

More Human Than You: Attributing Humanness to Self and Others

Nick Haslam
University of Melbourne

Paul Bain
Murdoch University and University of Melbourne

Lauren Douge, Max Lee, and Brock Bastian
University of Melbourne

People typically evaluate their in-groups more favorably than out-groups and themselves more favorably than others. Research on infrahumanization also suggests a preferential attribution of the “human essence” to in-groups, independent of in-group favoritism. The authors propose a corresponding phenomenon in interpersonal comparisons: People attribute greater humanness to themselves than to others, independent of self-enhancement. Study 1 and a pilot study demonstrated 2 distinct understandings of humanness—traits representing human nature and those that are uniquely human—and showed that only the former traits are understood as inhering essences. In Study 2, participants rated themselves higher than their peers on human nature traits but not on uniquely human traits, independent of self-enhancement. Study 3 replicated this “self-humanization” effect and indicated that it is partially mediated by attribution of greater depth to self versus others. Study 4 replicated the effect experimentally. Thus, people perceive themselves to be more essentially human than others.

Keywords: essentialism, human nature, infrahumanization, self-enhancement

Recent work by Leyens and colleagues (Leyens et al., 2000; 2003) has demonstrated that people commonly attribute greater humanness to their in-groups than to out-groups. In the classical demonstration of this “out-group infrahumanization” effect (Leyens et al., 2001), participants attributed uniquely human secondary emotions to in-group members more than to out-group members. No such differential attribution was observed for the primary or basic emotions that we share with other animals. Infrahumanization therefore constitutes a form of emotional prejudice, which Leyens and colleagues theorized as a denial of the “human essence” to out-groups.

Infrahumanization has proven to be a robust phenomenon with a variety of implications. The differential attribution of secondary emotions has been replicated several times in rating-based studies, and implicit methodologies have shown that these emotions are preferentially associated with the in-group (Gaunt, Leyens, & Demoulin, 2002; Paladino et al., 2002). People actively avoid attributing secondary emotions to out-groups and discount evidence that out-group members experience them (Gaunt, Leyens, & Sindic, 2004). Secondary emotions receive more negative responses when they are expressed by out-group members than by in-group members, and people are less likely to help out-group members when they express their need in terms of these emotions (Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003). Although

secondary emotions are less visible and intense than primary emotions (Demoulin et al., 2004), infrahumanization does not appear to be reducible to people’s greater familiarity with in-groups than out-groups (Cortes, Demoulin, Rodriguez, Rodriguez, & Leyens, 2005). In short, infrahumanization is an important intergroup phenomenon, not least because it is distinct from in-group favoritism (Brewer & Brown, 1998). The tendency to ascribe greater humanness to one’s in-group extends to negative as well as positive secondary emotions and is therefore not reducible to the tendency to ascribe more desirable qualities to the in-group.

Infrahumanization research proceeds from an understanding of the human essence as that which is unique to humans and as something that is attributed or denied in an intergroup context. However, this understanding may be limited in three respects. First, it is possible that there is more than one sense of humanness and that human uniqueness is not the only angle from which infrahumanization might be approached. Second, it is not self-evident that uniquely human attributes, such as secondary emotions, are understood in an essentialist fashion, as Leyens et al. (2003) proposed. Third, infrahumanization might occur in interpersonal as well as intergroup comparisons. These three points will be discussed in turn below.

Different Senses of Humanness

When humanness is defined in terms of human uniqueness, as in infrahumanization theory, it is understood in an explicitly comparative sense, as Kagan (2004) noted:

We can describe an object by listing its features . . . or by comparing the object with one from a related category. . . . Most answers to the question What is human nature? adopt this second strategy when they nominate the features that are either uniquely human or that are quantitative enhancements on the properties of apes. (p. 77)

Nick Haslam, Lauren Douge, Max Lee, and Brock Bastian, Department of Psychology, University of Melbourne, Parkville, Victoria, Australia; Paul Bain, School of Psychology, Murdoch University, Murdoch, Western Australia, Australia, and Department of Psychology, University of Melbourne.

Correspondence concerning this article should be addressed to Nick Haslam, Department of Psychology, University of Melbourne, Parkville, Victoria 3010, Australia. E-mail: nhaslam@unimelb.edu.au

Thus, uniquely human characteristics define the category boundary that distinguishes humans from other animals, but humanness might also be understood in a noncomparative sense as the features that are central to or typical of humans. Characteristics that are seen as typically, fundamentally, or essentially human—that represent the core of the concept—may not be those that distinguish us from other species. Having wings may be understood as a core or typical characteristic of birds, although it is not a reliable criterion for distinguishing them from other creatures. Similarly, curiosity might be seen as a fundamental human attribute despite being shared with other species. This distinction roughly corresponds to the philosophical distinction between “intension” or sense and “extension” or reference: The properties that define a concept’s boundaries may not be the same ones that capture its meaning (Putnam, 1975).

We propose that the characteristics that are viewed as central to or typical of humans, in a noncomparative sense, may be referred to as “human nature” and may be different from those characteristics, such as secondary emotions, that are viewed as uniquely human. Part of what people take to be human nature may include characteristics that do not distinguish us from other animals; indeed, human nature may be understood to include characteristics that link us to the broader natural realm and reveal our continuity with other creatures. Thus, although *infrahumanization* researchers sometimes use “uniquely human” and “human nature” interchangeably, we argue that there are important differences between the two concepts. By implication, there might be two ways to *infrahumanize* other people: They could be denied uniquely human characteristics or human nature characteristics. If, as Wrightsman (1992) argued, the “idea of a basic human nature . . . is an intrinsic part of our prevailing schema of causal explanation” (p. 31), *infrahumanization* research should be extended to incorporate it.

Essentialist Thinking About Humanness

Infrahumanization researchers have theorized the phenomenon in terms of psychological essentialism, proposing that uniquely human characteristics, such as secondary emotions, constitute elements of the human essence. This proposition has not been explicitly tested to date, and there are grounds for questioning whether uniquely human attributes are likely to be essentialized. Such attributes are most likely to involve human culture—civility, refinement, social learning, and the symbolic capacities that set humans apart from nonhuman primates. In contrast, most understandings of essentialism invoke some sense of nature rather than culture. To think in an essentialist manner about a social category is to invoke an underlying basis for the category that is outside of human control or social shaping; to view it as a “natural kind” rather than a human-created artifact (Bastian & Haslam, *in press*; Haslam, Rothschild, & Ernst, 2000, 2002; Rothbart & Taylor, 1992). Essences are usually understood as fixed rather than malleable, inborn rather than acquired, and deeply rooted in the person rather than inculcated by a process of learning. Different senses of essence exist—for example, Gelman and Hirschfeld (1999) referred to “sortal” essences that define boundaries around concepts rather than referring to the inhering causal bases of category membership—but the usual sense would not be expected to apply to uniquely human characteristics, which should develop through processes of socialization.

Secondary emotions illustrate this point. Demoulin et al. (2004) examined beliefs about uniquely human emotions and found that they were understood to emerge at a relatively late age in development, to be socially learned, and to involve morality and cognition more than primary emotions. Secondary emotions should therefore be seen as culturally shaped artifacts rather than as aspects of an inhering essence—products of nurture more than nature. If “human nature” is conceptualized differently from “uniquely human,” however, it might be understood in an essentialist manner. Human nature should refer to characteristics that are typical of humans—that reflect humans’ shared nature—and these characteristics might therefore be essentialized.

Recent research on essentialist beliefs about personality (Haslam, Bastian, & Bissett, 2004) affords a way to examine this possibility. In two studies, Haslam et al. found that laypeople apply a coherent set of essentialist beliefs in their understanding of personality characteristics, such that some characteristics are taken to be systematically more deeply rooted, immutable, informative, discrete, biologically based, and consistently expressed than others. Highly essentialized characteristics, from a sample of 80 five-factor model (FFM) traits, values, and other personality descriptors, tended to be seen as relatively desirable and prevalent within the population, consistent with the view that they represent prescriptively and descriptively normative human attributes (i.e., human nature). The extent to which characteristics were essentialized also correlated strongly with the extent to which they were rated as aspects of human nature, with their centrality in defining personal identity, and with their importance for impression formation and interpersonal communication. Thus, essentialist beliefs about human attributes can be documented, and early evidence suggests that attributes recognized as aspects of human nature are understood as *essencelike*.

