures five psychometric properties of NCC: preference for order and structure (e.g., preference for clear rules), discomfort with ambiguity (e.g., uncertainty avoidance), a desire for decisiveness, a desire for predictability (e.g., consistency), and closed-mindedness (e.g., distaste for alternative points of view). Further work on this scale provides evidence that the five original factors can be reliably explained by two latent second-order factors, whereby decisiveness is its own factor (e.g., Neuberg, Judice, & West, [1997](#)).

Decisiveness likely taps an ability-related domain rather than an epistemic need, suggesting an update to the original operationalization. When decisiveness is removed, the scale fits a unidimensional model (Roets & Van Hiel, [2007](#)). The original scale development demonstrated moderate overlap with several related constructs; however, the relationship was low, and the constructs appear, in part, to be measuring different concepts. Related constructs include authoritarianism, dogmatism, cognitive complexity, need for cognition, and fear of invalidity.

Although NCC is conceptually similar to constructs such as uncertainty orientation (Sorrentino & Short, [1986](#)) and self-conceptual uncertainty (Hogg, [2007](#), [2014](#)), it differs from both of these constructs in important ways. First, Sorrentino and Short ([1986](#)) conceptualized uncertainty orientation as an individual difference in avoidance of situations that create uncertainty or ambiguity (e.g., procedural uncertainty at work). Uncertainty orientation is primarily a cognitive construct and deals with the ways in which people think about and avoid uncertainty-producing situations.

Conceptual self-uncertainty (Hogg, [2007](#)) is grounded in the self or group—it is context specific and deals with the extent to which people feel uncertain about who they are or where they are going in life. Self-uncertainty is often a negative drive state, which people seek to reduce, often through self- and social categorization and referent informational influence processes (see Turner, Hogg, Oakes, Reicher, & Wetherell, [1987](#)). NCC, alternatively, outlines an epistemic motivation, which is employed through a cost-benefit analysis of the rewards and costs of employing cognitive closure (e.g., Kruglanski, [1990](#)).

The breadth of the research conducted with NCC as both a manipulated variable and an individual difference is broad and diverse. The current overview focuses on the implications that NCC, as an epistemic motivation, has for resistance to change and persuasion processes, and group processes and intergroup relations.

Resistance to Change and Persuasion

Regardless of situational or personality factors, people who are high in NCC tend to avoid ambiguity and desire definitive answers, making them difficult to persuade of alternative viewpoints. All persuasion contexts and opinion change contexts necessarily include an either/or situation, in which the target of persuasion must choose one option over another (see Moscovici, [1976](#)). When individuals high in NCC are presented with the choice to alter or change an existing attitude, it follows that they will likely

resist persuasion. Indeed, Kruglanski and colleagues ([1993](#)) provide evidence the participants high in NCC are more resistant to persuasive attacks than their low NCC counterparts in both experimental paradigms and using the trait measurement of NCC (the NFCS).

This effect appears to occur in persuasion rather than attitude formation settings (see Chaiken, Wood, & Eagly, [1996](#)). In a persuasion setting, where participants have preexisting knowledge regarding the attitude object or opinion, they demonstrate the permanence tendency with their preexisting attitude. Moreover, Klein and Webster ([2000](#)) showed that subjects high (but not low) in NCC were more likely to use heuristic cues (e.g., number of arguments) to process a persuasive message.

People who exhibit high NCC should be more open to persuasion from a known and trustworthy source than an unknown source, in accordance with the permanence tendency. Trust for a source has several implications for both persuasion processes (see Eagly, Wood, & Chaiken, [1978](#)) and leadership (for an overview, see Hasel & Grover, [2017](#)). Indeed, Acar-Burkay, Fennis, and Warlop ([2014](#)) demonstrated that people high in NCC express high trust in close others and low trust in distant others (“others” were either manipulated in a trust game or were acquaintances). Presumably this occurs because high NCC motivates people to “seize” on what they already know and whom they already trust and “freeze” on the initial judgments they make with respect to these sources, rather than making adjustments to allow trust for new people.

Typically, new members’ entry to a group requires a process of group socialization whereby both the old-timers and the newcomers engage in some amount of change to accommodate the new relationship among members (see Levine & Moreland, [1994](#)). However, because people high in NCC tend to be change resistant, they are also unlikely to change as a result of the presence of newcomers to their groups or over time. For example, in a field observation study and in two experiments that both manipulated and measured NCC, Livi and colleagues ([2015](#)) demonstrated that group old-timers who are high in NCC resist normative change across group

generations, which is presumably a product of the permanence tendency. Their findings suggest a somewhat different process in newcomers who are high in NCC.

