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Overview

People enjoy acts of self-expression, going out of their way to indicate their opinions and preferences even when no choice is at stake (He, Melumad, & Pham, 2019). For example, social media users argue over which Oscar nominee should win an academy award, and viewers point out which Super Bowl ads they love and hate to their companions during the game.

Nevertheless, people are not always forthcoming with how they truly feel. Failing to express one's preferences or opinions when one is expected to reveal them can occur for a number of reasons. For instance, the decision-maker may fear that the preference itself will be evaluated negatively by their peers or that they will be seen as imposing that preference on other people. Moreover, sometimes people truly don't have an opinion one way or another about a particular issue. Is failing to state how one feels, in terms of one's preferences and opinions, either because one is concealing them or because one lacks them, a good move socially or one with (possibly hidden) costs? How do we perceive individuals in such situations? This research argues that failing to indicate one's preferences or opinions can result in negative attributions, in particular, dehumanization by others.

Dehumanization has a rich history in social psychology literature. Although different conceptualizations abound, all frameworks center on the idea that dehumanized people are seen by others, or even by the self, as less than fully human (Haslam, 2006). Early work on dehumanization was confined to documenting evidence of extreme or overt prejudice – the literal description of others as nonhuman – and the consequences such perceptions have on moral disengagement and subsequent behavior (Bandura, 1999; Bar-Tal, 1989; Opatow, 2001). More recent work has shifted away from such blatant denials of humanness and has begun to examine subtler versions of dehumanization, indicating that it can occur in everyday interpersonal as well as intergroup settings alike (Haslam & Bain, 2007; Haslam et al., 2005;

Leyens et al., 2003). For example, people tend to dehumanize themselves and others after experiencing social ostracism (Bastian & Haslam, 2010), and socially connected individuals tend to dehumanize more socially distant others (Waytz & Epley, 2012).

Despite the prevalence and power of subtle dehumanization, it has been historically understudied in the literature and, to my knowledge, no work has explicitly examined the link between attitudinal ambiguity and perceptions of humanity. Accordingly, across two chapters, I aim to unite the two streams of literature, providing further evidence of dehumanization as it relates to attitudes in common, but previously unexamined contexts. Chapter 1 examines perceptions of indifference as they pertain to subjective choice, finding that people dehumanize those who lack subjective preferences, like a favorite food or music, because they are seen as less distinct. Chapter 2 investigates perceptions of sociopolitical undecidedness, revealing that people attribute less mind to those who are undecided on sociopolitical issues, such as abortion and gun control, compared to those with whom the perceiver agrees and, in some cases, disagrees politically. Taken together, this research documents a hidden cost of withholding one's preferences and opinions.

Chapter 1: A Preference for Preference: Lack of Subjective Preference Evokes Dehumanization

Abstract

The current research examines the link between subjective preferences and humanity. Six studies ($n = 1,812$) find that people dehumanize others who are perceived to lack subjective preference. Establishing the basic effect, a person without preferences is perceived as less human than someone with preferences (Studies 1-4), and this effect is driven by the perception that the person lacks a distinct identity (Studies 1-4). The effect also occurs regardless of whether the preference is positive or negative (Study 3). Examining downstream consequences, I found that a service representative lacking preference was evaluated more negatively, and that this effect was stronger for tasks requiring human mindfulness (Study 5). The dehumanization effect extends beyond perceptions of the person to negatively affect perceptions of the work the person produces (Study 6). The present article identifies a novel determinant of dehumanization and discusses implications for social interactions and impression management.

Introduction

Imagine you are at dinner during a job interview with some potential new colleagues. The dinner is going well, you are having a good time, and you want to make a good impression so you can receive an offer. The conversation turns to the current slate of movies in the theaters, many of which you have seen. Your favorite is a feel-good romantic comedy, a typical preference for you. When your fellow diners ask for your opinion on the current slate, you freeze. On the one hand, you want to be forthcoming with your potential new colleagues, but you also feel some embarrassment regarding the movie that you prefer. Deciding to play it safe, you mention that

you don't have a preference among the set of movies currently showing before changing the subject. But you cannot help but wonder – how did your potential colleagues feel about this non-answer? Did it change their perception of you?

Situations like the one described are not uncommon, with the intuition to clam up being a popular response. Indeed, preferences (i.e., favorite hobbies, aesthetic preferences, and personal life goals) are an essential part of our identities (e.g., Allport, 1937; Blok, Newman, & Rips, 2005; Gelman, Heyman, & Legare, 2007; Gollwitzer & Kirchhof, 1998; Haslam, Bastian, & Bissett, 2004) and because of their idiosyncratic and personal nature, revealing them to others might seem threatening. People may fear that their preference will be negatively evaluated by others, as in the interview example, or that revealing personal information such as favorite sports teams or hobbies on a resume will be seen as unprofessional or a little too folksy. In cases such as these, some people may mimic the choices of others in order to be liked (Bearden & Etzel, 1982; Childers & Rao, 1992), while others may purposely avoid indicating a preference altogether.

How does failing to express a subjective preference – partiality for one alternative over others – affect others' perception of us? Although prior research has provided some evidence regarding when people will withhold preferences or mimic others' choices (Anderson, 2003; Bearden & Etzel, 1982; Childers & Rao, 1992; Dhar, 1996; Iyengar & Lepper, 2000), the literature does not provide insight into how people react to someone who does not appear to have a preference at all. The present research fills this gap and challenges the presumed benefits of withholding preference. I suggest that because holding a preference is an important part of what makes us human, specifically that it is a component of possessing an individual, personal identity, when we fail to express our preferences, we are perceived as less human.

Consequentially, people who fail to express a subjective preference are evaluated negatively, with

consequences for evaluations of workers and the work they produce, especially for work that requires the capabilities of a human mind.

Preferences and Identity

On its face, the act of withholding information about our preferences appears at odds with existing work on identity, which has found that people desire to be unique, both inwardly and outwardly to others, and behave in ways that set themselves apart from other people (Brewer, 1991; Snyder & Fromkin, 1980; Tian, Bearden, & Hunter, 2001). Because our likes and dislikes are highly idiosyncratic, expressing them allows us to further our uniqueness goals and differentiate ourselves from others (Breakwell, 1986; Brewer, 1991; Maslach, 1974; Vignoles, Chryssochoou, & Breakwell, 2000). For example, people use and display unique products to distinguish themselves from the masses (Snyder & Fromkin, 1980; Tian, Bearden, & Hunter, 2001) and discontinue using goods once their adoption becomes widespread (Thompson & Haytko, 1997). Crucially, however, this desire for distinctiveness is balanced by a countervailing need for belonging that motivates us to assimilate with others (Baumeister & Leary, 1995; Vignoles et al., 2006), prompting conformity. We strive to optimally satisfy both opposing needs simultaneously (Brewer, 1991; 2003), but, depending on the context, we may be motivated to prioritize the fulfillment of one need at the expense of the other (Leonardelli, Pickett, & Brewer, 2010). For example, the experience of social exclusion prompts people to mimic the behavior of others to restore feelings of belonging, thereby inhibiting their uniqueness (Lakin, Chartrand, & Arkin, 2008).

Beyond their role in self-expression, preferences concurrently inform peoples' interpersonal judgments; people make inferences and form impressions of us based on what we like and dislike. For example, people infer our personalities from information about our taste in music, choice of bedroom and office décor, clothing preferences, and even email addresses (Back,

Schmukle, & Egloff, 2008; Burroughs, Drews, & Hallman, 1991; Gosling, Ko, Mannarelli, & Morris, 2002; Rentfrow & Gosling, 2006; Rentfrow, McDonald, & Oldmeadow, 2009).

Sometimes these attributes set us apart from others, and at other times they cause us to blend in with those with whom we share the same characteristics (Fiske & Neuberg, 1990; Tajfel, 1979).

Whether others individuate us or categorize us into a social group depends largely on the perceivers' motivations, as well as on the ease with which our attributes fit into different social categories (Fiske & Neuberg, 1990). For example, someone who likes to mountain bike might be characterized as an 'outdoorsy' type of person to the extent that this category easily comes to mind. This information, in turn, influences others' subsequent expectations of, and responses to, our behavior in future interactions (e.g., Billig & Tajfel, 1973; Brewer & Silver, 1978).

Thus, people use preferences to express themselves and achieve different goals they have, be that standing out or blending in. Preferences allow people to express how they differ from and relate to others because people attend to and make inferences about others based on what they like and dislike. Given that preferences are a crucial component of identity formation and person perception, is it possible that withholding our preferences in service of affiliation goals, as in the opening example, hinders the uniqueness of the identity we project and that others perceive? And if so, might people dehumanize others who withhold a preference?

Conceptualizations of Dehumanization

Before turning to the process by which lacking preferences may influence person perception, I first address what it means to dehumanize others. At its most basic level, dehumanization involves "denial of a mind" – the perception that a person is unable to think or feel (Gray, Gray & Wegner, 2007; Haslam, 2006; Kteily, Bruneau, Waytz, & Cotterill, 2015; Leyens et al., 2003; Waytz & Epley, 2012). Although early work on dehumanization was confined to documenting cases of extreme or overt prejudice, for example, associated with group

violence and even genocide, more recent work has begun to examine more subtle versions of dehumanization that can occur in everyday interpersonal and intergroup settings (Haslam & Bain, 2007; Haslam et al., 2005; Leyens et al., 2003). For example, people tend to dehumanize themselves and others after experiencing social ostracism (Bastian & Haslam, 2010), and socially connected individuals tend to dehumanize more socially distant others (Waytz & Epley, 2012).

Traditionally, this literature distinguishes between two forms of dehumanization, animalistic and mechanistic, each of which deny a person different human attributes. Animalistic dehumanization is characterized by the denial of attributes that separate humans from animals, that is, perceiving someone as less civil, moral, or capable of higher cognition, but still able to express emotion. This form of dehumanization typically arises at the intergroup level and is often discussed in the context of race and in situations dealing with immigration and genocide (Chalk & Jonassohn, 1990; Kelman, 1976). For example, immigrants are commonly compared to animals and infectious diseases, and black players have been treated as apes and pummeled with bananas during European football games (CNN, 2014). Treating a person as an animal denies that person higher order cognition, but not the experience of emotions (i.e., anger).

Dehumanization can also take on another, mechanistic form, which is characterized by the denial of attributes that separate humans from machines. Victims of mechanistic dehumanization are commonly perceived as less feeling and attributed “robotic” traits such as coldness and rigidity. Such mechanistically dehumanized entities are also speculated to be lacking individuality (Haslam, 2006). Compared to animalistic dehumanization, this form more commonly occurs in interpersonal situations, as it indexes the extent to which we see relatedness (or lack thereof) in others (Haslam et al., 2005; Haslam, 2006; Haslam & Bain, 2007) and is typically discussed in the context of technology and medicine (Christoff, 2014; Haque & Waytz, 2012; Montague & Matson, 1983). For example, successful businesspeople are often likened to

robots incapable of experiencing emotions and medical patients' bodies are seen as malfunctioning machines that need to be repaired (Haque & Waytz, 2012). These examples of mechanistic dehumanization highlight that one's perception of feeling is deficient.

Preferences and Perceived Humanity

As noted above in my discussion of person perception, people make inferences about our identity from our preferences, that is, what social categories we belong to and what makes us distinctive. Central to the present research is recognition that being seen as holding a distinct identity, in turn, is an important part of what makes us seem human. Indeed, a major factor thought to cause dehumanization is deindividuation (Kelman, 1976; Zimbardo, 1969; Haslam, 2006). When an individual is anonymized or stripped of their personal identity, they are more likely to be dehumanized. Indeed, people attribute more mind to a distinct individual than to an individual that is perceived to be similar to a group (Morewedge et al., 2013), and conversely, framing a group to emphasize the individuals within a group, as opposed to the overall group, substantially increases mind perception (Cooley et al., 2017). This suggests that perceptions of others' humanity are intimately connected with perceptions of their individuality, such that being indistinct can lead to dehumanization by others.

More specifically, I predict that lacking a preference causes mechanistic dehumanization, rendering one's outward identity indistinct or generic. Subjective preferences serve as cues from which others make inferences about a person's identity. A person without a preference is perceived as generic, such that their identity appears substitutable with that of others, increasing their similarity to automatons. Indeed, whereas animalistic dehumanization denies one a *restrained* mind, mechanistic dehumanization denies one a *unique* mind, rendering one shallow, passive, and as a result, effectively fungible.

The prediction that lacking a subjective preference leads to mechanistic dehumanization is foreshadowed by prior work. For example, research has found that uniforms, which reduce distinctiveness and increase perceived fungibility, trigger mechanistic dehumanization (Haney, Banks, & Zimbardo, 1973; Hetey & Eberhardt, 2014). Furthermore, whereas intergroup settings lend themselves to animalistic dehumanization, the interpersonal contexts I study more commonly facilitate mechanistic dehumanization, as originally theorized by Haslam (2006). Indeed, mechanistic dehumanization represents a perception of lack of relatedness that negatively impacts meaningful social interactions.

In sum, I theorize that lacking preference for a specific choice outcome reduces the uniqueness of a person's identity. Hence, I predict and test whether the effect of preference on mechanistic dehumanization is driven by perceived *distinctiveness*: A person who lacks (vs. has) preference is perceived as less distinct, which mediates the relationship between preference and mechanistic dehumanization.

This predicted role of distinctiveness stands in contrast to the ease of categorizing one's identity. When making inferences about others, people focus on what sets a person apart from everyone else (i.e., what makes them distinct), but at the same time, they also try to get a clear sense of who the person is in order to categorize them into social groups. I reason that distinctiveness and clarity of identity are two separate components in person perception (Fiske & Neuberg, 1990). To illustrate, person A, who has a commonplace preference for football among other team sports is likely perceived as less distinct than person B, who has a more unusual preference for korfbal. However, the identity of person A, who possesses the commonplace preference, may be perceived more clearly, such that the perceiver can more easily categorize person A as being a specific "type" of person they are familiar with (i.e., the football fan). In this way, perceptions of distinctiveness at the individual level could diverge from clarity regarding

that identity's "category" at the group level. I accordingly measure both distinctiveness and clarity of identity, with the expectation that personal distinctiveness in particular underlies the predicted effect; lacking a preference causes dehumanization by reducing perceived distinctiveness, as dehumanization occurs when people deny others a human mind. On the other hand, perceived clarity is less likely to affect dehumanization, as the ability to easily categorize people matters more for affiliation goals than attributions of human mindfulness.

My theory hinges on the idea that lacking preference dehumanizes because it shows that one's identity is indistinct or generic, regardless of whether that preference is positive or negative. I accordingly test whether both positive preferences (liking a particular option) and negative preferences (disliking a particular option) serve to differentiate one from others. As such, I address an alternative explanation that this effect is driven by valence – that failing to express a preference is dehumanizing because it is perceived as more negative than expressing a preference. I expect greater dehumanization when lacking a preference than when holding a negative preference (i.e., "anti-preference"). That is, I posit that without preference to distinguish one from others, regardless of whether the preference is positive or negative, indifference causes one to outwardly assume a generic identity, becoming more substitutable and thus subtly more robotic in the eyes of others. This outcome suggests that even stating the option one likes the least could prevent dehumanization, which might be especially useful when one is nervous about revealing a potentially unpopular preference.

Consequences of Dehumanization from Lacking Preference

Given the association between preferences and mechanistic dehumanization via perceptions of distinctiveness, lacking preference might have downstream consequences for one's professional reputation. Indeed, information on preferences is often communicated professionally on businesses' websites that provide personal profiles of their employees and is also commonly

conveyed during the job interview process, during which candidates are often wined and dined and where interviewers are assessing perceived fit with the company culture.

I predict that lack of preference can harm one's professional reputation, but crucially, the reputational harm that a dehumanized person suffers will depend on the specific qualities and characteristic perceived as necessary to perform the task. Given that lacking preference causes mechanistic dehumanization, those without preference may be judged more harshly on tasks perceived as requiring a human mind. This prediction draws on research suggesting that people trust automatons less for subjective (vs. objective) tasks (Castelo, Bos, & Lehmann, 2019) and that they are more willing to endow robots with cognitive (vs. emotional) abilities (Gray et al. 2007). I thus reasoned that lacking preference would more negatively impact someone's reputation when the task requires more mindful activities, such as creative idea generation (i.e., those that are subjective and perceived as being performed less successfully by a robot). Conversely, the effect of lacking a preference on negative evaluations should attenuate for tasks not perceived as requiring a human mind, as is the case for a technical job requiring number-crunching. Indeed, perceived lack of humanity is less relevant to anticipated performance on such a task, given that a calculator, for example, could perform similarly well.

Moving beyond perceptions of the person, I also anticipate that lack of preference will degrade perceptions of the work that said person produces. Recent research on intention-based contagion suggests that objects designed by a person are believed to acquire their essence, even if the person did not physically touch the objects (Stavrova, Newman, Kulemann, & Fetchenhauer, 2016). For example, a sweater designed by an immoral person, such as Hitler, is valued less than one designed by someone described as moral or neutral. This work suggests that dehumanizing a person via a lack of preference will further impact perceptions of their work, weakening perceptions of its value and causing it to take on mechanistically dehumanized properties, such as

genericity (i.e., similar to how robots are perceived as generic and undifferentiated). I expect this effect to be particularly relevant for jobs perceived to require a human mind (e.g., interior design or architecture), the success of which are determined by the designer's ability to be open-minded, responsive to another's needs, and creative.

Definition of Preference

In my studies, I operationalize "preference" as partiality for one alternative over others, constrained by the options at hand. This definition renders the notion of having preference context dependent, a limitation I address in the General Discussion but that also warrants consideration here. For instance, for a diner eating out with a group, lacking preference over dessert is defined over the set of desserts central to the choice for the last course. Moreover, the choice decisions used in each of my studies assume alternatives that are sufficiently numerous and with appreciable variability. Choice decisions that involve only a few alternatives that are highly similar to one another may not evoke dehumanization. For example, someone who does not have a preference among wines when presented with a choice between only Merlot and Pinot Noir may not be dehumanized to the same extent as when the choice involves many alternatives from a larger category (such as all beverages) because the former choice set is small and the options are relatively undifferentiated.

Overview of Studies

Six studies examined the effect of lacking preference on mechanistic dehumanization, with downstream consequences for work evaluations. Study 1 first tested whether indifference leads to dehumanization and whether this is mediated by perceptions of having a distinct identity. To test this, I adopted a scenario from Strohinger and Nichols (2014). This prior research demonstrated that lacking preference reduces perceptions of identity. I extended this to a novel hypothesis, examining whether such lack of preference causes dehumanization. Study 2

conceptually replicated and extended this basic effect to an everyday decision context. Study 3 tested whether lacking preference leads to dehumanization compared with holding a positive preference (i.e., most liked option) and with holding an “anti-preference” (i.e., most disliked option), thereby addressing alternative accounts based on good-naturedness or positivity associated with favoring an option. Study 4 additionally shows that generic preference leads to greater dehumanization than unique preference. I thus provide process evidence for the underlying role of distinctiveness through mediation (Studies 1-3) and moderation (Study 4).

Studies 5 and 6 examine important downstream consequences predicted by my theory. Study 5 examined whether the effect alters perceptions of a person’s reputation and whether this is stronger for tasks perceived to require a human mind (i.e., creative vs. technical tasks). Study 6 then examined whether the effect extends beyond the self to assessments of a person’s work.

Study 1: Lack of Preference Causes Dehumanization (The Brain Transplant)

I examine the prediction that having a preference (vs. not) leads to perceptions of unique identity, which causes perceptions of humanity. Participants read a scenario adapted from Strohminger and Nichols (2014), which described a patient who underwent partial brain transplant surgery following brain trauma. I manipulated whether the transplant recipient was described as experiencing no cognitive change after undergoing surgery (control condition) or as losing all of his preferences and desires, effectively becoming indifferent (indifference condition). I then measured animalistic and mechanistic dehumanization of the transplant recipient. I predicted that lacking preference evokes dehumanization, such that participants would rate the recipient as significantly less human if he becomes indifferent post-surgery than if he experiences no psychological change. I expected this effect to be stronger for mechanistic dehumanization, which is more typically found in interpersonal contexts, compared with animalistic dehumanization.

I further examined my proposed mediator – distinctiveness (i.e., how generic or distinct an individual is perceived), along with an alternative mediator, ease of categorizing the person (i.e., whether they have a clear idea of who this person is). My theory predicts that perceived distinctiveness, but not clarity, underlies the effect.

Method

Participants. A total of 105 US-based Mechanical Turk workers (58.10% men; $M_{age} = 34.83$, $SD = 10.91$) participated for \$0.35. I pre-determined this sample size to have over 80% power to detect a small to medium sized interaction effect (e.g., $\eta_p^2 = .06$) based on a pilot study.

Procedure. Study 1 employed a 2 cell (cognitive impairment condition: control vs. indifference) between-participant design. All participants read one of two versions of the Study 1 scenario used by Strohminger and Nichols (2014), which described a man named Jim who was severely injured in a car accident and had to undergo brain surgery with varying results. Participants in the control condition read that, post-surgery, Jim “thinks and acts the same way as before the accident.” Participants in the indifference condition read that Jim “no longer has any preferences - he doesn't have any of the likes or dislikes he had before the accident. Aside from this, he thinks and acts the same way as before the accident.”

After reading the story, participants answered a comprehension check question about the type of cognitive impairment (if any) Jim experienced after his surgery. As my main measure of dehumanization, participants rated post-surgery Jim on 17 measures designed to gauge blatant dehumanization (Kteily et al., 2015, adapted from Bastian & Haslam, 2010), 6 of which measured mechanistic dehumanization ($\alpha = .83$): (1) mechanical and cold, (2) lacking in passion, (3) superficial, lacking in depth, (4) emotional, responsive and warm (reverse-coded), (5) passive, submissive, (6) open-minded, able to think clearly about things (reverse-coded) and 11 of which measured animalistic dehumanization ($\alpha = .85$): (1) mature, responsible (reverse-coded), (2)

rational and logical (reverse-coded), (3) backward, primitive, (4) savage, aggressive, (5), barbaric, cold-hearted, (6) unsophisticated, (7) refined and cultured (reverse-coded), (8) lacking self-restraint, like animals, (9) scholarly, cerebral (reverse-coded), (10) coarse, boorish, (11) lacking morals (1 = *not at all*; 7 = *extremely so*). The items were presented in two blocks (animalistic vs. mechanistic), with items randomized within each block. Block order was counterbalanced.

To assess the underlying mechanism, I measured distinct identity: “When you imagine Jim, to what extent does he seem generic or like a distinct individual?” (1 = *generic*, 7 = *distinct*). I also asked participants to rate how clearly Jim fit into the mold for a particular kind of person when they tried to imagine him: “Why you try to imagine Jim, how clear of a picture of his identity comes to mind?” (1 = *vague identity*, 7 = *clear identity*).

Results

A repeated-measures ANOVA of preference condition (indifference vs. control) on dehumanization (animalistic vs. mechanistic) revealed a significant interaction, as predicted, $F(1, 101) = 11.13, p = .001$ (Figure 1). A person lacking preference (vs. not) was perceived as significantly more mechanistic ($M_{\text{Indifference}} = 3.86, SD = 1.18; M_{\text{Control}} = 2.74, SD = 1.21$), $t(103) = 4.81, p < .001$, which significantly attenuated for animalistic dehumanization ($M_{\text{Indifference}} = 3.12, SD = 1.01; M_{\text{Control}} = 2.62, SD = 1.03$), $t(103) = 2.50, p = .014$. There was a main effect of dehumanization type ($M_{\text{Mechanistic}} = 3.33, SD = 1.31; M_{\text{Animalistic}} = 2.88, SD = 1.04$), $F(1, 101) = 23.42, p < .001$, and no main effect or interactions involving presentation order, $F_s < 1.41, p_s > .238$.

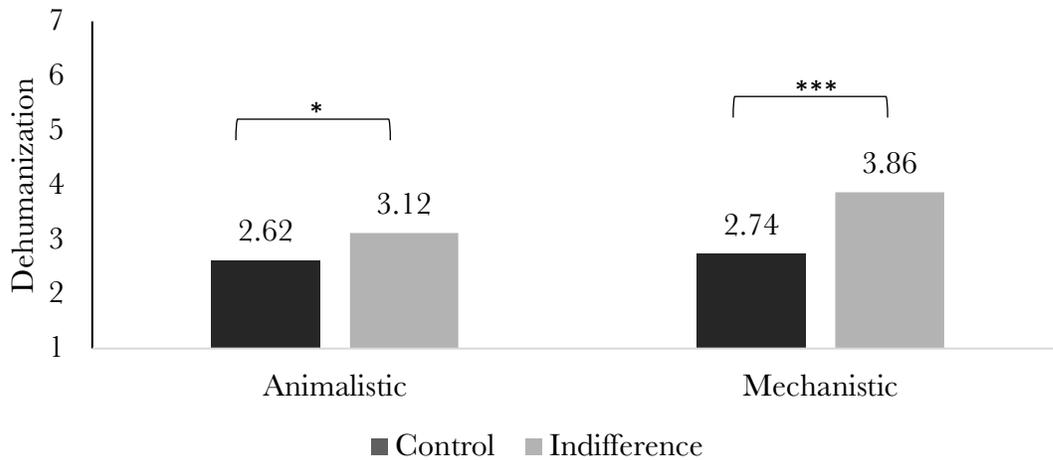


Figure 1. Animalistic and mechanistic dehumanization ratings in Chapter 1, Study 1
 The effect of indifference is stronger for mechanistic (vs. animalistic) dehumanization. (* $p < .05$; *** $p \leq .001$)

I next examined the underlying mechanism. As predicted, a person lacking preference was perceived as significantly less distinct compared with the control ($M_{\text{Indifference}} = 3.62$, $SD = 1.79$; $M_{\text{Control}} = 4.88$, $SD = 1.76$), $t(103) = 3.64$, $p < .001$. Clarity showed a similar pattern; an indifferent (vs. control) person’s identity was perceived as significantly less clear ($M_{\text{Indifference}} = 4.04$, $SD = 1.77$; $M_{\text{Control}} = 4.92$, $SD = 1.69$), $t(103) = 2.61$, $p = .01$.

