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Self-Essentialist Reasoning Underlies the Similarity-Attraction Effect

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We propose that self-essentialist reasoning is a foundational mechanism of the *similarity-attraction effect*. Our argument is that similarity breeds attraction in two steps: (a) people categorize someone with a shared attribute as a *person like me* based on the self-essentialist belief that one's attributes are caused by an underlying essence and (b) then apply their essence (and the other attributes it causes) to the similar individual to infer agreement about the world in general (i.e., a generalized shared reality). We tested this model in four experimental studies ($N = 2{,}290$) using both individual difference and moderation-of-process approaches. We found that individual differences in self-essentialist beliefs amplified the effect of similarity on perceived generalized shared reality and attraction across both meaningful (Study 1) and minimal (Study 2) dimensions of similarity. We next found that manipulating (i.e., interrupting) the two crucial steps of the self-essentialist reasoning process—that is, by severing the connection between a similar attribute and one's essence (Study 3) and deterring people from applying their essence to form an impression of a similar other (Study 4)—attenuated the effect of similarity on attraction. We discuss the implications for research on the self, similarity-attraction, and intergroup phenomena.

Keywords: self-essentialism, similarity-attraction, generalized shared reality, polarization

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People essentialize the self. That is, we believe that a fundamental reality or true nature—that is, a deeply rooted and unchanging essence—makes us who we are (i.e., *self-essentialism* or *self-essentialist beliefs*; Christy et al., 2019; Dulaney et al., 2019). In other words, when we imagine what our self is, we envision an internal, indivisible core deep inside of us that drives the characteristics and behaviors that others can see (Christy et al., 2019; Strohminger et al., 2017). In individualistic cultures at least, this lay theory of the self is vaunted and highly sought after. To know, express, and live true to one's essential self is to be well (e.g., Dulaney et al., 2019; Kernis & Goldman, 2006; Schlegel et al., 2009, 2011). In the present investigation, however, we suggest that the implications of an essentialist lay theory of self extend far beyond *intra*personal outcomes such as individual well-being. Our goal is to demonstrate that self-essentialism and its associated reasoning process is a foundational mechanism that informs how we evaluate and make sense of *others* (see also De Freitas & Cikara, 2018; Newman et al., 2015).

Our central claim is that social judgments are driven by a self-essentialist reasoning process. Specifically, we argue that our attraction to people who share our attributes (i.e., the *similarity-attraction effect*; Byrne, 1997; Montoya et al., 2008; Montoya & Horton, 2013) is aided by the belief that those shared attributes are driven by something deep within us: one's essence. To put it concretely, we like someone who agrees with us on a political issue, shares our music preferences, or simply laughs at the same thing as us not purely because of those similarities (e.g., Boer et al., 2011; Pinel et al., 2006; Zlatev, 2019), but because those similarities suggest something more—this person is (in essence) *like me*, and as such, they share my views of the world at large.

To elaborate, we propose that this process unfolds in the following fashion. Someone with whom I share an attribute (i.e., a similar target) is first categorized as a *person like me* (i.e., they share my essence) based on the self-essentialist belief that my attributes are caused by an underlying essence. Once categorized, I then apply my essence (and the other attributes it causes) to the similar individual, which leads me to infer that we view the world *in general* in the same way. This broader shared view of the world (i.e., the perception of a generalized shared reality) in turn results in interpersonal attraction (Hardin & Higgins, 1996; Rossignac-Milon et al., 2021). In other words, self-essentialism enables the reasoning that someone with a (single) shared attribute is *a person like me*, and attraction to this person arises from the inference that they validate one's generalized shared reality about the world.

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Charles Chu played lead role in conceptualization, data curation, formal analysis, methodology, writing–original draft and writing–review and editing and equal role in resources. Brian S. Lowery played lead role in supervision and equal role in resources.

Across all studies, we report all data exclusions, power analyses (a priori or post hoc sensitivity), manipulations, and measures in either the main text or online Supplemental Materials. All materials, generated data, analysis code, and codebooks are available on the Open Science Framework at https://osf.io/tc4fp/?view_only=355c93bc7c84416188e06fa41bd8c951. See online Supplemental Materials for additional information on methods and results.

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What Is (Self-) Essentialist Reasoning?

Psychological essentialism is a lay theory of category representation. People essentialize many things—from biological categories such as animal species to social groups such as race and gender—and do so in virtually all human cultures (Christy et al., 2019; Dar-Nimrod & Heine, 2011; Gelman, 2003; Haslam et al., 2000; Henrich et al., 2010; Prentice & Miller, 2006, 2007; Springer & Keil, 1989; Williams & Eberhardt, 2008). To essentialize a category is to define it by a set of deeply rooted and unchanging properties, or an essence (Gelman, 2003; Hirschfeld, 1996; Medin & Ortony, 1989; Rothbart & Taylor, 1992). This definition alludes to a couple of central qualities of this mode of categorical thinking. The first is that the essence is *deeply rooted* in that it causes the observable features of category members. For example, the category of "wolf" is defined by a wolf essence, residing in all wolves, from which stems wolf-like attributes such as their pointy noses, sharp teeth, and fluffy tails as well as their pack nature, aggressiveness, and taste for pork (Prentice & Miller, 2006). The second is that this category essence (and the features that arise from it) is *unchanging*, or immutable. A wolf raised by sheep is still a wolf and will develop wolf-like attributes, and a wolf that suddenly loses its appetite for meat and becomes a vegan would call into question whether such a creature is a wolf at all (Gelman & Wellman, 1991; see also Molouki & Bartels, 2017).

This way of thinking about category membership enables a reasoning process that serves two important sensemaking functions. First, by carving the world at the joints so-to-speak, essentialism structures one's subjective experience of reality by sharpening the distinctions between categories, aiding a classification process in which social targets are sorted into appropriate categories (Haslam et al., 2000; Medin & Ortony, 1989). For example, is the friendly canine a dog or a wolf? Essentialist reasoning helps us answer such questions with clarity and confidence. Second, essentialism enables a richly informative inferential process by which a member of the category takes on the other attributes that are caused by the category essence (Haslam et al., 2000; Medin & Ortony, 1989; Prentice & Miller, 2006). That is, classifying a pointy-nosed, sharp-toothed, fluffy-tailed creature as having a wolf essence will lead me to avoid leaving it alone with my newborn baby, regardless of whether I directly observe the creature's aggressiveness. These two components of essentialist reasoning thus form an intuitive strategy to arrive at a confident and certain perception of social reality—first, targets can be more easily classified as a member of a category based on limited information, and second, once classified the category essence can be applied to a target to infer its other unobserved features.

Recently, researchers have begun to focus on the category of *me*, or the self, as a domain of essentialism. Studies have found that just as we do with natural kind and social categories, we essentialize the self (Christy et al., 2019; Dulaney et al., 2019). To essentialize *me* is to define who I am by a set of deeply rooted and unchanging properties (i.e., *self-essentialism*; Christy et al., 2019; Dulaney et al., 2019). A self-essentialist then would believe that their observable attributes and behaviors are driven and constrained by such an unchanging essence. Put concretely, I oppose capital punishment, prefer classical music to heavy metal, and dislike (but respect) the Kardashians, all because of my essence. Moreover, these attitudes and behaviors should remain stable given the immutable nature of an essence—to suddenly become Kim's prodeath penalty metalhead friend would to no longer be a person like *me*. The extant research has primarily explored how such self-essentialist beliefs foster intrapersonal well-being by serving as an uncertainty-reducing reasoning heuristic through which to understand social reality (e.g., Christy et al., 2019; Chu & Lowery, 2023; Dulaney et al., 2019; although see Maffly-Kipp et al., 2022; Newman et al., 2014). In other words, this work has emphasized self-essentialist reasoning as a way of thinking that creates the feeling of confidence and certainty in one's grasp upon social reality, resulting in psychological well-being. However, this research has not explicitly examined how such a mode of category representation about the self might influence the inferences and judgments we make about social targets (cf. De Freitas & Cikara, 2018; Maffly-Kipp et al., 2022; Newman et al., 2015).

In the present investigation, we thus turn our focus to how self-essentialist reasoning affects our perceptions and judgments of others. We argue that analogous to the way in which essentializing other categories structures the social world, self-essentialism sharpens the distinction between people *like me* and those who are not, and the reasoning process it enables enriches what we (think we) know about those whom we deem *like me*. In other words, our proposal is that a self-essentialist reasoning process facilitates the categorization of a similar target as a *person like me* (i.e., someone who shares my essence), and the inferences we make based on this categorization subsequently inform our social judgments. In the following section, we outline this process in detail.

Self-Essentialist Reasoning: A Mechanism of Similarity-Attraction

The idea that similarity breeds attraction—the *similarity-attraction effect*—is nearly a truism in social psychology. Countless studies have documented that people are attracted to those who are similar to them (Byrne, 1997; Montoya et al., 2008; Montoya & Horton, 2013). Despite its taken-for-granted status, there is not consensus around the mechanisms that underly the similarity-attraction effect. Whereas some have championed motivational accounts (i.e., shared attributes generate positive feelings and attraction because they validate our ideas and attitudes, which satisfies our need for a logical and consistent view of the world; Byrne, 1997), others have favored cognitive explanations (i.e., shared attributes imply additional favorable information about a social target, which results in interpersonal attraction; Ajzen, 1974; Kaplan & Anderson, 1973; Montoya & Horton, 2014; Tesser, 1971). The most recent meta-analysis of 240 studies on similarity-attraction favors this cognitive account, although support for both motivational and cognitive processes were observed (Montoya & Horton, 2013). As the literature currently stands then, the most empirically supported explanation for the similarity-attraction effect is that when I perceive a shared attribute with someone, I infer that we must also share other (positive) characteristics, thus leading to attraction (Kaplan & Anderson, 1973; Montoya & Horton, 2013; Tesser, 1971). Although intuitive and descriptively accurate to the observed empirical studies, this cognitive account does leave room for some further explanation. Why do people infer more similarity from a single shared attribute, and why does more similarity predict greater interpersonal attraction?