Infrahumanization in Interpersonal Comparisons

Infrahumanization researchers have discussed the effect chiefly as an intergroup phenomenon. When they have examined comparisons between ratings of self and groups (Cortes et al., 2005), they have found no evidence that people attribute more secondary emotions to themselves. In fact, Cortes et al. found that people attribute fewer secondary emotions to themselves than to their in-group. Despite this lack of evidence, however, we propose that a phenomenon akin to *infrahumanization* might occur in interpersonal comparisons, such that people attribute greater humanness to themselves than to others. Moreover, we propose that although *infrahumanization* in intergroup contexts involves the differential attribution of uniquely human characteristics, in the interpersonal context it involves the differential attribution of human nature. People may believe that they embody what is typically, fundamentally, or essentially human better than others.

A differential attribution of human nature to self and others might have several possible bases. First, given that essentialized personality characteristics are particularly central or fundamental to personal identity (Haslam et al., 2004), people might ascribe such characteristics preferentially to themselves. Attribution of human nature more to oneself than to others would therefore involve perceiving the self as having greater depth than others. Second, consistent with Codol’s (1975) “superior conformity of the self” finding, in which people assert that they conform more

closely than others to prevailing norms, people might perceive themselves to conform better than others to normative human nature. Third, characteristics that represent human nature may not be readily observable, so that people perceive less evidence of them in others than in themselves.

Most research on interpersonal comparisons has focused on self-enhancement, the tendency to attribute more desirable characteristics to the self than to others or to the “average” person (e.g., Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995; Brown, 1986; Krueger, 1998). It is widely accepted that this bias, the interpersonal counterpart of in-group favoritism, serves to promote and maintain a positive self-image. Just as out-group inhumanization exists independent of in-group favoritism, we propose that people may show a corresponding bias in interpersonal comparisons independent of self-enhancement. People may attribute more humanness (i.e., human nature) to themselves than to others, separate from their tendency to reserve more desirable characteristics for themselves. If such an effect could be demonstrated, it would represent an extension of inhumanization into the interpersonal domain.

Overview of the Studies

In view of the arguments concerning the extension of inhumanization research presented above, we conducted four studies. Study 1 characterized the two proposed senses of humanness, testing predictions drawn from a pilot study, and also tested whether human nature characteristics were understood in an essentialist manner. Study 2 examined whether people differentially attributed humanness to themselves and others, independent of self-enhancement. Study 3 replicated Study 2 and examined several potential mediators of the differential attribution of humanness. Whereas Studies 2 and 3 used correlational methods and a direct interpersonal comparison, Study 4 examined the differential attribution of humanness to self versus others experimentally, by using indirect comparisons and a methodology adapted from previous inhumanization research. Consistent with most previous research on interpersonal and intergroup perception, but unlike previous inhumanization research, all studies focused on beliefs about and attributions of personality characteristics rather than emotions.

Study 1

As a first step to examining the possible differential attribution of humanness to self versus others, it is necessary to determine whether laypeople hold the two proposed senses of humanness, to characterize these two senses, and to determine which sense, if either, is understood in an essentialist fashion. Before examining these questions in the study proper, we conducted a small pilot study to provide preliminary evidence about the two senses of humanness and to develop hypotheses about their content. Thirty undergraduates rated the 80 personality characteristics used by Haslam et al. (2004) on a questionnaire item assessing either human nature (“This characteristic is an aspect of ‘human nature’”) or uniquely human (“This characteristic is exclusively or uniquely human; it does not apply to other species”) on a 7-point Likert scale. Aggregated ratings of these items failed to correlate across the 80 characteristics ($r = -.07$, *ns*), supporting the distinctness of the two senses of humanness.

Exploratory inspection of the characteristics rated high on the two items clarified the differential composition of the two senses of humanness. Characteristics rated high on human nature tended to be positively valenced, especially those referring to prosocial tendencies and openness, with the sole exception of characteristics referring to negative emotionality. Participants appeared to conceptualize human nature in terms of cognitive flexibility, warmth, and emotional responsiveness. Characteristics judged to be uniquely human were not consistently positive or negative in valence but tended to involve the domains of morality, self-control, intelligence, openness, and sociality (cf. Gosling, 2001).¹

The pilot study offers preliminary evidence that laypeople recognize two distinct senses of humanness and could therefore attribute humanness preferentially to themselves or to their in-groups in two distinct ways. Other individuals or groups could be judged to have human nature to a lesser degree or to have fewer uniquely human characteristics. Inhumanization researchers have focused exclusively on the latter phenomenon. Moreover, although it has been argued that inhumanization involves the selective attribution of the human essence to the in-group, research has yet to establish that the humanness that is selectively attributed in this way is understood in an essentialist fashion. Study 1 sought to examine the composition of the two senses of humanness, testing predictions drawn from the pilot study, and also to test the prediction that human nature, and not uniquely human characteristics, would be essentialized.

As we have argued, there are grounds for believing that human nature is essentialized. Human nature should be a normative concept, both widely shared (typical) and esteemed, and past work has suggested that personality characteristics judged to be prevalent and desirable are more essentialized than others (Haslam et al., 2004). Similarly, understandings of human nature would be expected to involve our shared biology and therefore reflect a “natural kind” view of people’s core characteristics (Rothbart & Taylor, 1992). In contrast, those characteristics seen to be uniquely human should be relevant to the human–nonhuman comparison and might therefore be expected to emphasize culture and the ways in which people transcend their biological nature. If characteristics that are seen as uniquely human are those that reflect learning, enculturation, and civility (Demoulin et al., 2004), they may indeed be seen as less deeply rooted, fixed, and essentialist than other characteristics.

Study 1 therefore assessed people’s judgments of the extent to which personality characteristics are aspects of human nature and/or uniquely human and correlated these judgments with 12 other judgments that we hypothesized to be differentially associated with the two forms of humanness. Our methodology was modeled on Demoulin et al.’s (2004) study of uniquely and non-uniquely human emotions. The 12 hypothesis-related judgments fell into three groups of four.

¹ Two-way repeated measures analyses of variance (ANOVAs) of mean ratings on the 40 FFM traits within the sample of 80 characteristics indicated that human nature ratings were not associated with the FFM factor, $F(4, 11) = 2.15$, *ns*; but were powerfully associated with valence, $F(1, 14) = 32.11$, $p < .001$; and with the Factor \times Valence interaction, $F(4, 11) = 6.92$, $p < .01$. Uniquely human ratings were significantly associated with the FFM factor, $F(4, 11) = 10.93$, $p < .01$; and with positive valence, $F(1, 14) = 7.34$, $p < .05$; but not with their interaction, $F(4, 11) = 2.44$, *ns*.

The first group of judgments directly involves essentialist beliefs and was hypothesized to be associated with human nature judgments. On the basis of the judgments used in prior research on essentialist beliefs about personality (Haslam et al., 2004), we predicted that traits would be judged to be aspects of human nature to the extent that they were judged to be expressed consistently across situations, immutable, deeply rooted (inherent), and highly informative (inductively potent) about people who have them. Contrary to infrahumanization theory, that is, we did not expect these essentialist judgments to be associated with uniquely human judgments.

The second group of judgments did not involve essentialist beliefs but was hypothesized to be associated with human nature on the basis of previous research. In an effort to replicate Haslam et al. (2004), we predicted that traits would be judged to be aspects of human nature to the extent that they were judged to be affective, desirable (i.e., prescriptively normative), and prevalent in the population (i.e., typical or descriptively normative), given that Haslam et al. found these judgments to correlate with essentialist beliefs. Because human nature should, in principle, be held in common by all people, we also predicted that human nature judgments would correlate with judgments that traits are cross-culturally universal.

The final group of judgments was drawn from Demoulin et al. (2004) and was hypothesized to be associated with uniquely human judgments. We predicted that traits would be judged to be uniquely human to the extent that they were seen as socially learned, relevant to morality, dependent on cognition, and emerging at a relatively late age.

