



Emotional prejudice can lead to infra-humanisation

Stephanie Demoulin , Ramon Rodriguez Torres , Armando Rodriguez Perez , Jeroen Vaes , Maria Paola Paladino , Ruth Gaunt , Brezo Cortes Pozo & Jacques-Philippe Leyens

To cite this article: Stephanie Demoulin , Ramon Rodriguez Torres , Armando Rodriguez Perez , Jeroen Vaes , Maria Paola Paladino , Ruth Gaunt , Brezo Cortes Pozo & Jacques-Philippe Leyens (2004) Emotional prejudice can lead to infra-humanisation, European Review of Social Psychology, 15:1, 259-296, DOI: [10.1080/104632804400000044](https://doi.org/10.1080/104632804400000044)

To link to this article: <http://dx.doi.org/10.1080/104632804400000044>



Published online: 04 Mar 2011.



Submit your article to this journal [↗](#)



Article views: 340



View related articles [↗](#)



Citing articles: 21 View citing articles [↗](#)

Emotional prejudice can lead to infra-humanisation

Stéphanie Demoulin

*Catholic University of Louvain, Louvain-La-Neuve, and Belgian National Fund
for Scientific Research, Belgium*

Ramón Rodríguez Torres & Armando Rodríguez Perez

Universidad de La Laguna, Tenerife, Spain

Jeroen Vaes

Università di Padova, Italy

Maria Paola Paladino

Università di Trento, Italy

Ruth Gaunt

Bar-Ilan University, Tel-Aviv, Israel

Brezo Cortes Pozo & Jacques-Philippe Leyens

Catholic University of Louvain, Louvain-La-Neuve, Belgium

Groups are social constructions with differences. People spontaneously attempt to explain differences between groups. Stereotypes often play this explanatory role. Specifically, group members tend to attribute different essences to social categories. Given widespread ethnocentrism, it is not surprising that individuals reserve “the human essence” for their ingroup, while other groups are attributed a lesser humanity. This phenomenon is called infra-humanisation and happens outside people’s awareness. Secondary emotions (e.g., love, hope, contempt, resentment) are considered uniquely human emotions in contrast to primary emotions (e.g., joy, surprise, fear, anger) that are shared with animals. The research programme summarised in this chapter demonstrates through various paradigms that members of groups not only attribute more secondary emotions to their ingroup than to outgroups, but are also reluctant to associate these emotions with outgroups. Moreover, people behave less cooperatively with an outgroup member who expresses himself with secondary emotions than with an ingroup member who uses the same terms. Interestingly, infra-humanisation occurs for both high- and low-status groups, even in the absence of conflict between groups.

Address correspondence to: Stéphanie Demoulin, Catholic University of Louvain, Faculté de Psychologie, PSOR, 10, place du Cardinal Mercier, 1348, Louvain-La-Neuve, Belgium. Email: Stephanie.Demoulin@psp.ucl.ac.be

Groups are categories that are socially constructed. What are the bases on which these constructions rely? Recently, researchers have argued for a psychological essentialist theory of categorisation. Departing from classical and probabilistic views of categories, Medin and Ortony (1989; Medin, 1989) proposed an essentialist approach to the social world by lay perceivers. Classical views of categorisation (Aristotle, 1941) assumed that categories were constituted of a series of necessary features, collectively sufficient to determine membership in the category. Probabilistic views held that categories were ill defined and that membership was dependent on similarity with a prototype (Rosch, 1975) or with an accessible exemplar (Smith & Medin, 1981) of the category. Essentialist views of categorisation were developed around a theory-based approach (Medin, 1989; Medin & Ortony, 1989). According to essentialist views, categories are organised around theories about the deeper features of the category members. These theories provide the causal linkage from the deeper features to the more surface ones and, doing so, explain why things look the way they do.

In the present review, we develop a theory of intergroup relations that examines the essentialist theories of social categorisation. Specifically, we will show that lay perceivers attribute differentiated essences to social groups in their environment. Building on investigations of intergroup relations, we will argue and provide empirical support suggesting that the best “human” essence is reserved for one’s ingroups and that outgroups are under-attributed typical human features.

THE HUMAN ESSENCE

The core idea of psychological essentialism is that “people act as if things (e.g., objects) have essences or underlying natures that make them the thing they are. Furthermore, the essence constrains or generates properties that may vary in their centrality....theories...embody or provide causal linkages from deeper properties to more superficial or surface properties” (Medin, 1989, p. 1476). Building on Medin’s work, Rothbart and Taylor (1992) identified three types of categories that people are confronted with: natural, artifactual, and social. Natural categories (e.g., birds, lions, human beings) closely correspond to the pre-Darwinian concept of species; that is, natural kinds exist independently of human activities and are associated with an underlying essence. Their nature is believed to be relatively immutable and is considered to be a rich source of inductive potential. In contrast to natural kinds, artifactual objects (e.g., tables, computers) reflect humans’ needs and desires. Artifacts are defined by their sole function and are not believed to reflect any particular essence. Consequently, there is great variability among artifactual objects and they do not permit further inferences. Turning to social groups, Rothbart and Taylor (1992) suggest

that, because social categories (e.g., Europeans, blue-collar) primarily reflect humans' needs and desires, one should understand them as artifactual objects. However, they argued, people usually tend to treat them as natural, and consequently, to attribute underlying essences to them. This essentialist attribution is illogical in as much as groups are social constructions that, by definition, cannot have an essence.

An increasing number of social psychologists now rely on subjective essentialism to examine lay perceptions of social groups (Demoulin, Leyens, & Yzerbyt, 2003; Haslam, Rothschild, & Ernst, 2000, 2002; Yzerbyt, Castano, Leyens, & Paladino, 2000). Surprisingly, although many agree on subjective essentialism theorising, almost no one has attempted to define the nature of the essence attributed to social groups. Most authors consider that, because people do not explicitly need to know what the essence is to actually essentialise groups, examining the nature of essences is a secondary question of relatively little importance (Miller & Prentice, 1999).

In the research programme presented in this chapter, we have tried to answer the question: "What could be the human essence?". We asked French-speaking students in Louvain-La-Neuve and Spanish students in Tenerife to spontaneously generate and rank order the features they thought would best define "human nature" (Leyens et al., 2000). Judges then coded the responses. The number of categories that was generated was quite small, and the results from both samples converged closely. The most often cited characteristics were, in rank order: Intelligence (reasoning, thinking), *Sentiment-Sentimiento* (or exemplars of that category), and Language (communication). Other features were: positive sociability, morality (values), and negative sociability. The word *émotion-emoción* was rarely mentioned, and when it was, it appeared at the very end of the lists. Intelligence and Language are easy-to-grasp concepts and are understandable in all cultures. The terms "Sentiment" in French or "Sentimiento" in Spanish, however, are largely specific to Roman languages and cultures, and to a lesser extent to Germanic ones. They deserve some explanation.