We argue that self-essentialist reasoning drives the inference that a single shared attribute begets more similarity. Our proposed process unfolds in two steps. The first step is that people, to the extent that they endorse self-essentialist beliefs, perceive that a dimension of observed similarity is driven by one's deeply rooted and unchanging

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essence (Christy et al., 2019; Dulaney et al., 2019). If this is true, then a person with whom I share an attribute is categorized as a person *like me*. Once such a categorization is made, the second step of the process involves applying or projecting one's essence (and all the other attributes it causes) to the similar individual, which leads people to infer broader similarity across many other attributes (see also Ames, 2004; Cadinu & Rothbart, 1996; Krueger, 2008; Robbins & Krueger, 2005; Ross et al., 1977). To put this concretely, imagine you meet a fellow guest named Jamie for the first time at a dinner party. You and Jamie are making small talk and begin to discuss some current events, through which you discover that you both believe that abortion should be legal. Our argument is that self-essentialist reasoning would lead you down the following train of thought: (a) I agree with Jamie on abortion, so Jamie is a *person like me* (i.e., shares my essence), and (b) if Jamie shares my essence, then Jamie must see things *in general* as I do. Therefore, we propose that the more an individual engages in this self-essentialist reasoning process, the more they will infer that they agree with Jamie on things in general based on a single shared attribute.

This experience of agreeing with Jamie on *things in general* represents the perception of a generalized shared reality, or the experience of sharing a set of inner states (e.g., thoughts, feelings, or beliefs) in common with someone about the world in general, which we hypothesize will drive interpersonal attraction (Berger & Kellner, 1964; Przybylinski & Andersen, 2015; Rossignac-Milon et al., 2021). An extensive body of literature supports the idea that people are motivated to maintain such shared realities because they confer certainty to our subjective experience—as such, we are attracted to (i.e., we like and want to affiliate with) others who validate our shared realities (e.g., Echterhoff et al., 2009; Hardin & Higgins, 1996; Pinel et al., 2006; Rossignac-Milon et al., 2021). Indeed, recent work has found that the perception of a generalized shared reality is an integral predictor of key relational outcomes such as interpersonal attraction (Rossignac-Milon et al., 2021; Rossignac-Milon & Higgins, 2018). Put more simply, to return to the case of our dinner party guest, my attraction to Jamie arises from the sense that they validate my subjective grasp of reality (i.e., I perceive a generalized shared reality with Jamie).

Current Research

Taken together, we hypothesize that similarity leads to interpersonal attraction through a self-essentialist reasoning process. Specifically, our proposal is that (a) to the extent that people hold an essentialist lay theory of self, an attribute that one shares with a social target (i.e., a similar other) will be perceived as driven by one's essence, and (b) this essence (and the other attributes it causes) will be applied to the similar other and result in the inference of a generalized shared reality, which gives rise to interpersonal attraction.

We tested this model in four experiments. We first sought to establish evidence that self-essentialist reasoning drives similarity-attraction effects using an individual differences approach. Studies 1 and 2 thus measured people's endorsement of self-essentialist beliefs, with the intuition that the more one holds an essentialist lay theory of self, the more likely one is to engage in our proposed self-essentialist reasoning process. That is, participants' levels of self-essentialism should moderate—or more specifically, strengthen—the effect of a similar (vs. dissimilar) attribute on perceptions of generalized shared reality with and interpersonal attraction toward a social target. Indeed, Studies 1 and 2 found evidence of such a pattern across both meaningful (i.e., political attitudes) and minimal (i.e., minimal group assignment; Prentice & Miller, 2006; Tajfel et al., 1971) dimensions of similarity. Our next two experiments (Studies 3 and 4) sought to provide support for self-essentialist reasoning as a *causal* mechanism through which similarity breeds attraction. As such, we used a moderation-of-process approach, which manipulates a contextual condition in order to interrupt (or not interrupt) the causal process through which an independent variable leads to its dependent variable (Jacoby & Sassenberg, 2011; Spencer et al., 2005). In our case, this meant trying to disrupt the two causal steps of self-essentialist reasoning: (a) the perception that a similar attribute is driven by one's essence, and (b) the application of that essence to the similar target to infer a broader shared reality about the world. Our expectation was that interrupting (vs. not interrupting) participants' perception that a similar attribute is driven by their essence (Study 3) or their belief that applying their essence is an effective strategy to perceive others (Study 4) would attenuate the effect of similarity on attraction. Indeed, we found in Studies 3 and 4 that disconnecting (vs. connecting) a dimension of similarity or dissimilarity from one's essence and telling participants that the application of one's essence is an *in*accurate strategy to form impressions of others (vs. providing no information), respectively, significantly reduced the effect of similarity on attraction. Taken together, these studies provide evidence for self-essentialist reasoning as a causal mechanism of the similarity-attraction effect.

Study 1

In Study 1, we examined our hypothesis that the effect of similarity (vs. dissimilarity) on interpersonal attraction would occur through a process of self-essentialist reasoning using an individual differences approach. Specifically, our intuition was that individual differences in the extent to which one endorses self-essentialist beliefs (i.e., an underlying essence causes one's observable attributes) would be a proxy for how likely one is to engage in our proposed self-essentialist reasoning process. That is, high self-essentialists, relative to low self-essentialists, should be more likely to perceive a similar attribute as driven by their essence and apply that essence to infer a broader view of the world with a similar target. Our hypothesis then was that participants' levels of self-essentialism would moderate—or more specifically, strengthen—the effect of similarity (vs. dissimilarity) on perceptions of generalized shared reality and interpersonal attraction.

Participants and Procedure

We conducted an a priori power analysis for interaction predictions using intxpower.com (Sommet et al., 2022). We estimated simple effects of Cohen's $d = 0.40$ and 0.00 (i.e., a fully attenuated interaction) based on prior studies, and these specifications yielded a sample size of 784 participants to achieve 80% power at $\alpha = 0.05$ in a between-subjects design. As we wanted to achieve greater than 80% power, we recruited 1,000 participants from Prolific online participant pool. In line with our preregistration (https://aspredicted.org/fe3yp.pdf), we excluded those who failed an attention check ($n = 38$) and who scored more than 3 standard deviations from the mean on any of our primary dependent measures ($n = 8$). This resulted in a final sample of 954 participants (732 White, 60 Black, 80 Asian, 58 Hispanic/Latinx, 2 Native American/Alaskan Native,

22 other race; 469 men, 472 women, 13 nonbinary; $M_{age} = 38.44$, $SD_{age} = 12.73$).

Participants were randomly assigned to 1 of 10 conditions in a 2 (attitude: similar vs. dissimilar) × 5 (social issue: abortion, capital punishment, gun ownership, animal testing, physician-assisted suicide) between-subjects experiment. Participants were first asked to report their own position on the issue in question (i.e., whether it should be legal or illegal) and how strongly they felt about the issue. Participants were then randomly assigned to read about a social target, Jamie, who was either a *similar target* (i.e., they held the same position on the issue) or *dissimilar target* (i.e., they held the opposing position on the issue), and responded to our measures of perceived generalized shared reality, interpersonal attraction, and self-essentialist beliefs.

Measures

Self-Essentialist Beliefs

Participants responded to the 10-item Self-Essentialist Beliefs scale (Christy et al., 2019). Some example items include "I have deeply rooted qualities that make me who I am at a fundamental level," "The important parts of my identity will still be there in 30 years," and "The defining parts of my identity clearly distinguish me from other people." Participants responded using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*), and higher scores represent greater self-essentialism ($\alpha = .89$, $M = 5.29$, $SD = 0.85$).

Interpersonal Attraction

Participants responded to a four-item measure of interpersonal attraction (Montoya & Horton, 2004). The items were "I would like to get to know Jamie better," "I would like to meet Jamie," and "I think I would enjoy Jamie's company" as well as "How much do you think you will like Jamie?" Participants responded using 7-point scales (1 = *strongly disagree*, 7 = *strongly agree*; 1 = *not at all*, 7 = *very*), with higher scores representing greater interpersonal attraction ($\alpha = .95$, $M = 3.87$, $SD = 1.35$).

Perceived Generalized Shared Reality

Participants responded to two-items assessing their perception of having a generalized shared reality with the social target (Rossignac-Milon et al., 2021). These items include "Jamie and I share the same thoughts and feelings about things," and "Jamie and I see the world in the same way." Participants responded using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*), and higher scores represent more perceptions of generalized shared reality ($r = .88$, $M = 3.81$, $SD = 1.71$).

Results

All aggregate results reported below include dummy codes for each social issue (see online Supplemental Materials, for full regression tables and disaggregated results by issue). Our effects remain significant when controlling for the interaction between similarity condition and participants' levels of attitude strength for each issue (see online Supplemental Materials; Yzerbyt et al., 2004). Table 1 provides the descriptive statistics across conditions for each issue.