My theory predicts that distinctiveness perceptions mediate the relationship between preference (or lack thereof) and dehumanization. In line with my prediction, I found that lack of distinctiveness mediated the effect of indifference (vs. control) on mechanistic dehumanization ($\beta_{\text{Indirect}} = .25$, $SE = .13$, 95% CI = [.04, .55]; unless otherwise noted, all mediation analyses used PROCESS Model 4 based on 10,000 resamples; Hayes, 2012), while there was no significant mediation though perceived clarity ($\beta_{\text{Indirect}} = .04$, $SE = .08$, 95% CI = [-.13, .20]).

Discussion

Study 1 demonstrated that individuals described as lacking preference due to a cognitive impairment were perceived as mechanistically less human than those described as being

unimpaired, providing initial support for my main hypothesis. Lacking a preference had a stronger effect on mechanistic dehumanization than on animalistic dehumanization, in line with prior research demonstrating that mechanistic dehumanization more commonly arises in interpersonal situations, whereas animalistic dehumanization more commonly arises in intergroup settings (Haslam 1996; 2006). Moreover, distinctiveness perceptions underlie the effect of lacking preference on mechanistic dehumanization. On the other hand, clarity perceptions did not mediate the effect, suggesting that clarity and distinctiveness tap into separate constructs. I continue to measure clarity in Studies 2-3 (see Web Appendix A for results), but focus my analysis on distinctiveness specifically, as distinctiveness drives the effect on dehumanization.

Having demonstrated initial evidence for my predictions using a scenario from the literature (Strohmingner & Nichols, 2014) and using previously validated measures of dehumanization (Bastian & Haslam, 2010; Kteily et al., 2015), my next study provides further evidence for this finding in a more realistic setting.

Study 2: Lack of Preference Causes Dehumanization (The Massage)

In Study 2, participants read a scenario about a person getting a massage. I emphasized the hedonic nature of the choice to address an alternative account for Study 1, that a person lacking preference is dehumanized simply because he is perceived as unfeeling (i.e., that he cannot feel pleasure). To manipulate lack of preference, I described a person who preferred a specific massage or was indifferent between four massage options. I further described preference for a massage (or lack thereof) as a personal belief, ruling out a possible alternative explanation that dehumanization simply comes from social concerns about lacking preference.

After reading this scenario, I assessed mechanistic and animalistic dehumanization and distinctiveness. I predicted that lacking preference evokes mechanistic dehumanization, such that

people perceive a person lacking preference as less human than one holding a preference, and that distinctiveness would underlie these perceptions.

Method

Participants. A total of 402 US-based MTurk workers (57.70% men; $M_{\text{age}} = 36.17$, $SD = 11.00$) participated for \$0.35. I predetermined this sample size to have over 80% to detect a small to medium sized interaction effect based on a similar pilot study.

Procedure. Study 2 employed a 2 cell (preference condition: indifference vs. preference) between-participant design. All participants read a scenario adapted from Botti and McGill (2010). Specifically, they read: “Imagine that a man named John has been working really hard during the semester and achieved important academic successes. He thinks that a professional massage at a local spa renowned for the quality of their massage treatments would represent a great way to reward himself. The local spa has four different massage options to choose from. John is able to choose one of them keeping in mind that his goal is to maximize his enjoyment.”

Participants completed a comprehension check question about John’s goal for visiting the spa. They were then shown four different massage options (Swedish Massage, Deep Tissue Massage, Five Elements Massage, and Reflexology Massage) and short descriptions of each. After viewing the options, participants read that John was familiar with all of the options and chose a massage either based on his preference or the recommendation of the therapist. More specifically, those in the preference condition read: “Upon learning of his four massage options, John realizes that he is familiar with all of them. Although he thinks they all look great, he has a preference for Option 1, the Swedish Massage. John goes up to the therapist at the front desk and signs up for Option 1.” Those in the indifferent condition read: “Upon learning of his four massage options, John realizes that he is familiar with all of them. Although he thinks they all look great, he doesn't have a preference and is pretty much indifferent among the four options.

John goes up to the therapist at the front desk and asks her for her recommendation. John then signs up for Option 1, the Swedish Massage.” Thus, I held the chosen option constant across conditions and manipulated whether John held a preference for this option or not.

I framed this preference as an internal thought to separate preference *possession* from preference *expression* so as to remove any ambiguity as to what John’s true preferences (or lack thereof) were over the choice. In other words, I wanted to ensure that participants did not assume that John had a preference he was hiding, but that he truly had no preference.

Participants answered a comprehension check question about how John chose a massage to ensure they understood the scenario. As my main measure of dehumanization, participants rated John on the 17 dehumanization measures from Study 1 (mechanistic dehumanization: $\alpha = .76$; animalistic dehumanization: $\alpha = .91$; Bastian & Haslam, 2010; Kteily et al., 2015). Items were presented in two blocks, with items randomized within each block. Block order was counterbalanced. Participants then answered distinctiveness and clarity questions described in Study 1 (clarity results mirror Study 1 and are presented in Web Appendix A).

Results

A repeated-measures ANOVA of condition (indifference vs. preference) on dehumanization (animalistic vs. mechanistic) revealed a significant interaction, in line with my prediction, $F(1, 398) = 6.98, p = .009$ (Figure 2). John was perceived as significantly more mechanistic when described as indifferent ($M_{\text{Indifference}} = 2.88, SD = 1.01$; $M_{\text{Preference}} = 2.53, SD = 1.00$), $t(400) = 3.50, p < .001$. However, the difference between indifference and preference significantly attenuated for perceptions of animalistic dehumanization ($M_{\text{Indifference}} = 2.33, SD = .94$; $M_{\text{Preference}} = 2.17, SD = .95$), $t(400) = 1.70, p = .089$. There was a main effect of dehumanization type, with higher scores for mechanistic dehumanization ($M_{\text{Mechanistic}} = 2.70, SD = 1.02$; $M_{\text{Animalistic}} = 2.25, SD = .95$), $F(1, 398) = 163.60, p < .001$.

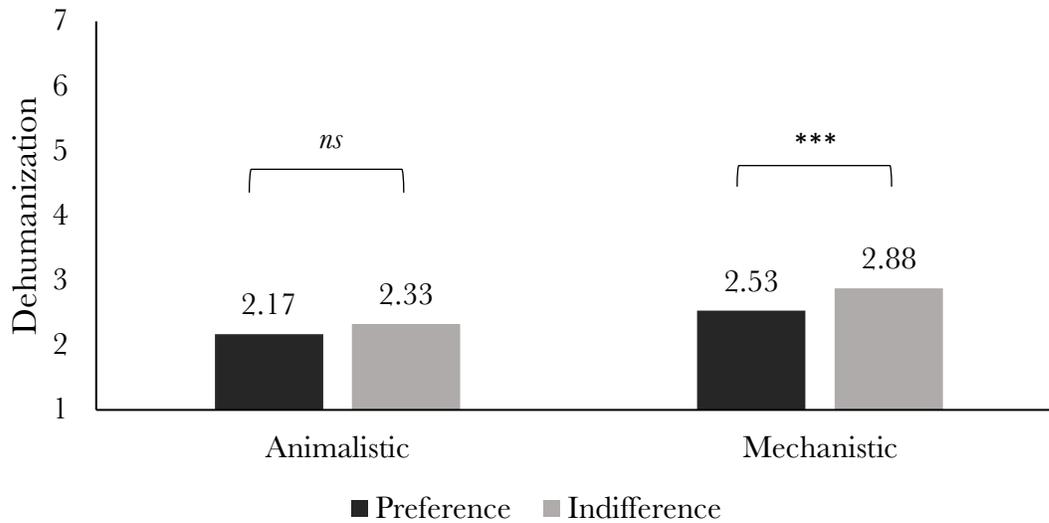


Figure 2. Animalistic and mechanistic dehumanization ratings in Chapter 1, Study 2
 The effect of indifference is stronger for mechanistic (vs. animalistic) dehumanization. (***) $p \leq .001$)

I next turned to the distinctiveness measure. As predicted, a person indifferent between massage options was perceived as significantly less distinct compared with a person holding a specific preference ($M_{\text{Indifference}} = 4.41$, $SD = 1.62$; $M_{\text{Preference}} = 4.02$, $SD = 1.60$), $t(400) = 2.42$, $p = .016$. In line with my theory, a mediational analysis revealed that distinctiveness perceptions mediated the effect of preference (v. lack thereof) on mechanistic dehumanization ($\beta_{\text{Indirect}} = -.08$, $SE = .04$, 95% CI = $[-.15, -.01]$).

Discussion

Study 2 extends the findings in Study 1, that those lacking preference are more dehumanized, to an everyday decision context. In line with Study 1, I again found that the effect of indifference (vs. preference) was stronger for mechanistic dehumanization than for animalistic dehumanization. My theory predicts that lacking preference (Study 1) and more specifically, lacking subjective preference (Study 2) dehumanizes because it removes one's humanity, making

one akin to a robot. As such, my remaining studies focus exclusively on this mechanistic dimension, and I no longer assess animalistic dehumanization moving forward.

Importantly, Study 2 also addresses several limitations posed by Study 1. Firstly, Study 2 documents the effect in a more relatable and realistic choice context (i.e., choice of massage). Secondly, unlike Study 1, in which I compared perceptions of someone who lacks preferences to a control character, in Study 2 I compared someone who lacks preference to someone with a specific preference.

Study 2 also rules out several alternative explanations for the effect. Firstly, one could argue that a person without a preference may be dehumanized because they are perceived as generally unable to feel pleasure (i.e., “Because he doesn’t have preference, he must not be able to experience enjoyment, and therefore he is a robot.”). However, my theory would predict that people will also dehumanize someone who lacks a preference for feeling too much pleasure and is unable to choose because they like all available options the same. Indeed, I posit that a person without preference is dehumanized due to lack of preference specifically, rather than an inability to feel pleasure from the outcome of the decision. I rule out inability to feel pleasure by leveraging a scenario that explicitly emphasizes the character’s interest in maximizing his enjoyment (i.e., signing up for a massage).

Secondly, often people who fail to express a preference actually have one but choose to withhold it for social reasons, as described in the opening paragraph. Thus, one could argue that participants may assume that the character does indeed have a preference but is failing to express and act on it. However, as the scenario described the inner thoughts of the character and not merely his outward expression of preference or lack thereof, it is unlikely that social or self-presentational concerns drive the observed effect.

Studies 1-2 demonstrate that people mechanistically dehumanize a person who lacks a preference that is otherwise positive (e.g., no preference for a massage). Because holding a preference in this situation could be seen as more positive than not holding a preference, it is unclear whether perceived positivity is driving these results. To address this, Study 3 compared a negative preference (i.e., a least favorite preference) with holding no preference.

Study 3: Lack of Preference (vs. “Anti-preference”) Causes Dehumanization

Studies 1-2 established the dehumanizing effect of lacking preference, yet neither study compared lack of preference with holding a negative preference, that is, an “anti-preference” (i.e., option disliked the most). From an impression-management perspective, holding an anti-preference might lead to negative consequences. Indeed, people regard individuals who criticize others as more intelligent, but less likeable (Amabile, 1983). What effect might it have on one’s perceived humanity, however? According to my theory, if dehumanization results from lacking preference more broadly, holding any preference, be that a positive or negative preference, should be perceived as similarly humanizing, as it serves to differentiate the individual from others. However, if dehumanization results from a lack of positive preference specifically, someone who expresses an anti-preference (i.e., option disliked the most), should be dehumanized similarly to someone who lacks a preference. To examine whether lacking preference dehumanizes even when compared with holding an anti-preference, Study 4 compared lacking preference with holding a positive and negative preference. That is, I introduced an “anti-preference,” wherein someone is described as having an option they dislike the most. The inclusion of the anti-preference condition further rules out the possibility that the effect is driven by a lack of fun, or anhedonia, as holding an anti-preference is negative in valence.

Participants were asked to read a scenario about two women, Alex and Beth, who were described as entering a sweepstakes for a free vacation. Half of participants read that one of the women indicated what her *most* preferred vacation destination was, while the other woman indicated that she didn't have a preference. The remaining participants instead read that one woman indicated what her *least* preferred destination was, while the other woman indicated that she didn't have a preference. Participants then rated both women on the mechanistic dehumanization measures from Studies 1-2 and rated the extent to which they could imagine both women as distinct people.

Method

Participants. A total of 203 US-based Prolific workers (51.50% men; $M_{\text{age}} = 34.36$, $SD = 12.75$) participated for \$0.45. I aimed for a minimum of 100 participants per cell and used this standard in the remaining studies.

Procedure. This study employed a 2 (valence: positive vs. negative, between-subjects) \times 2 (preference: preference vs. indifference, within-subjects) mixed model design.

Participants read that a popular hotel chain was offering a sweepstakes, with the chance to win a free 7-day vacation to one of six possible destinations. Participants in the positive valence condition read that entrants were asked what their *most* preferred vacation destination was from six options (Hawaii, Mexico, Napa and Sonoma, Costa Rica, Alaska, and Scotland). Participants in the negative valence condition read that entrants were asked what their *least* preferred vacation destination was from the same six options.

Participants read that two women, Alex and Beth, were entering the sweepstakes. In the positive-valence "preference" condition, one woman indicated that her most preferred destination was Hawaii. In the negative-valence "anti-preference" condition, one woman indicated that her least preferred destination was Napa & Sonoma. In both conditions, the other

woman indicated “Don’t have a preference.” Presentation order (preference vs. indifference) was counterbalanced. Participants then rated their impressions of both Alex and Beth on the six-item mechanistic dehumanization scale ($\alpha = .73$), as well as the distinctiveness measure used in Study 1. I also included the clarity measure used in prior studies (see Web Appendix A for results).

Results

A repeated-measures ANOVA of preference (indifference vs. preference) as the within-participants factor and valence (positive vs. negative preference) as the between-subjects factor on dehumanization revealed a significant main effect of preference. As predicted, participants perceived the indifferent character as significantly more mechanistic than the character with a preference ($M_{\text{Indifference}} = 3.36$, $SD = 1.12$; $M_{\text{Preference}} = 2.81$, $SD = .92$), $F(1, 199) = 32.97$, $p < .001$. There was also a significant interaction between preference and valence, $F(1, 199) = 6.81$, $p = .010$. More specifically, the effect of preference was stronger in the positive valence, “preference” scenario ($M_{\text{Indifference}} = 3.51$, $SD = 1.16$; $M_{\text{Positive preference}} = 2.71$, $SD = .95$), $t(102) = 5.27$, $p < .001$, than in the negative valence, “anti-preference” scenario ($M_{\text{Indifference}} = 3.20$, $SD = 1.05$; $M_{\text{Anti-preference}} = 2.90$, $SD = .88$), $t(99) = 2.61$, $p = .011$, although both effects were significant. There was no main effect of valence condition, $F(1, 199) = .27$, $p = .607$, nor effects involving counterbalancing, $F_s < 1.56$, $p_s > .213$.

I next examined distinctiveness. A repeated-measures ANOVA of preference condition (indifference vs. preference) and valence condition (positive vs. negative) on distinctiveness revealed a significant main effect of preference condition, such that the person without a preference ($M_{\text{Indifference}} = 3.49$, $SD = 1.54$) was perceived as less distinct than the one with a preference ($M_{\text{Preference}} = 4.08$, $SD = 1.53$), $F(1, 199) = 13.27$, $p < .001$. There was no main effect of valence, $F(1, 199) = .37$, $p = .544$, nor valence \times preference interaction, $F(1, 199) = .18$, $p = .668$, indicating that the effect of preference on distinctiveness was significant for the positive-

valence scenario, $F(1, 199) = 5.58, p = .019$, and negative-valence scenario, $F(1, 199) = 7.80, p = .006$. There was no main effect or interactions involving order, $F_s < .97, p_s > .325$.

My theory predicts that distinctiveness perceptions should mediate the relationship between preference (or lack thereof), regardless of valence, and dehumanization. In line with my theory, a mediational analysis revealed that distinctiveness perceptions mediated the effect of preference (or lack thereof) on mechanistic dehumanization ($\beta_{\text{Indirect}} = -.18, SE = .07, 95\% \text{ CI} = [-.33, -.07]$; MEMORE Model 1; Montoya & Hayes, 2017).

Discussion

Study 3 provides further evidence for the dehumanizing effect of lacking preference. Those with preferences, regardless of whether the preference was positive or negative in valence, were perceived as more distinct, and thus more human, than those who lacked a preference. This finding complements prior research suggesting that negativity can serve differentiation needs – more specifically, that people who have a high need for uniqueness are less willing to make positive recommendations about a product (Cheema & Kaikati, 2010) and negative product reviews are more differentiated than positive ones (Amabile, 1983). Beyond documenting further evidence for the theory, Study 3 examined the effect in a different context (travel) and leveraging a different design (within-subjects) than Studies 1-2, which speaks to the robustness of the effect.

Crucially, my theory hinges on the idea that lacking preference dehumanizes because it shows that one's identity is indistinct or generic. If this logic holds true, it would suggest that having a generic preference should also lead to dehumanization by others compared to having a unique preference because the former provides less distinction from others. For example, a preference for vanilla ice cream, which is extremely common, is more generic than a preference for maple bacon ice cream, which is much rarer, and thus the former preference should consequently lead to greater dehumanization. I investigate this possibility in Study 4.

Study 4: Generic (v. Unique) Preference Causes Dehumanization

Studies 1-3 examined mediation of lacking preference on dehumanization through distinctiveness. To make a stronger causal argument for this process, Study 4 examined moderation by preference distinctiveness. Specifically, I compared holding a unique preference versus no preference (as in Studies 1-3), and also with holding a generic (commonplace) preference. I predicted that, in line with the theory, people would dehumanize someone with no preference compared to someone with a preference, either generic or unique, but that people are more likely to dehumanize someone with a generic preference (vs. a unique preference).

Participants were asked to read a short scenario about a man named Mark who was dining with some friends. Some participants read that Mark preferred the vanilla ice cream (generic preference), while others read that he preferred the maple bacon ice cream (unique preference). The remaining participants instead read that Mark did not have a preference and was indifferent among the options. Participants then rated Mark on the mechanistic dehumanization measures from Studies 1-3 and, as a manipulation check, rated the extent to which they viewed him as a distinct person.

Method

Participants. I pre-registered this study (<http://aspredicted.org/blind.php?x=qh63g9>) and recruited a total of 311 US-based Prolific workers (46.3% men; $M_{\text{age}} = 33.20$, $SD = 11.40$) who participated for \$0.35.

Procedure. This study employed a 3 (preference: unique preference vs. generic preference vs. indifference) between-participants design.

Participants read that a man named Mark was at dinner with some new friends and the diners were placing orders for dessert. Participants in the unique preference condition read that Mark preferred and ordered the maple bacon ice cream from a choice of five options (vanilla,

rocky road, cookies & cream, mint chocolate chip, and maple bacon). Participants in the generic preference condition read that Mark instead preferred and ordered the vanilla ice cream. Those in the indifferent condition read that Mark did not have a preference and was indifferent among the option, so he chose a flavor randomly and ordered the vanilla ice cream. Thus, in the generic and no preference conditions, I held the outcome constant, but manipulated whether this outcome was driven by no preference or a generic preference.

Participants then rated their impressions of Mark on the six-item mechanistic dehumanization scale ($\alpha = .68$). I measured distinctiveness in this study as a manipulation check, given that this study manipulated degree of distinctiveness.

Results

Manipulation check. I first confirmed that my manipulation significantly affected distinctiveness. An ANOVA of preference condition (indifference vs. unique preference vs. generic preference) revealed a significant main effect of preference condition, $F(2, 308) = 40.36, p < .001$. The character without a preference was perceived as less distinct ($M_{\text{Indifference}} = 3.01, SD = 1.51$) than the one with a unique preference ($M_{\text{Unique Preference}} = 4.84, SD = 1.70$), $t(207) = -8.43, p < .001$. The character with the generic preference was also perceived as less distinct than the character with a unique preference ($M_{\text{Generic Preference}} = 3.35, SD = 1.47$), $t(207) = -6.87, p < .001$, with no significant difference between no preference and generic preference, $t(205) = 1.56, p = .120$.

Hypothesis testing. An ANOVA with the three preference conditions (indifference vs. unique preference vs. generic preference) serving as the between-participants factor revealed a significant main effect of preference condition $F(2, 308) = 41.80, p < .001$. As predicted, participants perceived the indifferent character as significantly more mechanistic than the character with a unique preference ($M_{\text{Indifference}} = 3.72, SD = .85; M_{\text{Unique Preference}} = 2.63, SD =$

.78), $t(207) = 9.14, p < .001$, as well as the character with a generic preference ($M_{\text{Generic Preference}} = 3.18, SD = .94, t(205) = 4.50, p < .001$). Also in line with my prediction, participants perceived the character with a generic preference as more mechanistic than the character with a unique preference $t(207) = 4.62, p < .001$.

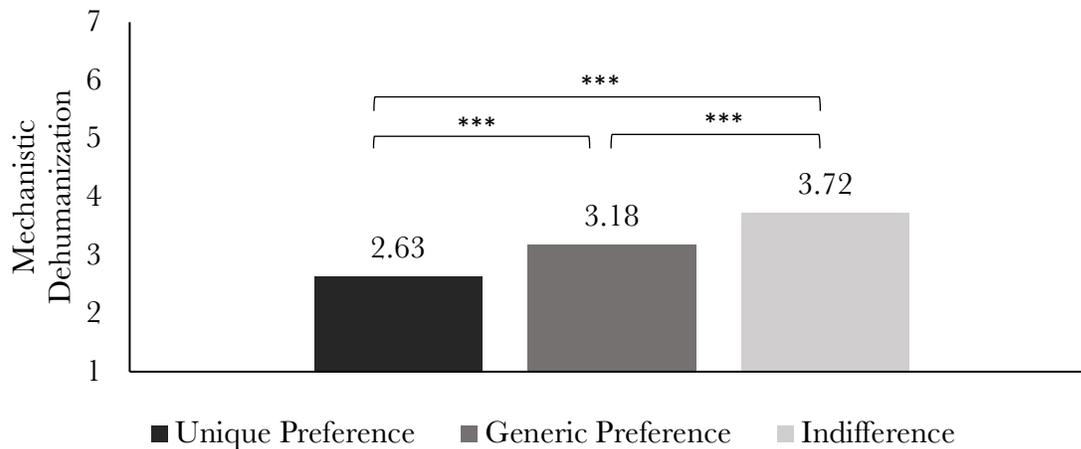


Figure 3. Preference uniqueness on mechanistic dehumanization in Chapter 1, Study 4
 A person with a generic preference is mechanistically dehumanized more than someone with a unique preference, but less than someone without a preference. (***) $p \leq .001$)

Discussion

Study 4 provided further evidence for the proposed process – that lacking preference leads to dehumanization, at least in part, because it causes a person to be perceived as less distinct. Indeed, even someone with a generic preference was dehumanized compared with someone holding a unique preference, precisely because their commonplace preference failed to sufficiently differentiate them from others to the same degree.

Having replicated the basic effect of lack of subjective preference on mechanistic dehumanization and provided evidence for the proposed mechanism in four separate studies, my remaining studies examine downstream consequences that follow from expressing a lack of

preference. Given that information about subjective preferences is commonly communicated by applicants during the interview process and even conveyed by businesses via their online employee profiles, I examine whether lacking preference impairs a person's reputation and the work they produce as it relates to having a more human mind. Specifically, the next study tested whether people judge service providers and their work more negatively if service providers fail to express preference (or not), and examine the conditions under which this effect is likely to be stronger.

Study 5: Moderation by Need for a Human Mind

So far, I have documented that lack of preferences causes dehumanization. Study 5 was designed to provide additional evidence of the process and to demonstrate a downstream consequence of this effect for evaluation of a person's reputation. I predicted that a lack of preference negatively impacts the expectation of someone's performance. I expected this to be stronger in situations when consumers desire a creative skillset (i.e., a more human mind) than a technical skillset (i.e., a more robotic mind).

I asked participants to consider hiring an interior designer to renovate their bedroom. I manipulated whether participants were looking to hire an interior designer with a creative skillset or a technical skillset. I reasoned that for an interior designer to personalize a room, they need traits that are at odds with mechanistic dehumanization (i.e., creativity, empathy), whereas technical skills can be found in both humans and mechanistically dehumanized entities. This is in line with prior research which demonstrated that businesspeople are perceived as rational and self-controlled, but lacking emotion and warmth and are hence associated with robots (Loughnan & Haslam, 2007).