PRIMARY AND SECONDARY EMOTIONS

The French term "sentiment" refers to a subcategory of the large concept "Emotion". Specifically, "sentiment" is a generic term used to describe those emotions that are uniquely experienced by human beings. It is differentiated from another generic term, "émotion", in that the latter refers to people's lay conceptions of emotions that humans share with animals. In other words, both animals and human beings can experience "émotions", whereas "sentiments" are only and uniquely experienced by human beings.

To validate this distinction, Demoulin, Leyens, Paladino, Rodriguez, Rodriguez, and Dovidio (2004, Study 1) conducted a cross-cultural study

involving three countries (Belgium, Spain, and the USA) and four languages (English, French, Dutch, and Spanish). Participants received a series of emotional terms and had to rate the extent to which they were uniquely, or non-uniquely human. Moreover, they had to rate these same words on a series of characteristics. Results across languages were highly convergent. Interestingly, uniquely human emotions were perceived as less intense, less visible, and less externally caused than non-uniquely human emotions. They were also rated as appearing later in life, as well as more linked to morality and cognition. These lay conceptions of emotions bear resemblance to the scientific literature on emotions (e.g., Ekman, 1992) and led to the labelling of secondary (uniquely human) emotions versus primary (non-uniquely human) emotions. Table 1 gives a list of the most typical primary and secondary emotions in four languages. The correspondence across languages is almost perfect. In addition, Demoulin et al.'s Study 2 (2004) showed that, implicitly, students associate more secondary emotions with a human context than with an animal one. To sum up, these studies verified that secondary emotions are linked to humanity and that, for lay people, there is no clear boundary between them and primary emotions, as is the case in the scientific taxonomy of emotions (Ekman, 1992).

INFRA-HUMANISATION OF OUTGROUPS

Humankind ceases at the border of the tribe, the linguistic group, even sometimes the village; (...) a great many of these so-called primitive populations give themselves a name that means "humans" (...) implying by this that other tribes, groups or villages do not share the same human virtues—or even nature (...)

(Lévi-Strauss, 1952/1987, p. 21)

As specified, lay people define human nature with a relatively small set of characteristics: Intelligence, Uniquely Human Emotions, and Language. These features are essential to human nature in the sense that each of them is perceived as a necessary, but insufficient, condition for membership in the category. In other words, denying the possession of only one of these characteristics is sufficient to consider others less human than oneself.

We chose to focus on emotions as an important feature of the human essence for several reasons. First, and most important, emotions are less likely than intelligence or language to be dependent on structural relationships between the groups (Jost & Banaji, 1994). Indeed, they are relevant to a large range of contexts and situations and are susceptible to being used by both dominant (high-status) and dominated (low-status) groups. Second,

TABLE 1
Most prototypical primary and secondary emotions as a function of language (Demoulin
et al., 2004, Study 1)

	<i>English</i>	<i>Dutch</i>	<i>Spanish</i>	<i>French</i>
Prototypical primary emotions	Surprise	Verrast	Sorpresa	Surprise
	Rage	Woede	Rabia	Rage
	Anger	Boos	Enfado	Colère
	Pain	Pijn	Dolor	Douleur
	Pleasure	Plezier	Placer	Plaisir
	Happiness	Tevredenheid	Alegría	Joie
	Fear	schrik	Miedo	Peur
Prototypical secondary emotions	Tenderness	Tederheid	Ternura	Tendresse
	Love	Liefde	Amor	Amour
	Hope	Hoop	Espera	Espérance
	Guilt	Schuld	Culpabilidad	Culpabilité
	Shame	Beschaamd	Vergüenza	Honte

there exists already an ample amount of research demonstrating that individuals discriminate between ingroups and outgroups on the basis of intelligence (e.g., Crocker, Major, & Steele, 1998) and language (e.g., Giles & Coupland, 1991). Third, unlike intelligence and language, emotions are not strongly associated with norms of equity and equality that could activate social desirability concerns (Gaertner & Insko, 2001). Finally, the role of emotions in prejudice literature has been under-researched (Mackie & Smith, 2002).

In the following paragraphs, we outline a series of hypotheses concerning the role of uniquely human emotions for intergroup relations. After first presenting the general hypothesis, we follow with some specific hypotheses derived from the more general one.

General hypothesis

Given the prevalence of ethnocentrism (e.g., Jahoda, 2002; Sumner, 1906), we predicted that members of high- and low-status groups would unconsciously attribute a “more human” essence to their ingroup than to (most) outgroups (Leyens et al., 2000). This higher humanity may be achieved by claiming a greater amount of any of the main “human nature” characteristics (intelligence, language, and uniquely human emotions) or any combination of them. Groups could think that they are more intelligent, or more intelligent *and* having more uniquely human emotions than other groups. Such a claim for a higher intelligence would be specific of high-status groups (Jost & Hunyady, 2002). Indeed, it may be hard for most low-status groups to imagine that their group is more intelligent than a high-

status group. Accordingly, we expect the low-status members to attribute to themselves a similar level of intelligence as the high-status group members. However, nothing prevents groups, irrespective of their status, from unconsciously claiming more uniquely human emotions.

We have called infra-humanisation the belief in a “less human essence” of outgroups (Leyens et al., 2000). The degree of infra-humanisation through secondary emotions has been operationalised in our studies as a greater attribution of both positive and negative secondary emotions to the ingroup than to the outgroup. Indeed, when asked to list the uniquely human characteristics, participants did not specify the desirability or acceptability of secondary emotions. Primary emotions play the role of control stimuli and it is important to note that their attributional pattern does not replicate that of secondary emotions. Consistent with our hypothesis, primary emotions should be equally distributed between the ingroup and the outgroup since everyone, including animals, has them (Leyens et al., 2000). In all experiments presented here, valence and/or desirability of primary and secondary emotions was controlled.

Infra-humanisation is expected to vary with ingroup identification. People who do not identify with their group should not feel the need to perceive it as essentially superior. These people should not care much about the appearance of their ingroup, especially relative to other groups. In fact, these members could just as well leave the ingroup or stay in it for opportunistic reasons. However, the more people identify with and feel pride towards their ingroup, the more they should be likely to give it a superior essence. As Ellemers, Spears, and Doosje (1999, p. 3) wrote:

When we distinguish between responses of high and low identifiers, the general pattern is that those who feel highly committed to their group are more inclined to protect their group's image and exert themselves on behalf of the group, while less committed group members are more likely to be concerned with their personal image and pursue individual goals. In this sense, it would seem that high identifiers show more solidarity compared to low identifiers...

To sum up, people should attribute more secondary emotions to the ingroup than to the outgroup. This pattern will vary as a function of ingroup identification. No such pattern is expected for primary emotions as they are believed to be shared with subhuman species and, consequently, are unrelated to human nature.

Specific hypotheses

Some specific hypotheses can be derived from the general one. According to the infra-humanisation theory we predict that, when encountering secondary emotions among outgroup members, ingroupers will be

particularly attentive to this "abnormality". In turn, they will react negatively towards them because such human emotions are their property.

Evidence for this reasoning is supported by anthropological observations (Jahoda, 1999, 2002; Lévi-Strauss, 1952/1987; Sumner, 1906). These observations clearly suggest that some societies claim the human nature for themselves while they devalue neighbouring tribes to the state of animals. In addition, a series of social psychological arguments also support this reasoning.