Method

Participants

Participants were 80 undergraduates (56 women and 24 men) ranging in age from 17 to 34 ($M = 19.3$). They were recruited for a study of beliefs about personality characteristics and participated in order to fulfill a course research participation requirement.

Materials

All participants completed a questionnaire in which they rated a list of personality descriptors on a set of items. Eighty descriptors were used, including 60 FFM trait terms (6 from each pole of each factor) sampled from a list published by Costa and McCrae (1992) and 20 value terms sampled from Schwartz's (1992) value taxonomy (two terms from each value segment). Four versions of the questionnaire were constructed, each including a subset of 20 descriptors. One version contained all of the value terms, and three contained subsets of the FFM trait terms (2 terms from each pole of each factor were randomly selected from the 6 available terms for each questionnaire version). Within each questionnaire version, the descriptors were presented in a single randomized order, and 20 participants were randomly assigned to each version.

In each questionnaire version, the 20 descriptors were rated on 14 items, each presented on a separate page. Two items assessed the distinct senses of humanness, with the uniquely human item slightly altered from the pilot study (uniquely human: "This characteristic is experienced solely by human beings and is not experienced by animals"; human nature: "This characteristic is an aspect of human nature").

Four items, adapted from Haslam et al. (2004), directly assessed essentialist beliefs (consistency: "This characteristic is displayed in a consistent manner, showing itself in different situations and with different people"; immutability: "This characteristic is not a fixed part of a person's person-

ality. A person may possess this characteristic but that does not mean they will always possess it" [reverse scored]; informativeness: "This characteristic has great influence over a person, affecting their behavior in a wide range of situations"; inheritance: "This characteristic is a deeply embedded part of personality; it is a core aspect of the person and underlies their behavior").

Four items were based on past work (Haslam et al., 2004) on predictors of trait essentialism (emotion: "The experience of this characteristic is primarily an emotional one"; desirability: "This characteristic is desirable; it is a characteristic that people generally want"; prevalence: "A large proportion of the population could be described as having this characteristic"; universality: "This characteristic is experienced universally, in all cultures").

Finally, four items were adapted from Demoulin et al. (2004), assessing possible predictors of uniquely human judgments (age of emergence: "It is not possible to experience this characteristic at a young age"; cognition: "This personality characteristic is primarily cognitive; it depends on how a person thinks about the world"; morality: "The fact that someone experiences this characteristic gives us an idea about their moral nature, about their morality"; social learning: "This characteristic is learnt; people are not born with this characteristic").

The 14 items were placed in a single random order in a questionnaire booklet for all participants, except that the 2 humanness items were placed first and last to avoid contamination of responses. All items were rated on 7-point Likert scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Procedure

Groups of between 3 and 14 participants completed the questionnaire in a laboratory setting under the supervision of one of the researchers. The questionnaire took most participants approximately 30 min to complete.

Results

Mean ratings of the 80 personality characteristics on the study items were computed by aggregating across the 20 participants who rated each characteristic. Analyses of interrater agreement indicated that it was generally strong, so that the mean reliability of the aggregated ratings was .76. Consistent with expectations, the two humanness items showed a weak but significant negative association across the 80 characteristics ($r = -.23, p < .05$), indicating that their meanings were distinct to participants.²

² Three-way repeated measures ANOVAs (Factor \times Valence \times Questionnaire Version), restricted to the 60 FFM trait terms, clarified the composition of the human nature and uniquely human ratings. For the uniquely human ratings, consistent with the pilot study, there was a significant main effect for the FFM factor, $F(4, 228) = 15.45, p < .001, \eta^2 = .21$; and a planned contrast of the agreeableness, conscientiousness, and openness traits versus the neuroticism and extraversion traits yielded a powerful effect, $F(1, 57) = 27.30, p < .001, \eta^2 = .32$. However, there was also an unexpected main effect for trait valence, $F(1, 57) = 12.37, p < .001, \eta^2 = .17$; and a significant Factor \times Valence interaction, $F(4, 228) = 9.63, p < .001, \eta^2 = .14$. The highest rating traits on this item were idealistic, conservative, imaginative, talkative, artistic, and absent-minded. For the human nature ratings, the expected main effect for valence emerged, $F(1, 57) = 8.65, p < .01, \eta^2 = .13$; as did the expected Factor \times Valence Effect, $F(4, 228) = 11.92, p < .001, \eta^2 = .17$. A planned contrast of neuroticism versus the other traits on this interaction supported the prediction that neuroticism shows the reverse of the typical valence effect, $F(1, 57) = 26.41, p < .001, \eta^2 = .32$. The highest rating traits on the human nature item were curious, defensive, sociable, ambitious, determined, and imaginative.

Correlations between the human nature and uniquely human ratings and the 12 predictor ratings are presented in Table 1, which divides the latter into the three groups. The first two groups are hypothesized to correlate with human nature judgments and the third with uniquely human judgments. Items in the first group refer to essentialist beliefs, and three of these were associated, as hypothesized, with human nature judgments. Characteristics understood to be aspects of human nature were judged to be relatively consistent across situations, to be deeply rooted or inherent within the personality, and to be inductively potent. Contrary to prediction, however, human nature characteristics were not understood to be less mutable than others. Unexpectedly, uniquely human judgments had a weak positive association with immutability, but they also had a strong negative association with informativeness, suggesting no consistent association overall. An index of essentialist beliefs composed by summing the four items correlated at .39 ($p < .01$) with human nature ratings but not with uniquely human ratings ($r = -.09$, *ns*), supporting our general hypothesis.

All items in the second group were associated as predicted with human nature judgments. Characteristics understood as aspects of human nature were judged to be relatively emotional, desirable, prevalent, and universal, consistent with the view that human nature is understood to be prescriptively and descriptively normative and embodied in affective dispositions. In contrast, characteristics understood to be uniquely human were judged to be relatively infrequent or atypical and culturally specific.

The third group of items failed to demonstrate the hypothesized associations with uniquely human judgments, with the exception of age of emergence. Personality characteristics judged to appear later in child development were understood as more uniquely human, but not those judged to be more socially learned, moral, or dependent on cognition. Indeed, cognition was unexpectedly associated positively with human nature judgments. Characteristics judged to be aspects of human nature were also judged to be present at a relatively early age, in sharp contrast to the finding for uniquely human characteristics.

Table 1
Correlations of Human Nature and Uniquely Human Ratings With Predictors, Study 1

Predictor	Human nature	Uniquely human
Consistency	.27*	.04
Immutability	.01	.25*
Inherence	.46**	-.08
Informativeness	.24*	-.40**
Emotion	.35**	-.03
Desirability	.20*	.18
Prevalence	.61**	-.24*
Universality	.44**	-.22*
Age of emergence	-.35**	.44**
Cognition	.31**	-.14
Morality	.17	.15
Social learning	-.07	-.06

* $p < .05$. ** $p < .01$.

Discussion

The findings of Study 1 regarding the differential composition of the uniquely human and human nature ratings are consistent with the pilot study. The two ratings were negatively correlated, and different traits were rated highly on each. Study 1 also supports our general prediction that human nature is understood in an essentialist manner. Three judgments found in previous research to predict the extent to which personality characteristics are essentialized (emotion, desirability, and prevalence) were associated as hypothesized with human nature judgments, as was another closely linked judgment (universality). Three out of four essentialist belief judgments also showed hypothesized associations with human nature judgments. In sum, seven of the eight proposed predictors of these judgments were consistent with the hypothesis. In contrast, only one of these predictors was positively associated with uniquely human judgments, and three were negatively associated.

These findings appear to run counter to existing research and theory on infrahumanization, which presents the denial of uniquely human emotions to out-groups as a denial of the human essence. To date, researchers in this tradition have not established empirically that such emotions are indeed understood in an essentialist fashion, and our findings may cast doubt on this possibility. However, as our findings refer to personality characteristics rather than to emotions, it is entirely possible that essentialist beliefs are held about uniquely human phenomena in the latter domain. Personality characteristics are more enduring and consistent across situations than emotions, and only a fraction involve affective dispositions, so it is not implausible that essentialist beliefs might have different implications in the two domains.