I further manipulated whether the interior designer was described as indifferent or having preferences and measured participants' satisfaction with the designer. I predicted an interaction

between task requirement (creative vs. technical skills) and preferences (present vs. absent), such that participants would be less satisfied with an indifferent designer (vs. one with preferences) when the interior design project required more creativity in the form of personalization. However, I expected this effect of preference on satisfaction to weaken for a project requiring more technical skills. I further tested whether this interaction effect is mediated by mechanistic dehumanization, such that lacking (vs. holding) a preference reduces satisfaction with a worker via mechanistic dehumanization when creativity is required, which would attenuate when technical skills are required (i.e., moderated mediation).

Method

Participants. I pre-registered this study (<https://aspredicted.org/blind.php?x=57hu5p>) and recruited 435 US-based Prolific workers (42.8% men; $M_{\text{age}} = 33.06$, $SD = 12.05$) for \$0.45.

Procedure. This study employed a 2 (interior designer preference: indifference vs. preference) \times 2 (task requirements: creative vs. technical) between-participant design.

Participants considered redesigning a bedroom, and viewed a picture of the room they wanted to hire an interior designer to help them renovate. They learned that they had provided an interior design firm with a general idea of what they were looking for, and an interior designer would be chosen for them.

In the creative condition, participants learned that they were looking for an interior designer who was warm and would create a personalized and comfortable atmosphere because they were seeking the designer's help with design choices. Participants in the technical condition learned they were looking for someone competent, who would be efficient and leave little room for error, as they needed the representative's help with technical details.

Participants then viewed a profile of an interior designer named Mark. The profile included a picture, two "fun facts" about Mark's favorite food and music, as well as several pieces

of work-related information (e.g., education and industry experience). All information was identical across conditions, with the exception of answers to the “fun fact” questions about favorite food and music. Those in the preference condition read: “New York style pizza with basil and hot oil,” and “Classic rock and hip-hop,” respectively. Those in the indifferent condition instead saw the following response to both prompts: “Don’t have a preference.”

Participants answered two comprehension check questions, rated the designer on the six-item mechanistic dehumanization scale from Studies 1-4 ($\alpha = .82$), and indicated their satisfaction with the interior designer by answering “How pleased are you with the service representative that was chosen for your project?” (1 = *not at all pleased*; 7 = *very pleased*).

Results

An ANOVA of preference condition (indifference vs. preference) and task requirement (creative vs. technical skills) on mechanistic dehumanization revealed a main effect of preference; mechanistic dehumanization was greater in the indifference (vs. preference) condition ($M_{\text{Indifference}} = 3.73$, $SD = 1.10$; $M_{\text{Preference}} = 2.74$, $SD = .99$), $F(1, 431) = 87.03$, $p < .001$, consistent with my main hypothesis. There was no significant effect of task requirement $F(1, 431) = 1.57$, $p = .211$. There was a significant interaction between preference condition and task requirement, $F(1, 431) = 4.08$, $p = .044$, such that the indifferent character (vs. character with preference) was dehumanized to a greater degree in the creative condition ($M_{\text{Indifference}} = 3.89$, $SD = 1.15$; $M_{\text{Preference}} = 2.70$, $SD = 1.03$), $t(216) = 8.03$, $p < .001$, than in the technical condition ($M_{\text{Indifference}} = 3.56$, $SD = 1.03$; $M_{\text{Preference}} = 2.78$, $SD = .96$), $p < .001$, though both contrasts were significant.

I next examined satisfaction with the interior designer. In line with my theorizing, an ANOVA of preference condition and task requirement on satisfaction resulted in a significant interaction, $F(1, 431) = 9.96$, $p = .002$ (Figure 4). Participants seeking a person to help them personalize their room were less satisfied when Mark lacked (vs. had) preferences ($M_{\text{Indifference}} =$

3.65, $SD = 1.59$; $M_{\text{Preference}} = 4.99$, $SD = 1.30$), $F(1, 431) = 52.94$, $p < .001$. However, this effect of preference significantly attenuated when participants were looking for a technical skillset ($M_{\text{Indifference}} = 4.63$, $SD = 1.24$; $M_{\text{Preference}} = 5.15$, $SD = 1.30$), $F(1, 431) = 7.85$, $p = .005$. There was a main effect of task type ($M_{\text{Technical}} = 4.89$, $SD = 1.29$; $M_{\text{Creative}} = 4.31$, $SD = 1.60$), $F(1, 431) = 18.81$, $p < .001$, and preference condition ($M_{\text{Indifference}} = 4.13$, $SD = 1.51$; $M_{\text{Preference}} = 5.07$, $SD = 1.30$), $F(1, 431) = 50.73$, $p < .001$.

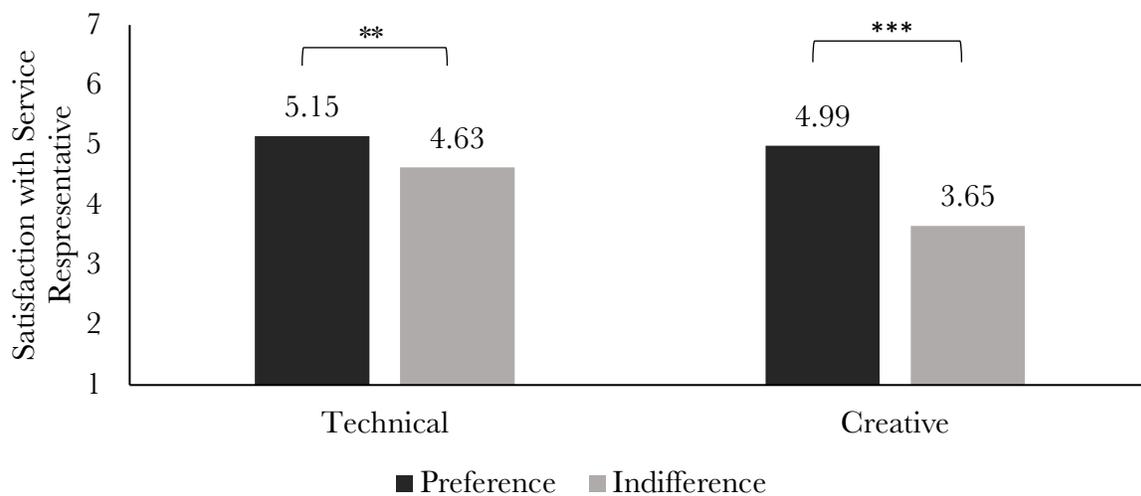


Figure 4. Satisfaction with service representative in Chapter 1, Study 5
 The degree of satisfaction with the service representative was moderated by the nature of the task. (** $p < .01$; *** $p < .001$).

According to my theory, the effect of preference via dehumanization on how pleased people are with the service representative should depend on the type of task the representative is engaging in. More specifically, my model predicts a first-stage interaction between preference (present vs. absent) and job skills required (technical vs. creative), such that people are less pleased with a service representative they are hiring for a job requiring more creative (vs. technical) skills who expresses no preference (vs. a preference), and that this is mediated by mechanistic dehumanization. A moderated mediation analysis yielded a significant index of moderated

mediation for the indirect effect ($\beta_{\text{Indirect}} = .76$, $SE = .10$, 95% CI = [.57, .97]; PROCESS Model 5; Hayes, 2015). Lacking preference reduced satisfaction by increasing mechanistic dehumanization when performing a job requiring more creativity (95% CI = [.11, .75]). However, the effect was not significant for a job requiring more technical skills (95% CI = [-.39, .22]).

Discussion

Study 5 demonstrated a boundary of the effect of lack of preference on dehumanization. People were less satisfied with hiring an interior designer who expressed no preference (vs. held a preference) when they needed help with a task requiring creativity. While lacking preference also reduced satisfaction for an indifferent person (vs. one with a preference) for a more technical job requiring competence, a trait that can describe humans and robots alike, it did not hamper perceptions to the same degree. In addition, I note that this significant effect of preference on satisfaction even in the technical condition may be due to the nature of the task. Across task requirements (creative vs. technical skillset), the interior design project involved renovating a bedroom, which typically requires much customization and responsiveness to clients' needs, a trait directly linked to humanity (Kteily et al., 2015). It may therefore have been difficult for participants to imagine that the scenario was purely technical in nature, and thus served as a conservative test of my hypothesis. Despite this, I do find that the effect of preference on satisfaction significantly weakened when considering a task that required technical (vs. creative) skills, as predicted by my theory.

In addition, I note that this is the first study to provide evidence that lacking preference can harm satisfaction with a worker. I extend this further in Study 6.

Study 6: Lack of Subjective Preference Harms Work a Person Produces

Study 6 examined how dehumanizing a person who lacks preference affects evaluations of the creative output of a person's work, holding actual work output constant. Using a similar interior design paradigm as Study 5, participants learned that the interior designer would help them with both the design and technical execution of the renovation and viewed before and after pictures of the room. Participants then rated how creative, generic, and tailored to their vision the room appeared. I predicted that people would mechanistically dehumanize a person who lacks (vs. has) a preference and, as a result, negatively evaluate his work on "human" dimensions of genericity and responsiveness (tailored to one's vision), as well as creativity.

Method

Participants. A total of 209 US-based MTurk workers (60.77% men; $M_{\text{age}} = 35.61$, $SD = 12.18$) participated for \$0.40.

Procedure. This study employed a 2 cell (interior designer preference: indifference vs. preference) between-participant design. Participants considered redesigning their bedroom and viewed pictures of the room. They learned they wanted to hire an interior designer to help redecorate and refurnish it. They were additionally told that they had provided an interior design firm with a general idea of what they were looking for, and an interior designer named Mark would help with both the design choices and technical details in execution. Importantly, the interior design firm they chose provided them with one interior designer, whose profile they then viewed. I manipulated preference condition using answers to the "fun fact" question about the applicant's favorite food and music, as in Study 5.

Participants answered two comprehension check questions to assess their understanding of the scenario. All participants read that, in conversing with the designer, they decided on a modern look with a neutral color palette, but had given the designer creative freedom.

Participants then saw before and after pictures of the room, which were identical in both conditions (see Figure 5 below).

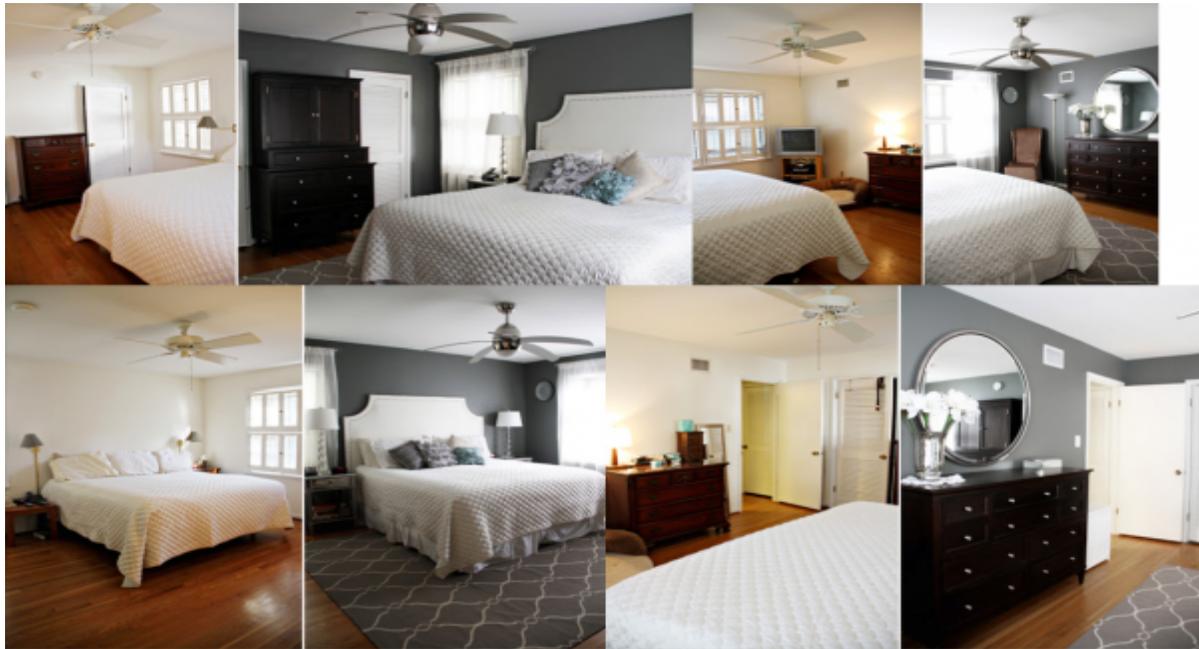


Figure 5. Room stimuli used in Chapter 1, Study 6

All participants regardless of condition saw the same before pictures (white room) and after pictures (grey room) of the bedroom they were told they were renovating.

Participants rated the interior designer on the mechanistic dehumanization items ($\alpha = .82$) and evaluated the room on the following dimensions, which I averaged together ($\alpha = .74$): 1. creativity of design (1 = *not at all creative*; 7 = *very creative*), 2. how tailored it was to the vision the designer was given (1 = *not at all tailored*; 7 = *perfectly tailored*), and 3. how generic the design looked (1 = *not at all generic*; 7 = *very generic*; reverse-coded). Participants then chose whether they would hire the same interior designer again to design other rooms in their house (yes / no).

Results

In support of my main hypothesis, participants perceived the designer without preference as significantly more mechanistic than the one with preference ($M_{\text{Indifference}} = 3.56$, $SD = 1.17$; $M_{\text{Preference}} = 2.88$, $SD = 1.19$), $t(207) = 4.20$, $p < .001$.

Next, I examined evaluation of the room as a function of preference condition. A room designed by an interior designer lacking preference (vs. having preference) was evaluated less positively overall ($M_{\text{Indifference}} = 4.12$, $SD = 1.20$; $M_{\text{Preference}} = 4.69$, $SD = 1.18$), $t(207) = -3.45$, $p < .001$. This was true despite participants viewing identical pictures of the room across conditions. These results suggest that the dehumanization effect extends beyond a person's reputation and can harm perceptions of the work they produce as it relates to having a human mind, in line with my theorizing.

My theory predicts that dehumanization perceptions should mediate the relationship between preference (or lack thereof) and evaluation of the work a person produces. Indeed, a mediational analysis of preference condition on room evaluations through mechanistic dehumanization yielded a significant indirect effect ($\beta_{\text{Indirect}} = .41$, $SE = .11$, 95% CI = [.20, .64]), suggesting that lack of preference harmed evaluations of the designer's work by increasing mechanistic dehumanization.

To examine how preference (vs. lack thereof) affects rehiring decisions, I conducted a chi-square analysis of choice on preference condition. As predicted, fewer people wanted to rehire an indifferent interior designer (58%) than one with preferences (82%), $\chi^2(1, n = 209) = 14.46$, $p < .001$, despite that I held actual work output constant across conditions. The effect of preference on rehiring decision was also mediated by mechanistic dehumanization ($\beta_{\text{Indirect}} = -.54$, $SE = .18$, 95% CI = [-.95, -.25]).

Discussion

Study 6 extended my findings to evaluations of a person's professional reputation: a person lacking preference was perceived as producing lower quality work, which was driven by perceptions of mechanistic dehumanization. That is, holding the work output constant (i.e., room design), a room designed by a person lacking preference was perceived as less creative, more

generic, and less tailored than the same room designed by a person described as having preferences. This further affected rehiring decisions; participants were less interested in rehiring an interior designer who did not have preferences than one who did.

I note that while the results of this study support my theory that the dehumanized essence of the designer transferred into the work he produced, the effect could also be driven by mere association, which has been acknowledged in attitude research (Dimofte & Yalch, 2011; Walther, 2002). More specifically, perceptions of the room might have been weakened not by a transfer of essence, but rather by sharing a negative association with the dehumanized person. With the data I collected, I cannot completely rule out this possibility.

Although Studies 5-6 provide strong evidence in favor of my theory, two limitations are evident. Firstly, the order of the variables in both studies may also have contributed to the effect, posing an additional limitation. More specifically, the dehumanization items, which served as the mediator in aggregate, were presented before the main dependent variables (satisfaction with representative in Study 5 and room evaluation and rehiring decision in Study 6). As I did not counterbalance measurement order, I cannot rule out the possibility that the dehumanization items affected responses to the subsequent measures.

To address this possibility, I conducted a follow-up study with 190 participants [see Appendix B First Supplement to Study 6 (Supplemental Study 1) for further details], which leveraged a nearly identical scenario to that used in Study 6 without measuring mechanistic dehumanization. Excluding the dehumanization measures, I replicated the previous effects. A room designed by an interior designer lacking (vs. having) a preference was evaluated less positively ($M_{\text{Indifference}} = 3.75$, $SD = 1.21$; $M_{\text{Preference}} = 4.17$, $SD = 1.05$), $t(188) = -2.57$, $p = .011$, and fewer people wanted to rehire this indifferent interior designer (45% vs. 60%), $\chi^2(1, N = 190) = 4.16$, $p = .041$.

Secondly, though I aimed to provide a realistic manipulation of preference often used by companies and employees, describing preferences as “fun facts,” this method may have rendered the indifferent person boring given they are missing a concrete answer for a question labeled as “fun.” To rule out this alternative explanation, I conducted a supplemental study with 62 participants [see Second Supplement to Study 6 (Supplemental Study 2) in Appendix C]. Participants read about a coworker named John who was being promoted and was tasked with choosing the wall color and desk placement for his new office. John was described as having clear preferences (i.e., for blue walls and his desk placed beneath a window) or as not having preferences for either decision. The benefit of this manipulation of preference, compared with the “fun fact” manipulation from Studies 5-6, is that these preferences, while still subjective, are not construed as “fun” and are quite personal in nature (i.e., John’s choices have minimal impact on others). Participants then rated John on the six-item mechanistic dehumanization scale used in Studies 1-6. In support of my hypothesis, there was a significant effect of preference: John was perceived as more mechanistic when he did not have preferences for his new office wall color and layout than when he did ($M_{\text{Indifference}} = 3.79$, $SD = 1.06$; $M_{\text{Preference}} = 3.24$, $SD = 1.07$), $t(60) = 2.03$, $p = .047$. This supplemental study provides additional evidence that the results of Studies 5-6 are not driven by inferences that the person omitting a preference is not fun and therefore less human, but rather that the key to the effect is lacking preference specifically.

General Discussion

Across six main studies, I found that people make inferences about others who lack preference, leading to mechanistic dehumanization, with consequences for people’s professional reputation and the work they produce. First, I demonstrated that a cognitive impairment causing a person to no longer have preferences leads the person to be more dehumanized because they are seen as less distinct, than a cognitive impairment that causes no changes in preference (Study

1). I showed further that this effect extends to an ordinary choice context, choosing a massage, and occurred even when the preference, or lack of preference, was described as a personal belief, thereby ruling out alternative accounts tied self-presentation (Study 2). Studies 1-2 assessed both mechanistic and animalistic dehumanization and demonstrated a stronger effect of lack of preference on mechanistic dehumanization, suggesting that lacking preference dehumanizes because one is seen as more robotic (i.e., cold and mechanical).

The effect of lacking a preference on mechanistic dehumanization held when controlling for valence signaled by holding a preference (i.e., having a “favorite” option) – lacking preference dehumanized compared with holding a preferred option or least preferred option (Study 3). Providing further evidence for the proposed process, lacking preference leads to mechanistic dehumanization because it makes people seem less distinct (Studies 1-4). Indeed, people dehumanize those with generic preference more so than those with unique preference (Study 4).

Importantly, lacking preference has implications for evaluations of workers and their work. Lacking preference led to mechanistic dehumanization, which decreased satisfaction with a service provider, especially for tasks requiring human mindfulness (i.e., personalization and creativity) than tasks requiring a more technical skillset (Study 5). This degraded evaluation resulting from mechanistic dehumanization extended to the evaluation of the work itself (Study 6 and Supplemental Study 1). These effects are robust, occurring across a variety of domains and contexts, with diverse manipulations and dependent measures.

Theoretical Implications

Broadly, this research offers several theoretical implications for research on impression formation and management. Abundant literature has documented that people strive to differentiate themselves from others to internally maintain a distinct sense of self (Brewer, 1991; Breakwell, 1986; Vignoles, Chryssochoou, & Breakwell, 2000). The current research suggests

that such differentiation is also important to advertise externally. Indifference for a particular choice may not seem material to our perception of our own humanity, likely because we are acutely aware of our unique pattern of preferences across domains. However, others lack such detailed information about us and judge us more harshly in its absence, exhibiting a form of actor-observer asymmetry (Jones & Nisbett, 1971). Thus, peoples' motivation for differentiation is apt: failing to sufficiently distinguish ourselves by highlighting a preference leads others to see us as less human.

I also connect to other areas of research that examine perceptions of those who pass on the opportunity to state a preference (i.e., delegation or abdication). For example, recent research finds that people at times prefer to delegate their choices to others, allowing others to decide for them instead of making the decision themselves (Steffel & Williams, 2017; Steffel, Williams, & Permann-Graham, 2016). Doing so has been found to benefit decision makers by diffusing responsibility for a bad outcome. However, one possibility is that delegating a decision to another person could lead the decision maker to come off as more robotic than if they had just stated their preference, despite any other benefits abdicating confers (Kardas, Shaw, & Caruso, 2018).

This work also adds to research on dehumanization and related literatures on infrahumanization and objectification. While existing work has identified animalistic and mechanistic dehumanization as separate constructs, the current research meaningfully extends existing literature by providing evidence for an antecedent to mechanistic dehumanization specifically: lack of subjective preferences. Furthermore, by documenting the effect in commonplace contexts, my work contributes to the growing body of literature investigating precursors of dehumanization in interpersonal and intergroup settings (Haslam & Bain, 2007; Leyens et al., 2003). For example, with regard to mechanistic dehumanization, prior research demonstrated that people perceive Chinese as lacking emotions, like happiness and love (Bain,

Park, Kwok, & Haslam, 2009), and that focusing people on women's appearance leads to objectification (Loughnan et al., 2010). I show that an individual who simply fails to possess a preference is perceived by others as more robotic and colder compared to someone who has a preference, even for something as inconsequential as a variant on massage techniques or choice of ice cream for dessert.

Practical Implications

These findings offer managerial implications for workers and organizations. Given the humanizing effect of preferences, job applicants could consider including hobbies and other types of preferences on their resumes to be seen as more human in the eyes of hiring committees. They can further tailor this depending on the hiring context (i.e., if the context is technical, providing preferences may be less useful).

Similarly, organizations can emphasize employees' preferences to potential clients by publishing "fun facts" about their employees on their websites. This is especially relevant in contexts in which a single person, such as a CEO, acts as the spokesperson for a brand and whose preferences (or lack thereof) are broadcast to the public either through interviews, public appearances, or via a company website. In these cases, a perception of a lack of subjective preferences could potentially harm their reputation, as well as that of their work and the brand they represent. Well-known brand representatives, especially those who are already perceived as machine-like, could potentially benefit from playing up their unique preferences to appear more human to their stakeholders. This is particularly relevant for companies that rely heavily on traits perceived to require a human mind for their business, such as advertising or interior design firms, where customers pay a premium for creativity and personalization.

Companies might also want to emphasize their preferences at the organizational level in their corporate messaging to come across as more human. For example, instead of saying "we

use local produce” in advertising campaigns, a restaurant could reframe the message as “we use (and love) local produce.” This strategy might be especially useful for companies seeking to improve goodwill after corporate crises. Previous work has shown that corporate apologies are more effective when made by companies perceived as more human, such as those imbued with the ability to feel via the presence of a CEO, who is seen as the human embodiment of the organization (Tang & Gray, 2018). Thus, emphasizing the preferences of employees as well as of the organization as a whole might help customers humanize, and more quickly forgive, the company for wrongdoing.

This work also has implications for a range of interpersonal interactions. Oftentimes, people simply don’t have a preference as they truly don’t care about the ultimate outcome. Other times, they are afraid that their unpopular preference will not be well-received by others. My research suggests that, in these situations, failing to state a preference could make people appear less human. This is of consequence, as even relatively mild forms of dehumanization can leave individuals feeling degraded, invalidated, demoralized, guilty, and ashamed (Hinton, 2004; Sue et al., 2007) and can even lead to states of cognitive impairment characterized by reduced clarity of thought, emotional numbing, and cognitive inflexibility (Bastian & Haslam, 2011; Twenge, Catanese, & Baumeister, 2003). To avoid such outcomes, individuals should consider stating a preference when faced with a subjective choice among alternatives in the presence of others. Even stating an anti-preference, that is, highlighting which option one *dislikes* the most, could prevent dehumanization (as observed in Study 3). Stating an anti-preference may be especially useful when one is nervous about revealing a potentially unpopular preference.