If people want to reserve the human nature for themselves, the expression of secondary emotions is consistent with their beliefs about the ingroup, but inconsistent with their beliefs about the outgroup. Therefore, people should react differently to this consistent and inconsistent information. Specifically, outgroup members who mention possessing a secondary emotion could be reacted to more negatively for violating the less human character of their group. Several lines of research have indeed shown that behaviours disconfirming people's belief about a group generate more negative reactions than confirming behaviours (Chaiken & Derlega, 1978; Rudman & Glick, 1999).

Also, following social identity theory (Tajfel & Turner, 1986), self-enhancement at the social level is best accomplished by the adoption of strategies that achieve or maintain a sense of ingroup superiority over the outgroup. Consequently, outgroup similarity on the humanity dimension can constitute a threat to the positiveness of one's identity (Branscombe, Ellemers, Spears, & Doosje, 1999), and motivate one to derogate the outgroup. Similarly, Brewer's (1991) optimal distinctiveness theory postulates that the need for distinctiveness is met through intergroup comparisons. Consequently, outgroup similarity also constitutes a threat to one's need for differentiation and could again motivate one to derogate outgroup members.

Following this reasoning, secondary emotions should benefit ingroup members but have detrimental consequences for outgroup members. Although the expression of secondary emotions should lead people to perceive individuals as more human than other group members using primary ones, we predict that such a use of secondary emotions will have differential consequences for ingroup and outgroup members. More specifically, we expect that ingroup members who express secondary emotions will induce more benevolent behaviours on the part of other ingroup individuals than will outgroupers using the same expression of emotions.

To sum up, infra-humanisation theory predicts that people will be reluctant to accept the presence of secondary emotions in the outgroup. Such reluctance will lead to several strategies. First, ingroup members will avoid associating the outgroup with secondary emotions. Second, when this

strategy is impossible, they will underestimate the importance of the association between human emotions and outgroup members. Third, when encountering the expression of human emotions among outgroup members they will be particularly attentive and will react negatively (or less positively) towards them.

Functions of infra-humanisation

At a deeper level than stereotypes (Hegarty & Pratto, 2001; Leyens, Yzerbyt, & Schadron, 1994), essences are thought to explain differences between groups (Yzerbyt et al., 2000). From this perspective, infra-humanisation of outgroups is a sign of distinctiveness between the ingroup and the outgroups. It combines both ingroup favouritism and outgroup derogation (Leyens et al., 2003). Not only is a more human essence claimed by the ingroup (ingroup favouritism), but this human essence is also resented when shown by outgroup members (outgroup derogation).

To function optimally, people normally have to be part of some restrained social groups. That is, individuals need to have contacts with persons with whom they have developed privileged relations (Baumeister & Leary, 1995). This need translates into the creation of social ingroups, and consequently of social outgroups. This differentiation is not the end of the story. Indeed, as social identity theory (Brown, 2000; Tajfel & Turner, 1986) posits, people also develop a social identity related to their ingroup, and in order to maintain this social identity in a positive light they enter into a favourable comparison process with outgroups. This mechanism is marked by a preference for the ingroup, or ingroup favouritism bias, and is reflected in biased judgements and behaviours that give an undue advantage to the ingroup (for a review, see Hewstone, Rubin, & Willis, 2002). Rather than a direct attack against the outgroup, more and more researchers now defend the idea that what matters in ingroup favouritism is the ingroup itself and, specifically, its protection from outsiders (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Sears, 1988).

Not to be confounded with ingroup favouritism is the related concept of outgroup derogation (Brewer, 1999). Indeed, favouring one's own group is not the same as denigrating the outgroup. Ingroup favouritism refers to enhancing ingroups by attributing to them or associating them with positive characteristics. Outgroup derogation, in contrast, focuses on outgroups and the tendency to attribute to them or associate them with negative features. Ingroup favouritism and outgroup derogation are said to be relatively independent (Brewer, 1999). Although those two processes are closely related and often coincide with one another, they do not necessarily do so in all situations. Most of the time, outgroup derogation is better understood as a desire to offensively protect oneself or one's own group rather than as a

desire to primarily harm others (Fein & Spencer, 1997). Derogation is a self-protective function that arises mainly from perceived or real threat. For example, Fein and Spencer (1997) have shown that participants who received self-threatening information evaluated negatively the members of a stereotyped outgroup, and that these negative evaluations were effective in restoring participants' self-esteem.

Infra-humanisation is not synonymous with mere ingroup favouritism. Except for rare cases (e.g., Perdue, Dovidio, Gurtman, & Tyler, 1990), ingroup favouritism is always measured explicitly, whereas infra-humanisation needs to be implicitly operationalised because it is an unconscious phenomenon. More importantly, infra-humanisation and ingroup favouritism make differential predictions concerning the attributions of primary and secondary emotions. Indeed, ingroup favouritism theory suggests that emotions should be attributed to groups as a function of their valence, with more positive emotions for the ingroup than for the outgroup. Such a pattern does not correspond to the operationalisation of infra-humanisation that predicts that emotions will be distributed to groups according to their human status, with more secondary emotions for the ingroup than for the outgroup. Despite these differences, the fact remains that infra-humanisation of the outgroup serves the same function as ingroup favouritism. Both processes aim at providing the ingroup with a positive image.

Also, infra-humanisation is not to be confounded with outgroup derogation as classically measured in social psychological experiments (for a review, see Mummendey & Otten, 1998). Participants in infra-humanisation experiments do not realise that they harm others as they would if they had to deliver unpleasant sounds, negative evaluations, attributes, or stereotypes. If ingroup favouritism could be measured by the amount of positive emotions attributed to the ingroup, outgroup derogation could be tallied by the number of negative emotions assigned to outgroups. Again this operationalisation does not correspond to infra-humanisation, which expects more negative secondary emotions for the ingroup than for outgroups. Also, outgroup derogation often needs a conflict of interest between groups to emerge (Brewer, 1999). Ethnocentrism (Sumner, 1906), at the basis of infra-humanisation, does not postulate such a condition. Outgroup derogation, however, shares with infra-humanisation the desire to pre-emptively protect the ingroup, as if the best form of defence was offence.

Relations with some theories

System-justification theory. Our central hypothesis is in line with system-justification theory (for a review, see Jost & Hunyady, 2002) when it applies to high-status groups, but it may appear to contradict this theory in the case

of low-status groups. System-justification theory predicts the justification of the existing social order by high- and low-status groups “in spite of the obvious psychological and material harm they entail for disadvantaged individuals and groups” (Jost & Banaji, 1994, p. 10; but see Reynolds, Turner, & Haslam, 2000; Spears, Jetten, & Doosje, 2001). The evidence for system justification comes mainly from studies involving stereotypes. Our hypothesis, however, is not concerned with more or less accurate stereotypes but with the belief in a superior “essence”. People may admit that their group is lazier and less skilled, and still believe that this group has some unique and deep superiority. As a South American immigrant told us: “I know that we are poor, unemployed, without expertise and good education. Still, I feel that we have something you do not have.”