Alternatively, uniquely human characteristics may embody a different sense of essence than human nature. Arguably they may be captured by Gelman and Hirschfeld's (1999) concept of sortal essence, introduced above. Plato's definition of human as "featherless biped" exemplifies this sense of sortal essence: It distinguishes humans from other animals without any implication that featherlessness and bipedalism are core features of human nature. We therefore argue that uniquely human characteristics may represent the human essence in a sortal sense, consistent with infrahumanization theory, and human nature characteristics represent the essence in a natural kind sense. Although the natural kind sense of essentialism has been prominent in recent social psychological research, the sortal sense is less restrictive, allowing essences to be grounded in phenomena other than biology or nature (e.g., religious, linguistic, or cultural essences). Recent research on cultural essentialism (Verkuyten & Brug, 2004) demonstrates the usefulness of this expanded sense of essence. In sum, human nature appears to be essentialized in one important sense, but infrahumanization can nevertheless still be theorized as the denial of a form of human essence to out-groups.

The failure of Study 1 to obtain most of the predicted associations with the uniquely human judgments is puzzling, although it is of secondary importance to the study given its focus on essentialism and human nature. Only later age of emergence was associated as hypothesized with these judgments, consistent with the findings of Demoulin et al. (2004). More moral and socially learned personality characteristics were not judged to be more uniquely human, although they correlated positively with later age of emergence in a way that implies such an association. Most

surprisingly, characteristics that involve cognition were associated with human nature rather than uniquely human judgments. One possible explanation of this finding is that although more cognitively complex emotions are indeed judged to be more uniquely human, this association does not hold in the broader domain of personality, much of which does not relate to emotion. Many cognition-dependent traits are nonaffective—for example, intelligence, creativity, planfulness, and self-restraint—and many of these traits are considered to be central aspects of human nature. Indeed, Study 1 indicates that traits involving high openness to experience and conscientiousness are seen as central to human nature but are not seen as any more uniquely human than opposite traits. Cognition dependence is therefore not considered uniquely human where personality characteristics are concerned, even if it is in the emotional domain.

Study 2

Study 1 supported our hypothesis that human nature characteristics differ from uniquely human characteristics and that only the former are essentialized in a natural kind sense. Thus, there appear to be two distinct ways in which humanness, or the human essence, could be differentially attributed to individuals or groups. Research on infrahumanization has established that uniquely human emotions are denied to out-groups, but it is not known whether out-groups are also denied human nature. Moreover, infrahumanization research has yet to demonstrate the differential attribution of either conception of humanness to the self. In Study 2, we examined whether a phenomenon akin to out-group infrahumanization might occur in interpersonal comparisons, such that people ascribe humanness to themselves more than to others. We hypothesized that such a “self-humanization” effect would exist and additionally that it would involve the attribution of human nature rather than uniquely human characteristics to the self.

There is ample evidence of biases in interpersonal comparison involving self-enhancement (Chambers & Windschitl, 2004). People commonly report that they are above average on favorable characteristics, below average on unfavorable characteristics, more likely than other people to experience desirable outcomes, and less likely to suffer adversity. In a similar vein, we hypothesized that people believe themselves to have higher levels of humanness than others, where this humanness is understood as an essentialized human nature. Previous work by Haslam et al. (2004) has indicated that essentialized personality characteristics are particularly central to personal identity, so it might be expected that people ascribe such characteristics preferentially to themselves. Similarly, given that Study 1 found that human nature traits are normative (i.e., desirable and prevalent), people should be motivated to attribute these traits to themselves and thereby see themselves as embodying core features of humanity. Thus, we predicted that people selectively self-attribute not only those personality characteristics that are desirable (self-enhancement), but also those that they believe to be aspects of human nature. No such effect was predicted for personality characteristics believed to be uniquely human, as these are not understood to be central to identity, fundamental, or normative.

Study 1 indicated that personality characteristics judged to be aspects of human nature are also judged to be relatively desirable. It is therefore important to establish that any self-humanization

effect is distinct from the well-established self-enhancement effect. One way in which this can be done is by demonstrating that self-humanization is statistically independent of self-enhancement (i.e., that people selectively attribute human nature characteristics to themselves independent of the desirability of those characteristics). Another way is to demonstrate that the two effects have different correlates. Self-esteem correlates with tendencies to self-enhance (Beauregard & Dunning, 2001; Brown, 1986), a finding that we expected to replicate, but we also hypothesized that it would not be associated with self-humanization. Indeed, self-esteem might even be negatively associated with self-humanization. Codol's (1975) finding that people with low self-esteem are especially likely to judge themselves as conforming to norms more than others implies that they might also view themselves as exemplifying a shared (normative) human nature better than others. To establish that self-humanization is distinct from self-enhancement, we therefore hypothesized that the two effects would be statistically independent and that self-esteem would correlate positively with the latter but not the former.

Method

Participants

Participants were 78 undergraduates who were recruited for a study of beliefs about human nature and completed the study as part of a course requirement. Three participants with extensive missing data were excluded, leaving a final sample of 75 (53 women, 22 men), ranging in age from 17 to 41 ($M = 19.5$). Participants were ethnically diverse, including 54 Caucasians and 20 Asians (1 participant did not report ethnicity).

Materials

Rosenberg Self-Esteem Scale (Rosenberg, 1965). This self-report scale is a widely used, highly reliable, and valid measure of self-esteem. Its 10 items are assessed on a 4-point scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*).

Trait ratings. In the main component of the questionnaire, participants rated a set of 60 trait terms on four items. The terms, different from those used in Study 1, were sampled from a list of FFM descriptors (McCrae & Costa, 1985)—6 terms chosen from each pole of each of the five factors—and they were presented in a standard random order for all four items. The first item assessed perceptions of self compared with students from the same peer group, by using wording adapted from Alicke et al. (1995) (“Please indicate the degree to which you possess the following personality traits compared to the average 1st year psychology student at this university”), and was rated on a 5-point scale (1 = *much less than average student*, 3 = *neither less nor more than average student*, 5 = *much more than average student*). Three items used in Study 1 then assessed judgments of human nature (“This characteristic is an aspect of human nature”), desirability (“This characteristic is desirable or positive”), and human uniqueness (“This characteristic is uniquely human: It does not apply to other species”). The 60 traits were rated on each item on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Procedure

Participants completed the questionnaire in small groups in a laboratory setting, under the supervision of one of the researchers. After giving informed consent, they completed the questionnaire and were debriefed. Most participants completed the study in 30–40 min.

Results

To obtain an initial estimate of the associations among the self-rating, desirability, human nature, and uniquely human items, these items were correlated for each individual participant, and the mean correlation was calculated across participants. In addition, the mean ratings for each personality characteristic on the four items across the 75 participants were calculated, and these aggregated ratings were also correlated. Both sets of correlations are presented in Table 2. The hypothesized self-humanization effect, as indicated by the correlations between the human nature and self-ratings, was clearly present in the individual and aggregated data. There were no such positive correlations between the uniquely human and self-ratings. The self-enhancement effect was substantial: People rated themselves as having desirable characteristics more than other people and as having undesirable characteristics less. Consistent with Study 1, human nature ratings were positively correlated with desirability ratings but uncorrelated with uniquely human ratings.³

Given this correlation, we used a series of multiple regression analyses to quantify the independent contribution of the desirability, human nature, and uniquely human items to the prediction of comparative self-ratings. For each participant, these ratings were simultaneously regressed on the three items, and the standardized beta weight for each item was recorded as an index of the strength of its independent association with the participant's self-ratings. The mean beta weights ($N = 75$) for both desirability (.27, $p < .001$) and human nature (.15, $p < .001$) were significantly greater than zero, as hypothesized, whereas the mean weight for the uniquely human item (.00, ns) was not. Twenty-six participants (34.7%) had a significantly positive effect for human nature ($p < .05$, one-tailed), and 55 (73.3%) had a positively valenced effect (binomial $p < .0001$). When the multiple regression analysis was repeated on the aggregated data—that is, on the mean self, desirability, human nature, and uniquely human ratings of the 60 traits—once again there were significant independent effects for desirability ($\beta = .61$, $p < .0001$) and human nature ($\beta = .34$, $p < .001$), but not for uniquely human ($\beta = -.09$, ns). That is, traits judged to be relatively desirable and relatively high on human nature were typically rated as more characteristic of self than others. Collectively, the three variables powerfully predicted the extent to which traits were differentially attributed to the self, $F(3, 56) = 48.0$, $p < .0001$; $R^2 = .72$. Further regression analyses found no significant interaction between desirability and human

nature in the prediction of self-ratings. However, the association between human nature and self-ratings was somewhat stronger for negative traits (mean desirability rating < 4) than for positive traits (mean rating > 4) ($r = .46$, $p < .01$, versus $r = .36$, $p > .05$).