In demonstrating how a lack of preferences leads to mechanistic dehumanization, my research also has implications for the opposite pathway: how to humanize truly non-human entities, such as robots or companies. Possibly, assigning a preference to a non-human agent will

serve to humanize it. To test this idea, I conducted a study (see Supplemental Study 3 in Appendix D for full details) asking 206 MTurk workers to read that the Amazon Echo and its voice-controlled personal assistant service Alexa, either had a favorite song (“My favorite song is ‘Here Comes the Sun’ by The Beatles”) or did not (“I don’t have a favorite song. I’m better with factual questions”). Participants rated Alexa on a five-item anthropomorphism scale (Waytz et al., 2010; $\alpha = .95$): the extent to which Alexa appeared to (1) have a mind of its own, (2) have intentions, (3) have free will, (4) have consciousness, and (5) experienced emotions (1 = *not at all*; 7 = *very much*). Alexa was perceived as more human when described as having a preference ($M = 3.50$, $SD = 1.69$) than not ($M = 3.00$, $SD = 1.77$), $t(204) = 2.06$, $p = .041$, an effect with important, practical implications. A plethora of research has demonstrated both the positive and negative effects that brand anthropomorphism has on consumer attitudes towards product performance in terms of trust, liking, and persuasiveness (e.g., Delbaere, McQuarrie, & Phillips, 2011; Gray & Wegner, 2012). The current work suggests that a simple way to anthropomorphize non-human entities, such as smart devices, is to program them to have preferences, like a favorite song or book.

Future Directions

The current research takes an initial step at broaden our understanding of how preferences relate to identity and at the same time opens up additional questions for future research. For example, if preferences are causally-central to identity, necessary for perceived continuity of identity (Chen, Urminsky, & Bartels, 2016), lacking preference may disrupt perceptions of one’s own identity. Indeed, a lack of preference might erode personal identity by weakening the links among the other features of identity that are connected with preferences, such as memories. This would have consequences for intra- and interpersonal perception. For example, people may assume that a person without preferences does not have sufficient memory

of lived experiences to have formed a preference in the first place. Or, at the very least, it might imply that the person does not have enough mental capacity to personally reflect upon their experiences.

Future research should also explore situations in which a person without a preference might actually be preferred. Study 5 demonstrated that the type of task in which someone is engaged moderates perceptions of the indifferent person, such that others are less pleased with someone who is indifferent for more mindful tasks compared with more technical ones. Given that an indifferent person is attributed less mind, another potentially interesting context to explore is the purchase of embarrassing items. For instance, people might prefer to have a store clerk that is indifferent when buying a guilty pleasure, as the clerk is perceived as less human and thus less capable of judgment. Or they may prefer their doctor not to have preferences for more (vs. less) intimate procedures (Schroeder, Fishbach, Schein, & Gray, 2017).

As this work develops, attention should be paid to antecedents and boundary conditions for the dehumanization effect. The results presented in this research apply to contexts governed by a specific set of assumptions, which I believe are quite common in everyday life. As discussed in the introduction, I operationalized lack of preference over a focal choice set of sufficient size and with enough variability in the options so that someone with preferences could indeed distinguish among them. I operated under the assumption that lack of preference over unfamiliar, very small choice sets, and/or those for which the options were extremely similar would not lead to the same degree of mechanistic dehumanization. Similarly, emphasizing strong subjective preferences in another domain when expressing indifference for a particular choice might also wash out the effect, as doing so might serve to counteract the genericity that a lack of preference in one decision context implies. Future work could systematically investigate these intuitions to suggest circumstances in which the effect is more or less likely to manifest.

Moreover, future work should also investigate cases in which preferences might elicit relatively strong animalistic dehumanization. Interestingly, in Study 1, I observed a significant effect of preference on animalistic dehumanization, though this difference was on a significantly smaller magnitude compared with mechanistic dehumanization as indicated by the interaction between preference condition and dehumanization type. Although I posit that mechanistic dehumanization is the more relevant sense of diminished humanness given the theoretical link between mechanistic dehumanization and individuality, I speculate that animalistic dehumanization might also occur in certain contexts involving indifference. For example, lacking preference for a decision that, to the observer, clearly has an objectively correct choice might result in perceptions that the decision-maker's mind is less capable of higher-order thought, a uniquely human faculty that is uncharacteristic of non-human animals and is reflected in several animalistic items (i.e., rational, logical, scholarly, and cerebral; Haslam, 2006). In such cases, I might expect these individuals to not only be mechanistically, but also animalistically, dehumanized.

Moreover, further investigation can also identify whether the effect extends beyond independent societies to more interdependent ones. All of the studies included in this research were conducted among Western samples, the culture of which emphasizes individuality and the importance of discovering and embracing one's unique inner attributes, such as distinctive preferences and desires (Markus & Kitayama, 1991; Triandis, 1989). Given that East Asian cultures like China, Japan, and Korea espouse a more interdependent view of the self and reject displays of uniqueness in favor of fitting in, it is possible the preference effect is a purely Western phenomenon. Further, because Western cultures emphasize the importance of "standing out," Western peoples might be more likely to dehumanize those in Eastern cultures who may be less

inclined to reveal their individuating preferences. This provides a potentially fruitful area for future work.

Conclusion

Overall, I find that lacking preference increases dehumanization due to lack of distinctiveness, with important consequences for impression management. Thus, the next time you're at dinner with a potential new colleague, rather than biting your tongue on the topic of your beloved rom-com, advertising a clear preference can signal your humanness to a greater extent than saying "they all look good to me."

Beyond Subjective Preferences

The research presented in Chapter One has demonstrated that indifference over the options in a subjective choice situation results in perceived dehumanization by others via perceptions of genericity. More specifically, lacking preference implicates mechanistic (vs. animalistic) dehumanization in particular due to this dimension's special relationship with distinctiveness. It is worth noting that the choices in which I examined my effect were largely personal and inconsequential to the observer (i.e., type of massage, favorite food and music, etc.); they were truly subjective preferences. Indeed, it is difficult to reasonably contend that the character's preferences have any significant impact on others beyond the decision-maker himself or herself. Contrast these personal likes with opinions held in the sociopolitical domain, where individuals' views influence who gets elected to office, what issues are prioritized, and which legislation gets passed. In these cases, people are deeply affected by the views of others, as those with whom they disagree can dictate the laws and social norms under which they live, how their tax dollars are spent, and even threaten their individual liberties.

Perhaps due in part to their significance, sociopolitical issues, unlike subjective preferences, are often perceived as having "right" and "wrong" views, which could have serious consequences for dissenters. Indeed, the literature has made a distinction between personal preferences and other types of attitudes, such as moral imperatives, in terms of how they are viewed by other people (Skitka, 2010). The former are subject to individual discretion and are not socially regulated and thus are not perceived as being inherently right or wrong, just different. For example, one's preference to eat the cheesecake over the apple tart at dinner is simply a matter of taste. Sociopolitical opinions, however, tend fall on the latter end of the scale and are more likely to be experienced as more objectively and universally correct or incorrect, on a factual and/or moral level. In these cases, to endorse an alternative view that disagrees with

another's is to be "wrong." For example, to a liberal who believes that climate change is unquestionably caused by humans, a conservative climate-denier's opinion is utterly incorrect and anyone who agrees is blatantly ignoring scientific fact. Morality likely plays a significant role in such perceptions, as sociopolitical opinions are often held with moral conviction, for which the moral order is seen as absolute rather than relative. Moral issues are perceived to have no middle ground; right is right and wrong is wrong. The more individuals speak of issues in moral terms, the more polarized and intractable the groups are likely to become (Brewer, 1999; Skitka, 2002; Skitka & Mullen, 2002), leading to negative emotions towards disagreeing others, decreased willingness to compromise, and lower tolerance for disagreement (Mooney & Schuldt, 2008; Ryan, 2014; Skitka, Bauman, & Sargis 2005).

A question naturally arises: what happens when I examine undecidedness in such sociopolitical contexts? Surprisingly little research has been conducted on understanding perceptions of people who are undecided on political issues or candidates. This research aims to bridge this gap and provide a stronger understanding of how undecided people are perceived and the consequences these perceptions have for political discourse.

I turn my attention to the sociopolitical context in Chapter Two.

Chapter 2: The Lights Are On, But Nobody's Home: The Dark Side of Sociopolitical Indecision

Abstract

This research explores the effect of expressions of sociopolitical undecidedness on perceptions of one's humanity. Across five studies ($n = 3,862$), I find that people attribute less mind to those who are undecided on sociopolitical issues compared to those who with whom they agree and, in some cases, disagree politically. The degree of dehumanization appears to increase with the number of issues, with undecidedness on many issues leading to dehumanization above and beyond that elicited by ideologically-dissimilar others (Study 1 and Follow-ups A-C). I find mixed evidence for the effect of undecidedness on perceptions of one's competence (Study 2) and emotional reactivity (Study 3). However, undecidedness does appear to affect political discourse: people appear to be less willing to engage in conversation about political issues with undecideds (vs. ideologically-dissimilar others) when they desire to have a productive discussion with someone (Study 4). Lastly, I explore two potential mediators for the effect, finding that observers interpret sociopolitical undecidedness as a lack of caring about the issues or candidates in question, in turn, leading to dehumanization (Study 5).

Introduction

Political ideology, typically examined as liberalism and conservatism in the contemporary Western world, exerts a profound influence on people's impressions of the world around them. An enormous body of research suggests that ideology leads people to selectively attend to, ignore, and distort information in ways that confirm their preexisting beliefs (Frimer, Skitka, & Motyl,

2017; Kunda, 1990; Mercier & Sperber 2011). For instance, although people generally disapprove of political bias, messages that harm one's ingroup are viewed as more serious and more deserving of corrective action than those that harm one's outgroup (Yair & Sulitzeanu-Kenan, 2018), and people are more likely to attribute a given behavior to situational influences when making dispositional attributions would be inconsistent with their values (Morgan, Mullen, & Skitka, 2010).

Most germane to this research, political ideology also colors individuals' impressions of others. People commonly adopt an "us" versus "them" mentality with regards to political affiliation and are generally biased against those who disagree with their own opinions, regardless of whether they themselves identify as liberal or conservative (Brandt et al. 2014; Iyengar & Westwood, 2015; McClosky & Chong, 1985; Skitka, 2002). Indeed, people view those on the opposite side of the political divide as less likeable (Lambert & Chasteen 1997; Yancey, 2010), less truthful (Zlatev, 2019) and more threatening (Parker & Janoff-Bulman, 2013) compared to those with whom they agree. This bias results from a universal desire to defend one's worldview against violations from those whose values conflict with or threaten one's own (Brandt 2014; Chambers & Melynck, 2006; Henry & Reyna, 2007). This tendency leads to greater intolerance of (Skitka et al., 2005; Morgan et al., 2010), more negative emotion towards (Mullen & Skitka, 2006), and a desire for greater social distance from (Alford et al., 2011; Skitka, Bauman, & Sargis, 2005) politically-dissimilar others.

Critically, ideology also biases people's estimations of others' humanity, leading to dehumanization. Though early work in psychology typified dehumanization as an extreme phenomenon that enables violence and cruelty against others, more recent research indicates that it can also take on subtle, everyday forms. For instance, people attribute less humanity to outgroup members than ingroup members (Haslam et al., 2005; Leyens et al., 2000) and see

others as less human after fulfilling their need for social connection (Waytz & Epley, 2012). Although different conceptualizations of dehumanization vary in their details, psychologically, dehumanization represents a basic failure to attribute a mind to others. Broadly speaking, this process can occur in two ways; dehumanized people are perceived to lack the capacity for feeling and/or the capacity for higher-order reasoning (Gray, Gray, & Wegner, 2007; Kozak, Marsh, & Wegner, 2006; Waytz & Epley, 2012). Denying another the ability to feel likens that person to a robot, characterizing them as stoic and unemotional. In contrast, denying them the ability to think likens them to lower forms of animal life, characterizing them as unable to act, plan, and exert self-control (Haslam, 2009). In the context of politics, prior work suggests that people perceive ideologically-dissimilar others as less human, across both dimensions, than those with whom they agree, as their values are perceived to be incongruent with that of the ingroup (Crawford, Modri, & Motyl, 2013; Struch & Schwartz, 1989).

While those on the left and right routinely dehumanize their opponents and favor those with whom they agree, the literature leaves open the question of how individuals with firm stances on social issues perceive individuals with more ambiguous stances, such as those who claim to be undecided or ambivalent. Is it possible that “undecideds” are viewed as even less human? The suggestive evidence on this question in the literature is mixed, as discussed below.

Perceptions of Undecideds

Past research makes opposing predictions for how people might perceive those who are undecided when compared against those who both agree and disagree with the perceiver’s viewpoint. Ideological agreement likely imposes a “ceiling” on perceptions of humanity; it is doubtful that undecideds would be viewed as more human than those with whom one agrees, given prior work. However, the contrast between ideologically-dissimilar people and undecideds is more ambiguous.

On the one hand, some evidence suggests that undecideds might be perceived as more human than those with whom one disagrees. Sociopolitical issues are complex and, as such, undecidedness may be presumed to result from genuine internal conflict over having to align with a specific side, especially for those with deep knowledge of and commitment to the issue in question. And lacking an opinion may even be viewed positively. Indeed, the friendship formation literature indicates that people generally value impartiality and neutrality in others and endorse it as a virtue (Chen, Chen, & Xin, 2004; Shaw, Choshen-Hillel, & Caruso, 2015; Tyler, 2000). This might be especially true in the realm of politics, where both liberals and conservatives routinely accuse their opponents of partisan bias, despite exhibiting bias themselves (Ditto et al., 2019). In this case, being undecided on such important issues may lead others to assume undecideds are attempting to make a concerted effort to avoid drawing a conclusion prematurely as opposed to blindly following an ideology defined along partisan lines. As a result, they might be viewed as free of bias and morally superior to those with whom one disagrees, leading to heightened perceptions of humanity. If not positive, people might view being undecided as neutral, a kind of benign inaction that is still preferable to actively endorsing an opposing viewpoint. Thus, this line of thinking predicts that people perceive those who are undecided on political issues as significantly more human than those with whom they disagree, though likely less human than those with whom they agree.

Alternatively, peoples' perceptions might be more black-and-white. Literature from the moral domain suggests that issues of moral imperative are experienced as objectively and universally true and as having a "right" and "wrong" viewpoint (Skitka, 2010). The stronger are people's moral convictions in a given domain, the more intolerant and discriminatory they become of opposing viewpoints. Therefore, to fail to endorse a view that agrees with one's opinion is to be "wrong," perhaps whether a specific position is taken or not. In this case, people

may be of the mind that “he who is not with me is against me,” seeing undecideds as similarly (in)human compared to their ideologically-dissimilar counterparts.

More recent research points to a third possibility - that undecidedness leads to even lower perceptions of humanity by others. This might occur for a couple of reasons. First, lacking a firm stance on a social issue may indicate that one doesn't care enough about the issue to have formed an opinion in the first place. Given how important sociopolitical issues are to the fabric of our society, caring about them provides valuable information about one's moral character (Kreps & Monin, 2014; Van Zant & Moore, 2015), a fundamental trait that has been conceptualized as being a central component of humanity (Haslam, 2006). Indeed, caring about social issues serves as a powerful signal of integrity, leading people to perceive those apathetic towards such issues as less trustworthy (Zlatev, 2019). Beyond potentially indicating depth of caring, it may also imply that one is not sufficiently knowledgeable about both sides of the issue to have chosen a side, making one appear stupid or incompetent. In other words, being undecided may imply that one is deficient in their capacity to think and feel, which would strongly implicate one's perceived (lack of) humanity. Whereas a politically-dissimilar person may be attributed less mind versus an ideologically-similar one because the former subscribes to different values (i.e., “the other side's argument is less intellectually-sophisticated and less morally-sound”), the mere act of having chosen a side indicates a more thoughtful and caring mind than one who has failed to align with a side whatsoever. Taken together, these findings would predict that those who are undecided are viewed as less human than those who oppose them politically.

Present Research

In my work, I investigate whether lacking a firm stance as it pertains to sociopolitical issues leads to relatively greater dehumanization by others beyond that elicited by ideological dissimilarity. I theorize that those who hold ambiguous stances on social issues are perceived to

possess less of a human mind compared not only to ideologically-similar others, but also to others on the opposing side. Indeed, given the weight assigned to sociopolitical issues in the current political climate and the moral conviction with which views regarding them are held by both liberals and conservatives, lacking a specific stance suggests one is deficient in their ability to think and feel. I thus posit that holding a belief, in and of itself, is even more vital to one's perceived humanity than the specific content of the belief.

An inability to think and feel should have serious downstream consequences for the undecided person. Research on mind perception has demonstrated a link between reduced agency and competence, with objectified men and women perceived as less competent than non-objectified individuals (Loughnan et al., 2010). Relatedly, objectified people are also perceived to be less sensitive to feelings, especially those of pain and pleasure (Heflick & Goldenberg, 2009; Gray & Wegner, 2009). Extending these findings to the current work, I predict that those who are undecided on social issues are perceived to be less competent and less sensitive to emotional distress than those who oppose the perceiver politically, as they are seen as lacking the ability to think and feel. These effects should be mediated by mind attribution.

Beyond impacting one's reputation as human, being undecided might also have important consequences for political discourse in general. People commonly avoid talking about contentious subjects, such as politics, with individuals of the opposite political party, even at holiday celebrations (Chen & Rohla, 2018) and do so to limit exposure to information that might prompt cognitive dissonance or harm relationships (Frimer, Skitka, & Motyl, 2017). However, people may be even less willing to engage in such discussions with undecideds. If one believes that another person lacks the capacity to think or feel, they might judge any attempt at having a productive dialogue with them as fruitless; it's not worth their effort to engage with someone who is unable to understand the arguments on either side or appreciate the effect of the policy on

people's lives. While ideologically-dissimilar people may be opposed to the observer's viewpoint, they are at least perceived to possess the capacity to understand and care about the issue.

Undecided people, meanwhile, are perceived to neither share the observer's view nor understand nor care. For this reason, individuals with firm stances on sociopolitical issues might be more willing to expend effort in speaking with someone who moderately opposes them than someone who is undecided. Mind attribution should mediate this effect.

Given the consequences being undecided has for the individual, as well as political discourse in general, might there be ways to offset the effect? My theory hinges on the assumption that being undecided is interpreted by others as lacking intellectual and emotional capacities necessary to make judgments and is synonymous with ignorant indifference. This suggests that communicating that one is knowledgeable and/or cares about the issues might attenuate the effect. On the other hand, undecidedness might be so inextricably linked to deficiencies in thinking and caring that even messaging that suggests the contrary is insufficient to fully eliminate the belief. My research explores whether the knowledge and caring "interventions," work against the dehumanization effect and serve to humanize those who are undecided in the eyes of others.

Overview of Studies

My hypotheses rest on the idea that being undecided leads to the perception of diminished humanness by others with firm stances. In the first study, I test the first step of my argument by showing that people perceive others who are undecided on social issues as having less mind. Crucially, through several follow-up studies, I explore how the degree of mind attributed to the undecided person hinges on the number of issues in question. The second study then moves to establishing the first basic effect: that being undecided on such issues leads to a perception of relative incompetence before examining whether the extends beyond hypothetical

scenarios to measures of real behavior. In the third study, I examine how being undecided additionally affects how one is perceived to react to emotional distress in situations involving both positively and negatively valenced emotions by others. The fourth study looks at how undecidedness affects political discourse and others' willingness to engage with an undecided person on sociopolitical issues. Lastly, I examine how various communication strategies conveying differing amount of knowledge and caring influence how much mind one is attributed.

Critically, in each study presented below, I compare perceptions of undecideds with those of people who both agree and disagree with the observer, which provides context for the dehumanization effect. To do this, I expose participants to a scenario about a target individual, described as either holding liberal views, conservative views, or as being undecided. I measure participants own beliefs in the study and determine whether the ideology of the target matches that of the participant, mismatches it, or whether the target is undecided (in this case, regardless of the participant's own ideology). As I am interested in perceptions among individuals who themselves have clear stances, I remove participants who self-identify as moderate/middle of the road or undecided, which is a minority of the total sample in each study. From a technical standpoint, because moderates fall in the middle of the political spectrum, it is unclear how specific political ideologies, such as liberalism, would be considered in terms of a match or mismatch. This is also true for self-identified undecideds who do not align with a particular side. Leaving moderates, as well as undecideds, in the analyses would thus introduce significant noise and conceptual ambiguity.

To gauge dehumanization, the studies presented below leverage the mind attribution framework (Gray, Gray, & Wegner, 2007; Kozak, Marsh, & Wegner, 2006). Though there is much theoretical agreement between the various dehumanization frameworks in the literature, the theories vary in the degree to which they pick up on relatively blatant versus subtle

dehumanization. For example, more traditional models, such as Haslam's human uniqueness (UH) and human nature (HN) framework, are relatively blatant in that they detect more obvious forms of interpersonal or intergroup hostility, such as in the case of genocide (Haslam, 2006). In contrast, more recent theories, such as the mind perception framework, pick up on more subtle dehumanization that occurs in everyday situations (Gray, Gray, & Wegner, 2007; Kozak, Marsh, & Wegner, 2006). Given that my research is attempting to detect potentially subtle differences between perceptions of those who disagree with the observer and the undecideds, I opted to use the latter framework. The dimensions of agency and experience conceptually differentiate and gauge one's capacity to think (agency) and feel (experience), which maps nicely onto my theory.

Lastly, each study assumes that experience matters. More specifically, I examine sociopolitical issues that are quite well-known in contemporary Western society and covered extensively in the media, such as abortion and gun control. These issues are those for which the majority of people have an opinion. Obscure issues may not evoke dehumanization if someone is described as being undecided on them. For example, one wouldn't necessarily dehumanize a Texan for being undecided on the topic of hurricane resources in Florida to the same extent as one would a fellow Floridian who has presumably been exposed to the arguments on both sides of the issue at length. Similarly, age should also matter. It is difficult to imagine that a child would be attributed less mind for failing to take a stance on healthcare reform, likely because they are viewed as less agentic to begin with (Gray, Gray, & Wegner, 2007). For this reason, the target individuals are described as adults in each study.

Study 1: Sociopolitical Undecidedness Dehumanizes

To explore how being undecided influences perceptions of one's humanity, participants were exposed to the responses of a political poll ostensibly provided by a 35-year-old man. I manipulated whether the man was described as possessing liberal, conservative, or undecided

views on the series of issues contained within the poll. I decided to present the character's opinions in a political poll for a couple of reasons. Firstly, it makes the scenario asocial. This eliminates a potential alternative explanation for my effect - that the character is attributed less mind because he is feigning indecision in order to hide his true opinion from his peers. Secondly, it allows us to neatly and clearly indicate the character's opinions on a number of issues.

Participants then rated the man on a set of mind attribution measures used in previous literature, four of which gauge experience, or the ability to feel, and six of which measure agency, or the ability to think (Kozak, Marsh, & Wegner, 2006; Waytz & Epley, 2012). I predicted that being undecided evokes dehumanization, such that participants would rate the recipient as less human if he is described as being undecided compared to if he is described as holding the opposite viewpoint to the participant.

Beyond dehumanization, I also measured participants' liking of the character. Though dehumanization has historically been considered a measure of antipathy towards others, recent research has suggested that dehumanization and liking are distinct constructs, with the former better understood as indifference towards one's mental states that may or may not indicate disliking (Waytz & Epley, 2012). To explore whether dehumanization and negative evaluation more generally are indeed dissociated, I included both measures in the study, with the prediction that ideological match would systematically affect dehumanization, but not liking.

Method

Participants. A total of 505 US-based Mechanical Turk workers completed the survey online in exchange for \$0.35. I excluded 106 participants from the analysis for identifying as politically "moderate/middle of the road," leaving a final sample of 399 ($M_{\text{age}} = 39.25$, $SD = 12.66$; 46.12% men).

Procedure. This study (and its follow-ups) employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

As part of the study, participants were asked to imagine that a 35-year-old man named John had taken part in an anonymous poll gauging his views on twelve political issues, ranging from Social Security and Medicare to climate change. Participants were then exposed to John’s answers to the poll, which indicated that he was either “very liberal,” “very conservative,” or “undecided” on each of the issues.

	Very liberal	Somewhat liberal	Somewhat conservative	Very conservative	Undecided
Terrorism	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free Speech	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immigration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Security & Medicare	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abortion	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unemployment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimum Wage	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax Reform	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Net Neutrality	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gun Control	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Healthcare	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(6.1)

	Very liberal	Somewhat liberal	Somewhat conservative	Very conservative	Undecided
Terrorism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Free Speech	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Immigration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Social Security & Medicare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Abortion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Unemployment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Minimum Wage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Tax Reform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Net Neutrality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Gun Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

(6.2)

	Very liberal	Somewhat liberal	Somewhat conservative	Very conservative	Undecided
Terrorism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Free Speech	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Immigration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Social Security & Medicare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Abortion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Unemployment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Minimum Wage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tax Reform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Net Neutrality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Gun Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

(6.3)

Figure 6. Political poll stimuli used in Chapter 2, Study 1
 Participants in the liberal target condition saw 6.1, while those in the conservative target condition saw 6.2, and those in the undecided target condition saw 6.3.

As my main measure of dehumanization, participants rated John on ten measures designed to assess attribution of experience and agency (Kozak, Wegner, & Marsh, 2006). For the experience items, participants indicated whether John: (1) has complex feelings, (2) can experience pain, (3) is capable of emotion, (4) can experience pleasure. For the agency items, participants indicated whether John: (5) is capable of doing things on purpose, (6) is capable of

planned action, (7) has goals, (8) is highly conscious, (9) has a good memory, and (10) can engage in a great deal of rational thought (1 = *strongly disagree*; 7 = *strongly agree*). I also asked participants to rate how much they liked the character, how much they respected him, and the extent to which they thought he was a good American (all items: 1 = not at all; 7 = very much). I included these measures to provide a dissociation between dehumanization and disliking. The order of the mind attribution items and favorability measures were counterbalanced.