Many studies conducted by Jost and his colleagues (see Jost & Hunyady, 2002) used the stereotype “intelligent”, and low-status participants recognised that they were less intelligent than higher-status group. This finding is not unique to system-justification theory (Sidanius & Pratto, 1999). Because “intelligence” is a uniquely human feature, such a finding seems to contradict infra-humanisation. Later in this chapter, we will argue that this apparent contradiction is an experimental artifact in which intelligence means level of education, or competence. For example, in many of Jost’s studies, intelligence is linked to skill and hard work. We will show that the same results are not obtained when interpretation of “intelligence” is left to the respondents.

Social identity theory. Infra-humanisation “theory” is much less encompassing than social identity theory (Tajfel, 1981). However, it bears many similarities with the premises of this theory. Like social identity theory, it presupposes that the superiority of the ingroup will often, but not always, be claimed. The fact that outgroup favouritism is sometimes observed with minimal groups in the laboratory (Mullen, Brown, & Smith, 1992) does not contradict infra-humanisation; groups may be generous towards others and still believe that they have a more human essence.

After having compared their group with other ones, group members will often react as a function of this comparison. Social identity theory entertains various hypotheses about these reactions given different parameters (legitimacy, stability, and permeability). Whereas some groups will look for means of social change, a number of individuals will search for individual mobility. This difference in reactions speaks to the identification of the members with their ingroup. High identifiers are more likely than low identifiers to adopt a strategy of social change. Conversely, low identifiers will tend to move upwards as individuals (Ellemers et al., 1999). Our reasoning also expects differences of infra-humanisation as a function of ingroup identification.

Delegitimation and moral exclusion. Delegitimation (Bar-Tal, 1989) refers to the fact that some social groups are categorised so negatively that they are excluded from humankind. Those groups are considered to be outside the limits of acceptable norms and/or values. Because outgroups are removed from the domain of moral acceptability (Kelman, 2001), delegitimation gives the moral licence to groups and individuals to harm others, and even kill them. This phenomenon has also been called “moral exclusion” (Opotow, 1990; Staub, 1989). It occurs when “individuals or groups are perceived as outside the boundaries in which moral values, rules, and considerations of fairness apply. Those who are morally excluded are perceived as nonentities, expendable, or undeserving; consequently, harming them appears acceptable, appropriate, or just” (Opotow, 1990, p. 173).

Although infra-humanisation theory clearly relates to the concepts of delegitimation and moral exclusion, it departs from them on many points. First, delegitimation and moral exclusion theorists clearly restrict themselves to extreme forms of outgroup derogation and aggression such as genocide, negative eugenics, war, etc. These situations involve intense conflicts between groups and are associated with explicit negative attitudes and behaviours towards outgroup members. The infra-humanisation theory (Leyens et al., 2000), in contrast, refers to relatively normal intergroup situations. In other words, our research programme attempts to assess infra-humanisation biases in everyday groups’ evaluations. Second, whereas delegitimation and moral exclusion are closer to what one could call “dehumanisation” (that is, the idea that others are no longer human beings or no longer pertain to the human species), Leyens et al. (2000) insist on using the softer term of “infra-humanisation”, implying lesser humanity. While dehumanisation is invoked to explain extreme behaviours such as ethnicides, infra-humanisation takes into account milder forms of discrimination. Finally, infra-humanisation theory does not restrict itself to the (non-) attribution of morality to the groups. Indeed, as we have shown in this review, infra-humanisation of outgroup members can be achieved through other uniquely human features such as intelligence, language, or secondary emotions.

To sum up, we propose to conceptualise “humanity” as a continuum (see Demoulin et al., 2004) rather than an exclusive category. Our preference for “infra-humanisation” over other expressions such as “dehumanisation” or “animalisation” is reflexive of this continuum hypothesis. Delegitimation or moral exclusion as observed in extremely conflicting situations could be considered a particular case within the broader infra-humanisation perspective. In other words, the tendency to infra-humanise others occurs implicitly in everyday intergroup situations and would reach its paroxysm in delegitimation and moral exclusion, when others are explicitly rejected from the human category.

OVERVIEW OF THE EMPIRICAL EVIDENCE

The remainder of this chapter will be divided into four sections. In the first part, we offer evidence of the general hypothesis that infra-humanisation is a greater attribution of secondary emotions to the ingroup than to outgroups. In the second part, we demonstrate that ingroup members react negatively to the expression of secondary emotions by outgroup members. In the third part, we summarise studies that show behavioural consequences of the use of secondary emotions by ingroup and outgroup members. In each section, various paradigms with different sets of secondary and primary emotions are used to ascertain generalisability. Also, the positive and negative valence or desirability of the two kinds of emotions has always been controlled for. Finally, the conclusion summarises the present state of infra-humanisation theory, discusses its limitations and remaining problems, and suggests new lines of research in relation to well-established theories.

INGROUPS HAVE MORE SECONDARY EMOTIONS THAN OUTGROUPS

In this section, we examine the general hypothesis that both positive and negative secondary emotions are more often attributed to, or associated with, the ingroup than the outgroup regardless of the respective status of these groups. In as much as infra-humanisation does not postulate a conflict between groups to appear, it was also necessary to test groups varying in their degree of (non)conflicting relations. Finally, infra-humanisation rests on the assumption that differences between groups are explained by “essences” and that the differential reactions to ingroup and outgroup will depend on the degree of ingroup identification.

Differential associations

In an initial series of experiments (Paladino, Leyens, Rodriguez, Rodriguez, Gaunt, & Demoulin, 2002), we wanted to test the differential association of primary and secondary emotions with different ingroups and outgroups. Towards this aim, we used the well-known Implicit Association Task (Greenwald, McGhee, & Schwartz, 1998), which has often been used to test implicit racism. The test usually consists of five phases; three practice phases and two experimental phases. In one of the experimental phases (“compatible task”), participants have to press a given key as quickly as possible when they see on the screen of their computer an ingroup name and a positive word, and another key when they see an outgroup name and a negative word. In the other phase (“incompatible task”), participants have to react to ingroup names and negative words with one key, and to outgroup

names and positive words with another key. Participants generally react more quickly on the compatible task, and the difference in the reaction times between the compatible task and the incompatible task serves as an index of implicit racism. We replaced the positive and negative words with secondary and primary emotions, respectively. The compatible task thus involved ingroup–secondary vs outgroup–primary emotions, whereas the incompatible task involved ingroup–primary vs outgroup–secondary emotions. Four studies were conducted using different ingroups (Spanish people for the Canary Islands, French-speaking Belgians), different outgroups (Maghrebis, Dutch-speaking Belgians), different prototypical positive primary and secondary emotions, and different prototypical negative primary and secondary emotions. Independently of these variations, reaction times in compatible tasks were consistently and significantly faster than in incompatible tasks. The magnitude of the indices and the different effect sizes indicated that the participants associated the ingroup more strongly with secondary emotions and the outgroup with primary emotions than the reverse (see Table 2).