Specifically, newcomers tended to “seize” on their new group’s norms, accepting the arbitrary norm earlier than those low in NCC, which is indicative of the urgency tendency. This research employed a paradigm similar to several classic social psychological experiments (e.g., MacNeil & Sherif, [1976](#), Walter, [1955](#); see also Sherif, [1966](#)), opening new possibilities for both interpreting classic findings and furthering research on norm transmission.

The work on heightened norm transmission across generations and resistance to change from newcomers has several implications for adherence to cultural norms and group identification processes (e.g., Turner et al., [1987](#)). For example, Chao, Zhang, and Chiu ([2010](#)) provide evidence that among people who identify strongly with their national culture (i.e., America or China), high NCC is associated with strong adherence to national culture norms, particularly in an intergroup context.

These results suggest that individuals high in NCC use their important in-groups as anchors for information in a group context. Similarly, work on culture and NCC further examines and seeks to understand how NCC affects creativity, which presumably requires openness in cultural, group, and organizational contexts (see Bechtold, De Dreu, Nijstad, & Choi, [2010](#); Chao & Chiu, [2011](#)). Resistance to communications across culture and groups, as well as resistance to openness, suggests that NCC plays an important role in communicating with and perceiving people who are different or share different group affiliations.

Implications for Group Processes and Intergroup Relations

In their theory of group centrism (i.e., the extent to which members of a collective actively create a cohesive shared reality and a tight sense of

“groupness”), Kruglanski and colleagues ([2006](#)) posit that group centrism is partially a product of individual-level NCC. This relationship exists because an individual’s desire for firm conclusions and closed knowledge can be fulfilled through a sense of shared reality with a collective.

That is, group memberships can provide individuals with ideology forged from group consensus, which should be particularly attractive for individuals high in NCC. Kruglanski et al. ([2006](#)) assert that individuals may attain group centrism through supporting and endorsing rigid group structure and authoritarian leadership, derogating both in-group and out-group members who are different, deferring to and seeking to establish group consensus, suppressing both dissent and diversity, and dogmatically endorsing group norms. Leaders both establish and enforce groups norms (see Hogg & van Knippenberg, [2003](#)), making it an interesting area of inquiry for NCC researchers.

Leadership

Leaders are both shaped by and shape the groups to which they belong (see Haslam, Reicher, & Platow, [2011](#); Hogg & van Knippenberg, [2003](#)). This reciprocal relationship between leader and group means that under most (democratic) circumstances, people elect and support leaders who they believe best represent the core identity of the group (see Barreto & Hogg, [2017](#), for a meta-analytic review of this literature) and support leaders they perceive to work on behalf of the group’s best interests (see also Steffens et al., [2014](#))—that is, group members elevate individuals they perceive as group prototypical to leadership positions.

Kruglanski et al. ([2006](#)) posit that under high NCC, people seek information that is indicative of a shared reality with other group members. Because group prototypes are consensual, it follows that people who are high in NCC should be more supportive of prototypical versus non-prototypical group members as leaders. Indeed, employees rate prototypical leaders as more effective than non-prototypical leaders (Cicero, Pierro, & van Knippenberg, [2010](#); Pierro, Cicero, Bonaiuto, van Knippenberg, & Kruglanski, [2007](#)).

This suggests that when people experience NCC, either dispositionally or situationally (e.g., role ambiguity in the workplace), they might grasp at group-relevant cues that are indicative of consensual group norms. Prototypical group leaders can provide an embodiment of the consensual representation of the group, and hence they are likely attractive representatives for those who seek closure.

Because of their special positions within the group, prototypical leaders have the ability to communicate group norms (Hogg & Reid, [2006](#)) and shape and influence group prototypicality (Reicher & Hopkins, [2003](#)). The ability of prototypical leaders to create change within their groups appears to be particularly strong for group members who are high in NCC. Among strongly identified group members who are high in NCC, willingness to support leader-induced change increases as perceptions of the leader's prototypicality increases (Pierro et al., [2007](#)).

Although people high in NCC tend to be change resistant, they are also likely to both seize and freeze on the information provided to them by a group to which they strongly identify. The most informative member of the group is by and large a prototypical leader, so people high in NCC should be particularly willing to follow leader-induced change, although perhaps not through a process of in-depth consideration of the leader's message. Rast, Gaffney, Hogg, and Crisp ([2012](#)) demonstrated somewhat conflicting results, which suggest that among group members who experience high self-uncertainty, the preference for a prototypical over a non-prototypical leader weakens.