Table 1
Descriptive Statistics by Condition in Study 1

Social issue	Perceived generalized shared reality		Interpersonal attraction	
	Similar	Dissimilar	Similar	Dissimilar
Abortion	5.38 (0.94)	1.92 (1.01)	4.71 (1.21)	2.57 (1.30)
Capital punishment	5.12 (0.98)	2.62 (1.16)	4.48 (1.08)	3.49 (1.22)
Gun ownership	5.02 (0.89)	2.67 (1.20)	4.11 (1.14)	3.37 (1.33)
Assisted suicide	5.07 (0.88)	2.36 (0.99)	4.21 (0.99)	3.71 (1.11)
Animal testing	5.25 (0.81)	2.48 (1.05)	4.59 (1.11)	3.36 (1.31)

Preregistered Analysis

Interpersonal Attraction. We first examined our main preregistered analysis, which was whether the effect of similarity on attraction would be amplified by self-essentialist beliefs. To do so, we regressed interpersonal attraction on similarity condition, mean-centered self-essentialism, and their two-way interaction as well as dummy codes for social issue. As predicted, we observed a significant interaction between similarity condition and self-essentialism, $b = 0.36$, $SE = 0.09$, $t(946) = 3.83$, $p < .001$, 95% CI [0.17, 0.54].

We decomposed this interaction in two ways. First, we examined the simple effects of similarity (vs. dissimilarity) on interpersonal attraction for participants at one standard deviation above and below the mean on self-essentialism. The results revealed that those high on self-essentialism were more attracted to the similar social target relative to the dissimilar target, $b = 1.43$, $SE = 0.11$, $t(946) = 12.68$, $p < .001$, 95% CI [1.21, 1.65]. The same effect held for those low on self-essentialism, although the effect was significantly weaker, $b = 0.79$, $SE = 0.12$, $t(946) = 6.77$, $p < .001$, 95% CI [0.56, 1.02]. We next viewed this interaction another way, examining the simple slope of self-essentialism on interpersonal attraction within the similar and dissimilar conditions. We found that participants' self-essentialism positively predicted interpersonal attraction toward the similar target, $b = 0.26$, $SE = 0.06$, $t(946) = 4.01$, $p < .001$, 95% CI [0.13, 0.38], but not the dissimilar target, $b = -0.10$, $SE = 0.07$, $t(946) = -1.48$, $p = .139$, 95% CI [−0.23, 0.03] (see Figure 1).

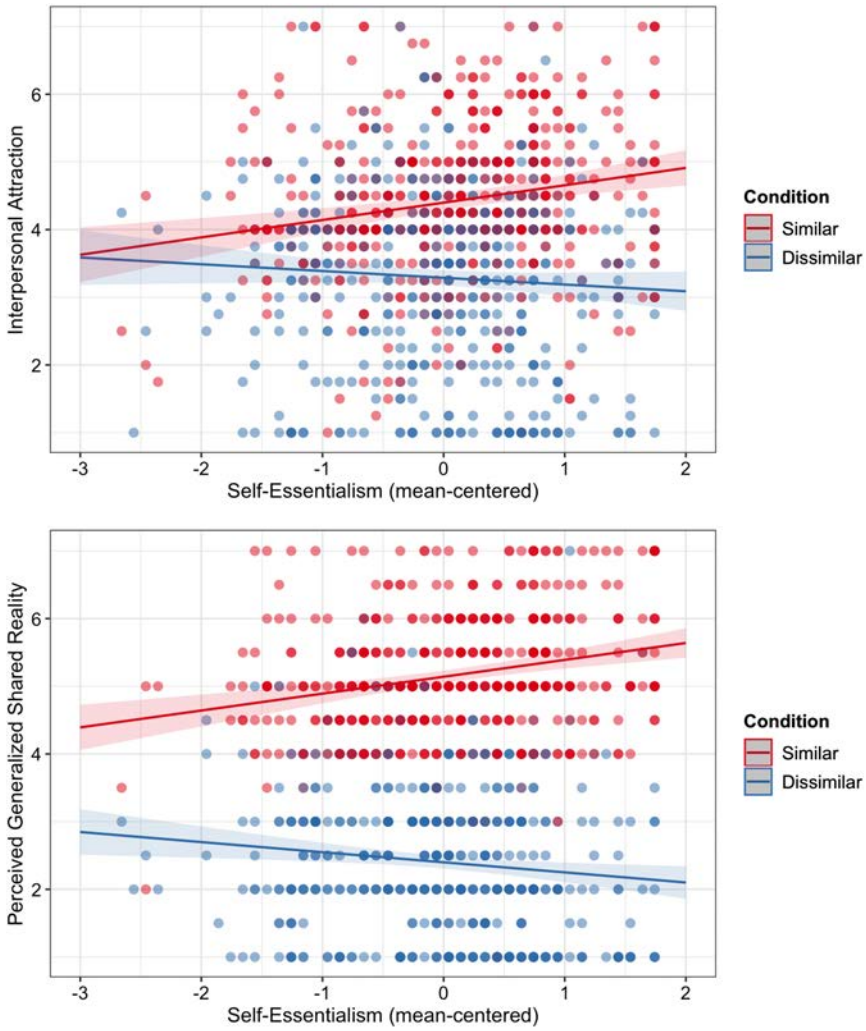
Additional Analyses

Perceived Generalized Shared Reality. We next examined whether the effect of similarity on our mediating variable, perceptions of a generalized shared reality, would be amplified by self-essentialist beliefs. We regressed perceived generalized shared reality on similarity condition, mean-centered self-essentialism, and their two-way interaction as well as dummy codes for social issue. As predicted, we observed a significant interaction between similarity condition and self-essentialism, $b = 0.40$, $SE = 0.08$, $t(946) = 5.18$, $p < .001$, 95% CI [0.25, 0.55].

We again decomposed this interaction in two ways. First, we examined the simple effects of similarity (vs. dissimilarity) on perceived generalized shared reality for participants at one standard deviation above and below the mean on self-essentialism. The results revealed that those high on self-essentialism perceived more generalized shared reality with the similar target relative to

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Figure 1
Study 1 Results



Note. See the online article for the color version of this figure.

the dissimilar target, $b = 3.10$, $SE = 0.09$, $t(946) = 33.19$, $p < .001$, 95% CI [2.92, 3.28]. The same effect held for those low on self-essentialism, although the effect was significantly weaker, $b = 2.38$, $SE = 0.10$, $t(946) = 24.69$, $p < .001$, 95% CI [2.19, 2.57]. We next viewed this interaction another way, examining the simple slope of self-essentialism on perceived generalized shared reality within the similar and dissimilar conditions. We found that participants' self-essentialism positively predicted perceived generalized shared reality toward the similar target, $b = 0.25$, $SE = 0.05$, $t(946) = 4.70$, $p < .001$, 95% CI [0.15, 0.35], but negatively toward the dissimilar target, $b = -0.15$, $SE = 0.06$, $t(946) = -2.68$, $p = .008$, 95% CI [−0.26, −0.04] (see Figure 1).

Moderated Mediation Analysis. To examine whether perceptions of generalized shared reality mediated the interactive effect of similarity condition and self-essentialism on interpersonal attraction, we conducted a moderated mediation analysis using 5,000 bootstrap resamples and Hayes' PROCESS macro model 7 in R statistical software. We thus entered similarity condition (1 = *similar*, 0 = *dissimilar*) as the independent variable, self-essentialism (mean-centered) as the moderator, perceived generalized shared reality as the mediator, and interpersonal attraction as the dependent variable into the moderated mediation model.

As expected, there was a significant index of moderated mediation (0.29, 95% CI [0.17, 0.41]), which indicates that the indirect effect of similarity condition on interpersonal attraction via perceptions of generalized shared reality varied significantly across levels of self-essentialism. To decompose the moderated indirect effect, we examined the indirect effect at high and low levels of self-essentialism (i.e., 1 standard deviation above and below the mean). For those high on self-essentialism, there was a significant indirect effect of similarity condition on attraction via perceptions of generalized shared reality, $ab = 2.19$, $SE = 0.16$, 95% CI [1.88, 2.51]. For those low on self-essentialism, there was a significant, but weaker, indirect effect of similarity condition on attraction via perceptions of generalized shared reality, $ab = 1.71$, $SE = 0.13$, 95% CI [1.47, 1.97]. In other words, although those low on self-essentialism perceived more

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generalized shared reality with and were in turn attracted to a similar (vs. dissimilar) target, those high on self-essentialism demonstrated this process to a greater degree.

Discussion

Across a variety of social and political issues, we found strong support for our hypothesis that self-essentialism strengthens the similarity-attraction effect. Specifically, individual differences in the extent to which participants endorsed self-essentialist beliefs moderated the effect of similarity (vs. dissimilarity) on perceptions of a generalized shared reality and interpersonal attraction. The more an individual believed that their observable attributes are caused by an underlying essence (i.e., held an essentialist lay theory of self), the more pronounced were their inferences of a broader shared view of the world with and interpersonal attraction toward a similar versus dissimilar target. These findings are thus consistent with our proposal that a self-essentialist reasoning process drives the similarity-attraction effect.