To test the prediction that self-esteem would correlate with self-enhancement but not with self-humanization, we correlated participants' scores on the self-esteem scale (Cronbach's alpha = .88) with their desirability and human nature beta weights (i.e., larger beta weights indicate stronger independent self-enhancement and self-humanization effects). As predicted, self-esteem was positively associated with self-enhancement ($r = .34$, $p < .01$) but not with self-humanization ($r = .05$, ns). Self-esteem was unrelated to the uniquely human beta weight ($r = .14$, ns). Consistent with previous research on self-enhancement in east Asian contexts (Heine & Lehman, 1997), participants identifying as Asian showed less self-enhancement than non-Asians, $t(73) = 2.10$, $p < .05$ ($M_s = .17$ vs. $.31$). However, there was no such difference in self-humanization, $t(73) = 0.34$, ns ($M_s = .13$ vs. $.15$), supporting the distinctness of this effect from self-enhancement.

Discussion

The findings of Study 2 supported our hypotheses. Most important, the predicted self-humanization effect appeared to be quite robust. It was obtained for a substantial proportion of individual participants, as a significant effect in the sample as a whole, and in the aggregated data (i.e., at the trait level). It was also statistically independent of the well-established self-enhancement effect. Individual participants attributed human nature traits to themselves more than to others, and traits that were judged to be aspects of human nature were differentially attributed to the self more than traits that were not. As predicted, there was no comparable effect for the uniquely human ratings. Consistent with predictions, self-enhancement was associated with self-esteem, but self-humanization was not, supporting the distinctness of the two phenomena. Although the self-humanization effect is somewhat smaller in magnitude than the self-enhancement effect in the present study, it is still substantial, and many individual participants showed stronger tendencies to self-humanize than to self-enhance.

³ Two-way (FFM factor and valence) repeated measures ANOVAs again examined the composition of the two senses of humanness. For the uniquely human ratings, there was again the expected main effect for trait factor, $F(4, 296) = 13.85$, $p < .001$, $\eta^2 = .16$; with a planned contrast (agreeableness, conscientiousness, and openness traits greater than neuroticism and extraversion traits) yielding a strong effect, $F(1, 74) = 38.57$, $p < .001$, $\eta^2 = .34$. There was no effect for trait valence, $F(1, 74) = 0.08$, ns , $\eta^2 = .00$; but as in Study 1 there was a weak Factor \times Valence interaction, $F(4, 296) = 6.84$, $p < .001$, $\eta^2 = .09$. The highest rating traits on the item were analytical, artistic, imaginative, talkative, ambitious, and passionate. For the human nature ratings, consistent with expectations, there was a strong valence effect, $F(1, 74) = 26.10$, $p < .001$, $\eta^2 = .26$; and a powerful Factor \times Valence interaction, $F(4, 296) = 48.66$, $p < .001$, $\eta^2 = .40$. A planned contrast supported the hypothesis that neuroticism would violate the valence effect, $F(1, 74) = 121.65$, $p < .001$, $\eta^2 = .62$. There was also a weak main effect for factor, $F(4, 296) = 3.90$, $p < .01$, $\eta^2 = .05$. The highest rating traits on the item were ambitious, emotional, curious, complex, fun-loving, and passionate.

Table 2
Correlations of Self, Desirability, Human Nature, and Uniquely Human Ratings, Study 2

Variable	Self-ratings	Desirability	Human nature	Uniquely human
Self-ratings	—	.34**	.23**	.01
Desirability	.80**	—	.25**	.00
Human nature	.64**	.57**	—	.06
Uniquely human	-.04	.01	.12	—

Note. Aggregated data are below the diagonal; mean individual correlations are above.
** $p < .01$.

The findings of Study 2 demonstrate a new effect in the study of interpersonal comparisons. To date, research on this topic has been dominated by studies of the self-enhancement bias and the factors that mediate and moderate it and has therefore focused almost exclusively on trait favorability. Our findings point to a comparable bias that revolves around humanness rather than favorability—people tend to see themselves as embodying human nature better than others, just as they judge themselves to embody favorable traits more than others. The self-enhancement bias is commonly taken to be synonymous with the above-average effect, but our findings, if replicated, imply that people may have biases that place them above average on more than one dimension. We may tend to see ourselves as above average in humanness as well as desirability, and perhaps in other respects as well.

Study 3

Study 2 provided evidence for a new bias in social comparisons but leaves several basic questions unanswered. First, it is necessary to replicate the self-humanization effect to determine whether it is robust. Second, it remains unclear how the effect should be explained. In particular, it would be beneficial to know what mediates the effect. That is, what is it about human nature traits that lead them to be attributed differentially to self versus others? The rationale for Study 2 proposed that it might be the identity centrality or normativeness of such traits that makes them more likely to be ascribed to the self, but these possibilities remain unclear and untested.

Several possible mediators of the self-humanization effect might be proposed. First, it is possible that traits that are judged to be aspects of human nature are less visible than other traits, being less publicly observable. Less visible traits are therefore more available to ourselves than to others. Traits involving imaginativeness (high openness) and negative affectivity (high neuroticism), for instance, were judged to be aspects of human nature, and their manifestations in people are likely to be relatively inaccessible to others. Watson, Hubbard, and Wiese (2000), for example, found that affective traits were less visible than other traits and hence less readily apparent in perceptions of others than of self. Emotional traits were rated relatively high on human nature in Study 1. Thus, the visibility and emotionality of traits might both potentially mediate the self-humanization effect.

Another possible mediator of self-humanization that is related to trait visibility can be derived from recent research on self-enhancement (Kruger & Gilovich, 2004). This work finds that people tend to give greater weight to their (private) intentions when assessing themselves on desirable traits than they do when assessing other people. In principle, this intention-related phenomenon might apply to any cognitive (i.e., intentional) state. Our cognitions tend to be more accessible to ourselves than to others, and others may therefore tend to overlook or discount them in interpersonal comparisons. Study 1 found that cognitive traits were rated as relatively central to human nature. Thus, the extent to which traits involve cognition might mediate the self-humanization effect.

If it is the normativeness of human nature that accounts for self-humanization, then another possible mediator of the effect is the prevalence of personality traits. As Codol (1975) argued, people claim that they conform more closely than others to pre-

vailing norms, so they might tend to rate themselves as having prevalent personality traits more than others. Study 1 found that trait prevalence was strongly associated with human nature ratings, so prevalence might potentially mediate the self-humanization effect, consistent with the “superior conformity of the self” phenomenon.

A final set of possible mediators of the self-humanization effect derives from our finding that human nature is essentialized. People might tend to attribute more human nature to themselves than to others because they attribute more essential, fundamental, deeply rooted, or central traits to themselves. Because essentialist beliefs about personality have multiple components, we selected three candidate mediators, all of which were investigated in Haslam et al. (2004) and two of which were included in Study 1 and were found to correlate with human nature ratings. First, people might attribute more discrete traits (i.e., those that people either categorically have or do not have) to themselves than to others, given that their knowledge of self should be firmer and more confident. Second, people might attribute more informative traits to themselves, given that their self-knowledge is likely to be more complex and extensive than their knowledge of others and hence allows them to make more inferences about their own behavior. Third, self-humanization might be based on the differential attribution of more deeply rooted or inherent traits to self versus others. People are likely to hold shallower representations of others than of self and might therefore selectively attribute traits understood to be core, fundamental, or latent to themselves. Thus, discreteness, informativeness, and inherence were included as possible mediators of self-humanization.