Differential attributions

The Implicit Association Task does not allow us to single out which association is responsible for the difference between the compatible and incompatible tasks. Leyens et al.'s (2000) hypothesis, however, predicts that the effect should be obtained on the secondary emotions because they are uniquely associated to the human dimension. To address this question, Leyens et al. (2001, Expts 1 & 2) conducted two studies. We summarise one of them here (Expt. 2). After having answered a questionnaire about their identification with their region, "Canarians" from the Canary Islands (low-status group) and "Peninsulars" from mainland Spain (high-status group) received a list of 26 words comprising positive and negative primary and secondary emotions, the words "talent" and "intelligence", as well as fillers

TABLE 2
Responses speed (ms) to compatible and incompatible tasks of the Implicit Association Task and effect sizes (Paladino et al., 2002)

<i>Groups</i>		<i>Tasks</i>		<i>d</i>
<i>Ingroup</i>	<i>Outgroup</i>	<i>Compatible</i>	<i>Incompatible</i>	
Belgian	North-African	826	883	.66
Spanish	North-African	759	800	.67
Belgian	North-African	802	875	.85
Belgian French-speaking	Belgian Flemish-speaking	1086	1248	1.05

consisting of positive and negative traits linked to competence and warmth (Glick & Fiske, 1999) that were not linked to uniquely human characteristics. Half of the participants were asked to select about 12 characteristics that were typical of their ingroup, while the others responded for the outgroup. Canarians and Peninsulars have a history of mild conflicting relations and they stereotype each other according to Fiske and colleagues' competence/warmth dimensions (1999). In other words, Canarians, the low-status group, are perceived as sociable but incompetent, and Peninsulars are stereotyped as competent but not sociable (Quiles, Leyens, & Rodriguez, 2001).

Consistent with the infra-humanisation hypothesis, there was neither a main effect of status nor any significant interaction involving this variable. Both low- and high-status participants attributed significantly more secondary emotions to their ingroup than to the outgroup (see Figure 1). This result was independent of the valence of secondary emotions. Primary emotions were distributed evenly between the groups. Consistent with infra-humanisation theory, Canarians evaluated themselves as just as intelligent as the outgroup. Unsurprisingly, Peninsulars attributed much more intelligence to themselves than to Canarians. In other words, the high-status group infra-humanised others on both the intelligence and the uniquely human emotions, whereas the low-status group infra-humanised solely the outgroup on the uniquely human emotion dimension. As stated earlier, one should form the habit of disentangling the uniquely human term "intelligence" from other non-uniquely competence-related traits,

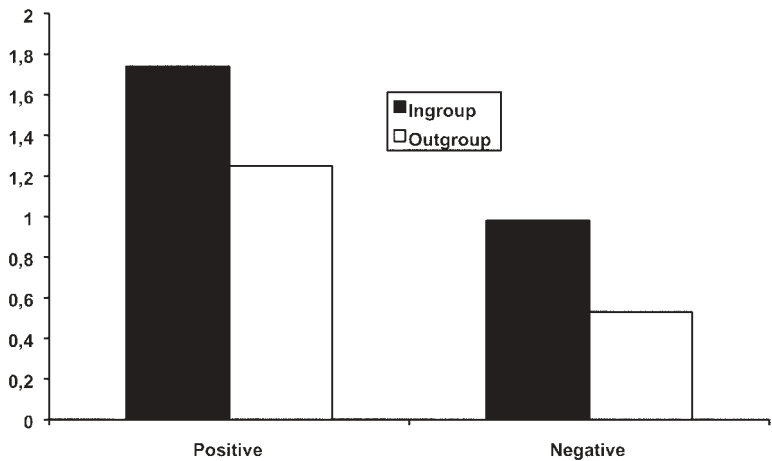


Figure 1. Mean number of positive and negative secondary emotions attributed to the ingroup and to the outgroup (Leyens et al., 2001, Study 2).

which are not always positively connoted. Indeed, the high-status group perceived itself as more positively competent, but interestingly it was described by the outgroup as positively (e.g., hard working) and negatively (e.g., calculating) competent. Unsurprisingly, the low-status group members saw themselves and were seen by others as more positively sociable.

Preference for ingroup–secondary emotions associations

To verify that infra-humanisation was not dependent on a particular design, we tested it with the Wason Selection Task (Wason, 1968). The Wason Selection Task traditionally measures deductive reasoning. In the most well-known version of the task, participants see four cards (E, K, 4, 7) and they are told that each card has a number on one side and a letter on the other. Their task is to turn the card(s) needed to verify the truth of the rule: “If there is a vowel on one side, then there must be an even number on the other side”. No more than 10% of participants are able to logically solve the task (by selecting E and 7). Earlier research (Scaillet & Leyens, 2000) also demonstrated that when social information is contained in the rules, people do not consider the logical status of the cards but take into account the content of this social information. For instance, when given one of the four rules “If ingroup (vs outgroup), then positive (vs negative) trait”, most persons select ingroup and positive trait, regardless of the rule.

In four studies we used the Wason Selection Task to implicitly test participants’ preference for the pair “ingroup–secondary emotions” (Demoulin et al., 2002b). Each participant received one of the four possible rules: “If ingroup (outgroup) member, then s/he feels...exemplar of primary (secondary) emotion”. In one study, participants had to select two cards. In the other three studies, four pairs of cards (ingroup–primary emotion; ingroup–secondary emotion; outgroup–primary emotion; outgroup–secondary emotion) were presented to the participants and they had to select the pair they thought was most important for solving the rule. Depending on the study, the ingroups (Canarians, French-speaking Belgians, US citizens) and outgroups (Peninsulars, French, Dutch-speaking Belgians, and Mexicans) varied as well as the positive and negative emotions. Canarians and French-speaking Belgians had a lower status than their outgroup, Peninsulars, French, and Dutch-speaking Belgians, respectively. In contrast, East Coast Americans had a higher status than Mexicans. In two cases there was no conflict between the groups (French-speaking Belgians vs French, and East Coast Americans vs Mexicans). In the other two cases there were mild conflicting relations. Canarians resent the threatening presence of Peninsulars on their islands (Quiles et al., 2001) and

Belgium is known for its linguistic conflicts, although nowadays these conflicts exist mainly at the political level.

As expected, people chose the ingroup–secondary emotion pair significantly more often (in 29% of cases) than the outgroup–secondary emotion pair (19%). Also as predicted, there was no difference for the selection pairs involving a primary emotion. When looking separately at the different studies, all of them presented a significant difference between the two secondary emotion pairs, except for the study involving Belgian ingroup (French-speaking) and outgroup (Dutch-speaking). In this last case, the means went in the right direction but the difference did not attain the conventional level of significance. Remember, however, that with the Implicit Association Task (Paladino et al., 2002), French-speaking Belgians discriminated against Dutch-speaking Belgians.

The results of these studies are particularly important. First, they replicate the finding that both low- and high-status groups claim to have a more human essence than outgroups. Second, and importantly, conflict between groups seems not to be necessary for infra-humanisation to occur. The latter result is congruent with social identity theory research. Very often (see Mullen et al., 1992), an ingroup favouritism bias has been found on the basis of mere categorisation, that is, in the absence of conflict between groups. Such a result is more difficult to explain from an outgroup derogation perspective. Outgroup derogation is generally found in the case of conflict (Brewer, 1999) or when the outgroup is disliked (Fein & Spencer, 1997). However, classical studies on outgroup derogation (see Brewer, 1999) have always involved dependent variables that were potentially harmful for outgroups, and that had to be delivered consciously by the participants. We will come back to this problem later.