Importantly, we found that the interactive effect of similarity condition and self-essentialist beliefs on interpersonal attraction persisted even after controlling for the interaction between similarity condition and the strength of participants' attitudes towards each issue (Yzerbyt et al., 2004; see online Supplemental Materials). In other words, even after accounting for the fact that participants who hold a stronger attitude toward the issue in question are more polarized in their attraction toward attitudinally similar versus dissimilar targets, we still observed that self-essentialism strengthened the similarity-attraction effect. This suggests that the importance of the dimension of similarity does not fully explain our pattern of findings. Nevertheless, it is possible that such politically charged issues convey additional information that inform one's social judgments of a social target via other processes unrelated to self-essentialist reasoning (e.g., Ames, 2004). To eliminate this possibility, we aimed to conceptually replicate these findings using a minimal dimension of similarity in Study 2.

Study 2

We sought to extend upon our prior findings in Study 2 by examining whether self-essentialist reasoning would drive the similarity-attraction effect using even a minimal dimension of similarity. Our proposal is that self-essentialist reasoning should be able to generate perceptions of a broader shared reality and interpersonal attraction from *any* shared attribute, so long as the attribute is perceived as driven by one's essence. As such, we manipulated the dimension of similarity versus dissimilarity in this study using a classic minimal group paradigm (Prentice & Miller, 2006; Tajfel et al., 1971). Again, we expected that even such a novel and sparse dimension of similarity (vs. dissimilarity) would be enough for those who endorse self-essentialist beliefs to infer a broader shared view of the world in general, resulting in interpersonal attraction.

Participants and Procedure

We recruited 499 participants from Prolific online participant pool. In line with our preregistration (https://aspredicted.org/ma4z6.pdf), we excluded participants who failed manipulation checks (n = 7), an attention check (n = 20), and who scored more than 3 standard deviations from the mean on any of our primary dependent measures (n = 9). Because some participants failed more than one exclusion criteria, this resulted in a final sample of 464 participants (342 White, 25 Black, 63 Asian, 27 Hispanic/Latinx, 7 other race; 225 men, 235 women, 4 nonbinary; M_{age} = 37.45, SD_{age} = 14.47).

Participants were told they would take part in a study on personality and perceptual style and that they would be asked to form an impression of an individual. To enhance the psychological realism of the study, we first asked participants to respond to a short Big Five inventory (Ten-Item Personality Inventory; Gosling et al., 2003) and then to proceed to the perceptual style test. In this test, participants saw a series of eight slides, each for 3 s, with blue or another colored dots on them and estimated whether there were more or less blue dots. After these trials, we randomly assigned participants as either an *overestimator* (i.e., they consistently overestimated the number of blue dots) or *underestimator* (i.e., they consistently underestimated the number of blue dots). Because our predictions are contingent on the perception that this attribute is driven by one's essential self, we gave participants some additional information about the perceptual style test, stating that "Being an [over/under]estimator has a strong relationship with the core personality dimensions that make people who they are." We then randomly exposed participants to a hypothetical social target who was either in the same (*similar target*) or different (*dissimilar target*) minimal group assignment as them, and participants responded to our measures of interest.

Measures

We used the same measures of self-essentialist beliefs (α = .87, M = 5.24, SD = 0.85) and perceived generalized shared reality (r = .76, M = 4.05, SD = 1.15) as in Study 1.

Interpersonal Attraction

Participants responded to a five-item measure of interpersonal attraction (Holoien, 2016; Montoya & Horton, 2004). The items were "I would like to get to know Jamie better," "I would like to meet Jamie," and "I think I would enjoy Jamie's company" as well as "How much do you think you will like Jamie?" and "How much do you want to get along with Jamie?" Participants responded using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*; 1 = *not at all*, 7 = *very*), with higher scores representing more interpersonal attraction (α = .91, M = 4.89, SD = 1.02).

Results

We were interested in whether self-essentialism would amplify the effect of a minimal dimension of similarity on interpersonal attraction via the perception of a generalized shared reality with the social target. As such, we again regressed our primary dependent variables on similarity condition, self-essentialism (mean-centered), and their interaction and then examined our full model using a moderated mediation analysis.

Preregistered Analysis

Interpersonal Attraction. Again, we first examined our main preregistered analysis, which was whether the effect of similarity on

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attraction would be amplified by self-essentialist beliefs. We thus regressed interpersonal attraction on similarity condition, mean-centered self-essentialism, and their two-way interaction. As predicted, we observed a significant interaction between similarity condition and self-essentialism, $b = 0.24$, $SE = 0.11$, $t(460) = 2.23$, $p = .026$, 95% CI [0.03, 0.45].

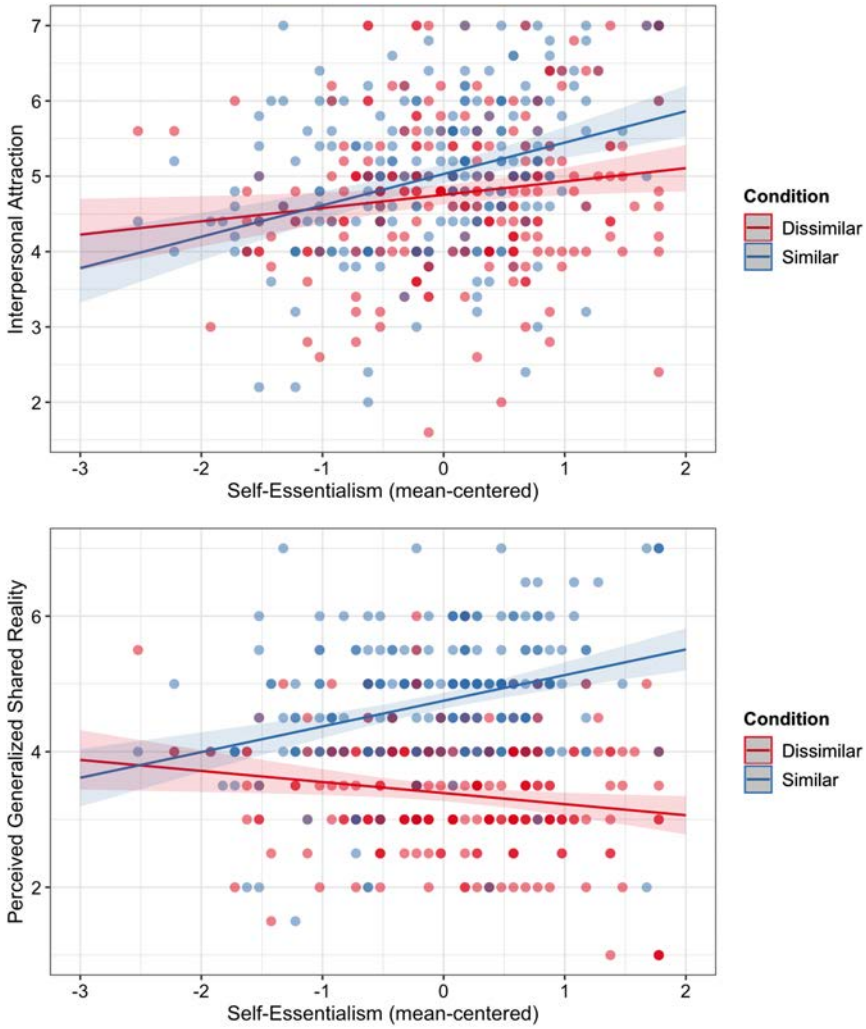
Decomposing this interaction, we observed that those high on self-essentialism were more attracted to the similar than dissimilar target, $b = 0.49$, $SE = 0.13$, $t(460) = 3.73$, $p < .001$, 95% CI [0.23, 0.75]. This effect was not observed for those low on self-essentialism, $b = 0.06$, $SE = 0.13$, $t(460) = 0.45$, $p = .652$, 95% CI [−0.20, 0.32]. Viewed differently, we found that participants' self-essentialism positively predicted interpersonal attraction toward a similar target, $b = 0.42$, $SE = 0.08$, $t(460) = 5.40$, $p < .001$, 95% CI [0.26, 0.57], and toward a dissimilar target, $b = 0.18$, $SE = 0.08$, $t(460) = 2.35$, $p = .019$, 95% CI [0.03, 0.32], although to a lesser degree (see Figure 2).

Additional Analyses

Perceived Generalized Shared Reality. We next examined whether the effect of similarity on perceptions of a generalized shared reality were strengthened by self-essentialist beliefs. We regressed perceptions of a generalized shared reality on similarity condition, mean-centered self-essentialism, and their two-way interaction. As predicted, we found a significant interaction between similarity condition and self-essentialism, $b = 0.54$, $SE = 0.10$, $t(460) = 5.45$, $p < .001$, 95% CI [0.35, 0.74].

Decomposing this interaction, we observed that those high on self-essentialism reported greater perceptions of a generalized shared reality with the similar social target than the dissimilar target, $b = 1.85$, $SE = 0.12$, $t(460) = 15.19$, $p < .001$, 95% CI [1.61, 2.09]. The same pattern held for those low on self-essentialism, although the effect was significantly weaker, $b = 0.88$, $SE = 0.12$,

Figure 2
Study 2 Results



Note. See the online article for the color version of this figure.

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$t(460) = 7.09$, $p < .001$, 95% CI [0.63, 1.12]. Viewed differently, we found that participants' self-essentialism positively predicted perceived generalized shared reality toward a similar target, $b = 0.38$, $SE = 0.07$, $t(460) = 5.31$, $p < .001$, 95% CI [0.24, 0.52], and negatively predicted perceived generalized shared reality toward a dissimilar target, $b = -0.16$, $SE = 0.07$, $t(460) = -2.35$, $p = .019$, 95% CI [−0.30, −0.03] (see Figure 2).