Study 3 therefore aimed to replicate the self-humanization effect demonstrated in Study 2 and to test seven possible mediators of the effect, with a view to clarifying its basis.

Method

Participants

Participants were 72 undergraduates (48 female, 24 male), ranging in age from 18 to 47 ($M = 19.4$), who were recruited for a study of beliefs about human nature and participated as part of a course research requirement.

Materials

All participants completed a rating task in which they made a series of judgments about the same set of 60 FFM traits used in Study 2. These judgments were selected from a set of 10 items, 3 of which (the comparative self-ratings and ratings of human nature and desirability) used identical wording to Study 2. Seven additional items assessed the proposed mediators of the self-humanization effect. Five of these items (assessing cognition, emotion, prevalence, informativeness, and inherence) were adapted from items used in Study 1, 1 (discreteness) was taken from Haslam et al. (2004), and 1 item, assessing trait visibility, was written for this study. Aside from the comparative self-ratings, all items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Item wording for the proposed mediators was as follows:

Visibility: “When a person has this characteristic, another person would be easily able to detect it: It is visible in the eyes of an observer.”

Table 3
Correlations Among Aggregated Item Ratings, Study 3

Variable	1	2	3	4	5	6	7	8	9	10
1. Self	100									
2. Human nature	.66***	100								
3. Desirability	.70***	.55***	100							
4. Visibility	.17	.28*	.17	100						
5. Emotion	.41**	.53***	.31*	.40**	100					
6. Cognition	.32*	.60***	.50***	-.01	.16	.100				
7. Prevalence	.38**	.68***	.26*	.30*	.21	.27*	.100			
8. Discreteness	.33*	.47***	.49***	.30*	.18	.37**	.31*	.100		
9. Informativeness	.24	.45***	.20	.55***	.49***	.16	.25	.31*	.100	
10. Inherence	.64***	.65***	.66***	.06	.58***	.58***	.36**	.36**	.30*	.100

* $p < .05$. ** $p < .01$. *** $p < .001$.

Emotion: “This characteristic is primarily emotional (i.e., it involves emotions, moods and feelings).”

Cognition: “This characteristic is primarily cognitive (i.e., it involves thinking).”

Prevalence: “A large proportion of the population has this characteristic.”

Discreteness: “People either have this characteristic or they do not: Those who have it are a distinct type of person.”

Informativeness: “This characteristic has broad ramifications: It influences people’s behavior in a wide range of situations and in many aspects of their lives.”

Inherence: “This characteristic is a deeply rooted part of personality; it lies deep within the person and underlies the person’s behavior.”

All participants completed a questionnaire in which they first rated the 60 traits on the comparative self-rating item and then rated the same traits on a randomly selected and ordered pair of the remaining nine items, yielding 180 ratings in all. All 72 participants therefore performed self-ratings, and random subsamples of 13 to 18 participants ($M = 16$) rated each of the other items.

Procedure

Participants completed the questionnaire in small groups in a laboratory setting, under the supervision of one of the researchers. After giving informed consent, they completed the questionnaire and were debriefed. Most participants completed the study in 20 min.

Results

To replicate the self-humanization effect obtained in Study 2, we repeated its analyses at both the trait and the individual level. For analyses at the trait level, we aggregated all ratings across the participants who completed each item (i.e., 72 participants for the comparative self-rating item and from 13 to 18 for the others) and correlated these mean ratings across the 60 traits. These correlations are presented in Table 3 and represent the extent to which traits rated high on one item tended to be rated relatively low or high on others. Table 3 indicates that as in Study 2, traits that people endorse more for themselves than for others tend to be rated high in human nature ($r = .66, p < .001$) and also high in

desirability ($r = .70, p < .001$). Consistent with Studies 1 and 2, traits rated high on human nature also tend to be adjudged desirable. When self-ratings were regressed on these two items, both desirability ($\beta = .49, p < .001$) and human nature ($\beta = .39, p < .001$) had independent effects and jointly accounted for 60% of the variance in self-ratings. There was no significant interaction between desirability and human nature in the prediction of self-ratings, but as in Study 2 the association between human nature and self-ratings was somewhat stronger for negative traits ($r = .58, p < .01$) than for positive traits ($r = .34, p > .05$).⁴

To replicate the self-humanization effect at the individual level, participants’ self-ratings were regressed on the aggregated human nature and desirability ratings. The mean beta weights ($N = 72$) for both desirability (.19) and human nature (.16) were significantly greater than zero (both $ps < .001$). Twenty-eight participants (38.9%) had a significantly positive effect for human nature ($p < .05$, one-tailed), and 57 (79.2%) had a positively valenced effect (binomial $p < .0001$). Thus, the self-humanization effect obtained in Study 2 was strongly replicated at both the trait and individual levels in Study 3.

Besides replicating the self-humanization effect, the primary aim of Study 3 was to test seven possible mediators of the effect. To demonstrate mediation, a proposed mediator must be associated with both an independent variable and a dependent variable, and the association between these variables must shrink when the proposed mediator is statistically controlled (Baron & Kenny, 1986). Thus, any proposed mediator of the association between human nature ratings and comparative self-ratings that fails to correlate with both of these ratings fails a preliminary test. Inspection of the first two columns of Table 3 indicates that two of the seven proposed mediators—trait visibility and informativeness—

⁴ A two-way repeated measures ANOVA of the ratings of the 60 traits on the human nature item yielded findings consistent broadly with the pilot study and Studies 1 and 2. There was again a strong main effect for trait valence, $F(1, 15) = 12.69, p < .005, \eta^2 = .45$, which was again qualified by a strong Factor \times Valence interaction, $F(4, 12) = 8.80, p < .001, \eta^2 = .74$. A planned contrast to test the hypothesis that neuroticism violated the valence main effect yielded strong support for it, $F(1, 15) = 34.80, p < .001, \eta^2 = .70$. There was also a main effect for factor, $F(4, 12) = 5.07, p < .05, \eta^2 = .63$. The highest rating traits on the human nature item were emotional, curious, ambitious, fun-loving, friendly, and sympathetic.

failed this minimal test and thus were not examined further. The other five items were significantly correlated with both self-ratings and human nature ratings and remained candidates for mediation. Consistent with Study 1, traits rated high on human nature were judged to be relatively emotional, cognitive, prevalent, discrete, and inherent, as were traits rated as more characteristic of self than of others. Following Baron and Kenny’s recommendation, we conducted Sobel tests on each of these remaining candidates, as well as partial correlations. We also conducted alternative analyses to test the possibility that associations between the proposed mediators and the comparative self-ratings were, instead, mediated by the human nature ratings. The analyses are summarized in Table 4.

Table 4 indicates that four of the five proposed mediators of the self-humanization effect fail to pass the Sobel test and yield minimal shrinkage of the correlation between human nature and self-ratings when they are partialled out. In contrast, ratings of trait inherence significantly mediate the effect ($z = 2.87, p < .005$) and reduce the magnitude of the correlation markedly (i.e., a 59.5% decline in R^2). Similarly, when human nature ratings are statistically controlled, the correlations between the four other proposed mediators and the comparative self-ratings all become nonsignificant, and human nature emerges as a significant mediator of these associations according to the Sobel test. Although human nature also mediates the association between inherence and self-ratings, it does so incompletely, such that a significant independent association remains. Consequently, only trait inherence is supported as a mediator of the self-humanization effect. When the comparative self-ratings are regressed on human nature, desirability, and the proposed mediators, only desirability ($\beta = .45, p < .001$), human nature ($\beta = .65, p < .001$), inherence ($\beta = .32, p < .05$), and cognition ($\beta = -.37, p < .01$) had independent effects, with the latter unexpectedly negative in sign.

Discussion

The findings of Study 3 replicated the composition of the human nature ratings obtained in Studies 1 and 2 and the self-humanization effect obtained in Study 2. The latter effect was again found both for a large minority of individual participants and at the aggregate level, where traits rated high in human nature were attributed more to self than to others, independent of their desirability. Although somewhat smaller in magnitude than the self-

enhancement effect, the self-humanization effect was nevertheless substantial and appears to be a robust finding.