Familiarity as an alternative explanation

Because secondary emotions cannot be observed as easily on someone's face as primary emotions (Demoulin et al., 2004; Shaver, Wu, & Schwarz, 1992), one could argue that the differentiated results for ingroup and outgroup are in fact due to an artifact of such emotions. Indeed, because of the familiarity shared with the significant others who form the ingroup (Andersen & Cole, 1990), it is plausible that people have more experience reading emotions of ingroup members than of outgroup members (Prentice, 1990). If it is the case that attribution of secondary emotions is mediated by familiarity, this would also imply that the self should receive (or be attributed) more secondary emotions than the ingroup. Indeed, we would then observe a linear pattern of attribution growing from the outgroup, to the ingroup, to the self.

To test this hypothesis, Cortes, Demoulin, Rodriguez, Rodriguez, and Leyens (in press) asked Canarian participants to complete the same attribution task as the one used by Leyens et al. (2001, Expt. 2). Depending on the condition, participants made the attributions either to themselves, or to the ingroup (Canarians), or to the outgroup (Peninsulars). Contrary to what the familiarity hypothesis would predict, attributions of secondary emotions to the self were not higher than attributions to the ingroup. Significantly more secondary emotions were attributed to the ingroup than to the self and to the self than to the outgroup. These differences did not interact with valence. As found before, the three targets were attributed similar degrees of primary emotions.

In this experiment, the participants were tested in a between-participants design for consistency with the type of design we had used before. Classically, familiarity research at the interpersonal level (e.g., McGuire & McGuire, 1988; Prentice, 1990) uses within-participant designs with different targets. Presumably, the direct comparison of different targets allows a more pronounced test of familiarity. Also, the shift from a between-participants design to a within-participant one may change the meaning afforded to the self. Most probably, the part of the self that was activated in the between-participant design was a personal one. In an intergroup context, social identity theory (Tajfel & Turner, 1986) suggests that people rely on that part of themselves concerned with their group membership (i.e., the ingroup) to make evaluations; that is, their social identity. Would the above results be replicated if the self were presented in a group context? Cortes et al. (in press) replicated the above experiment but this time in a mixed design. Two within-participants conditions were created. In the first condition, participants had to attribute the traits and emotions to their ingroup (Canarians) and to the self. In the second condition, participants attributed traits and emotions to the outgroup (Peninsulars) and to the self. The order of attributions was controlled in both conditions but did not have any effect. Contrary to the findings for the between-participants experiment, attributions of secondary emotions were the same for the self and for the ingroup. Importantly, participants attributed many more secondary emotions to themselves than to the outgroup. Finally, in neither the ingroup–self nor the outgroup–self conditions did the results of primary emotions differ depending on the target of attribution.

Altogether, results of these two experiments suggest that familiarity is probably not the best mediator of secondary emotions' attributions. However, one cannot totally exclude some familiarity effects. Further experiments that manipulate the degree of familiarity with the targets are still needed in order to specify the exact impact, if any, of this variable on the attribution process.

Ingroup identification: Moderator and mediator of infra-humanisation

Ingroup identification should play a crucial role in infra-humanisation. Individuals who barely identify with their ingroup should not be prone to infra-humanise outgroup members. Indeed, if one belongs to a group with which one barely identifies, one's social identity is not at stake and there is no need to feel that this ingroup possesses more human essence than outgroups. The role of identification was examined in a series of studies. The more people will identify with their ingroup the more they should be prone to exhibit the tendency to infra-humanise outgroup members.

We asked British students to answer a scale of identification with their country (Viki, raw data). The items were adapted from Ellemers and colleagues (Doosje, Ellemers & Spears, 1995; Ellemers, Kortekaas & Ouwerkerk, 1999). Participants then received a list comprising 12 stimulus words: 4 were positive secondary emotions, 4 were positive primary emotions, and 4 were traits linked to competence and "warmth". All participants were asked to describe Britain and Germany, in counter-balanced order, by selecting typical words for each group. It should be noted that the target outgroup was not neutral to the participants. In general, there appears to be some competitive animosity between British and German citizens, which sometimes erupts into violence (e.g., during national team football matches; Abrams & Hutchison, 2002). Participants were categorised as low and high identifiers. Only high identifiers showed infra-humanisation towards Germans (see also Rohmann, Niedenthal, Brauer, & Leyens, 2002). The order of the targets was nonsignificant.

Germans were also evaluated as the outgroup for Italian students by Paladino, Vaes, Castano, Demoulin, and Leyens (in press). In this study, participants described Italians and Germans. The order had no effect. Afterwards, they answered a 5-item scale of identification with Italy. Figure 2 shows that the more the Italian students identified with their ingroup, the more they attributed secondary emotions to the ingroup. Ingroup identification had no effect on the outgroup description. Moreover, the more the participants identified with the ingroup, the more they tended to attribute primary emotions to the outgroup. Conversely, identification had no effect on the attribution of primary emotions to the ingroup.

These results reveal that belonging to the ingroup is insufficient to produce infra-humanisation bias. People's ingroup identity has to be at stake in order to produce the bias.

Infra-humanisation depends on both ingroup identification and the meaningfulness of the categories for the participants. Specifically, for the bias to occur, both social identity and subjective essentialism are needed such that group categorisation is perceived as meaningful. These ideas

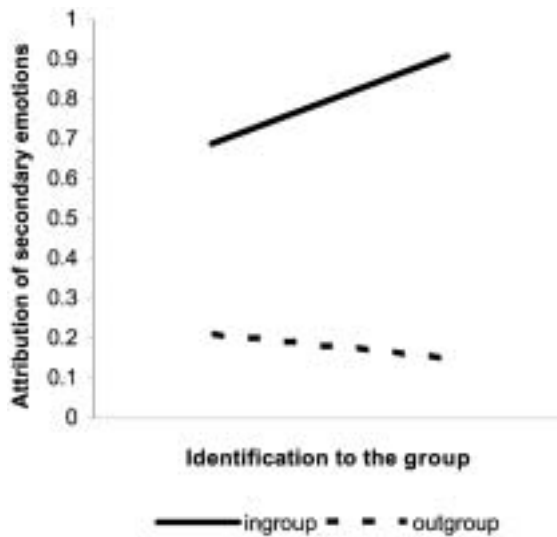


Figure 2. Identification and attribution of secondary emotions to the ingroup (Italians) and the outgroup (Germans) (Paladino et al., in press).

further delineate the difference between the “classic ingroup bias” (occurring in strict minimal group situations, e.g., Tajfel, Billig, Bundy, & Flament, 1971) and “infra-humanisation” (occurring to the extent that groups are perceived as essentially different from one another and that group members identify with their ingroup, Leyens et al., 2000).