Moderated Mediation Analysis. To examine whether perceptions of generalized shared reality mediated the interactive effect of similarity condition and self-essentialism on interpersonal attraction, we conducted a moderated mediation analysis using 5,000 bootstraps resamples and Hayes' PROCESS macro model 7 in R statistical software. We entered similarity condition (1 = *similar*, 0 = *dissimilar*) as the independent variable, self-essentialism (mean-centered) as the moderator, perceived generalized shared reality as the mediator, and interpersonal attraction as the dependent variable into the moderated mediation model.

As predicted, we found that there was a significant index of moderated mediation (0.22, 95% CI [0.11, 0.34]), which indicates that the indirect effect of similarity condition on interpersonal attraction via perceptions of generalized shared reality varied significantly across levels of self-essentialism. To decompose the moderated indirect effect, we examined the indirect effect at high and low levels of self-essentialism (i.e., 1 standard deviation above and below the mean). For those high on self-essentialism, there was a significant indirect effect of similarity condition on attraction via perceptions of generalized shared reality, $ab = 0.73$, $SE = 0.12$, 95% CI [0.49, 0.98]. For those low on self-essentialism, there was a significant, but weaker, indirect effect of similarity condition on attraction via perceptions of generalized shared reality, $ab = 0.37$, $SE = 0.07$, 95% CI [0.23, 0.52]. In other words, although those low on self-essentialism perceived more generalized shared reality and were attracted to a similar versus dissimilar target, those high on self-essentialism demonstrated this process to a greater degree.

Discussion

Study 2 provides further support for our hypothesis that self-essentialist reasoning drives the similarity-attraction effect. Conceptually replicating our findings from Study 1, we again found that endorsing self-essentialist beliefs facilitated perceptions of a generalized shared reality about the world with a similar (vs. dissimilar) target, which in turn resulted in interpersonal attraction. This study demonstrated that such a process occurred even when the similar attribute was minimal in nature (i.e., a shared minimal group assignment), thus reducing concerns that specific information conveyed by attitudes toward important social and political issues drove our findings in Study 1.

We do note that we did not conduct an a priori power analysis for this study. As such, we ran sensitivity power analyses to determine what sample size would be needed to detect the effect sizes we observed in this study (given $\alpha = 0.05$, power = 0.80, and a two-tailed test). On the one hand, we observed Cohen's *d* effect sizes of around 0.50 for the simple effect of self-essentialism on attraction within the similarity condition and 0.20 within the dissimilarity condition. On the other, we observed Cohen's *d* effect sizes of around 0.50 for the simple effect of self-essentialism on perceived generalized shared reality within the similarity condition and −0.20 within the dissimilarity condition. Using these observed effect sizes and specifications (i.e., $\alpha = 0.05$; power = 0.80; two-tailed test) in intxpower.com (Sommet et al., 2022), we found that 1,394 participants would be required to detect our observed interaction effect on interpersonal attraction and 254 participants would be required to detect our observed interaction effect on perceived generalized shared reality. As our analysis sample included 464 participants, we were thus underpowered to detect our predicted interaction effect on interpersonal attraction but adequately powered to detect our interaction effect on perceived generalized shared reality. To address this limitation, we conducted a priori power analyses and set sample sizes in accordance with those analyses for our remaining studies.

Thus far, Studies 1 and 2 have relied on an individual differences approach to demonstrate that self-essentialist reasoning drives the similarity-attraction effect. Our intuition has been that variation in the extent to which people endorse self-essentialist beliefs should track with the extent to which they engage in self-essentialist reasoning. If self-essentialist reasoning is indeed a causal mechanism of the similarity-attraction effect, then dispositional variation in self-essentialist beliefs should moderate the effect of similarity on attraction, which is exactly what we found. Moreover, the fact that this interactive effect is mediated by perceptions of generalized shared reality provides further support for our proposed process. Namely, these results are consistent with the idea that people perceive a dimension of similarity as driven by their essence (to the extent they endorse an essentialist lay theory of self) and then apply that essence onto a similar target to infer a broader shared reality, giving rise to interpersonal attraction.

Despite this consistency with our theoretical proposal, these interpretations rely on a measured (not manipulated) moderator of self-essentialist beliefs and cross-sectional correlational data in our mediational analyses (see Fiedler et al., 2011). As such, we have not (yet) provided evidence that self-essentialist reasoning is a *causal* mechanism through which similarity breeds attraction. In other words, we have not manipulated the two crucial steps of our proposed self-essentialist reasoning process—that is, that people first perceive a similar attribute as driven by their own essence, which enables them to then apply that essence onto a similar target to infer a more generalized shared reality. Therefore, in Studies 3 and 4, we turn to moderation-of-process designs (Jacoby & Sassenberg, 2011; Spencer et al., 2005), which manipulate a contextual condition to interrupt each of these causal steps through which similarity breeds attraction. If manipulations that disrupt these causal steps lead to attenuation of the similarity-attraction effect, we would establish evidence for self-essentialist reasoning as a *causal* mechanism.

Study 3

The goal of Study 3 was to provide evidence that the first step of our proposed self-essentialist reasoning process—perceiving that a similar or dissimilar attribute is driven by one's essence—plays a causal role in the similarity-attraction effect. Because our logic is that the perception that a similar attribute is driven by one's essence is what enables the application of that essence to a similar target to infer a broader shared reality, manipulating whether an attribute is disconnected from one's essence should interrupt this proposed process through which similarity leads to attraction (i.e., a moderation-of-process experiment; Jacoby & Sassenberg, 2011; Spencer

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et al., 2005). Study 3 thus manipulates the extent to which an attribute is connected to (*essential attribute condition*) or disconnected from one's essence (*nonessential attribute condition*) and examines the effect of similarity (vs. dissimilarity) on interpersonal attraction within each of those conditions. If our theorizing is true, we should expect that disconnecting an attribute from one's essence should attenuate the effect of similarity versus dissimilarity on attraction.

Participants and Procedure

We conducted an a priori power analysis for our interaction prediction using intxpower.com (Sommet et al., 2022). We estimated simple effects of Cohen's $d = 0.60$ and 0.30 (i.e., a partially attenuated interaction) based on prior studies using the same similarity paradigm as in this study (see likability variable in Study 4 of Hong & Ratner, 2021). These specifications revealed that a sample size of 348 participants would be needed to achieve 80% power at $\alpha = 0.05$ for a mixed factorial design with similarity versus dissimilarity as a within-subject factor and essential versus nonessential attribute condition as a between-subject factor. As we wanted to achieve greater than 80% power, we recruited 502 participants from Prolific online participant pool. In line with our preregistration (https://aspredicted.org/yd8bt.pdf), we excluded those who failed an essential attribute condition manipulation check ($n = 71$) or a similarity condition manipulation check ($n = 2$) and who scored more than 3 standard deviations from the mean on any of our primary dependent measures ($n = 11$). Because some participants failed more than one exclusion criteria, this resulted in a final sample of 423 participants (305 White, 27 Black, 32 Asian, 51 Hispanic/Latinx, 1 Native American/Alaskan Native, 7 other race; 210 men, 210 women, 3 nonbinary; $M_{age} = 38.58$, $SD_{age} = 13.12$).

Participants were told they would take part in a study on personality and artistic preferences. To enhance the psychological realism of the study, participants first responded to a short Big Five inventory (Ten-Item Personality Inventory; Gosling et al., 2003) before taking an artistic preference test, a classic minimal group paradigm which would become the basis for our similarity manipulation (Hong & Ratner, 2021; Tajfel et al., 1971). In this test, participants saw a series of eight pairs of paintings and were asked which painting they preferred. After these trials, we randomly assigned participants as either a *Klee fan* (i.e., they liked Klee paintings more than Kandinsky paintings) or a *Kandinsky fan* (i.e., they liked Kandinsky paintings more than Klee paintings; Hong & Ratner, 2021; Tajfel et al., 1971), which formed the basis for similarity or dissimilarity used later in the study. We next exposed participants to our manipulation of whether this attribute (i.e., artistic preference) is connected to one's essence (*essential attribute condition*) or not (*nonessential attribute condition*). Specifically, participants were given the following information:

> This artistic preference test has been used in psychological studies since the early 1970s. In a recent meta-analysis, or summary of many hundreds of studies, researchers found [*a significant/no significant*] relationship between people's artistic preferences and their Big Five personality type, which is widely recognized as the best measure of personality. Specifically, across all the studies, people's scores on the Big Five Personality dimensions (Extraversion, Agreeableness, Openness to Experience, Conscientiousness, and Emotional Stability) [*were able to reliably predict/failed to predict*] whether someone preferred Klee or Kandinsky paintings.
>
> In other words, people's performance on the artistic preference test has [*a strong/no*] relationship with the core personality dimensions that make people who they are.

Participants were then exposed to two hypothetical social targets (presented in counterbalanced order) who either had the same (*similar target*) or different (*dissimilar target*) artistic preference as them and asked to report their levels of interpersonal attraction toward these individuals.

Measures

Interpersonal Attraction

Participants responded to the same five-item measure of interpersonal attraction as in Study 2 for both the similar and dissimilar targets (Similar: $\alpha = .94$, $M = 4.94$, $SD = 1.08$; Dissimilar: $\alpha = .92$, $M = 4.43$, $SD = 1.01$).