Our analyses failed to support six of the seven proposed mediators of self-humanization. Participants did not differentially attribute less visible or more informative traits to themselves, ruling out visibility and informativeness as mediators of the effect. Four other proposed mediators were associated with self-ratings—participants rated themselves higher than their peers on more emotional, cognitive, prevalent, and discrete traits—but failed to pass a direct test of mediation. Moreover, the associations of these variables with self-ratings disappeared when human nature was statistically controlled, indicating that human nature mediates them rather than the reverse. These findings therefore challenge explanations of self-humanization that are based on Codol’s (1975) superior conformity of the self phenomenon or on trait visibility. Only inherence emerged as a significant but partial mediator of self-humanization.

Although strong causal inference is unwarranted, the mediation effect for inherence indicates that people may attribute human nature traits to themselves more than to others in part because these traits are seen as deeply rooted, underlying features of persons. People may self-humanize because they selectively attribute such fundamental traits to themselves. This finding suggests that self-humanization is linked to one specific component of essentialism. It is interesting to note that Yzerbyt, Estrada, Corneille, Seron, and Demoulin (2004) proposed that “inherence” refers to the most basic sense of essentialism as underlying nature or disposition—it is “a proxy for essence” (p. 106)—and Haslam et al. (2004) found it to be more strongly associated with judgments of the centrality of traits to personal identity than any other essentialist belief.

A case can therefore be made that self-humanization partially reflects a tendency to reserve for the self traits that are relatively deep, central, and essencelike. Stated differently, self-humanization represents a perception of others that is shallower or more superficial than one’s perception of oneself. However, this greater superficiality does not appear to involve a greater reliance on more visible characteristics in the perception of others, as trait visibility was not associated with comparative self-ratings. Instead, it reflects an attribution of lesser ontological depth to others. The attribution of human nature may therefore represent a third dimension of person perception.

Table 4
Summary of Mediation Analyses, Study 3

Variable (x)	Variable as mediator			Human nature as mediator		
	$r_{HN/self}$	$r_{HN/self.x}$	Sobel z	$r_{self/x}$	$r_{self/x.HN}$	Sobel z
Emotion	.66***	.57***	.66	.41**	.09	3.37***
Cognition	.66***	.62***	-.99	.32*	-.13	4.04***
Prevalence	.66***	.59***	-.80	.38**	-.12	4.44***
Discreteness	.66***	.61***	.17	.33*	.03	3.15***
Inherence	.66***	.42**	2.87***	.64***	.37**	2.90***

Note. HN = human nature.
* $p < .05$. ** $p < .01$. *** $p < .005$.

Study 4

Studies 2 and 3 found support for the predicted self-humanization effect with a correlational methodology that has not been used in previous research on infrahumanization. We therefore attempted to replicate the effect with an experimental methodology used by infrahumanization researchers (Cortes et al., 2005; Leyens et al., 2001). In this procedure, participants select a subset of emotions that describe themselves or a group from a set containing a mixture of positive and negative emotions, both primary and secondary. In Study 4, we adapted this methodology in several ways. First, we provided participants with a set of personality characteristics rather than emotions. Second, these characteristics were classified on three dimensions (desirability, human uniqueness, and human nature) rather than two (desirability and human uniqueness). Third, we used more characteristics per cell in the design than in previous research on emotion attribution (4 vs. 3). Finally, rather than examining intergroup comparisons, as in most infrahumanization research, participants rated either themselves or an in-group. The interpersonal comparison here is therefore indirect, unlike the direct self versus others judgments in Studies 2 and 3. Given that indirect methods tend to yield weaker biases in interpersonal comparison research (Chambers & Windschitl, 2004), Study 4 therefore constitutes a more stringent test of the self-humanization effect.

Consistent with Studies 2 and 3, we predicted that participants would attribute human nature characteristics to themselves more than to their in-group. Consistent with Study 2 and with the findings of Cortes et al. (2005), we also expected that participants would not attribute more uniquely human characteristics to themselves than to their in-group.

Method

Participants

Participants were 59 undergraduate psychology students who completed the study as part of a course requirement. The sample contained 38 women and 20 men (1 participant did not report gender), ranging in age from 19 to 44 ($M = 21.9$).

Materials

Participants completed a short questionnaire in which they were instructed to select 12 personality characteristics from a set of 48 characteristics listed in random order on a page. In one version of the questionnaire, the target to be described by the selected characteristics was the self, and in the other it was psychology students. Thirty-two of the characteristics were selected from those used in Studies 1 or 3 on the basis of their mean desirability, uniquely human, and human nature ratings. Four characteristics were selected for each of the eight combinations of high versus low ratings on these three items. Selection was guided by the twin goals of choosing characteristics that were clearly above or below average in their ratings on the items and of ensuring that the three classification dimensions were unconfounded. On the basis of their mean ratings from Studies 1 and 2, desirable characteristics differed from undesirable characteristics in desirability ($M_s = 5.85$ vs. 2.38), $t(30) = 17.20$, $p < .001$; but not uniquely human or human nature ratings, $t(30) = 0.93$ and 1.36 , *ns*, respectively. Uniquely human characteristics differed from nonuniquely human characteristics in rated uniqueness ($M_s = 4.87$ vs. 2.89), $t(30) = 9.86$, $p < .001$; but not desirability or human nature, $t(30) = 0.42$ and 0.06 , *ns*, respectively. Finally, human nature characteristics differed from nonhuman na-

ture characteristics on human nature ratings ($M_s = 5.04$ vs. 3.93), $t(30) = 7.66$, $p < .001$; but not on ratings of desirability or uniquely human, $t(30) = 0.34$ and 0.68 , *ns*, respectively. Sixteen additional filler characteristics that varied in desirability, uniquely human, and human nature ratings were included in the list of 48, consistent with previous infrahumanization research (e.g., Leyens et al., 2001).

Procedure

Participants were randomly assigned to the two study conditions (target as self [$n = 28$] vs. psychology students [$n = 31$]) and completed the questionnaire in small groups in a classroom setting, under the supervision of one of the researchers.

Results

A 2 (target: self vs. in-group) \times 2 (desirability: high vs. low) \times 2 (uniquely human: high vs. low) \times 2 (human nature: high vs. low) mixed ANOVA was conducted, by using the sums of selected characteristics from the eight subsets as dependent measures. This analysis yielded main effects for desirability, $F(1, 57) = 206.07$, $p < .001$, $\eta^2 = .78$, and human nature, $F(1, 57) = 51.41$, $p < .001$, $\eta^2 = .47$, but not for uniquely human, $F(1, 57) = 3.68$, *ns*, $\eta^2 = .06$, indicating that participants tended to characterize self and in-group targets as high in desirability and human nature. Mean ratings are presented in Table 5.

Two-way interaction effects allow differences in the attribution of characteristics to the self and in-group targets to be examined. There was no significant Desirability \times Target effect, $F(1, 57) = 2.55$, *ns*, $\eta^2 = .04$, indicating that self was not described in more favorable terms than psychology students as a group. Indeed, nonsignificantly more desirable ($M_s = 8.06$ vs. 7.78) and fewer undesirable characteristics ($M_s = 1.10$ vs. 2.21) were ascribed to the in-group than to the self. Similarly, there was no evidence for differential attribution of uniquely human personality characteristics of the self versus the in-group, $F(1, 57) = 0.55$, *ns*, $\eta^2 = .01$, consistent with Cortes et al.'s (2005) findings with uniquely human emotions. However, as hypothesized there was a significant Human Nature \times Target interaction, $F(1, 57) = 4.19$, $p < .05$, $\eta^2 = .07$, with more human nature characteristics ascribed to the self than to the in-group ($M_s = 6.39$ vs. 5.36). This effect was qualified by a Human Nature \times Target \times Desirability interaction, $F(1, 57) = 6.06$, $p < .05$, $\eta^2 = .10$. Table 5 indicates that the hypothesized self versus in-group difference in ascribed human nature held for negatively valenced traits ($M_s = 1.85$ vs. 0.61) but not for positively valenced traits ($M_s = 4.53$ vs. 4.74). Stated differently, 58.2% of the desirable traits ascribed to the self were high in human nature compared with 57.0% of desirable traits ascribed to the in-group. In contrast, 83.7% of the undesirable traits ascribed to self were high in human nature, compared with only 55.5% of those ascribed to the in-group.