In the research summarised up to this point, the groups studied were regional or national. We took for granted that they had an important meaning for the participants and that their “naturalness” induced essentialisation. We never tested these assumptions.

To verify the importance of the meaningfulness of the categories for infra-humanisation, we (Demoulin et al., 2002a) used the minimal group paradigm (Tajfel et al., 1971) in a between-participants design, with three levels of meaningfulness of the categorisation criterion. Small groups of psychology participants were divided using one of three methods: on a random basis, by their preference for a given colour, or by their choice to work with children or adults in their future career. After they had made their choice, participants in the Colour and Work conditions were asked to spend 5 minutes thinking and writing down what was unique about their group. Participants in the Random condition had to write down what they thought about the impact of wastes on the environment.

Dependent measures included infra-humanisation (number of positive secondary emotions selected in a list, cf. Leyens et al., 2001, Expts. 1 & 2)

and the “classic ingroup bias” (allocation of points to groups according to the Tajfel matrices). In addition, measures of ingroup identification as well as groups’ perceived essentialism (Haslam et al., 2000) were introduced in the design to test whether these two variables mediated the effect of category meaningfulness on infra-humanisation biases. The results strongly supported our predictions. First, infra-humanisation was absent in the non-meaningful condition and present in the meaningful ones. Second, both identification and groups’ essentialisation mediated the effect of the conditions on infra-humanisation (see Figure 3). Third, the classic ingroup bias was found in all conditions and to an equal degree. Moreover, the way people allocated points to the groups was uncorrelated with the way they attributed secondary emotions to these groups.

To sum up, mere categorisation is insufficient to produce infra-humanisation. Infra-humanisation requires meaningful categories and the impact of the categorisation’s criterion is mediated by both ingroup identification and groups’ essentialisation. This latter study also highlights the fact that infra-humanisation is not equivalent to the classic ingroup bias, even though there are common goals.

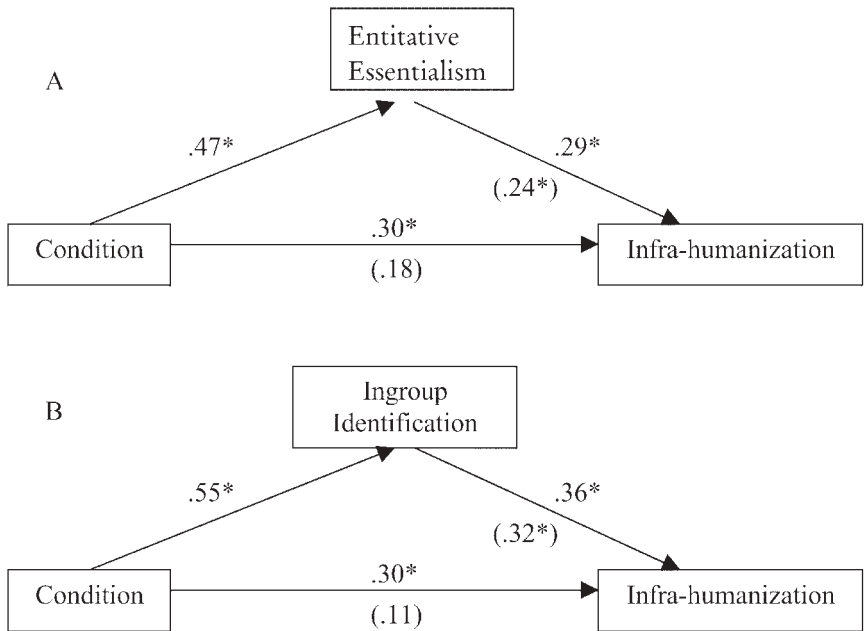


Figure 3. Mediation analyses. Coefficients in parentheses are corrected coefficients resulting from multiple regressions. (Demoulin et al., 2002a).

Summary

This first section testifies that low- and high-status groups infra-humanise outgroups by attributing to them less secondary emotions (both positive and negative) than to themselves. Interestingly, and consistent with the theory based on ethnocentrism, conflicting relations between groups do not seem to be a necessary condition for the occurrence of infra-humanisation (Demoulin, Leyens, Rodriguez, Rodriguez, Paladino, & Fiske, 2002b; Paladino et al., 2002). Because secondary emotions are less intense and visible than primary ones, one could have argued that the differential attribution of emotions was due to familiarity. This does not seem to be the case (Cortes et al., in press).

Ingroup identification plays an important role in the infra-humanisation bias (Demoulin et al., 2002a; Paladino et al., in press; Viki, raw data). The premises of the infra-humanisation theory expected such role. Indeed, only members who care for their group should show ethnocentrism. Essentialisation of the groups was tested in one study (Demoulin et al., 2002a) and found to mediate infra-humanisation. Such a result supports the reasoning behind infra-humanisation but further studies are needed to verify its reliability.

Of relevance to system-justification theory (Jost & Hunyady, 2002), it was interesting to find that members of low-status groups recognised the positive and negative aspects of the superior competence of outgroup members, but claimed the same level of intelligence. Such a finding has always been replicated in the studies using a list of emotional terms and fillers about competence, sociability, and intelligence. It is of utmost importance for our theory because intelligence constitutes a uniquely human characteristic.

RELUCTANCE TO ACCEPT SECONDARY EMOTIONS AMONG OUTGROUPS

If people unconsciously consider that their ingroup has a more human essence than outgroups and consequently possesses a greater number of secondary emotions, they should be especially vigilant about the possibility that these outgroups show secondary emotions (Allport & Kramer, 1946). Not only will they be vigilant, they will also avoid associations between secondary emotions and outgroups, and underestimate the amount of such emotions in outgroups. The following studies tested these hypotheses.

Controlling non-desired associations

If people resent that outgroup members possess secondary emotions, they should carefully attend to any association between outgroup and secondary emotions (Smith, 1998, but see also Stangor & McMillan, 1992). Stated otherwise, people should have a better-controlled memory for outgroup

secondary emotion than for ingroup secondary emotion. To test this hypothesis, we (Gaunt, Leyens, & Demoulin, 2002) used Jacoby's (1991) process-dissociation procedure. With this procedure, participants in the "inclusion" condition are required to include certain items in the "old" category, whereas participants in the "exclusion" condition are required not to include those items. If participants are as likely to call an item "old" when instructed to as when instructed not to, this implies that they have exerted no control over their recognition memory. Conversely, the larger the difference in performance between the two conditions, the more intentional and controlled is the participants' memory.

In the first stage, Belgian participants solved anagrams that involved associations between the ingroup (Belgians) or the outgroup (Arabs) and either primary or secondary emotions. In the second stage, participants listened to a list of similar items. Finally, in the third stage, a recognition memory test was given. The test included items that were presented as anagrams in the first stage, items that were heard in the second stage, and new items that participants had never encountered. The anagrams were to be called "old" in the inclusion condition and "new" in the exclusion one. The difference between the probability of calling an anagram "old" in the inclusion condition minus the probability of calling an anagram "old" in the exclusion condition served as a dependent measure of the exerted control on memory. As shown in Table 3, the results fully confirmed the hypothesis. Participants exerted much more control over associations between secondary emotions and the outgroup than over any other associations and, therefore, memorised these associations to a greater extent.