Results

Preregistered Analysis

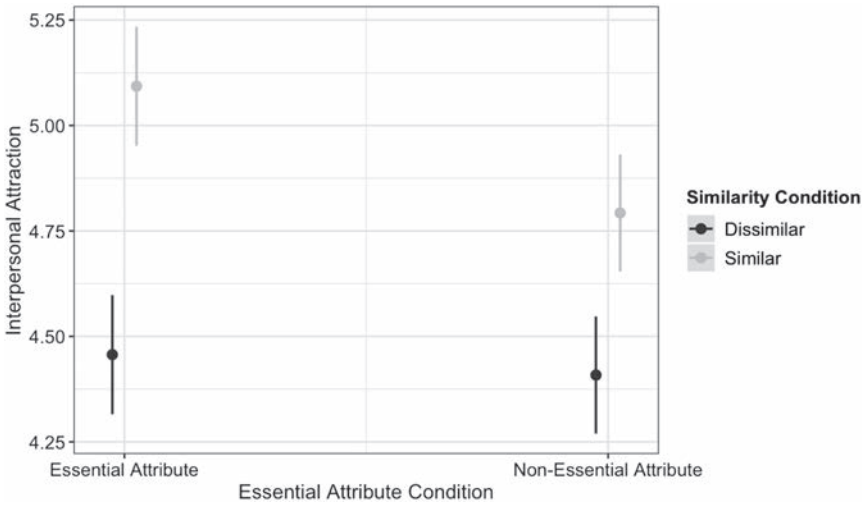
We conducted a mixed effects model to examine whether disconnecting an attribute (i.e., preferring Klee or Kandinsky paintings) from one's essence would attenuate the effect of similarity on interpersonal attraction. Specifically, in line with our preregistered analysis, we regressed interpersonal attraction on similarity (vs. dissimilarity) condition, essential versus nonessential attribute condition, and their two-way interaction, including a random-intercept for participant. Our expectation was that the effect of similarity on attraction would be significantly attenuated in the nonessential attribute condition relative to the essential attribute condition, as indicated by a significant two-way interaction.

As predicted, we found a significant interaction between similarity versus dissimilarity condition and essential versus nonessential attribute condition, $b = 0.25$, $SE = 0.08$, $t(421.00) = 3.24$, $p = .001$, 95% CI [0.10, 0.41]. Decomposing this interaction, we observed a significant simple effect of similarity on attraction within the essential attribute condition, $b = 0.64$, $SE = 0.06$, $t(421.00) = 11.45$, $p < .001$, 95% CI [0.53, 0.75]. Meanwhile, this simple effect of similarity on attraction was attenuated within the nonessential attribute condition, although still significant, $b = 0.38$, $SE = 0.05$, $t(421.00) = 7.02$, $p < .001$, 95% CI [0.28, 0.49]. Viewed differently, there was no significant difference in attraction toward a dissimilar target when the attribute was connected to versus disconnected from one's essence, $b = 0.05$, $SE = 0.10$, $t(564.10) = 0.48$, $p = .632$, 95% CI [−0.15, 0.25]. In contrast, participants reported significantly more attraction toward a similar target when the attribute was connected to one's essence compared to when it was not, $b = 0.30$, $SE = 0.10$, $t(564.10) = 2.98$, $p = .003$, 95% CI [0.10, 0.50] (see Figure 3).

Discussion

The goal of Study 3 was to establish evidence that the first step in our proposed self-essentialist reasoning process—that is, the perception that a dimension of similarity or dissimilarity is driven by one's essence—plays a causal role in the similarity-attraction effect. Study 3 thus sought to interrupt this psychological process by manipulating whether a similar or dissimilar attribute was connected

Figure 3
Study 3 Results



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to or disconnected from one's essence. If our proposed causal process is true, then people should report a smaller difference in interpersonal attraction between a similar and dissimilar target in the nonessential attribute condition relative to the essential attribute condition. The results of Study 3 are completely consistent with this account. We found that disconnecting an attribute from one's essence attenuated the effect of similarity on interpersonal attraction, thus demonstrating that the perception that a similar attribute is driven by one's essence plays a causal role in similarity-attraction effects.

Some questions remain, however. Recall that our proposed self-essentialist reasoning process occurs in *two* steps. The first is that people perceive a (shared) attribute as driven by one's underlying essence, which we tested in this study. The second is that people then apply their own essence to a social target with whom they share that attribute to infer a broader shared reality with that individual, resulting in interpersonal attraction. As such, this study does not provide direct causal evidence of this inferential component (i.e., the application of one's essence to a social target) of the self-essentialist reasoning process. Study 4 addresses this remaining gap in our evidence.

Study 4

Study 4 examined whether the application of one's own essence to a similar target, the second step of the self-essentialist reasoning process we propose, plays a causal role in the similarity-attraction effect. Again, our logic is that once categorized as a *person like me*, the application of one's own essence to a similar other is what generates the inference of a broader shared view of the world. As such, preventing this projection of one's essence onto a social target should interrupt our self-essentialist reasoning process and thus attenuate the effect of similarity on attraction (Jacoby & Sassenberg, 2011; Spencer et al., 2005).

To examine this, Study 4 manipulates participants' perception of whether applying one's essence to a social target leads to *in*accurate impressions or not. Our intuition was that without any explicit instruction (*no information control condition*), our proposed self-essentialist reasoning process would operate as usual—that is, people would apply their own essence to a similar (vs. dissimilar) target and infer a generalized shared reality with that person, resulting in interpersonal attraction. However, telling people that the application of one's essence leads to *inaccurate* impressions of others (*inaccurate essence condition*) should interrupt this process and attenuate the effect of similarity on interpersonal attraction. We also included a condition where we told participants that applying one's essence leads to *accurate* impressions of others (*accurate essence condition*), though we remained agnostic as to what effect this condition would have on the similarity-attraction effect. Our central prediction was that the effect of similarity on attraction should be attenuated when people are told their essence is an *inaccurate* starting point in forming impressions of others compared to when they are given no such information.

Participants and Procedure

We conducted an a priori power analysis for our interaction prediction using intxpower.com (Sommet et al., 2022). We estimated simple effects of Cohen's $d = 0.60$ and 0.30 (i.e., a partially attenuated interaction) based on prior studies using the same similarity paradigm as in this study (Hong & Ratner, 2021). These specifications revealed that a sample size of 348 participants would be needed to achieve 80% power at $\alpha = 0.05$ for a mixed factorial design with similarity versus dissimilarity as a within-subject factor and inaccurate essence condition versus no information control condition as a between-subject factor. As we wanted to achieve greater than 80% power, we aimed to recruit 500 participants for this contrast (i.e., 250 participants per condition). Because we included an additional accurate essence condition in this study (three conditions total), we recruited 749 participants from Prolific online participant pool.

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In line with our preregistration (https://aspredicted.org/yt9u5.pdf), we excluded participants who failed an essence accuracy condition manipulation check ($n = 291$)[1] or similarity condition manipulation check ($n = 4$) as well as those who scored more than 3 standard deviations from the mean on any of our primary dependent measures ($n = 12$). Because some participants failed more than one exclusion criteria, this resulted in a final sample of 449 participants (330 White, 31 Black, 45 Asian, 30 Hispanic/Latinx, 3 Native American/Alaskan Native, 10 other race; 217 men, 224 women, 8 nonbinary; $M_{age} = 37.14$, $SD_{age} = 12.93$).

To form the basis for similarity or dissimilarity, participants were exposed to the same procedure as the essential attribute condition in Study 3 (i.e., they were randomly assigned as either a *Klee* or *Kandinsky fan*, and this artistic preference was described as connected to one's core personality dimensions; Hong & Ratner, 2021; Tajfel et al., 1971). We next randomly assigned participants to one of three conditions: no information control, inaccurate essence condition, or accurate essence condition. In the *no information control condition*, participants read the following:

> You will be asked your impressions of two people who are either Klee or Kandinsky fans. You will be given very little information about these individuals, so take your best guess at imagining what these people are like.

In the *inaccurate* and *accurate essence conditions*, participants were given the following additional information:

> We provide some insights from the most recent studies on impression formation below to help with this task. Research on impression formation has found that it is generally [*not a good strategy/a good strategy*] to use your own deeply rooted characteristics that make you who you are (i.e., your core self) as a starting point when imagining another person. The studies found that using who you are as a reference when guessing what another individual is like leads to generally [*inaccurate/accurate*] impressions of other people.

Participants were then exposed to two hypothetical social targets (presented in counterbalanced order) who either had the same (*similar target*) or different (*dissimilar target*) artistic preference as them and asked to report their perceptions of generalized shared reality with and level of interpersonal attraction toward these individuals.

Measures

We used the same two-item measure of perceived generalized shared reality as in Studies 1 and 2 for both similar and dissimilar targets (Similar: $r = 0.72$, $M = 4.96$, $SD = 0.92$; Dissimilar: $r = 0.72$, $M = 3.33$, $SD = 0.97$).

Interpersonal Attraction

Participants responded to a two-item measure of interpersonal attraction (i.e., "How much do you like this person?"; "How much do you want to get along with this person?"; Holoien, 2016; also used in Studies 2 and 3) for both the similar and dissimilar targets (Similar: $r = .63$, $M = 5.19$, $SD = 0.95$; Dissimilar: $r = .59$, $M = 4.54$, $SD = 0.93$).

Results

Preregistered Analysis

Interpersonal Attraction. Our main prediction was that interrupting the application of one's essence to a social target (i.e., telling participants that applying their essence to a social target leads to inaccurate impressions) would attenuate the similarity-attraction effect. That is, we expected that the inaccurate essence condition, relative to the no information control, would significantly reduce the difference in interpersonal attraction toward a similar versus dissimilar target.