However, self-uncertainty was manipulated via a situation-specific prime that was relevant to the self, whereas Pierro and colleagues' work focused specifically on trait NCC. These differing results provide further evidence that self-uncertainty and NCC are related yet independent constructs with sometimes differing effects on the individual and on group processes. When people urgently seek closure and answers, it follows that specific types of leaders who provide direct and clear-cut responses will be attractive.

That is, in conditions of high NCC, people should be particularly willing to support autocratic leadership. Bélanger, Pierro, and Kruglanski (2015) provide evidence in support of this thesis. Their work showed that subordinates high in NCC were more supportive of and responsive to leaders who employed harsh power tactics (e.g., coercion, punishment, reward) than subordinates low in NCC. Presumably, those high in NCC are uncertainty averse and thus are most comfortable with a leadership style that is directive (see, for a related argument, Rast, Hogg, & Geissner, 2013), whereas those low in NCC feel most comfortable being able to deliberate and having choice, making soft power tactics a more comfortable working style for them.

Moreover, Pierro, Mannetti, De Grada, Livi, and Kruglanski (2003) show that working groups comprised of dispositionally high NCC members are more likely to develop and follow an autocratic structure than groups comprised of low NCC members. In a similar vein, Haslam and Reicher (2007) suggest that when there is a failure of a group to construct a unified identity (likely producing a need for closure with respect to the group's identity), members may become open to authoritarian and autocratic leadership.

NCC is not a direct measure of support for autocracy; rather, it should predict support for directive and autocratic leadership under conditions when the individual high in NCC feels that she or he may benefit from that style or type of leadership. Leader fairness, for example, can operate as a heuristic whereby followers use their own perceptions of a leader's fairness to determine the leader's effectiveness (Janson, Levy, Sitkin, & Lind, 2008). Thus, there are conditions under which a leader who is fair should be able to fulfill followers' needs to achieve closure and reduce ambiguity. High NCC followers more favorably rate leaders as effective and report to increasing levels of job satisfaction to the extent that the leader demonstrates procedural fairness (Pierro, Giacomantonio, Kruglanski, & van Knippenberg, 2014). This work points directly to the epistemic fulfillment function of NCC—under high NCC, individuals seek information from people they trust and leaders they trust.

These tend to be in-group leaders they perceive to act on behalf of the group or organization. NCC can also produce a context in which individuals prefer clear and decisive information, and as a result they can turn toward authoritative and autocratic leadership to fulfill that need.

Extremism

Extremism and acts of extremism may produce a form of closure for some individuals. When people experience high levels of uncertainty regarding the self or an important social identity, they demonstrate an increasing desire to support radical acts and extremism (e.g., terrorism) against relevant out-groups (e.g., Hogg, [in press, 2014](#)). Similarly, significance quest theory (Kruglanski & Orehek, [2011](#)) posits that people engage in extremist acts when they feel a threat to their personal or social significance and meaning.

Threats “that lower one’s sense of significance induce self-uncertainty, which activates a need for closure” (Webber et al., [2018](#), p. 278). Groups that enforce extreme norms should be particularly attractive in such instances, as they provide ideological and directive epistemic value through the prescription of ideological rigidity and group norms (for a related argument on uncertainty and extremist group membership, see Gaffney, Rast, & Hogg, [2018](#)).

Not all people who experience NCC or all people who experience significance threat should support extremist groups and behaviors. Kruglanski and Orehek ([2011](#)) posit that the relationship between a quest for significance and the pursuit of extremism and/or radicalization occurs among individuals who belong to groups or seek to join groups that promote extremist acts and terrorism as a legitimate means to achieve the group’s goals. Across four studies with diverse samples (e.g., political prisoners in the Philippines, Sri Lankans, American partisans), Webber and colleagues ([2018](#)) provide evidence that threats to significance (e.g., humiliation) create or predict high need for closure, which in turn predicts support for extremism (e.g., support for extreme acts against the Sri Lankan military). Importantly, in their American samples, they found that this mediation

occurred for both liberals and conservatives, and not only did extremism increase through NCC from personal significance threats, but support for moderate ideals also decreased.

Research on extremism and NCC is growing, as is research on uncertainty and extremism. There is clear overlap between the research, suggesting that perhaps uncertainty may produce NCC. This logic is consistent with uncertainty identity theory, which suggests that identification with groups high in entitativity are particularly attractive when people feel uncertain. Such groups have the ability to prescribe thoughts, feelings, and behavior, and thus reduce uncertainty (see Hogg, [2014](#)). The motivational component of this process could in fact be related to or even hinge on the NCC.