Lastly, I also asked participants to indicate their own political ideology (1 = extremely liberal; 4 = moderate/middle of the road; 7 = extremely conservative).

Results

I first sorted participants into two groups, liberal (65.7% of the sample) and conservative (34.3% of the sample), based on their self-reported political ideology. Individuals were considered “liberal” if they self-reported as “extremely liberal,” “liberal,” or “somewhat liberal.” This process was repeated for the conservative group. I then created a variable based on the match between participants’ self-reported ideology and John’s ideology. More specifically, if John was described as conservative (liberal) and the participant was in the conservative group, that was coded as a match (mismatch), and vice-versa. If John was described as undecided, this was coded as “undecided,” regardless of the participants’ own ideology. Therefore, this variable took on one of three possible values: match (John is x, participant is x), mismatch (John is x, participant is y), and undecided (John is undecided, participant is x or y). I repeated this analysis for studies 1-5, unless otherwise specified.

I sorted the ten mind attribution items into composite measures mapping onto the two dimensions of mind: agency and experience. As the two dimensions were highly correlated ($r = .89$), I combined all ten items into a single composite measure for the analysis ($\alpha = .94$) and repeated this analysis for all remaining studies unless otherwise noted. An ANOVA on the

composite with ideological match as the independent variable revealed a significant main effect of match $F(2,393) = 87.92, p < .001$. Unsurprisingly, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 4.63, SD = 1.32$) than the match character ($M_{\text{Match}} = 5.75, SD = 1.05$) $t(264) = -7.01, p < .001$. Crucially, however, the undecided character ($M_{\text{Undecided}} = 3.68, SD = 1.50$) was rated as having less mind than both the match character $t(274) = -13.23, p < .001$ and the mismatch character $t(257) = -5.88, p < .001$, in line with my first hypothesis.

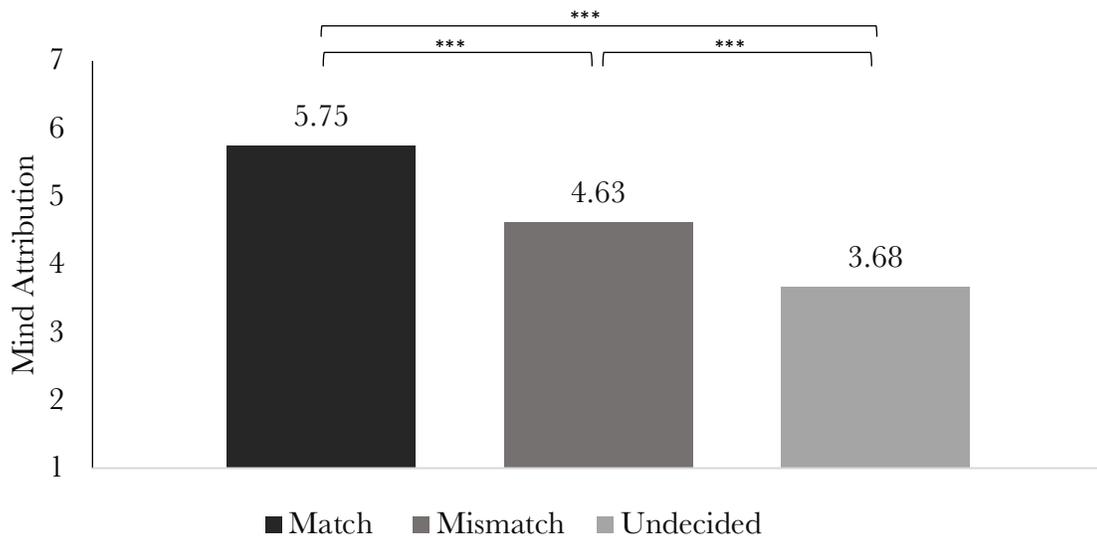


Figure 7. Mind attribution ratings for full poll stimuli in Chapter 2, Study 1
 People attribute less mind to an undecided person, compared with both someone who matches them and mismatches them, ideologically. (***) $p \leq .001$.

Though there was an unpredicted main effect of order $F(1, 393) = 4.84, p = .028$, with the character eliciting higher mind attribution ratings on average when the dehumanization items were presented second, the match x order interaction was not significant $F(2, 393) = .30, p = .744$.

Moving to the liking, respect, and citizenry measures ($\alpha = .95$), I combined them into a single favorability composite measure. An ANOVA on the favorability composite with ideological match condition as the independent variable revealed a significant main effect of

match $F(2, 393) = 187.24, p < .001$. Unsurprisingly, participants liked the mismatch character ($M_{\text{Mismatch}} = 2.87, SD = 1.33$) less than the match character ($M_{\text{Match}} = 5.56, SD = 1.23$) $t(264) = -16.28, p < .001$. They liked the undecided character ($M_{\text{Undecided}} = 2.80, SD = 1.47$) less than the match character $t(274) = -17.04, p < .001$, but similarly to the mismatch character $t(257) = -.42, p = .68$. There was no order effect $F(1, 393) = 1.87, p = .172$ or match x order interaction $F(2, 393) = .23, p = .793$.

Discussion

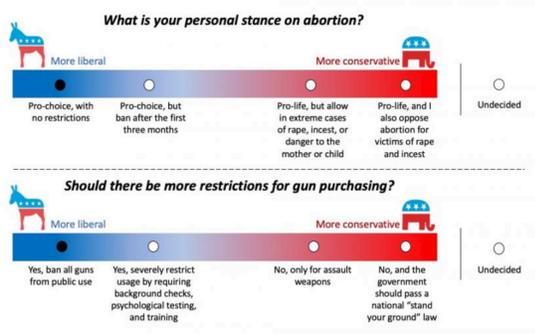
Overall, I found that people attribute even less mind to an undecided person compared with someone on the opposite end of the political spectrum in the context of multiple political issues, in line with my first hypothesis. These results contradict the idea that indecision might benefit the character by making him appear less biased and thus more mindful than those who are politically-dissimilar. They also fail to support the theory that people consider indecision the same as disagreement; I find evidence that, at least in terms of mind attribution, undecided individuals are perceived more negatively when they lack opinions on a number of issues. Despite the observed difference on mind attribution, undecided people were not liked or respected less than ideologically-opposite others. Results from these additional measures provides further evidence to the growing body of work that suggests that dehumanization is distinct from negative evaluation more generally (Bruneau, Jacoby, Kteily, & Saxe, 2017; Kteily & Bruneau, 2017; Waytz & Epley, 2012).

Though I provide evidence for the basic effect, one could argue that the stimuli used in this study were extreme, as the undecided character exhibited indecision for twelve different issues in the political poll. It should be noted, however, that each of the conditions in this study were equally extreme – the liberal and conservative characters were described as having straight-lined “very liberal” and “very conservative,” respectively for each of the issues presented, thus

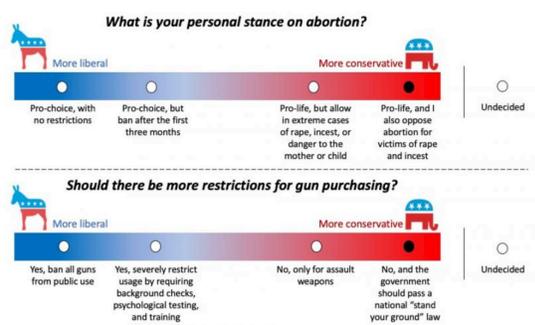
providing a robust parallel to the undecided character. Nevertheless, focusing on attitudes towards one or two issues might provide a more realistic demonstration of the effect and increase the external validity of the research. To explore this possibility, I conducted three follow-up studies (A-C). In Follow-up A, participants were presented with a character's opinion on two sociopolitical issues. In Follow-up B, participants were shown the character's opinion towards electoral candidates, who supported either liberal or conservative platforms. In Follow-up C, only one issue was presented.

Follow-up A: Examining Undecidedness on Two Issues

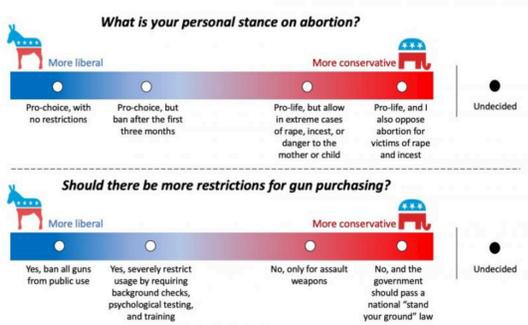
In Follow-up A ($n_{Excl. moderate participants} = 436$ Prolific workers; $M_{age} = 33.72$, $SD = 12.48$; 44.72% men), similar to Study 1, participants were asked to imagine that a 35-year-old man named John had taken part in an anonymous poll. However, unlike Study 1, the poll gauged the character's views on just two political issues, abortion and gun control (see Figure 8).



(8.1)



(8.2)



(8.3)

Figure 8. Two-issue stimuli in Chapter 2, Follow-up A

Participants in the liberal target condition were presented with 8.1, while those in the conservative target condition were presented with 8.2, and those in the undecided target condition were presented with 8.3.

Participants were then exposed to John’s “answers” to the poll, which indicated that he was either “very liberal,” “very conservative,” or “undecided” on each of the issues. Compared to the previous study, the poll used in Follow-up A gave more detail to John’s answers, beyond the labels of liberal and conservative, which ensured that participants better understood the character’s stance on each of the two issues. Following the manipulation, participants were asked to rate the target character on the ten mind attribution measures before self-reporting their own political affiliation using the same scale from Study 1 (72.5% and 27.5% of the final sample identified as liberal and conservative, respectively). Matches were determined based on the match between the target’s and participant’s ideologies, as was done in Study 1.

An ANOVA on the mind attribution composite ($\alpha = .93$) with ideological match as the independent variable revealed a significant main effect of match $F(2, 433) = 43.01, p < .001$. Again, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 4.49, SD = 1.27$) than the match character ($M_{\text{Match}} = 5.56, SD = 1.00$) $t(288) = -7.44, p < .001$. However, deviating from the Study 1 results, while the undecided character ($M_{\text{Undecided}} = 4.31, SD = 1.36$) was rated as having less mind than the match character $t(282) = -8.62, p < .001$, he was perceived similarly human to the mismatch character $t(299) = -1.29, p = .197$.

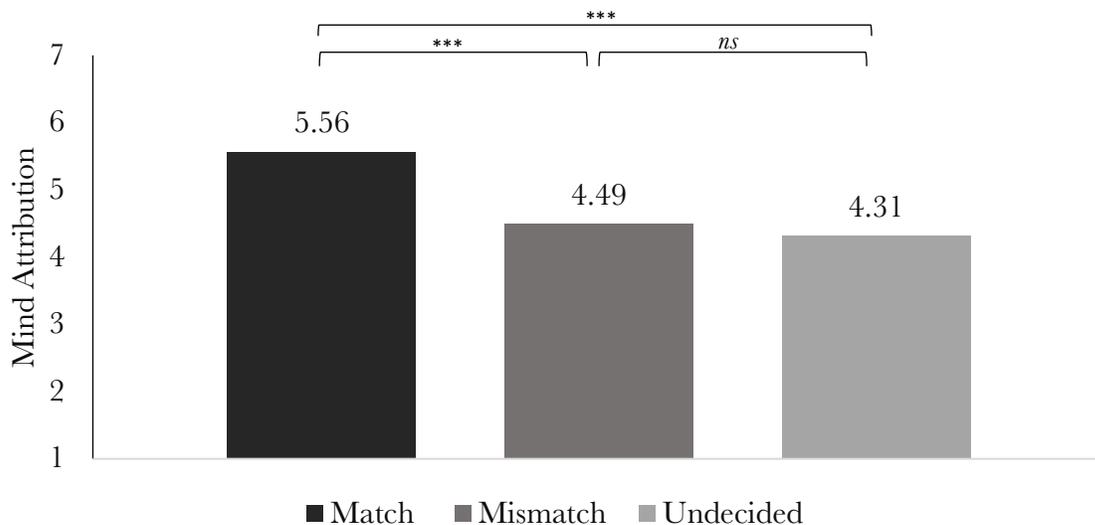


Figure 9. Mind attribution ratings for two-issue stimuli in Chapter 2, Follow-up A. People attribute similar degrees of mind to someone who is undecided versus someone who mismatches them ideologically on two issues. (***) $p \leq .001$

Follow-up B: Examining Undecidedness on Candidates

In Follow-up B ($n_{\text{Excl. undecided participants}} = 428$ Prolific workers; $M_{\text{age}} = 34.50, SD = 11.70$; 45.09% men), I used a third variation in stimuli. In this study, I asked participants to imagine that it was a few days before the next presidential election, and the race was between two candidates, Louis Canseco and Joseph Rydell Jr. All participants were then shown profiles of both candidates (see Figure 10).

Louis Canseco, 59

Senator of California



Liberal

"It's time to bring about the progressive change that this country needs and that Washington has failed to deliver."

Party: Democrat

On the Issues:

Abortion: Pro-choice

Immigration: Opposes border wall

Healthcare: Supports the Affordable Care Act

Energy: Focus on clean energy

Tax Reform: Lower tax rates for middle class

Gun Control: Supports

Minimum Wage: Supports increase

Joseph Rydell Jr., 61

Governor of Virginia; former state attorney general



Conservative

"As president, I will aim to protect this country and its citizens, and to restore its traditional values."

Party: Republican

On the Issues:

Abortion: Pro-life

Immigration: Supports border wall

Healthcare: Wants to repeal the Affordable Care Act

Energy: Opposes Paris Climate Accord

Tax Reform: Lower tax rates for middle class

Gun Control: Opposes

Minimum Wage: Opposes increase

Figure 10. Candidate stimuli used in Chapter 2, Follow-up B
Participants saw profiles of two presidential candidates.

They were then told that a man named John had to decide which of the two candidates to vote for. I manipulated whether John was described as intending to vote for the liberal candidate, the conservative candidate, or that he was still undecided about which candidate he would support and would decide on election day. Participants were then asked to rate John on the mind attribution measures and self-report their own opinion on who they themselves would vote for (liberal candidate, conservative candidate, or undecided; 83.2% and 16.8% of the final sample chose the liberal and conservative candidate, respectively). Unlike in the previous studies, matches were determined based on the match between the target's and participant's choice of who to vote for.

An ANOVA on the mind attribution composite ($\alpha = .94$) with intention-to-vote match as the independent variable revealed a significant main effect of match $F(2, 425) = 37.53, p < .001$. Once again, participants rated the mismatch character ($M_{\text{Mismatch}} = 4.80, SD = 1.22$) as having significantly less mind than the match character ($M_{\text{Match}} = 5.71, SD = .90$) $t(287) = -6.74, p <$

.001. Similar to the results observed in Follow-up A, the undecided character ($M_{\text{Undecided}} = 4.61$, $SD = 1.26$) was perceived as having less mind compared to the match character $t(279) = -8.11$, $p < .001$, and he was perceived similarly to the mismatch character $t(287) = -1.48$, $p = .140$.

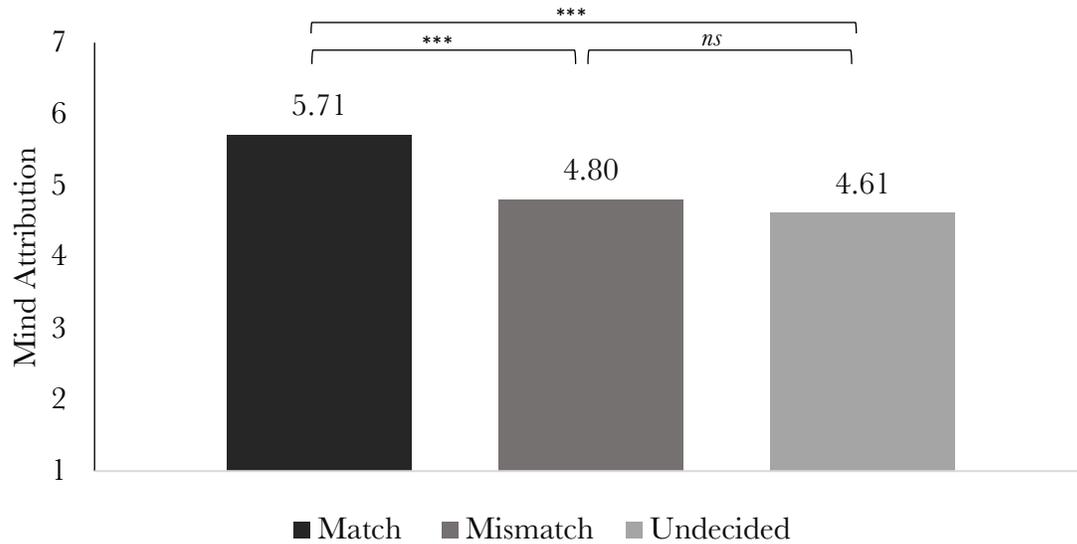


Figure 11. Mind attribution ratings for candidate stimuli in Chapter 2, Follow-up B
 People attribute similar degrees of mind to someone who is undecided versus someone who mismatches them ideologically on views towards political candidates. (***) $p \leq .001$)

Follow-up C: Examining Undecidedness on Single Issues

Follow-up Study C ($n_{\text{Excl. undecided participants}} = 403$ MTurk workers; $M_{\text{age}} = 36.44$, $SD = 10.78$; 57.60% men) leveraged another variation of the stimuli, which presented the target character’s opinion on a single sociopolitical issue, either abortion or gun ownership. Unlike Study 1 and Follow-up A, Follow-up C did not present the character’s attitude on the issue as part of a poll. Instead, participants read a short description about a person named John who believed that abortion [gun ownership] should be either legal, illegal, or was undecided on the topic. For example, participants read, “Abortion is the intentional ending of a pregnancy,” or in the gun ownership condition: “Gun ownership is the ability of non-military citizens to purchase and own firearms.”

I manipulated John’s opinion on the issue. In the conservative condition, participants read, “John believes that abortion [gun ownership] should be illegal [legal] in the United States.” In the liberal condition, they read, “John believes that abortion [gun ownership] should be legal [illegal] in the United States.” Those in the undecided condition read, “John is undecided about whether abortion [gun ownership] should be legal or illegal in the United States.”

The issue, either abortion or gun control, was randomized across participants. Following the manipulation, participants were asked to rate the target character on the ten mind attribution measures used in prior studies before reporting their own opinion on the issue – whether they themselves thought that the given behavior should be legal, illegal, or were undecided (71.7% and 28.3% of the final sample identified as having liberal and conservative opinions on the issue, respectively). Importantly, because participants could endorse opinions on specific issues that diverge from party lines (e.g., someone might identify as conservative, but strongly oppose the death penalty), I leveraged a different matching technique than that used in Study 1 and Follow-ups A and B. More specifically, matches were determined based on the match between the targets’ and participants’ opinion towards the singular issue, as opposed to their political affiliation overall. This matching technique limits the noise that would otherwise be introduced by matching on overall ideology.

An ANOVA on the mind attribution composite ($\alpha = .94$) with issue and ideological match as independent variables revealed a significant main effect of match $F(2, 397) = 10.12, p < .001$. Unsurprisingly, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 5.22, SD = 1.39$) than the match character ($M_{\text{Match}} = 5.89, SD = 1.06$) $t(266) = -4.56, p < .001$. In contrast to Study 1 and Follow-up A, however, the undecided character $M_{\text{Undecided}} = 5.60, SD = 1.19$ was perceived as having more mind compared to the mismatch character $t(261) = 2.59, p = .02$, but less mind than the match character $t(276) = -1.98, p = .048$.

Interestingly, there was also a main effect of issue $F(1, 397) = 5.74, p = .017$, such that mind perceptions were lower in general among those in the gun ownership condition, though this was not predicted by the theory. The issue x ideological match interaction was not significant $F(2, 397) = 0.08, p = .921$.

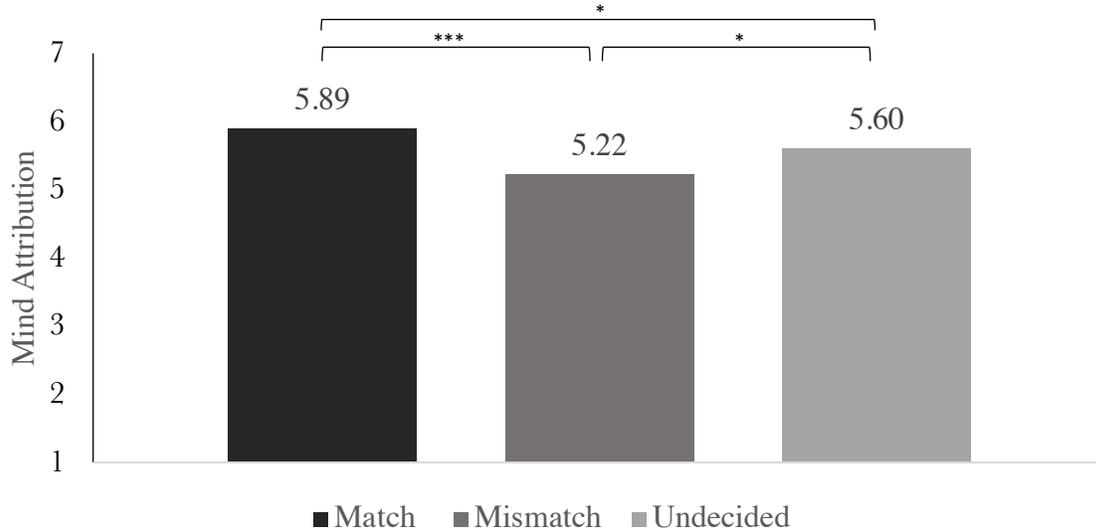


Figure 12. Mind attribution ratings for single-issue stimuli in Chapter 2, Follow-up C
 People attribute more mind to someone who is undecided on a single issue compared with one who is ideologically-dissimilar, but less mind than one who is ideologically-similar to themselves. (***) $p \leq .001$; * $p < .05$)

Discussion

Taken together, the results of follow-ups A, B, and C suggest that the magnitude of the effect of undecidedness on mind attribution diminishes with the number of sociopolitical issues presented. I observed a robust effect in favor of my theory when the target character was undecided on a list of twelve issues, such that he was dehumanized to an even greater extent than someone who ideologically opposed the perceiver. However, when undecidedness was limited to just two issues, perceptions of these two groups were not significantly different.

A similar pattern of results was observed for choices involving two presidential candidates. In this case, although candidates may represent a host of issues defined along party lines, decisions about who to vote for involve other considerations beyond simply ideology. For example, the candidates themselves might be an imperfect embodiment of the political ideologies they represent, as their positions on specific issues could deviate significantly from that of their party's platform. And often, candidates' characters are seen as flawed. For example, in the 2016 U.S. presidential election, many voters expressed frustration with having to choose between two evils or, as Julian Assange put it "cholera or gonorrhoea," in reference to Hillary Clinton and Donald Trump (Politico, 2016), despite the two representing opposite ends of the political spectrum. As a result, undecidedness may not be evaluated as negatively in such contexts, driving up mind attribution for the undecided character.

The pattern of results shifted again for singular issues. When only one issue was presented, the effect disappears, and perceptions of undecideds were perceived as less human than ideologically-similar but more human than ideologically-dissimilar others. This suggests that one may give others the benefit of the doubt if they lack an opinion on a singular issue. Indeed, undecidedness on one issue doesn't necessarily convey one's stances (or lack thereof) on other, unrelated issues. For example, participants in follow-up C might have reasonably assumed that although the character is undecided on abortion, he may have extremely strong attitudes towards immigration or healthcare and, if given more time to ponder the issue, he would eventually form an opinion. However, when one is undecided on two or more issues, this beneficence towards the undecided individual begins to break down, as it hints at a potential lack of knowledge or caring towards sociopolitical issues on their behalf more generally. Moving forward, I will limit my investigation to such latter contexts, as they seem to present more fruitful areas for investigation.

Based on my theory, undecideds are perceived to be less capable of thought, deficient in their cognition and ability to form intentions. If the theory holds, this should affect their perceived competence at performing jobs that require a thoughtful mind. In my next study, I examine how being undecided affects one's competence as perceived by others.

Study 2a: Undecidedness Weakens Perceived Competence (Hypothetical)

To explore how being undecided affects others' perceptions of that person's competence, participants were once again exposed to the results of the political poll stimuli used in Study 1. However, participants rated the extent to which they believed the character was competent at performing a number of jobs, ranging from being a stockbroker to a scientist (Loughan et al. 2010) before gauging mind attribution. I predicted that the undecided character would be perceived as less competent than someone who matches and mismatches the perceiver politically and that mind attribution underlies the effect of attitude match on dehumanization.

Method

Participants. A total of 419 US-based Prolific completed the survey online in exchange for \$0.40. I excluded 89 participants from the analysis for identifying as politically “moderate/middle of the road,” leaving a final sample of 330 ($M_{\text{age}} = 36.14$, $SD = 12.19$; 46.97% men).

Procedure. This study employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

The scenario and stimuli used in this study were identical to that used in Study 1. Participants were asked to assess the competence of the character in the scenario at performing four different jobs (i.e., lawyer, manager, stockbroker, and scientist). Participants rated how competently they believed the character could perform each job (1 = extremely incompetent; 7 = extremely competent). I then asked participants to rate John on the set of ten mind attribution

measures used in Study 1, as well as to indicate their own political ideology (1=extremely liberal; 4=moderate/middle of the road; 7=extremely conservative).