To examine this, we conducted a mixed effects model regressing interpersonal attraction on similarity (vs. dissimilarity) condition, dummy codes for inaccurate (1 = *inaccurate essence*, 0 = *accurate essence*, 0 = *no info control*) and accurate essence (0 = *inaccurate essence*, 1 = *accurate essence*, 0 = *no info control*) conditions with the no information control condition as the nonincluded baseline condition, and the two-way interactions between similarity condition and inaccurate and accurate essence condition dummies, including a random-intercept for participant. As predicted, there was a significant two-way interaction between similarity condition and the inaccurate essence condition dummy, such that participants in the inaccurate essence condition demonstrated a significantly smaller similarity-attraction effect (i.e., difference in attraction toward similar and dissimilar targets) compared to those in the no information control condition (see Table 2 and Figure 4).

Additional Analyses

Interpersonal Attraction. Although our main predicted contrast was between the inaccurate essence and no information control conditions, we also examined the contrast between the inaccurate and accurate essence conditions. This contrast more cleanly tests the causal role of applying one's essence to a social target in the similarity-attraction effect because it compares high levels of essence application (accurate essence condition) to low levels of essence application (inaccurate essence condition).

We therefore ran the same mixed effects model as our preregistered analysis, except this time using dummy codes for accurate essence condition (0 = *inaccurate essence*, 1 = *accurate essence*, 0 = *no info control*) and the no information control (0 = *inaccurate essence*, 0 = *accurate essence*, 1 = *no info control*) condition with inaccurate essence condition as the nonincluded baseline condition.

[1] We did not expect our preregistered manipulation check (i.e., participants were asked to recall on a multiple-choice question whether they read about research that said their essence was an accurate or inaccurate reference in forming impressions of others or if they did not read any such research) to result in such a high number of exclusions. To ensure the robustness of our effects, we ran a mixed effects model predicting interpersonal attraction that examined our main preregistered contrast (i.e., inaccurate essence vs. no info control) and additional reported contrast (i.e., inaccurate essence versus accurate essence) using the sample including those who failed this check. Our results remained the same. There were significant two-way interactions between similarity condition and the inaccurate essence versus control condition dummy, $b = 0.24$, $SE = 0.09$, $t(730.00) = 2.72$, $p = .007$, and similarity condition and the inaccurate versus accurate essence condition dummy, $b = 0.31$, $SE = 0.09$, $t(730.00) = 3.46$, $p < .001$, such that the effect of similar (vs. dissimilar) target was significantly attenuated in the inaccurate essence condition relative to the no information control and accurate essence conditions.

Table 2
Study 4 Mixed Effects Model Results for Interpersonal Attraction

Predictor	*b*	*SE*	*t*	*p*	95% CI
Two-way interactions: Essence Accuracy Dummy × Similarity Condition					
Inaccurate (1) versus Control (0) × Similarity	**−0.27**	**0.11**	**−2.39**	**.017**	**[−0.48, −0.05]**
Accurate (1) versus Control (0) × Similarity	0.08	0.11	0.73	.469	[−0.13, 0.29]
Accurate (1) versus Inaccurate (0) × Similarity	0.34	0.10	3.32	<.001	[0.14, 0.55]
Simple effects within conditions: similar versus dissimilar target					
No information control condition					
Similar versus dissimilar target	**0.71**	**0.08**	**8.67**	**<.001**	**[0.55, 0.86]**
Inaccurate essence condition					
Similar versus dissimilar target	**0.44**	**0.08**	**5.80**	**<.001**	**[0.29, 0.59]**
Accurate essence condition					
Similar versus dissimilar target	0.78	0.07	11.08	<.001	[0.65, 0.92]

Note. Preregistered contrasts are in bold. We conducted separate regressions with each essence accuracy condition as the nonincluded referent condition to examine all two-way interaction contrasts and the simple effect of similarity within each condition. *SE* = standard error; CI = confidence interval.

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Supporting our theorizing, there indeed was a significant two-way interaction between similarity condition and the accurate essence condition dummy, such that participants in the inaccurate essence condition demonstrated a significantly smaller similarity-attraction effect (i.e., difference in attraction toward similar and dissimilar targets) compared to those in the accurate essence condition (see Table 2 and Figure 4).

Perceived Generalized Shared Reality. Although the pattern of findings on our dependent variable of interpersonal attraction is completely consistent with our theorizing, we do not yet have direct evidence that our manipulation of essence accuracy (i.e., telling participants that their essence was an *in*accurate reference in forming impressions of others) interrupted their inference of a broader shared reality with a similar target, a crucial mediating variable in our proposed process. As such, we also measured participants' perceptions of a generalized shared reality in this study and ran a mixed effects model regressing this variable on similarity condition, accurate essence and no information control condition dummies with inaccurate essence condition as the nonincluded baseline condition, and the two-way interactions between similarity condition and accurate essence and control condition dummies, including a random-intercept for participant. Our expectation was that, mirroring our findings for interpersonal attraction, participants in the inaccurate essence condition would demonstrate a smaller difference in their perceptions of generalized shared reality between similar and dissimilar targets relative to both the no information control and accurate essence conditions.

As predicted, there indeed were significant two-way interactions between similarity condition and accurate essence and control condition dummies. Decomposing these interactions revealed that participants in the inaccurate essence condition reported a smaller difference in perceptions of a generalized shared reality between a similar and dissimilar target than those in the accurate essence or control conditions (see Table 3 and Figure 4).

Discussion

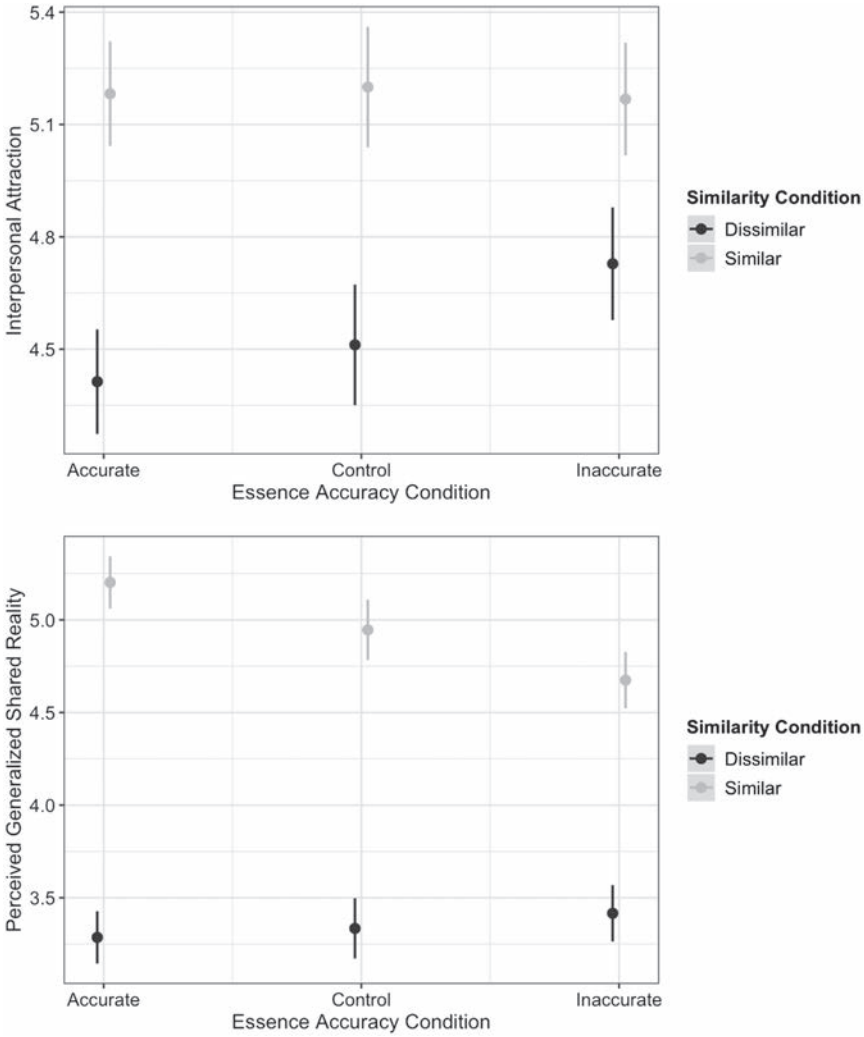
Study 4 sought to demonstrate the causal role of the second step of our self-essentialist reasoning process—that is, applying one's essence to a similar target to infer a broader shared reality—in driving the similarity-attraction effect. Specifically, we gave participants information that applying one's essence is an inaccurate strategy to form impressions of others (relative to no information or accurate essence information). If our proposed causal process is true, then the difference in attraction between similar and dissimilar targets should be reduced when given such inaccurate essence information.

We indeed found that the inaccurate essence condition attenuated the effect of similarity on interpersonal attraction compared to both no information control and accurate essence conditions. Moreover, the inclusion of a measure of perceived generalized shared reality allowed us to confirm that this pattern of findings operated through the inference of a broader shared view of the world—our observed pattern of findings for perceived generalized shared reality mirrored the findings for interpersonal attraction (i.e., the attenuation of the effect of similarity within the inaccurate essence condition relative to the other two conditions). Taken together, these results demonstrate that the application of one's essence to a similar target plays a causal role in similarity-attraction effects.