Rejecting Deviance and Out-Group Bias

Ideologically extreme groups not only enforce aggression against out-groups, but they tend to enforce in-group norms by rejecting and censoring in-group deviants. Rejecting group deviants does not occur only in groups that promote extreme norms. When people expect to agree with their in-group, an individual who expresses a deviant opinion can break the perception of consensus within the group, which should be particularly threatening for group members who use their group and its espoused ideology as a way to create cognitive closure (e.g., Kruglanski et al., [2006](#)).

For example, Kruglanski and Webster ([1991](#)) manipulated NCC via time pressure. Participants (members of an Israeli chapter of the Boys and Girls Scouts) were exposed to a confederate who ostensibly supported a deviant opinion for their chapter or a normative opinion. In conditions of high NCC, participants were more likely to derogate and reject the opinion deviant than the normative confederate.

People who deviate from group norms or expectations are cognitively incongruent with group members' expectations of appropriate group behavior and attitudes. Similarly, when people hold traits that group members believe are stereotypically incongruent with positions of

leadership, they are often excluded from leadership positions (see Eagly & Karau, [2002](#)). These effects are magnified in people who are high in NCC, as they constrict their cognitions toward stereotype-consistent information.

For example, high NCC predicts not only a strong association between feminine traits and female leaders and managers but also selective forgetting of non-congruent stereotyped leader traits. Specifically, people high in trait NCC are more likely to forget a female leader's agentic traits (stereotype incongruent) than communal traits (stereotype congruent) (Pica et al., [2018](#)).

As the research on gender stereotypes and NCC demonstrates, there is a clear link between a motivated search for stereotypically consistent cues and NCC. Moreover, there is clear evidence that there is an association between prejudice and NCC. If the in-group provides a particular sense of relief for those high in NCC, then rejection of people who are different from the in-group (i.e., are out-group members) can follow in this process. Roets and Van Hiel ([2011](#)) suggest that NCC is the fundamental epistemic motivation of prejudice that Allport ([1954](#)) hypothesized as a prejudice-prone cognitive style.

Further supporting the association between NCC and prejudice, Shah, Kruglanski, and Thompson ([1998](#)) provide evidence in support of the association between NCC and prejudice. Among those high in NCC, in-group favoritism and out-group derogation both increase. However, low NCC appears to neither affect nor predict the same negative intergroup attitudes. Brizi, Mannetti, and Kruglanski ([2016](#)) examined biased implicit attitudes and discriminatory intentions as a function of uncertainty and NCC.

They manipulated both personal uncertainty and economic uncertainty, and found that under high uncertainty, participants expressed more negative implicit attitudes and more discriminatory intentions toward a racial out-group than participants experiencing low uncertainty. This relationship was moderated by NCC such that people high in trait NCC expressed bias regardless of the presence of uncertainty.

These results suggest that situational uncertainty might lead to a need to reduce ambiguity and create cognitive closure. Therefore, individuals low in NCC behave and feel similarly to those high in NCC when they experience uncertainty.

Conclusions

Ideological rigidity and/or a strict desire to avoid new information and alternatives is associated not only with poor decision-making outcomes but also with rejecting others and support for extremist ideologies. Strict adherence to a belief structure, even in the face of contradictory evidence—dogmatism—is associated with a variety of negative outcomes, including the denial of facts, prejudice and discrimination, and support for illiberal ideals. Although psychological research primarily treats dogmatism as an individual difference, future research should explore dogmatism with respect to group norms and context-specific group polarization. Specifically, dogmatic thinking and dogmatism in general could heighten with respect to salient group norms in an intergroup context, as some of the reviewed work appears to suggest.

The epistemic need for cognitive closure is broadly studied within social and political psychology. The work is compelling precisely because it is applied to a diverse range of areas, which strongly suggests that motivated thinking can restrict world views, dampen decision-making ability, and strain intergroup relations. However, need for cognitive closure also fulfills specific needs and thus can be useful for the individual.

In a time where the social world is filled with busyness and information overload, it is unsurprising that many people are unwilling (or unable) to take in new information or process information that contradicts their preexisting beliefs. Under conditions in which people are motivated to seize on the first information provided by their trusted sources (those with whom they share some group membership), the creation of social and political echo chambers can seem somewhat inevitable.

Freezing on this information and further bolstering the in-group position can lead down a path of polarization and out-group rejection. These are timely considerations with respect to the rise of social media and targeted advertising based on so-called identity politics and continued social and political polarization globally.

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