Results

I repeated the process used in Study 1 in order to sort participants into two groups, liberal (69.1% of the sample) and conservative (30.9% of the sample), based on their self-reported political ideology in order to determine the match between participants' self-reported ideology and John's ideology (i.e., match, mismatch, and undecided). I then combined the four competence items to create a composite measure ($\alpha = .85$). An ANOVA on the competence measure with ideological match as the independent variable revealed a significant main effect of match $F(2, 327) = 94.32, p < .001$. Specifically, participants rated the undecided character ($M_{\text{Undecided}} = 2.52, SD = 1.21$) as less competent than the match character ($M_{\text{Match}} = 4.74, SD = 1.17$) $t(212) = -13.72, p < .001$ and the mismatch character ($M_{\text{Mismatch}} = 3.69, SD = 1.17$) $t(226) = -7.46, p < .001$. They also rated the mismatch character as less competent than the match character $t(219) = -6.59, p < .001$.

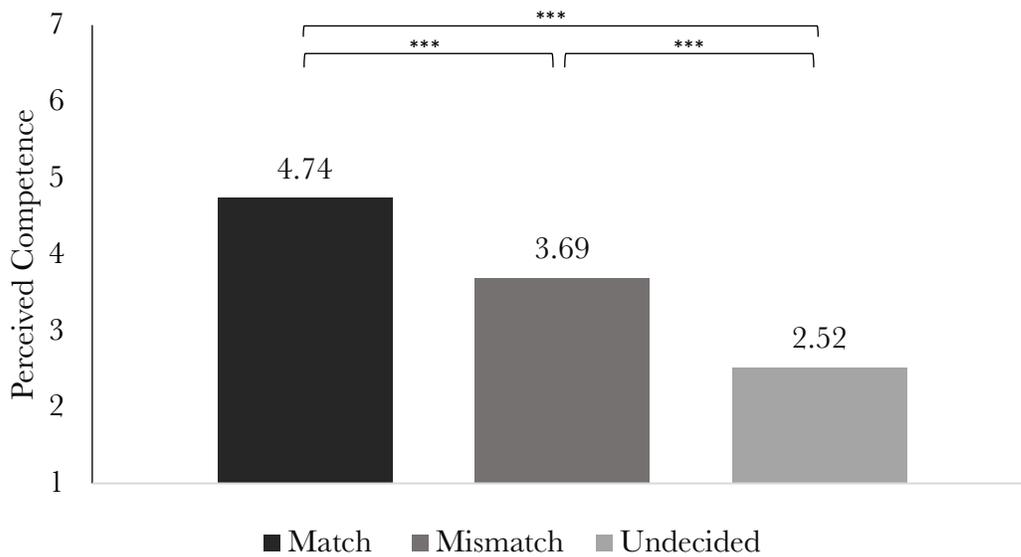


Figure 13. Competence ratings in Chapter 2, Study 2a

People perceive someone who is undecided on a number of political issues as significantly less competent than those with whom one agrees and disagrees politically. (***) $p \leq .001$

Turning to the mind attribution measures, an ANOVA on the mind attribution composite ($\alpha = .94$) with ideological match as the independent variable revealed a significant main effect of match $F(2, 327) = 60.70, p < .001$. Once again, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 4.90, SD = 1.04$) than the match character ($M_{\text{Match}} = 5.73, SD = .98$) $t(219) = -5.14, p < .001$. Crucially, however, the undecided character ($M_{\text{Undecided}} = 3.92, SD = 1.52$) was rated as having less mind than both the match character $t(212) = -10.99, p < .001$ and the mismatch character $t(226) = -6.12, p < .001$, in line with my first hypothesis.

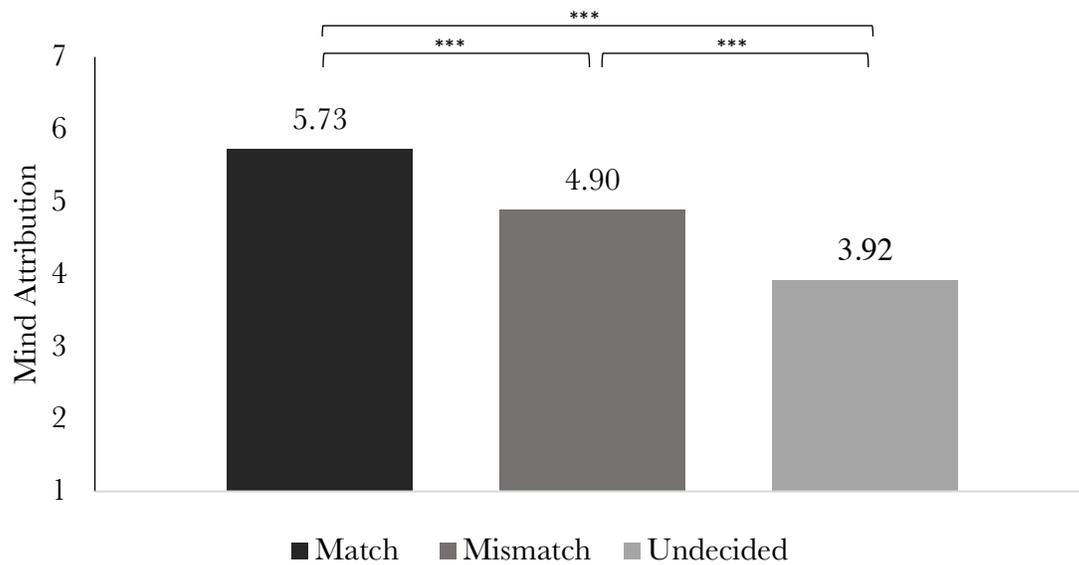


Figure 14. Mind attribution ratings in Chapter 2, Study 2a

People perceive someone who is undecided character on a number of issues as having significantly less mind than those with whom one agrees and disagrees politically. (***) $p \leq .001$

Based on my theorizing, I expected that mind attribution perceptions mediate the relationship between match (or lack thereof) and perceived competence. I tested my prediction by following a multicategorical mediation method (unless otherwise noted, all mediation analyses used PROCESS Model 4 based on 10,000 resamples; Hayes & Preacher, 2014), with two dummy variables representing the mismatch and match conditions and the undecided condition set as the reference group. The analysis yielded a significant relative indirect effect for the first contrast (X_1) ($\beta_{\text{Indirect}} = .41$, $SE = .09$, 95% CI = [.25, .60]), indicating mediation. Attitude match predicted competence perceptions for the difference between the undecided and mismatch ($\beta = 1.17$, $SE = .16$, $p < .001$), as well as mind attribution ($\beta = .98$, $SE = .16$, $p < .001$). Controlling for mind attribution, attitude match predicted competence perceptions to a weaker degree ($\beta = .76$, $SE = .15$, $p < .001$). A significant relative indirect effect was also obtained for the second contrast between the undecided and match characters (X_2) ($\beta_{\text{Indirect}} = .77$, $SE = .12$, 95% CI = [.54, 1.01]),

also indicating mediation. Attitude match predicted competence perceptions ($\beta = 2.22$, $SE = .16$, $p < .001$), and mind attribution ($\beta = 1.81$, $SE = .17$, $p < .001$). Controlling for mind attribution, the effect of attitude match was weakened but still significant ($\beta = 1.45$, $SE = .17$, $p < .001$).

Discussion

In Study 2a, I found that being undecided on multiple sociopolitical issues affects one's perceived competence, such that undecideds were deemed to be less successful at performing a number of different jobs that require a capable mind, such as being a stockbroker or scientist, compared to those with whom one agrees and disagrees politically. Mind attribution underlies this effect, with people perceiving the undecided character as possessing less mind than both the politically-similar and dissimilar characters. To further explore this idea, I attempted to replicate Study 2a using a real measure of behavior – partner choice.

Study 2b: Undecidedness and Partner Choice on Competency Task

To examine how undecidedness affects others' perceptions of, and subsequent behavior, towards the undecided individual, participants were asked to choose between two possible partners to work on an IQ test, or competence task, with. One of the partners was described as a mismatch politically, while the other was politically undecided. As bonuses were ostensibly tied to performance, participants were incentivized to choose the person they perceived to be the more competent partner. If the effect holds, undecidedness should have consequences for behavior, such that individuals should prefer to work with politically decided others compared with undecided individuals because they perceive the former as more competent for tasks that require a competent mind.

This design of this study has several potential benefits. Firstly, it leverages a different manipulation than that previously used in Studies 1-2, as it uses simple labels to describe the potential partners' overarching political ideology (i.e., “liberal,” “conservative”). This should

succinctly communicate partners' stances across a number of sociopolitical issues without explicitly listing them out. Secondly, and relatedly, information about potential partners' political ideology is given an equal amount of emphasis as control information, such as age and employment status. This reduces demand effects and increases the external validity of the study, as it better ensures that participants themselves determine which information weighs more or less heavily in their decision process when choosing a partner.

Method

Participants. A total of 52 US-based Prolific workers completed the survey online in exchange for \$0.40, as well as a bonus of \$.40. I excluded 7 participants from the analysis for identifying as politically “undecided,” leaving a final sample of 45 ($M_{\text{age}} = 34.22$, $SD = 12.32$; 44.44% men).

Procedure. This study employed a match between participant and character ideology (match condition: mismatch v. undecided) within-participants design.

Participants were informed that they (Player A) would be paired with another person (Player B) to complete a task. However, before beginning the task, they filled out a battery of demographic questions, including their initials, employment status, age, region of residence, and their political orientation (i.e., very liberal, liberal, very conservative, conservative, undecided). They were then reminded that they would need to work with a partner on the upcoming task, which would involve both players separately but simultaneously answering two IQ questions each, the cumulative score of which would determine their bonuses (\$.10 for each correct answer for a maximum bonus of \$.40). To provide further clarity, they were told, “For example, if Player A correctly answers 1/2 questions and Player B correctly answers 1/2 questions, both players will receive a \$.20 bonus. If Player A correctly answers 1/2 questions and Player B correctly answers 0/2 questions, both players will receive a \$.10 bonus.”

After reading the instructions, they answered two comprehension checks to ensure they understood the scenario before moving on to the next part of the task.

Participants were then taken to a page which displayed a loading circle animation, intended to visually convey that they were in the process of being paired with potential partners. After a few seconds, the “profiles” of two potential partners, neither of which were real, appeared on the screen, and participants were informed that since two people were available for them to partner with, they could select their partner themselves based on the information provided. The profiles of the “partners” included the same type of information participants themselves had been asked to provide at the beginning of the study – initials, employment status, age, region, and political orientation. Crucially, one profile stated that the respondent was “liberal [conservative].” The political orientation of this profile depended on the participants’ own response and was made to mismatch the orientation of the participant. The other profile read “Undecided” for political orientation (see Figure 15 below). The order of the profiles was counterbalanced.

<p>Initials: JM Employment: self-employed Age: 18-27 Region: Northeast Political views: Liberal</p>	<p>Initials: JS Employment: self-employed Age: 28-37 Region: West Political views: Undecided</p>
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Figure 15. Partner choice stimuli used in Chapter 2, Study 2b
Participants saw profiles containing demographic information for two potential partners, one of which opposed them politically (vs. their own self-reported ideology) and the other described as undecided.

After viewing the two options, participants then selected which partner they wanted to be paired with (binary option: profile 1 or profile 2). After making a choice, they were then asked

why they chose the partner they did, what information they noticed about him (e.g., initials, employment, age, region, political views), and answered two IQ questions. They were then debriefed and dismissed. Due to the fictional nature of the game, each participant received the maximum bonus of \$.40.

Discussion

A binomial sign test revealed that when participants were asked to choose who they would like to be partnered with for the IQ task, they were no more likely to choose a person that was described as a mismatch, politically (44%; 20/45) than one who was politically undecided (56%; 25/45, $p = .551$). However, a chi-squared test of presentation order on partner choice did find an order effect ($\chi^2(1) = 5.14, p = .023$); participants seemed to prefer to partner with whichever profile was presented in the second position, regardless of the political ideology possessed by the person described. An analysis of the open-ended questions used to gauge participants reasoning for their choice revealed that while 93% (42/45) of participants reported noticing the information about the potential partners' political ideologies, less than half (44%; 20/45) claimed to use that as a determining factor in the decision.

Unfortunately, this null result fails to provide additional evidence that my effect extends beyond a hypothetical scenario to real behavior. While it seems that people may judge undecideds as having less mind and specifically, less competence, other concerns, such as age, employment, and even the order in which partners are displayed, may be better determinants of partner choice than political ideology. The null result could also be due to the design of the study. More specifically, Study 2b leveraged a novel manipulation of political preference – liberal or conservative labels – previously unexplored in the prior studies. It is possible that this manipulation fails to elicit the same degree of dehumanization that the others succeeded in inducing. As mind attribution was not measured in this study, this possibility cannot be ruled out.

Beyond competence, based on the theory, undecideds should be seen as less capable of feeling complex emotions compared to those with whom one agrees and disagrees. If this line of thinking is correct, undecideds would be expected to behave in ways consistent with an inability to feel. For example, they may be perceived as less affected by a distressing situation, such as the death of a friend or loved one. I explore this possibility in Study 3.

Study 3a: Undecidedness and Perceived Sensitivity to Emotional Pain

To understand how being undecided affects others' perceptions of that person's reactivity to emotional distress, participants were once again exposed to the results of the political poll stimuli used in Study 1. Participants then read a short scenario which described a potentially emotionally-distressing event in the target's life, before answering questions about how the target would react to the situation. I predicted that people would expect the undecided character to be less distressed by the situation compared to someone who matches and mismatches the perceiver politically. Mind attribution should mediate the effect.

Method

Participants. A total of 417 US-based Mechanical Turk workers completed the survey online in exchange for \$0.35. I excluded 75 participants from the analysis for identifying as politically "moderate/middle of the road," leaving a final sample of 342 ($M_{\text{age}} = 36.77$, $SD = 13.20$; 45.03% men).

Procedure. This study employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

The scenario and stimuli used in this study was identical to the poll stimuli used in Study 1 and 2a. After viewing the poll, participants then read an emotionally-distressing story. More specifically, they read that one of John's neighbors, an elderly man named Walter, was recently diagnosed with cancer and needed to move into a nursing home because he could no longer care

for himself. Walter was described as being well-known in the community as a kind man, but who had few living family members and no one to care for him in his ill state. Participants rated how upset they believed John would be to hear the news about Walter (1 = not at all; 7 = a great deal). They then read that a neighbor was putting together a care package with a card, flowers, and mementos for Walter on behalf of the neighborhood. Participants entered how much money they thought John would donate to the care package (\$0-\$250) and also rated how much they thought John would write in a memory book for Walter, compared to other neighbors (1=much less than the other neighbors; 4=about as much as the other neighbors; 7=much more than the other neighbors).

After this exercise, participants were asked to rate John on the set of ten mind attribution items used in Study 1. At the end of the study, I then asked participants to indicate their own political ideology (1=extremely liberal; 4=moderate/middle of the road; 7=extremely conservative).

Results

I repeated the process used in Study 1 in order to sort participants into two groups, liberal (68.3% of the sample) and conservative (31.7% of the sample), based on their self-reported political ideology in order to determine the match between participants' self-reported ideology and John's ideology (i.e., match, mismatch, and undecided).

Turning first to the emotional-reactivity measures, an ANOVA on the upset measure with ideological match as the independent variable revealed a significant main effect of match $F(2, 338) = 32.07, p < .001$. Participants rated the match character as being more upset ($M_{\text{Match}} = 4.71, SD = 1.66$) than the mismatch character ($M_{\text{Mismatch}} = 3.15, SD = 1.64$) $t(223) = 6.81, p < .001$ and the undecided character ($M_{\text{Undecided}} = 3.06, SD = 1.84$) $t(221) = 7.18, p < .001$.

However, the undecided character was not rated as being less upset than the mismatch character $t(235) = -.41, p = .682$.

The donation and memory book measures show a similar pattern. An ANOVA on the donation measure with ideological match as the independent variable revealed a significant main effect $F(2, 338) = 9.43, p < .001$, with participants rating the undecided character ($M_{\text{Undecided}} = 19.03, SD = 40.88$) as donating a similar amount of money to the mismatch character ($M_{\text{Mismatch}} = 16.29, SD = 30.25$) $t(235) = -.57, p = .571$, but less than the match character ($M_{\text{Match}} = 36.37, SD = 39.53$) $t(221) = -3.48, p = .001$. The mismatch character was rated as donating less than the match character as well $t(223) = -4.05, p < .001$. The ANOVA on the memory book measure with ideological match as the independent variable also revealed a significant main effect $F(2, 338) = 52.10, p < .001$. Participants rated the undecided character ($M_{\text{Undecided}} = 2.72, SD = 1.37$) as writing a similar amount to the mismatch character ($M_{\text{Mismatch}} = 2.83, SD = 1.48$) $t(235) = .63, p = .530$, but less than the match character ($M_{\text{Match}} = 4.44, SD = 1.32$); $t(221) = -9.20, p < .001$. The mismatch character was rated as writing less than the match character as well $t(223) = -8.62, p < .001$.

Table 1. Emotional reactivity ratings in Chapter 2, Study 3a

Measure	Match Condition	Mismatch Condition	Undecided Condition	Statistic
Upset	4.71(1.66)	3.15 (1.64)	-	$t(223) = 6.81, p < .001$
	-	3.15 (1.64)	3.06 (1.84)	$t(235) = .41, p = .682$
	4.71(1.66)	-	3.06 (1.84)	$t(221) = 7.18, p < .001$
Money donated	36.37(39.53)	16.29(30.25)	-	$t(223) = 4.05, p < .001$
	-	16.29(30.25)	19.03(40.88)	$t(235) = -.57, p = .571$
	36.37(39.53)	-	19.03(40.88)	$t(221) = 3.48, p = .001$
Memory book	4.44(1.32)	2.83(1.48)	-	$t(223) = 8.62, p < .001$
	-	2.83(1.48)	2.72(1.37)	$t(235) = .63, p = .530$
	4.44(1.32)	-	2.72(1.37)	$t(221) = 9.20, p < .001$

Note. Standard deviations are in parentheses.

Moving next to the dehumanization measures, an ANOVA on the mind attribution composite ($\alpha = .95$) with ideological match as the independent variable revealed a significant main effect $F(2, 338) = 38.64, p < .001$, replicating my result from Study 1. Once again, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 5.00, SD = 1.27$) than the match character ($M_{\text{Match}} = 5.88, SD = .96$) $t(223) = -5.20, p < .001$. The undecided character ($M_{\text{Undecided}} = 4.39, SD = 1.48$) was rated as having less mind than both the match character $t(221) = -8.77, p < .001$ and the mismatch character $t(235) = -3.71, p < .001$, in line with my first hypothesis.

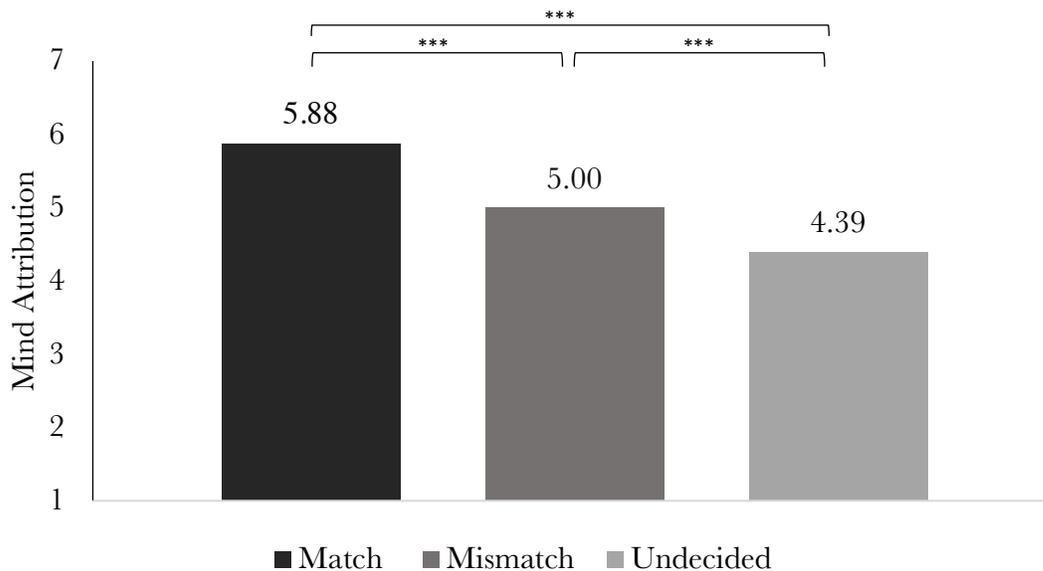


Figure 16. Mind attribution ratings in Chapter 2, Study 3a
 People attribute less mind to someone who is undecided on a number of issues compared to those who are ideologically-similar and dissimilar to themselves. (***) $p \leq .001$)

Based on my theorizing, I expected that mind attribution perceptions mediate the relationship between match (or lack thereof) and upset perceptions. A multicategorical mediation analysis yielded a significant relative indirect effect for the first contrast (X_1) ($\beta_{\text{Indirect}} = .29, SE = .09, 95\% \text{ CI} = [.12, .48]$), indicating mediation. Though attitude match did not predict upset

perceptions for the difference between the undecided and mismatch ($\beta = .09, SE = .22, p = .682$), it did predict mind attribution ($\beta = .61, SE = .17, p < .001$). Controlling for mind attribution, attitude match failed to predict upset perceptions ($\beta = .20, SE = .21, p = .345$). A significant relative indirect effect was also obtained for the second contrast between the undecided and match characters (X_2) ($\beta_{\text{Indirect}} = .71, SE = .12, 95\% \text{ CI} = [.48, .96]$), indicating mediation. Attitude match predicted upset perceptions ($\beta = 1.65, SE = .23, p < .001$), and mind attribution ($\beta = 1.49, SE = .17, p < .001$). Controlling for mind attribution, the effect of attitude match was weakened but still significant ($\beta = .94, SE = .24, p < .001$). Similar patterns were also observed for mediation models using the money donation and memory book dependent variables.

Discussion

Taken together, these results reveal that undecideds were perceived to have less mind, which subsequently affected how they were expected to react to a distressing situation. However, undecideds were expected to react similarly to the distressing situation to politically-dissimilar others, despite being attributed less mind. Although this result is surprising, the nonsignificant relationship between the mismatch and the undecided characters' attitudes' and how they were perceived to react might have been caused by other factors unrelated to my underlying theorizing. For example, perhaps people felt that the politically-dissimilar person, while having more mind, was also more judgmental of others (i.e., they engage in victim-blaming), and was therefore less emotionally reactive in situations that should be upsetting. That is, they might have been perceived as having a *worse* mind than both the match and the undecided person. Indeed, it may be difficult to ascribe positive emotions, such as empathy and compassion that similar situations normally elicit, to one's political enemies. Study 3b will attempt to further explore this effect in a different context.

Study 3b: Undecidedness and Perceived Sensitivity to Anger

To address concerns that the nonsignificant results observed in Study 3 were a result of the context used, I ran another iteration of the study, this time leveraging a scenario that typically induces anger, an emotion that, unlike empathy and compassion, is not necessarily flattering or even positive. Again, I predicted that people expect the undecided character to be less angered by the situation compared to someone who matches and mismatches the perceiver politically and that mind attribution should mediate the effect.

Method

Participants. A total of 621 US-based Prolific workers completed the survey online in exchange for \$0.35. I excluded 126 participants from the analysis for identifying as politically “moderate/middle of the road,” leaving a final sample of 495 ($M_{\text{age}} = 29.63$, $SD = 10.37$; 47.86% men).

Procedure. This study employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

In Study 3b, participants were presented the poll used in Studies 1, 2a, and 3a. Following the manipulation, participants then read, “Now imagine that John recently visited his local café to purchase a latte. He orders his drink, which costs \$4, but the employees fail to make his order and he is repeatedly ignored by the baristas. After waiting for over 15 minutes, John gives up and asks the cashier for a refund. The cashier refuses, saying that purchases are non-refundable.”

They were then asked to rate the target character on how angry they thought he would be in reaction to the situation (1=not at all; 7=extremely angry), as well as the likelihood that he would escalate the situation to the manager in order to obtain a refund (1=not at all likely; 7=extremely likely). Participants were then asked to rate John on the ten mind attribution measures used in Studies 1-2 and to self-report their own political ideology.

Results

Participants were sorted into two groups, liberal (73.3% of the sample) and conservative (26.7% of the sample), based on their self-reported political ideology in order to determine the match between participants' self-reported ideology and John's ideology (i.e., match, mismatch, and undecided).

I combined the likelihood of contacting manager and the anger scores ($r = .70$) to form a single emotional reactivity composite measure. An ANOVA on the composite with ideological match as the independent variable revealed a significant main effect of match $F(2, 492) = 42.63$, $p < .001$. Participants rated the mismatch character as reacting more intensely ($M_{\text{Mismatch}} = 6.07$, $SD = .96$) than the match character ($M_{\text{Match}} = 5.15$, $SD = 1.29$) $t(329) = 654$, $p < .001$ and the undecided character ($M_{\text{Undecided}} = 4.89$, $SD = 1.52$; $t(354) = 8.75$, $p < .001$). The undecided character was rated as reacting marginally less than the match character $t(304) = 1.76$, $p = .08$.