General Discussion

Across four experimental studies, we examined self-essentialist reasoning as a causal mechanism of the similarity-attraction effect. Specifically, our proposal was that similarity breeds attraction because people perceive that a dimension of similarity is driven by their own essence and then apply that essence (and all the attributes it causes) to a similar other to infer a generalized shared reality with a similar target. Studies 1 and 2 tested this model using an individual differences approach. We found that dispositional variation in self-essentialist beliefs, which should facilitate the perception that a dimension of similarity is driven by one's essence, amplified the effect of similarity on perceptions of a generalized shared reality and interpersonal attraction across both meaningful (political issue agreement; Study 1) and minimal (shared minimal group assignment; Study 2) dimensions of similarity. Studies 3 and 4 then used a moderation-of-process approach to demonstrate the causal role of self-essentialist reasoning in driving similarity-attraction. Specifically, we manipulated the two crucial steps of the self-essentialist reasoning process by first severing the connection

Figure 4
Study 4 Results



between a dimension of similarity and one's essence in Study 3 and then deterring people from applying their essence to form an impression of a similar other in Study 4. Our results found that both manipulations interrupted the self-essentialist reasoning process, thus attenuating the effect of similarity on attraction relative to conditions in which our proposed process was uninterrupted. Collectively, these studies provide consistent support that the similarity-attraction effect operates through a process of self-essentialist reasoning.

These findings offer several contributions to our understanding of self-essentialism, the role of the self in intergroup phenomena, and similarity-attraction. Our insight that self-essentialist reasoning shapes how we see others extends upon the emerging literature on self-essentialism by highlighting the interpersonal implications of this lay theory of self. The extant work has primarily discussed self-essentialism as a private (and relatively asocial) affair, emphasizing its role in reducing uncertainty in one's perception of reality and its implications on *intra*personal outcomes such as subjective well-being (Christy et al., 2019; Chu & Lowery, 2023; Dulaney et al., 2019). The present work extends on this body of literature by directly examining how self-essentialism influences social perception. We find that the belief that a deeply rooted and unchanging essence drives one's observable characteristics provides the basis for an intuitive but significant inferential process, where we project *many* of our own attributes onto another person with whom we share a *single* attribute. This way of representing the self might serve us well by providing a plausible representation of reality, but it is not necessarily an accurate one. For example, although it may be reasonable to assume that someone who agrees with us on abortion might also share certain other attitudes (Study 1), it becomes far harder to justify such an inference when the dimension of similarity is minimal in nature (Studies 2–4). Short of any value judgment as to the desirability of such an essentialist reasoning strategy, we highlight two implications for social perception. On the one hand, self-essentialist reasoning aids in the construction of social bonds where none existed by leading people to experience more similarity than is actually observed (see also De Freitas & Cikara, 2018). On the other, such thinking exacerbates and sharpens

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Table 3
Study 4 Mixed Effects Model Results for Perceived Generalized Shared Reality

Predictor	*b*	*SE*	*t*	*p*	95% CI
Two-way interactions: Essence Accuracy Dummy × Similarity					
Control (1) versus Inaccurate (0) × Similarity	0.40	0.16	2.55	.011	[0.09, 0.70]
Accurate (1) versus Control (0) × Similarity	0.29	0.15	1.90	.059	[−0.01, 0.58]
Accurate (1) versus Inaccurate (0) × Similarity	0.68	0.15	4.71	<.001	[0.40, 0.97]
Simple effects within conditions: similar versus dissimilar target					
No information control condition					
Similar versus dissimilar target	1.66	0.11	14.51	<.001	[1.43, 1.88]
Inaccurate essence condition					
Similar versus dissimilar target	1.26	0.11	11.86	<.001	[1.05, 1.47]
Accurate essence condition					
Similar versus dissimilar target	1.94	0.10	19.60	<.001	[1.75, 2.14]

Note. We conducted separate regressions with each essence accuracy condition as the nonincluded referent condition to examine all two-way interaction contrasts and the simple effect of similarity within each condition. *SE* = standard error; CI = confidence interval.

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differences between those *like me* and those who are not. More broadly, these insights suggest that an essential self is far from the isolated, decontextualized, and *personal* object oft portrayed in the literature, but rather, a deeply relational and *social* category (see also Strohminger & Nichols, 2014).

To this point, the fact that minimal group assignment as a dimension of similarity generates our findings suggests further implications for intergroup phenomena. The pattern of results in Study 2—self-essentialist beliefs extrapolated upon even a shared *minimal* group assignment to yield a generalized shared reality and interpersonal attraction—is reminiscent of ingroup favoritism and suggests that self-essentialist reasoning plays a role in delineating ingroup members from outgroup members. Perhaps it is the belief in a deeply rooted and unchanging essence and the inferences it enables that forms the foundation for ingroup categorization (i.e., people *like me*; cf. Cadinu & Rothbart, 1996). Such a possibility also complements recent perspectives that argue that research on group phenomena should better articulate the differences between sharing a group categorization and sharing a collective perspective (Cikara, 2021; Shteynberg et al., 2022). Our minimal group studies (Studies 2–4) suggest that self-essentialist reasoning might serve as an inferential bridge between the perception of a shared social categorization and generalized shared reality. We encourage future research to more directly investigate the role that self-essentialist reasoning plays in intergroup phenomena.

Our findings also clarify the mechanisms underlying the similarity-attraction effect. The two most prominent explanations, the information-processing account and the reinforcement model, diverge in their emphasis on either cognitive or motivational mechanisms. Champions of the information-processing approach argue that shared attributes imply additional favorable information about a social target (a cognitive evaluation), which results in interpersonal attraction (e.g., Ajzen, 1974; Kaplan & Anderson, 1973; Montoya & Horton, 2014; Tesser, 1971). In contrast, proponents of the reinforcement model offer that shared attributes generate positive feelings and attraction because they validate our ideas and attitudes, which is motivated by a desire for a logical and consistent view of the world (e.g., Byrne, 1997). To date, these accounts have been pitted against each other (e.g., Byrne, 1997; Kaplan & Anderson, 1973; Montoya & Horton, 2014). We believe that our results suggest that such an oppositional dynamic may not be warranted. Our finding that self-essentialist reasoning drives people's inferences of a general shared perspective about the world from a single shared attribute is consistent with the information-processing argument that similarity suggests more favorable information about a social target. At the same time, the fact that the perception of a generalized shared reality about the world predicts interpersonal attraction in our studies also supports the reinforcement model's stance that the motivation for a logical and consistent view of the world is an important driver of attraction (Hardin & Higgins, 1996; Rossignac-Milon et al., 2021). This latter possibility, however, does remain speculative as we did not explicitly manipulate such epistemic motivations in our studies. Future studies and perspectives on interpersonal attraction might consider both these cognitive and motivational factors in explaining patterns of similarity-attraction.

On a further speculative note, we offer a thought on the automaticity of our proposed process. On the one hand, we find it highly unlikely that people are consciously aware of their engagement in this self-essentialist reasoning process. That is, my attraction and inference of a broader shared reality with a similar other should occur without much awareness and feel natural and intuitive, which is consistent with research on the automatic nature of self-projection (c.f., Krueger, 2008). On the other hand, this is not to say that the self-essentialist reasoning process is *entirely* automatic. Our results in Study 4 found that giving individuals explicit information that applying one's essence leads to *in*accurate impressions of others attenuated self-essentialist reasoning, which suggests some level of intentionality in either engaging or disengaging in this process. This pattern of findings thus suggests that certain perceiver goals might increase or decrease the likelihood of engaging in a mostly automatic self-essentialist reasoning process (see also Epley et al., 2004; Gollwitzer et al., 2017). More broadly, these results support and extend on recent perspectives that argue against the idea of psychological processes as entirely automatic or not, or in other words, perfectly bifurcated into System 1 or System 2 thinking (e.g., Melnikoff & Bargh, 2018). Nevertheless, we did not explicitly focus on the idea of automaticity of self-essentialist reasoning in the present investigation, and future studies should examine such questions in greater detail.

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Limitations and Future Directions

As always there are opportunities for improvement. First, like many studies in the similarity-attraction literature, our work is limited to first impressions and does not include real interactions between people (e.g., Montoya & Horton, 2014; Zorn et al., 2022). That said, social life is replete with contexts where first impressions matter, from speed-dating to social media (e.g., Tidwell et al., 2013; Zorn et al., 2022). Future studies might extend the insights from the present investigation to such consequential domains. Second, this research was conducted using all Western participants. Although psychological essentialism is recognized as one of the few culturally invariant psychological phenomena (Henrich et al., 2010), there very likely may be variation in the extent to which cultures essentialize the self (see also Adams et al., 2019; Markus & Kitayama, 1991). If that is the case, cultural differences in self-essentialism may help explain variance in the strength of the similarity-attraction effect across cultures (e.g., Heine et al., 2009). We strongly believe that future research should investigate such cross-cultural questions.

Conclusion

There is something so intuitive and natural about the idea that some deep and unchanging thing inside of me makes me who I am. This belief in an essential self is not just a private affair; it affects how we see and relate to others. The warm feeling we get toward someone we just met who has something in common with us, that sense that this person is *my* kind of person and sees things as I do, is founded upon this belief and the reasoning process it enables. On a good day, self-essentialist reasoning facilitates the uniquely human capacity for social connection by helping us see a bit more of ourselves in others. On a bad one, this belief might enable the darker aspect of humanity to socially exclude by delineating the boundary between us and them. By attributing what we can observe about someone to the depths of who they are, we may make unwarranted, or at least premature, inferences about others.

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