Discussion

Study 4 replicated the self-humanization effect demonstrated in Studies 2 and 3 but by using a more controlled methodology and a more stringent format for examining interpersonal comparisons. With procedures used by infrahumanization researchers, we found that people selectively attribute human nature to themselves, even relative to an in-group that they evaluate favorably and to which

Table 5
Mean Number of Traits Attributed to Self (n = 28) and In-Group (n = 31) as a Function of Trait Set, Study 4

Desirability	Uniquely human	Human nature	Traits	Traits attributed	
				Self	In-group
High	High	High	ambitious, analytic, imaginative, sympathetic broad-minded, humble, polite, thorough	2.00	2.45
		Low		2.21	2.00
Low	Low	High	active, curious, friendly, fun-loving contented, even-tempered, relaxed, selfless	2.54	2.29
		Low		1.03	1.32
Low	High	High	high-strung, insecure, irresponsible, reserved disorganized, ignorant, rude, stingy	0.89	0.39
		Low		0.11	0.23
Low	Low	High	impatient, impulsive, jealous, shy simple, timid, uncooperative, unemotional	0.96	0.23
		Low		0.25	0.26

they did not directly compare themselves. A comparable effect was not obtained for uniquely human characteristics, replicating findings of Cortes et al. (2005) and supporting the argument that the standard form of infrahumanization is an intergroup rather than interpersonal phenomenon.

Study 4's finding that the self-humanization effect is moderated by trait desirability was unexpected, although Studies 2 and 3 both found weak and nonsignificant evidence that the self-humanization effect may be stronger for negative than for positive traits. It is not clear that this moderation effect is robust, and the earlier studies indicate that self-humanization is at least somewhat general rather than restricted to negative traits. However, if the moderation effect is replicated, it may have implications for how self-humanization should be explained. The negative human nature traits may convey particularly high levels of depth or intimacy, consistent with the essentialism-based account developed in Study 3. Alternatively, the moderation of self-humanization by trait valence raises the possibility that the phenomenon has a motivational component. People may be motivated to humanize their weaknesses, flaws, and limitations, seeing these as signs that they are only human. Individuals may have no such tendency to humanize other people's flaws. Seeing one's own failings as part of human nature may not make them any more desirable, but it may offer some reassurance that they are widely shared (i.e., not deviant) and deeply rooted (i.e., not under one's control and hence not blameworthy). Self-humanization may therefore not be a purely cognitive phenomenon, although this interpretation remains highly speculative.

General Discussion

The findings of our four studies extend research on infrahumanization in a number of promising new directions. First, and most basically, they establish that a counterpart of the intergroup phenomenon can be demonstrated in the domain of interpersonal comparison. Second, they show that in this domain, it is not uniquely human characteristics that are differentially attributed to the self but those characteristics understood to be aspects of human nature. Third, the findings show that human nature characteristics are understood as underlying essences and that the differential attribution of human nature to self may be partially mediated by one component of essentialism. Together, the studies imply that

people tend to attribute what is essentially human to themselves more than to others.

Besides its demonstration of the self-humanization effect, we believe that one of the primary contributions of the present work is its empirical disentangling of two distinct senses of humanness. Although infrahumanization researchers have focused on what is uniquely human—operationalized as secondary emotions—we suggest that human nature represents an importantly different concept. Using two distinct samples of personality descriptors, we found that uniquely human and human nature ratings were either uncorrelated (Study 2) or negatively correlated (Study 1), had different correlates (Studies 1 and 2), and had different compositions (Studies 1 and 2).

Traits judged to be uniquely human tended not to be aspects of affective temperament and were believed to appear relatively late in development. They were just as likely to be positive as negative in valence, and they were judged to be relatively uninformative about people. In sum, what distinguishes humans from other animals was understood as an evaluatively neutral form of civility or sophistication that is not deeply rooted in the person. Traits judged to reflect human nature were clearly different. They primarily involved openness, imagination, and interpersonal warmth on the one hand and negative emotionality on the other, and they were understood to be present early in life (i.e., to be more inborn nature rather than acquired nurture). Human nature traits were generally esteemed and held to be prevalent and cross-culturally universal, therefore being normative in both prescriptive and descriptive senses. Finally, these traits were understood as deeply inhering essences that tell a lot about the person who possesses them. This view arguably reflects a romantic image of human nature as emotional vitality or "heart" in contrast to the image of what is uniquely human, which is somewhat ambivalent about the implications of refinement or culture. Further examination of the differences between these two understandings of humanness is a research priority.

Self-Humanization

Our finding that people selectively attribute human nature to themselves is a novel one, and how this self-humanization effect should be conceptualized is an important question. Is the phenom-

enon primarily one of ascribing greater humanness to the self, compared with the generalized other or of ascribing lesser humanness to the other, relative to the self? In Leyens et al.'s (2003) work, the second framing is dominant: The out-group is "infrahumanized" rather than the in-group being "suprahumanized." Although the basic phenomenon of differential attribution of humanness remains in either case, the two framings have quite different implications for its meaning. If it primarily involves positively distinguishing the self, then it may simply reflect a form of egocentrism. If it primarily involves negatively distinguishing the other, however, it might be better understood as subtle derogation or a lack of empathy in which other people are perceived to lack depth, just as Leyens and colleagues viewed out-group infrahumanization as a form of prejudice. Our finding that self-humanization is linked to neither high nor low self-esteem raises questions about both of these alternatives. It may be fruitful to examine the interpersonal implications of self-humanization in this connection. Do people who self-humanize to a large degree display more antisocial and less prosocial behavior toward others, as an empathy-deficit view would imply?

It is also unclear to what extent the self-humanization effect is best understood in cognitive or motivational terms. As we have argued, our deeper and more complex acquaintance with our own personalities and mental states might account for our tendency to see less evidence of the traits that constitute human nature in others. By this account, self-humanization might largely represent the more nuanced sense we have of ourselves than of others. However, as Study 4's findings suggest, it is also possible that people are motivated to see themselves as more human than others, especially where their undesirable qualities are concerned, so that self-humanization serves a self-regulatory function. Seeing our failings as expressions of our humanness may enable us to reduce their negative emotional consequences. Future research should examine the bases of the effect, such as its personality correlates and the contextual factors that influence it. Research should also investigate whether the effect can also be obtained when the self is compared with more individuated targets (e.g., specific individuals) rather than to groups (Study 4) or average others (Studies 2 and 3).

It remains to be seen whether the differential attribution of human nature to self and others extends to intergroup comparisons, where the classic infrahumanization effect has been repeatedly documented, and also whether it can be shown with emotions as well as with personality characteristics. However, if it is found to be relatively general, it would imply the existence of two distinct forms of dehumanization. Whereas the classical infrahumanization effect amounts to denying uniquely human traits to others, our effect involves denying them human nature. At least in its extreme form, the former effect implies a view of others as akin to animals. In contrast, our effect would involve a view of others as lacking in traits involving cognitive openness (e.g., imagination, curiosity), warmth, and emotional vibrancy, perhaps implying a mechanistic view of others as automata (Haslam, in press). This interpretation is consistent with research by Malle (in press), who demonstrated that people explain others' behavior with more reference to causal factors (objective determinants) and less reference to reasons (subjective mental states) than they explain their own behavior. Preliminary evidence suggests that both forms of dehumanization are different from the simple derogation of other people, and it is therefore important to investigate their distinctive implications.

Conclusion

Our findings extend infrahumanization research in several new directions, broadening it to include another sense of humanness (human nature), another field of application (interpersonal comparison), and another content domain (personality). The tendency to see others as less human than ourselves appears to be rather general and multifaceted. Our findings place the ancient Roman writer Terence's famous assertion that "Nothing human is alien to me" in a new light. People do seem to believe that humanness is something that they embody to an unusually large degree. Nothing human may be alien to me, but something human is alien to you.

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