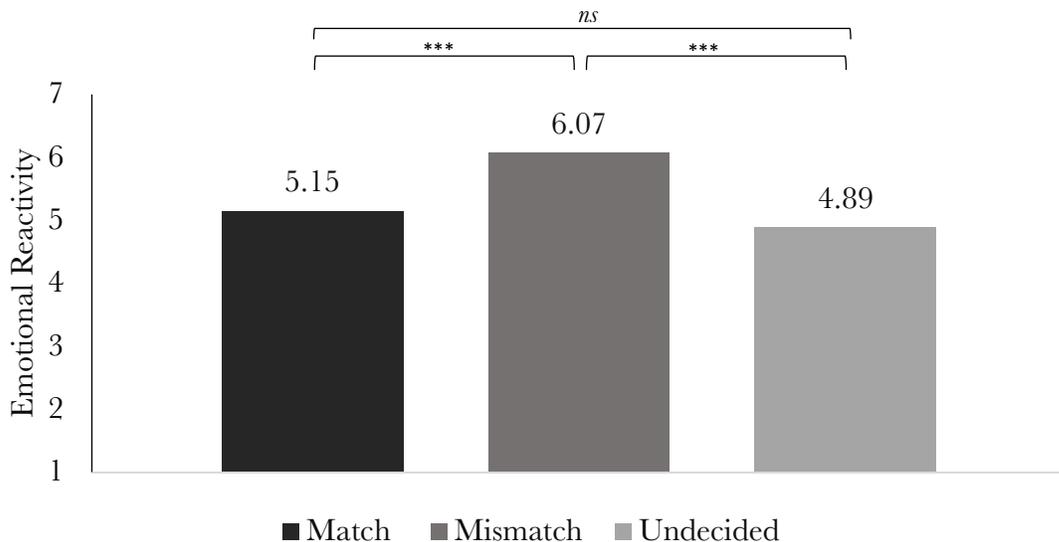


Figure 17. Emotional reactivity (anger) ratings in Chapter 2, Study 3b
People attribute greater levels of emotional reactivity to those with whom they disagree politically on a number of issues, compared with undecideds and those with whom they agree. (***) $p \leq .001$)

An ANOVA on the mind attribution composite ($\alpha = .92$) with ideological match as the independent variable revealed a significant main effect of match $F(2, 492) = 42.04, p < .001$. Participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 5.17, SD = 1.07$) than the match character ($M_{\text{Match}} = 5.62, SD = 1.00$) $t(329) = -3.63, p < .001$. The undecided character ($M_{\text{Undecided}} = 4.46, SD = 1.28$) was rated as having less mind than the match character $t(304) = -9.01, p < .001$ and the mismatch character $t(354) = -5.94, p < .001$.

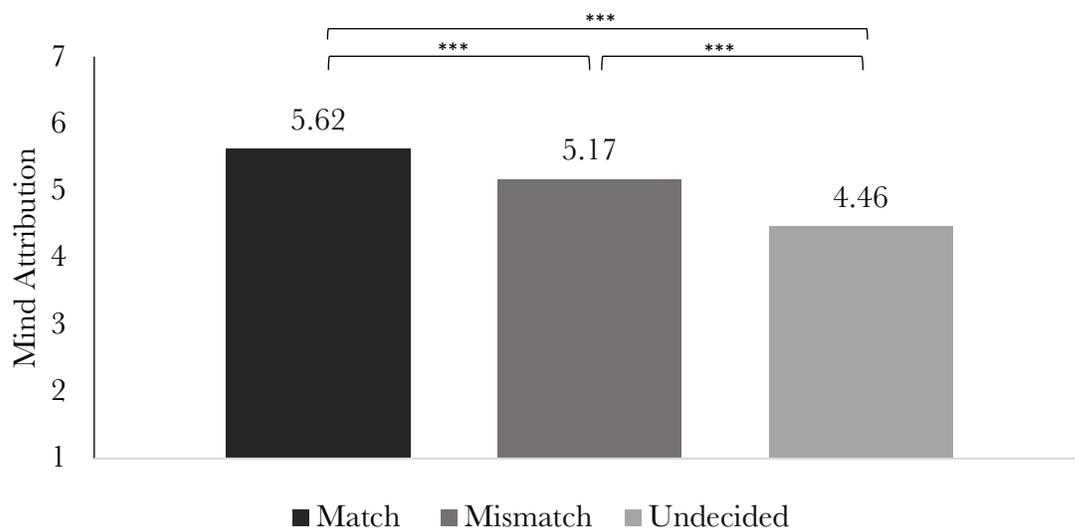


Figure 18. Mind attribution ratings in Chapter 2, Study 3b
 People attribute less mind to someone who is undecided on a number of political issues compared to both ideologically-similar and dissimilar others. (***) $p \leq .001$

Based on my theorizing, I expected that mind attribution perceptions mediate the relationship between match (or lack thereof) and emotional reactivity. A multicategorical mediation analysis yielded a significant relative indirect effect for the difference between the undecided and mismatch characters (X_1) ($\beta_{\text{Indirect}} = .12, SE = .05, 95\% \text{ CI} = [.04, .23]$). Attitude match predicted anger perceptions ($\beta = 1.18, SE = .13, p < .001$) and mind attribution ($\beta = .71, SE = .12, p < .001$). Controlling for mind attribution, attitude match continued to predict emotional reactivity, but to a lesser degree ($\beta = 1.05, SE = .14, p < .001$). A significant relative

indirect effect was obtained for the second contrast between the undecided and match characters (X_2) ($\beta_{\text{Indirect}} = .20, SE = .07, 95\% \text{ CI} = [.07, .36]$), indicating mediation. Though attitude match did not predict emotional reactivity perceptions for the difference between the undecided and match ($\beta = .25, SE = .15, p = .079$), it did predict mind attribution ($\beta = 1.16, SE = .13, p < .001$). Controlling for mind attribution, attitude match failed to predict emotional reactivity ($\beta = .05, SE = .15, p = .738$)

Discussion

Taken together, the results from Study 3a and 3b suggest that, though people perceive undecideds as similarly or even less human than their ideologically-dissimilar counterparts, they don't necessarily view them as relatively less emotionally reactive. This result might be due, in part, to the fact that all emotions are inherently valenced, and individuals may be more versus less motivated to attribute different emotional states to others depending on how it reflects back on the group. More specifically, people may be more reluctant to attribute positive emotions to ideologically-dissimilar people, but relatively more willing to attribute negative emotions. In Study 3a, which used a positively-valenced context (compassion), I observed that people expected the undecided person to be similarly emotionally reactive compared with the mismatch. In this case, the nonsignificant effect between the undecided and mismatch might have resulted because valance was depressing expectations of the mismatch; people may have found it difficult to ascribe positive emotions to one's political enemies. In contrast, in Study 3b, which used a negatively-valenced context (anger), I found a different pattern; people expected the undecided person to react similarly to the match, with the mismatch expected to be the most reactive. In this case, people may have found it easy to ascribe negative emotions to ideologically-dissimilar others, driving up the expected emotional reactivity of the mismatch relative to the match and undecided characters.

Thus far, I have shown evidence for the idea that people dehumanize those who are undecided politically to a similar or even greater degree than ideological dissimilar others, although the evidence on downstream consequences, such as perceived competence and emotional reactivity, is mixed. In the next study, I'd like to explore a final downstream consequence of attributing less mind to undecideds. Specifically, I'd like to assess how willing people are to engage with these individuals.

Study 4: Undecidedness and Willingness to Discuss Political Issues

In Study 4, I presented participants with information about another person's political opinions, which ranges from liberal to conservative to undecided, on a range of issues before gauging their interest in engaging political discourse with that person. Based on my theory, if indeed people perceive undecideds as having less mind, they should be less interested in speaking with them about sociopolitical issues because they are perceived to lack the capacity to feel for their cause and understand why it's important. If true, this would document an ironic effect, as one might expect people to express *greater* interest in speaking with an undecided person on important political issues (vs. someone who moderately opposes them), as the undecided person might be easier to influence compared with their more certain counterparts. Indeed, people are more prone to influence by others' opinions when experiencing higher levels of attitudinal ambivalence towards political issues, like social welfare, as they are more likely to be less discriminating about the authenticity of the message and its source (Eagly & Chaiken, 1995; Hodson, Maio, & Esses, 2001; Zemborain & Johar, 2006).

Method

Participants. A total of 483 US-based Prolific workers completed the survey online in exchange for \$0.35. I excluded 95 participants from the analysis for identifying as politically

“moderate/middle of the road,” leaving a final sample of 388 ($M_{\text{age}} = 36.34$, $SD = 13.00$; 46.39% men).

Procedure. This study employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

Participants were presented with the political poll stimuli used in Studies 1, 2a, 3a and 3b. After viewing the poll stimuli, participants were asked to “Imagine that [you] were interested in having a fruitful, productive political discussion with someone else, one who could understand the various arguments made by either side on the issues and who could appreciate the impact of the issues on people's lives.”

They were then asked to rate their interest in discussing the issues with John (1 = not at all interested; 7 = very interested) before rating John on the ten mind perception measures used in Studies 1-3.

Results

Participants were sorted into two groups, liberal (69.3% of the sample) and conservative (30.7% of the sample), based on their self-reported political ideology. I then created a variable based on the match between participants' self-reported ideology and John's ideology (i.e., match, mismatch, and undecided).

An ANOVA on the willingness to discuss measure with ideological match as the independent variable revealed a significant main effect of match $F(2, 385) = 28.43$, $p < .001$. Specifically, in line with my theorizing, participants indicated a lower willingness to discuss politics with the undecided character ($M_{\text{Undecided}} = 2.80$, $SD = 1.85$) compared with both the match character ($M_{\text{Match}} = 4.38$, $SD = 1.68$) $t(260) = -7.49$, $p < .001$ and the mismatch character ($M_{\text{Mismatch}} = 3.43$, $SD = 1.57$) $t(255) = -2.98$, $p = .003$. Unsurprisingly, they were also less willing to engage politically with the mismatch than the match character $t(258) = -4.46$, $p < .001$.

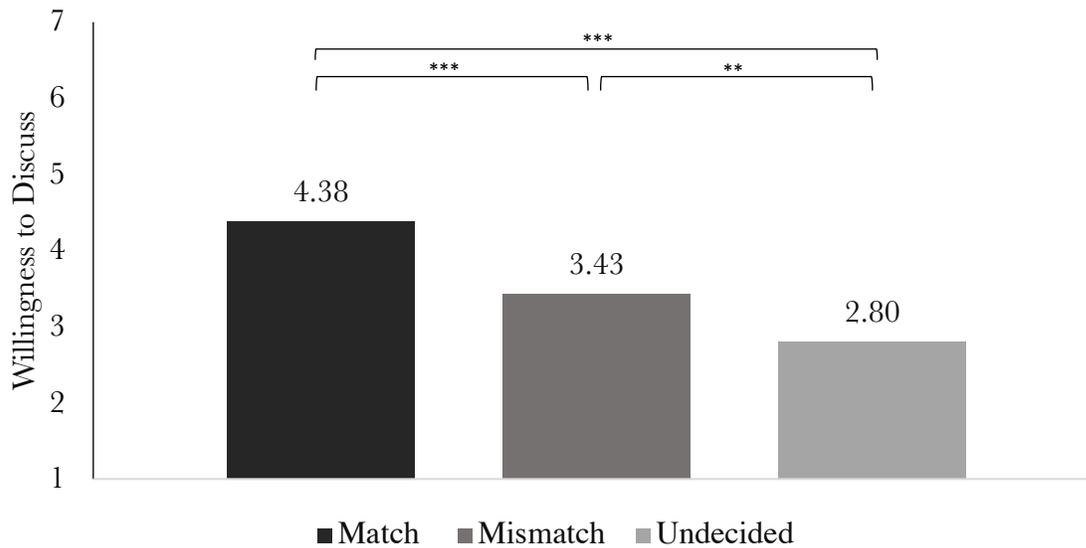


Figure 19. Willingness to discuss ratings in Chapter 2, Study 4
 People are less inclined to engage in political discourse with someone who is undecided on a number of political issues compared to those with whom one agrees and disagrees with politically. (***) $p \leq .001$; ** $p < .01$)

Moving to the dehumanization measures, an ANOVA on the mind attribution composite ($\alpha = .95$) with ideological match as the independent variable revealed a significant main effect of match $F(2, 385) = 34.66, p < .001$. Once again, participants rated the mismatch character as having significantly less mind ($M_{\text{Mismatch}} = 4.78, SD = 1.19$) than the match character ($M_{\text{Match}} = 5.23, SD = 1.11$) $t(258) = -2.87, p = .004$. Crucially, however, the undecided character ($M_{\text{Undecided}} = 3.94, SD = 1.48$) was rated as having less mind than both the match character $t(260) = -8.22, p < .001$ and the mismatch character $t(255) = -5.29, p < .001$, once again in line with my hypothesis.

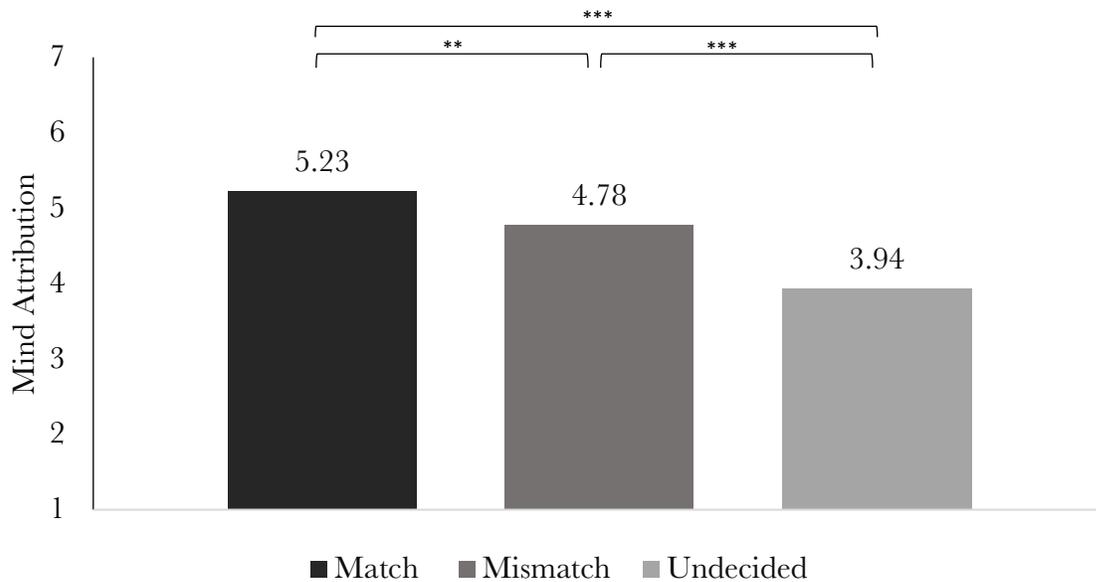


Figure 20. Mind attribution ratings in Chapter 2, Study 4
 People attribute the least amount of mind to those who are undecided on a number of political issues, compared to those with whom they themselves agree and disagree. (***) $p \leq .001$; ** $p < .001$)

Based on my theorizing, I expected that mind attribution perceptions mediate the relationship between match (or lack thereof) and willingness to discuss political issues with the character. A multicategorical mediation method yielded a significant relative indirect effect for the difference between the undecided and mismatch (X_1) ($\beta_{\text{Indirect}} = .45, SE = .11, 95\% \text{ CI} = [.25, .68]$). A significant indirect effect was also obtained for the second contrast between the undecided and match characters (X_2) ($\beta_{\text{Indirect}} = .69, SE = .12, 95\% \text{ CI} = [.47, .94]$), indicating mediation.

Discussion

The results of Study 4 demonstrate a potential negative downstream consequence of sociopolitical undecidedness on political discourse. That is, people appear to be less willing to discuss political issues with someone who is described as undecided on such matters when they have the goal of having a productive conversation with another person. Mind attribution

underlies this effect, such that the less mind one is perceived to have, the less willing others are to converse with them.

At first blush, this overall result is somewhat surprising, as logic dictates that people should be more willing to converse with someone who is undecided, as they presumably have greater potential to move that person's opinions in the direction of their own views (Hodson et al., 2001). However, if the conversation partner is perceived to have less mind, conversing would be fruitless as they would not be able to understand or care about the issue under discussion. This result is consistent with recent work on trust, which found that people trust those who care about social issues more than those who don't (Zlatev, 2019). Indeed, perceptions of morality are intimately connected with mind perceptions, such that those perceived as having less mind are seen as less trustworthy (Epley, Caruso, & Bazerman, 2006; Waytz, Heafner, & Epley, 2014).

Implicit in my theory is the idea that undecidedness on sociopolitical issues communicates that one is unable to think and feel sufficiently in order to form an attitude. How does knowledge of the facts regarding the issue and caring about the consequences of the issue both differentially affect attributions of mind by others? Do people deem it possible to care about and possess knowledge of the issue and still be undecided? Study 5 is intended to shed more light on the underlying process, specifically how knowledge and caring about sociopolitical issues differentially tie to humanity.

Study 5: Knowledge and Caring

Study 5 is divided into two parts. In part A, I examine how individuals perceive others' knowledge of and caring towards sociopolitical issues as a function of their political ideology. If my theory is correct, knowledge of and caring towards sociopolitical issues should underlie the relationship between ideology and mind attribution. In part B, I take this one step further by manipulating information about the target's level of knowledge and caring to understand how

varying degrees of each influence attribution of mind to others. I theorize that increasing the degree to which the undecided character is perceived to care about the issue increases their perceived emotional capacity. Similarly, increasing their knowledge about the issue increases their perceived cognitive and intention-forming abilities. Thus, a high degree of knowledge and caring should lead to the most attribution of mind, whereas low knowledge and low caring should lead to the least.

Part A

Method

Participants. A total of 275 US-based Prolific workers completed the survey online in exchange for \$0.35. I excluded 20 participants from the analysis for being “undecided” themselves, leaving a final sample of 255 ($M_{\text{age}} = 32.68$, $SD = 12.46$; 48.24% men).

Procedure. Study 5a employed a 3 cell (match condition: match v. mismatch v. undecided) between-participants design.

Participants were presented with the same presidential election scenario used in Follow-up B. After viewing the scenario, they were asked to rate the character, a man named Dan, on two separate measures gauging how much they believed he knew, as well as how much he cared, about the election and the candidates’ positions on the issues (both items: 1 = very little; 7 = very much). They then rated Dan on the ten mind attribution measures used in prior studies, as well as indicated which candidate they themselves would vote for.

Results

I sorted participants into two groups, liberal (81.6% of the sample) and conservative (18.4% of the sample), based on who they would vote for in the fictional election. I then created a variable based on the match between participants’ chosen candidate and that of Dan.

Turning first to the knowledge and caring measures, an ANOVA on the knowledge measure revealed a significant main effect of match $F(2, 252) = 21.60, p < .001$. Participants rated the undecided character as possessing significantly less knowledge about the election and the candidates' positions ($M_{\text{Undecided}} = 3.00, SD = 1.57$) than both the match character ($M_{\text{Match}} = 4.46, SD = 1.33$) $t(166) = -6.48, p < .001$ and the mismatch character ($M_{\text{Mismatch}} = 3.90, SD = 1.44$) $t(176) = -4.10, p < .001$. The match character was rated as more knowledgeable than the mismatch character $t(165) = 2.49, p = .013$.

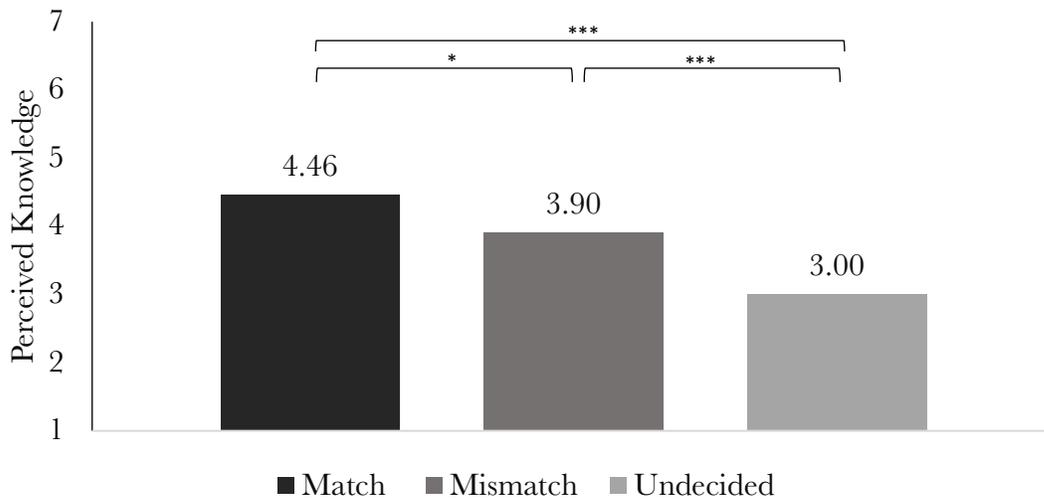


Figure 21. Perceived knowledge ratings in Chapter 2, Study 5a
 People perceive someone who is undecided between political candidates as less knowledgeable about the candidates and platforms compared to both those whom they agree and disagree with politically. (***) $p \leq .001$; * $p < .05$)

Perceived caring followed a similar pattern. An ANOVA on the caring measure also revealed a significant main effect of match $F(2, 252) = 24.35, p < .001$. Participants rated the undecided character as caring significantly less about the election ($M_{\text{Undecided}} = 3.49, SD = 1.63$) than both the match character ($M_{\text{Match}} = 5.14, SD = 1.38$) $t(166) = -6.95, p < .001$ and the

mismatch character ($M_{\text{Mismatch}} = 4.14$, $SD = 1.55$) $t(176) = -2.80$, $p = .006$. The match character was rated as caring more than the mismatch character $t(165) = 4.23$, $p < .001$.

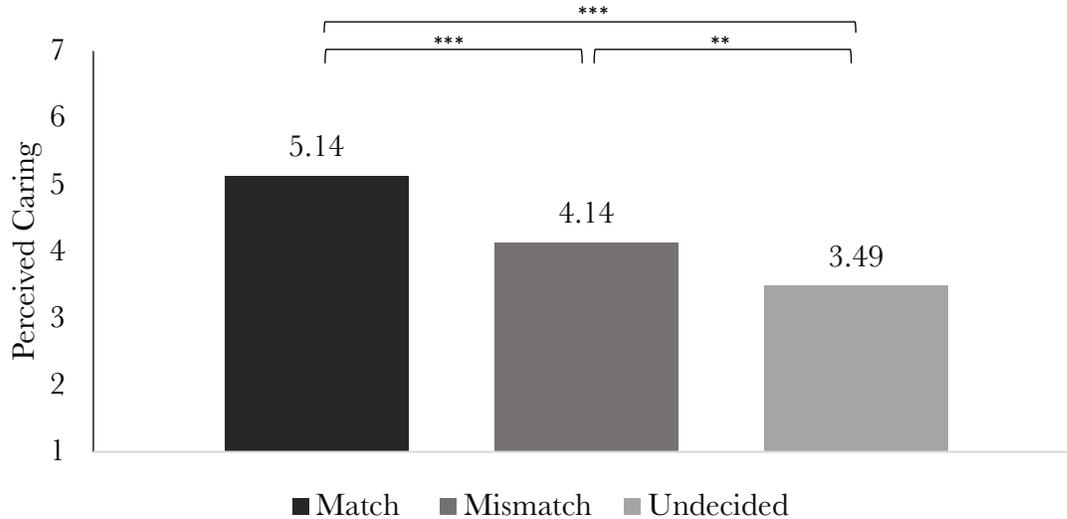


Figure 22. Perceived caring ratings in Chapter 2, Study 5a

People perceive someone who is undecided between candidates as caring less about the election compared to both those whom they agree and disagree with politically. (***) $p \leq .001$; ** $p < .01$)

Turning next to the mind attribution measures, an ANOVA on the mind attribution composite ($\alpha = .93$) with ideological match as the independent variable revealed a significant main effect of match $F(2, 252) = 7.71$, $p < .001$. Participants rated the mismatch character ($M_{\text{Mismatch}} = 5.02$, $SD = 1.31$) as having significantly less mind than the match character ($M_{\text{Match}} = 5.59$, $SD = .92$) $t(165) = -3.18$, $p = .003$. The undecided character ($M_{\text{Undecided}} = 4.94$, $SD = 1.16$) was rated as having less mind than the match character $t(166) = -3.64$, $p < .001$, and a similar amount of mind to the mismatch character $t(176) = -.47$, $p = .639$, replicating the results from Follow-up B.

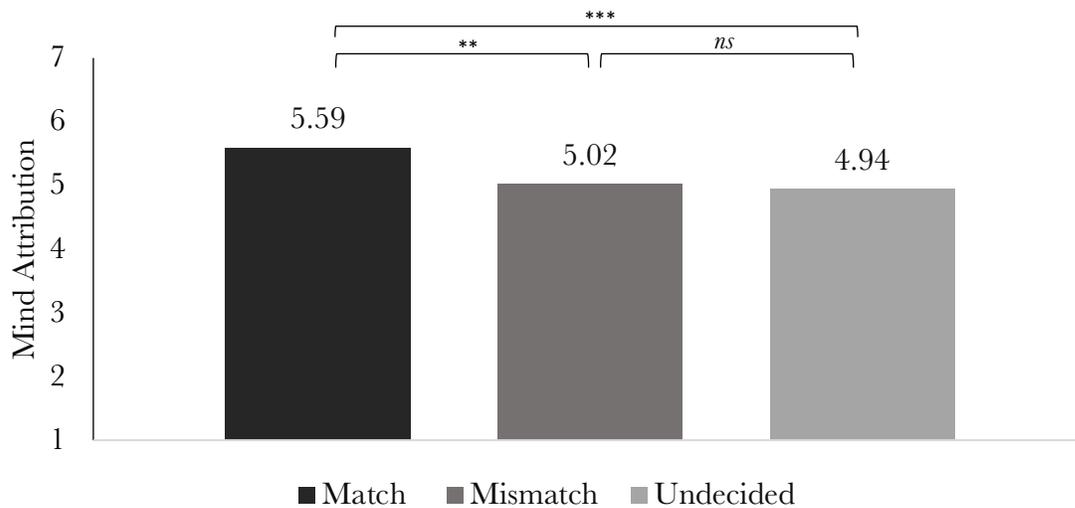


Figure 23. Mind attribution ratings in Chapter 2, Study 5a
 People attribute a similar amount of mind to those who are undecided between presidential candidates versus those who are ideologically opposed to them. (***) $p \leq .001$; ** $p < .01$)

Based on my theorizing, I expected that knowledge and caring perceptions mediate the relationship between match (or lack thereof) and perceived mind. A multicategorical mediation analysis revealed that though caring emerged as a mediator for the difference between the undecided and mismatch characters (X_1) ($\beta_{\text{Indirect}} = .20$, $SE = .09$, 95% CI = [.05, .39]), as well as the undecided and match characters (X_2) ($\beta_{\text{Indirect}} = .52$, $SE = .12$, 95% CI = [.28, .79]), knowledge did not, (X_1) ($\beta_{\text{Indirect}} = -.03$, $SE = .06$, 95% CI = [-.15, .09]) and (X_2) ($\beta_{\text{Indirect}} = -.05$, $SE = .10$, 95% CI = [-.24, .14]).

Discussion

In sum, though the undecided character was rated lower on perceived knowledge and caring compared with both the match and the mismatch characters, he was perceived as having a similar degree of mind to the mismatch character. Moreover, only caring emerged as a mediator. This suggests that perceived knowledge and caring do not fully explain the relationship between ideological match and mind attribution, and one or more other variables may influence

the effect. Outgroup derogation is a likely candidate; people’s negative perceptions of the mismatch character might have driven down the degree of mind they attributed him.

Part B

Method

Participants. A total of 377 US-based Prolific workers completed the survey online in exchange for \$0.35. I excluded 36 participants who were “undecided” from the analysis, leaving a final sample of 341 ($M_{age} = 33.07, SD = 12.55; 48.25\%$ men).

Procedure. Study 5b employed a 2 cell (knowledge: high v. low) x 2 cell (caring: high v. low) between-participants design.

Participants were presented with the same presidential election scenario used in Study 5a. However, depending on condition, they were presented with one of four pieces of information about the target character, Dan (see Table 2 below).

Table 2. Manipulations used in Study 5b

	High knowledge	Low knowledge
High caring	“Dan, a 35-year-old US citizen, is undecided about whether to vote for Louis Canseco or Joseph Rydell Jr. He is knowledgeable about both candidates and their positions on the various issues, and he cares quite a bit about the election and who ultimately gets elected.”	“Dan, a 35-year-old US citizen, is undecided about whether to vote for Louis Canseco or Joseph Rydell Jr. He is not very knowledgeable about either candidate or their positions on the various issues, but he does care quite a bit about the election and who ultimately gets elected.”
Low caring	“Dan, a 35-year-old US citizen, is undecided about whether to vote for Louis Canseco or Joseph Rydell Jr. Although he is knowledgeable about both candidates and their positions on the various issues, he doesn't care much about the election and who ultimately gets elected.”	“Dan, a 35-year-old US citizen, is undecided about whether to vote for Louis Canseco or Joseph Rydell Jr. He is not very knowledgeable about either candidate or their positions on the various issues, and he doesn't care much about the election and who ultimately gets elected.”

As a manipulation check, participants rated Dan on two separate measures gauging how much they believed he knew, as well as how much he cared, about the election and the candidates' positions on the issues (both items: 1 = very little; 7 = very much). They then rated Dan on the ten mind attribution measures used in prior studies.

Results

I repeated the process used in part A in order to sort participants into two groups, liberal voters (80.1% of the sample) and conservative (19.9% of the sample), based on who they would vote for in the fictional election. I then created a variable based on the match between participants' choice of candidate as well as Dan's choice of candidate (i.e., match, mismatch, and undecided).

Manipulation check. I first confirmed that my manipulation significantly affected perceived knowledge and caring. The character was perceived to care more in the high caring condition than in the low caring one ($M_{\text{High caring}} = 4.90$, $SD = 1.97$; $M_{\text{Low caring}} = 1.88$, $SD = 1.82$), $t(375) = 15.46$, $p < .001$. Similarly, the character was viewed as more knowledgeable in the high knowledge condition than in the low knowledge condition ($M_{\text{High knowledge}} = 4.44$, $SD = 1.99$; $M_{\text{Low knowledge}} = 1.73$, $SD = 1.67$) $t(375) = 14.29$, $p < .001$. Interestingly, however, the high caring x high knowledge character ($M_{\text{High knowledge x high caring}} = 5.55$, $SD = 1.56$) was perceived to care more about the election and its outcome than the high caring x low knowledge character ($M_{\text{Low knowledge x high caring}} = 4.24$, $SD = 2.12$) $t(189) = 4.90$, $p < .001$. Similarly, the high knowledge x high caring character ($M_{\text{High knowledge x high caring}} = 5.00$, $SD = 1.54$) was perceived to be more knowledgeable about the candidates than the high knowledge x low caring character ($M_{\text{High knowledge x low caring}} = 3.87$, $SD = 2.22$) $t(188) = 4.32$, $p < .001$.

Hypothesis testing. An ANOVA on the mind attribution composite ($\alpha = .92$) with degrees of knowledge (high v. low) and caring (high v. low) as the independent variables revealed

a significant main effect of knowledge $F(1, 373) = 7.10, p = .008$. Participants rated the high knowledge character as having significantly more mind ($M_{\text{High knowledge}} = 5.17, SD = 1.22$) than the low knowledge character ($M_{\text{Low knowledge}} = 4.85, SD = 1.17$) $t(376) = 2.67, p = .008$. A similar pattern was observed for caring $F(1, 373) = 11.31, p < .001$; the high caring character ($M_{\text{High caring}} = 5.21, SD = 1.12$) was rated as having more mind than the low caring character ($M_{\text{Low caring}} = 4.81, SD = 1.26$) $t(376) = 3.36, p < .001$. The knowledge x caring interaction was marginally significant $F(1, 373) = 3.43, p = .065$, with the high knowledge x high caring condition associated with the most mind ($M_{\text{High knowledge x high caring}} = 5.49, SD = 1.02$) compared to every other condition ($ps \leq .008$). No other contrast was significant ($ps \geq .710$).

Discussion

In sum, people rated the character with a high degree of caring and knowledge the most human relative to those with lower levels of either attribute. And in fact, this character was perceived as possessing a similar degree of mind to the match character in part A. Interestingly, a high level of only one attribute did not raise mind attribution, compared with low levels of both knowledge and caring, perhaps because both attributes go generally hand-in-hand; it seems disingenuous for one to proclaim to care deeply about an issue one knows nothing about or, likewise, to be indifferent about a topic one is intimately familiar with. The manipulation check results support this notion; people perceived the high caring x high knowledge character as caring more than the high caring x low knowledge character. They also perceived the high knowledge x high caring character as more knowledgeable than the high knowledge x low caring character. This violation of individuals' lay beliefs regarding the relationship between how much one cares and knows about political issues could have, in turn, affected perceptions of the character's humanity. However, of the two attributes, caring seems to be the more influential in

terms of perceived humanity, as it mediated the effect of ideological match on mind attribution in part A.

The results of part B provide a potentially useful remedy for the dehumanizing effects of undecidedness on mind attribution; communicating that one is undecided but possesses knowledge of the issues and cares about the outcome can alleviate the dehumanization undecidedness provokes.

General Discussion

Across five studies, I found that people attribute less mind to those who are undecided on sociopolitical issues compared to those who with whom they agree and, in some cases, disagree politically. First, I demonstrated that undecidedness on many sociopolitical issues leads to significantly more dehumanization than ideological-dissimilarity (Study 1). Several follow-ups revealed that the effect weakens as the number of issues presented declines, such that undecideds are attributed similar levels of mind to ideologically-dissimilar others when only two issues are presented or when the choice involves two electoral candidates running on conventional party platforms. The effect completely attenuates in single-issue contexts, with perceptions of undecideds' mind falling squarely between those of politically-similar and dissimilar others.

I further explored the consequences of sociopolitical undecidedness on perceptions of competence and emotional reactivity, and on political discourse, finding mixed results. Undecidedness leads to weakened perceptions of competence by others (vs. ideologically-dissimilar others), but only for hypothetical tasks (Study 2), and appears to have little consequence on perceived emotional reactivity (Study 3). The null effects obtained in both studies may be due, in part, to the overwhelming negativity people have towards ideologically-dissimilar others, which leads to a greater reluctance to interact with them on tasks, as demonstrated in Study 2b, and a willingness (unwillingness) to attribute negative (positive)

emotions to them, as in Study 3a and 3b. However, undecidedness does seem to have potentially significant consequences for political discourse. Interestingly, and counter-intuitively, people appear to be less willing to engage in conversation about political issues with undecideds (vs. ideologically-dissimilar others) when they desire to have a productive discussion with someone (Study 4).

Additional research further shed light on the process by which dehumanization occurs, revealing that caring about sociopolitical issues in particular appears to underlie mind attribution. Strategic communication offers a potential solution to undecidedness; conveying that one has knowledge of and cares about the issues in question effectively restores perceptions of humanity to levels similar to that of ideologically-similar others (Study 5).

Interestingly, this work appears to complement my prior finding that lack of subjective preference leads to dehumanization by others by eroding perceptions of their distinctiveness, though there are several key differences. First, subjective preferences and political attitudes are perceived differently (Skitka, 2010). Because subjective preferences are subject to individual discretion, they are not perceived as being inherently right or wrong, just different. Sociopolitical opinions, however, tend to be experienced as more objectively and universally correct or incorrect and, because of their social nature, heavily impact others' lives. As a result, different political views are often viewed as diametrically opposed to one's own views in a way that subjective preferences are not. Perhaps because of the relatively strong attitudes people have towards others' political preferences, it may be somewhat more acceptable to withhold political preferences in certain contexts, such as at work, where speaking about politics is not typically socially sanctioned. Sociopolitical preferences may also be viewed as more complicated to form, requiring consideration of morality, ethics, economics, etc., and thus people might be given more leeway if they have not yet formed a stance. Consequently, people might be more forgiving if one

expresses undecidedness about sociopolitical issues versus subjective preferences, which could be why I observed the effect attenuate for undecidedness on a single issue, despite having found robust effects for indifference for single subjective decisions in Chapter 1. Lastly, subjective preferences may be much more individuating, given the sheer range of preferences one could have in a given hedonic domain compared to political preferences, which generally fall into one of two camps: liberal and conservative. Thus, it is possible that indifference in the subjective domain hurts personal distinctiveness more than undecidedness in the sociopolitical domain, though this remains an empirical question.

Theoretical and Practical Implications

This work offers theoretical implications for research on dehumanization. While abundant literature has investigated how individuals dehumanize their political opponents, this work is the first to extend the focus to undecideds, finding that, in some cases, the latter group is dehumanized more than the former. This research also connects work on dehumanization to that of trust. Generally, integrity is a component of morality (McFall, 1987; Uhlmann, Pizarro, & Diermeier, 2016) and morality is tied to humanity (Haslam 2006). Prior work has found that people trust religious individuals more than atheists even when the target is of a different religion (Edgell, Gerteis, & Hartmann 2006; Gervais, Shariff, & Norenzayan, 2011), and people view those apathetic towards social issues as less trustworthy (Zlatev, 2019). In this work, however, such apathy was made explicit to participants, who were told that the target either cared or didn't care about the issues presented. I build on this work by showing that simply refusing to stake a stance on multiple issues similarly communicates apathy, and this presumed lack of caring leads to dehumanization by others.

From a practical perspective, this work offers implications for interpersonal interactions, particularly in advance of elections. Oftentimes, people are reluctant to reveal their stances on

political issues, fearing that others with opposing views might judge them negatively or start an argument that could damage the relationship. Instead, they simply state that they are undecided on the issue. In other cases, they are truly undecided, having not yet settled on which candidate they will cast a vote for. Indeed, in 2016, roughly 19% of the electorate was “undecided” 100 days before the election, and 13% still had not made up their minds by election day (Silver, 2017). My research suggests that communicating that one is undecided could, in some cases, have the unintended consequence of making them appear less human than if they had simply stated an opposing or unpopular viewpoint, and this could negatively impact others’ willingness to engage them in political discourse. Even in contexts involving attitudes towards two issues or candidates, people are no better off communicating that they are undecided than ideologically-dissimilar, at least from a dehumanization perspective. To preserve other-perceived humanity and stave off dehumanization, conveying that one is knowledgeable of and, in particular, cares about the issues in question may be an effective remedy.

Future Directions

The current research broadens our understanding of how attitudinal ambiguity affects perceived humanity. However, many open questions remain. For example, future research could investigate whether the extent of the dehumanization that occurs depends on the issues’ or election’s perceived importance. Sociopolitical issues are brought to the fore because they deeply affect many people, and thus there is a strong expectation in society that one should care about them. If caring (or lack thereof) implicates the ability to think and feel, then issue importance should affect perceptions of humanity, such that the more important the issues or election, the more one should care, and the more one is dehumanized if they lack a firm stance.

Additionally, more work should be done to uncover the exact threshold at which undecideds are dehumanized more than ideologically-dissimilar others. The current work

identified that undecideds are dehumanized more than political opponents when they are undecided on twelve issues, but are perceived as similarly (un)human to opponents in the context of just two issues or candidates. At what point (number of issues or candidates) does it flip?

Future work could also examine other types of attitudinal ambiguity. The current research focused almost exclusively on “undecidedness,” in which characters were described as having not yet made a decision regarding their stances on either issues or candidates. Does being “moderate” or “independent” convey the same degree of ambivalence as being undecided? Do liberals and conservatives dehumanize these individuals to the same extent? Relatedly, future work should also explore other reasons why undecideds are dehumanized beyond perceived caring, as the effect is likely multiply-determined. Perhaps undecidedness signals that one is selfish or lazy. Additional psychological processes would be fruitful to unpack.

Lastly, as the current work focused exclusively on others’ perceptions of the undecided person, no work has examined the other side of the equation: how undecidedness affects perceptions of one’s own humanity. Do individuals who haven’t yet chosen a political stance on issues dehumanize themselves, especially in situations in which they are exposed to individuals with firm stances? If so, why? This area is ripe for future research.

Conclusion

In sum, I find that being undecided on sociopolitical issues leads to dehumanization by others to a similar or even greater degree than ideologically opposed others, and this effect is driven, in part, by an assumption that the undecided person does not care about the issues in question. This has important consequences for political discourse, as others are less willing to engage in discussions with those who are undecided on multiple issues. Emphasizing one knows and cares about the sociopolitical issues absent a firm stance may provide an effective intervention to preclude dehumanization.

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Appendix A: Additional Measures & Analyses

Chapter 1, Study 1. Distinctiveness perceptions mediate the relationship between preferences and animalistic dehumanization ($\beta_{\text{Indirect}} = .19$, $SE = .11$, 95% CI = [.01, .43]), with no significant mediation through clarity ($\beta_{\text{Indirect}} = .01$, $SE = .07$, 95% CI = [-.14, .13]).

Chapter 1, Study 2. A person indifferent between massage options ($M_{\text{Indifference}} = 4.05$, $SD = 1.57$) was perceived as possessing a significantly less clear identity compared with a person holding a specific preference ($M_{\text{Preference}} = 4.45$, $SD = 1.57$), $t(400) = 2.58$, $p = .010$. In a multiple mediation analysis, clarity did not significantly mediate the relationship between preference condition and dehumanization ($\beta_{\text{Indirect}} = -.04$, $SE = .08$, 95% CI = [-.21, .12]), while distinctiveness did ($\beta_{\text{Indirect}} = -.20$, $SE = .08$, 95% CI = [-.36, -.03]).

Chapter 1, Study 3. A repeated measures ANOVA of preference condition (indifference vs. preference), valence condition (positive vs. negative) and order on clarity revealed a significant main effect of preference condition ($M_{\text{Indifference}} = 3.00$, $SD = 1.62$; $M_{\text{Preference}} = 3.69$, $SD = 1.58$), $F(1, 199) = 33.59$, $p < .001$. There was a marginally significant order effect, $F(1, 199) = 3.68$, $p = .057$, and a significant condition \times order interaction, $F(1, 199) = 17.69$, $p < .001$. More specifically, while the effect of preference condition on clarity was significant when the character with a preference was shown second ($M_{\text{Indifference}} = 2.93$, $SD = 1.50$; $M_{\text{Preference}} = 4.12$, $SD = 1.54$), $t(101) = 7.01$, $p < .001$, this was non-significant when the person with a preference was shown first ($M_{\text{Indifference}} = 3.07$, $SD = 1.73$; $M_{\text{Preference}} = 3.26$, $SD = 1.45$), $t(100) = 1.14$, $p = .259$. There was no significant main effect or interactions involving valence, $F_s < 2.43$, $p > .121$. In a multiple mediation analysis, clarity significantly mediated the relationship between preference condition and dehumanization ($\beta_{\text{Indirect}} = -.09$, $SE = .04$, 95% CI = [-.17, -.02]), though to a lesser extent than distinctiveness ($\beta_{\text{Indirect}} = -.15$, $SE = .06$, 95% CI = [-.29, -.06]).

Appendix B: Supplemental Study 1

Method

Participants. A total of 207 US-based Prolific workers participated for \$0.45. I excluded 17 participants from the analysis for failing an internal manipulation check, leaving a total sample of 190 ($M_{\text{age}} = 30.52$, $SD = 9.69$; 42.60% men). However, I find similar results when including all participants in the analysis.

Procedure. This study employed a 2 cell (preference of interior designer: indifference vs. preference) between-participant design.

Similar to the scenario used in Study 6, participants considered redesigning their bedroom, and viewed a picture of the room. They learned they wanted to hire an interior designer to help redecorate and refurnish it. They were additionally told that they had provided an interior design firm with a general idea of what they were looking for, and an interior designer named Mark would help with both the design choices and technical details in execution. Importantly, the interior design firm they chose provided them with one interior designer, whose profile they then viewed. I manipulated preference condition using answers to the “fun fact” question about the applicant’s favorite food and music. Those in the preference condition read: “New York style pizza with basil and hot oil,” and “Classic rock and hip-hop,” respectively. Those in the indifferent condition instead saw the following response to both prompts: “Don’t have a preference.”

Participants answered three comprehension check questions to assess their understanding of the scenario. All participants read that, in conversing with the designer, they decided on a modern look with a neutral color palette, but had given the designer creative freedom. Participants then saw before and after pictures of the room, which were identical in both conditions (Figure 5 in main paper).

Participants then evaluated the room on: 1. creativity of design (1 = not at all creative; 7 = very creative), 2. how tailored it was to the vision the designer was given (1 = not at all tailored; 7 = perfectly tailored), and 3. how generic the design looked (1 = not at all generic; 7 = very generic) ($\alpha = .76$). Participants then chose whether they would hire the same interior designer again to design other rooms in their house (yes / no).

Results

As predicted, fewer people wanted to rehire an indifferent interior designer (45%) than one with preferences (60%), $\chi^2(1, n = 190) = 4.16, p = .041$. They further evaluated the room designed by an interior designer lacking preference (vs. having preference) as more negatively overall ($M_{\text{Indifference}} = 3.75, SD = 1.21; M_{\text{Preference}} = 4.17, SD = 1.05$), $t(188) = -2.57, p = .011$.

Appendix C: Supplemental Study 2

Method

Participants. A total of 62 US-based Mechanical Turk workers ($M_{\text{age}} = 33.29, SD = 9.70$; 62.90% men) participated for \$0.35.

Procedure. This study employed a 2 cell (preference of co-worker: indifference vs. preference) between-participant design.

Participants imagined that they worked in an office and one of their coworkers, John, was just promoted to a manager position. They read that because John was moving into management, he was to receive his own office on the second floor of the building. Participants were then shown a rough floor plan of the building which indicated the location of John's designated office space (see Figure 24). They read that people moving into their own offices were permitted to choose the wall color and desk placement within their new space and their choice did not create extra work for facilities. They viewed a facilities form (see Figure 25) on which John indicated his preference for wall color and desk location for his own office. In the preference

condition, John indicated that his preference was for blue walls and his desk placed beneath a window, whereas in the indifferent condition, John wrote “No preference” for both choices.

Participants answered two comprehension check questions to assess their understanding of the scenario and rated John on the six-item mechanistic dehumanization scale from Studies 1-6 ($\alpha = .80$).

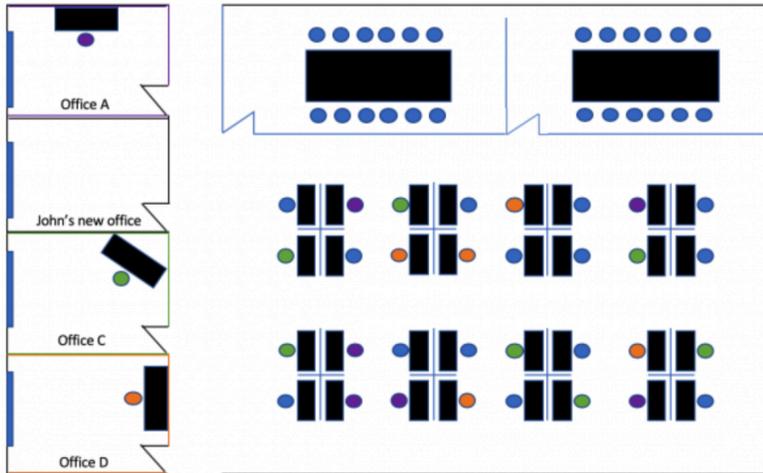


Figure 24. Stimuli used in Supplemental Study 2
All participants saw the above floor plan for the office building.

FACILITIES NEW OFFICE SPACE FORM	
This form is to be completed by the office tenant only. Contact the Facilities department for assistance.	
Occupant name:	<u>John F.</u>
Office number:	<u>2-B</u>
Requested equipment:	<u>Computer dock, monitor</u>
Requested wall color (walls <i>must</i> be repainted. permitted colors include white, gray, blue, orange, purple, or green):	
	<u>No preference</u>
Requested desk placement (any location permitted): <u>No preference</u>	

FACILITIES NEW OFFICE SPACE FORM	
This form is to be completed by the office tenant only. Contact the Facilities department for assistance.	
Occupant name:	<u>John F.</u>
Office number:	<u>2-B</u>
Requested equipment:	<u>Computer dock, monitor</u>
Requested wall color (walls <i>must</i> be repainted. permitted colors include white, gray, blue, orange, purple, or green):	
	<u>Blue</u>
Requested desk placement (any location permitted): <u>Under window</u>	

Figure 25. Stimuli used in Supplemental Study 2
Indifferent condition manipulation (top) and preference condition manipulation (bottom).

Results

The individual without a preference was perceived as more mechanistic than the one with a preference ($M_{\text{Indifference}} = 3.79$, $SD = 1.06$; $M_{\text{Preference}} = 3.24$, $SD = 1.07$) $t(60) = 2.03$, $p = .047$.

Appendix D: Supplemental Study 3

Method

Participants. A total of 206 US-based Mechanical Turk workers ($M_{\text{age}} = 36.26$, $SD = 12.85$; 56.30% men) participated for \$0.30.

Procedure. This study employed a 2-cell (Amazon Alexa's favorite song: favorite vs. no favorite) between-participant design.

Participants read a blurb and watch a short video about the Amazon Echo home device and its voice-activated virtual assistant, Alexa. Participants were asked to imagine owning an Amazon Echo device. They learned that when they asked Alexa what her favorite song was, she responded with one of two answers, either indicating that she possessed a favorite song (“My favorite song is ‘Here Comes the Sun’ by The Beatles”) or not (“I don’t have a favorite song. I’m better with factual questions”). As a measure of anthropomorphism, participants rated whether Alexa appeared to (1) have a mind of its own, (2) have intentions, (3) have free will, (4) have consciousness, and (5) appeared to experience emotions (from Waytz et al., 2010; 1 = *not at all*; 7 = *very much*; $\alpha = .95$).

Results

Alexa was perceived as more anthropomorphized when described as having a preference than when described as lacking one ($M_{\text{Indifference}} = 3.00, SD = 1.77; M_{\text{Preference}} = 3.50, SD = 1.69$), $t(204) = -2.06, p = .041$.