Avoiding outgroup–secondary emotion associations

When we (Demoulin et al., 2002b) used the Wason Selection Task (see above), we not only asked French-speaking Belgians (vs French and Dutch-speaking Belgians) and Americans (vs Mexicans) to select the most important pair of cards to solve the task, we also asked for the least important pair. A total of 35% of participants selected the outgroup–secondary pair as the least important one, against only 20% who opted for the ingroup–secondary emotion pair. Again, there was no difference between the two pairs that involved primary emotions. Whereas the results of the French-speaking Belgians versus Dutch-speaking Belgians were not significant for the most important pair, they were significant for the least important pair. In fact, they were significant for all three studies, and stronger than those for the preference of the ingroup–secondary emotion pair. This suggests that people are especially reluctant to associate outgroup members with characteristics that they believe to be their property.

TABLE 3
Probabilities of calling an anagram “old” in the inclusion and exclusion conditions (Gaunt et al., 2002)

	Stage 1					
	Secondary emotions		Primary emotions			
	Outgroup	Ingroup	Outgroup	Ingroup	Stage 2 (Old)	Stage 3 (New)
Inclusion	.719 (<i>SD</i> = .137)	.526 (<i>SD</i> = .195)	.640 (<i>SD</i> = .237)	.701 (<i>SD</i> = .181)	.585 (<i>SD</i> = .169)	.236 (<i>SD</i> = .131)
Exclusion	.175 (<i>SD</i> = .166)	.268 (<i>SD</i> = .230)	.231 (<i>SD</i> = .222)	.194 (<i>SD</i> = .183)	.666 (<i>SD</i> = .126)	.291 (<i>SD</i> = .201)

Underestimating the outgroup's secondary emotions

The preceding studies have used various emotions as dependent measures. However, to avoid the criticism that the findings were due to the use of specific exemplars of primary and secondary emotions, and to further generalise our theory, we (Leyens et al., 2001, Expt. 3) opted for the use of a paradigm that did not involve exemplars of specific valence. The procedure was adapted from Krueger, Rothbart, and Sriram's studies (1989). Canarian participants had to calculate on-line the cumulative means of each of two sets of numbers. The distributions of these sets of numbers were such that fewer errors should occur for the first half than for the second half. One of the two sets of numbers was associated with the ingroup (Canarians) and the other with the outgroup (Peninsulars). Moreover, three between-participants conditions were created in which participants were told that the numbers represented the levels of calcium, of primary emotions (*emoción*), or of secondary emotions (*sentimiento*) of the two groups. Before starting their calculation, participants were shown lists of primary emotions, or of secondary emotions, or of foods containing much calcium. Calcium was thought to be symbolically neutral for participants and played the role of control condition. We predicted that the final means for calcium and primary emotions would not differ as a function of the groups. Conversely, and in line with the infra-humanisation hypothesis, we hypothesised that the estimates of secondary emotions would be greater for the ingroup than for the outgroup. Results confirmed the general hypotheses. The difference between the means for Canarians and Peninsulars was significant only in the case of secondary emotions. Moreover, when compared to the means obtained for primary emotions and calcium, the results show a significant difference only for the outgroup. Stated otherwise, both groups differ in terms of secondary emotions but this difference is essentially due to the low amount attributed to the outgroup.

This summary may give the impression that participants simply attributed a higher number for the secondary emotions of the ingroup than for the outgroup. However, the procedure, (too complex to be related here, see Leyens et al., 2001, Expt. 3; also Krueger et al., 1989), prevents such a simple interpretation. Let us just say here that during the first phase, when errors are rare, no difference was obtained in the different conditions. Even though no exemplar of emotions was provided, the final result indicates once more a reluctance to attribute secondary emotions to the outgroup.

Summary

In this section, we attempted to test whether or not people are unconsciously reluctant to accept that outgroup members also have or may have secondary

emotions. The results obtained in a number of studies seem to indicate that this is the case.

When confronted with outgroup–secondary emotions associations, people’s attention is drawn to these associations and they remember them more consciously than ingroup–secondary emotions ones (Gaunt et al., 2002). Presumably, the difference in the control of memory is due to the fact that outgroup–secondary emotions are incongruous with beliefs concerning outgroups, whereas this is not the case for the ingroup (Leyens et al., 2001, Expt. 3). Also, when they have the choice to associate the ingroup or the outgroup with secondary emotions, the latter option is selected as the least important resource (Demoulin et al., 2002b). Individuals tend to avoid, as much as possible, the association of the outgroup with secondary emotions. When objective reality imposes such associations, their frequency is underestimated (Leyens et al., 2001, Expt. 3; see also Gaunt, Sindic, & Leyens, *in press*). All these results suggest once again that people tend to consider secondary emotions the exclusive property of their ingroup.

WHEN INGROUP AND OUTGROUP EXPRESS SECONDARY EMOTIONS

This section examines people’s reactions towards ingroup vs outgroup members expressing themselves with primary vs secondary emotions. Consistent with the theory, it is hypothesised that the use of secondary emotions by ingroup and outgroup members should lead to differential reactions on the part of the respondent. Specifically, whereas the use of secondary emotions will result in positive consequences for ingroup members, the use of secondary emotions by an outgroup member will induce opposite reactions. In contrast, primary emotions, being nondiagnostic of the human category, should not induce differential reactions as a function of the expresser’s group membership.

Pro-social reactions and secondary emotions

Because the use of secondary instead of primary emotions reflects, at least implicitly, the degree of humanity of a person, one could argue that the common humanity will promote prosocial attitudes and behaviours towards the user. We tested this hypothesis (Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003; Vaes, Paladino, & Leyens, 2002). Specifically, we used the lost-email paradigm (Castelli, Zogmaister, & Arcuri, 2001b; Stern & Faber, 1997) to examine prosocial behaviours and attitudes when people are confronted with an ingroup member’s message starting with either a primary or a secondary emotion. An email asking for scientific help and directed to a specific researcher was sent to hundreds of incorrect addresses (i.e., other

persons than this specific researcher). The content of the answers signalling the error to the sender constituted the dependent measure (the frequencies of the informal pronoun “*tu*”—in old English “*thou*”—and of the formal pronoun “*vous*”—in old English “*ye*”). Consistent with our hypothesis, secondary emotion messages, compared to primary emotion ones, provoked “nicer” responses. We argue that ingroup members who express themselves in terms of secondary emotions are seen as more human and, consequently, influence people’s adoption of more altruistic behaviours.

The finding that secondary emotions elicit prosocial attitudes is encouraging but insufficient. Indeed, one has to verify whether the increase in prosocial attitudes also appears to be true when it is an outgroup member, rather than an ingroup one, who expresses him/herself with secondary emotions. In a second series of experiments, we crossed primary and secondary emotion messages with category membership of the sender (Vaes et al., 2003, Expt. 1). The sender was either a university researcher (ingrouper) or a researcher working for a private firm (outgroup) and the participants were all working in Belgian universities. Because humanity is reflected by the use of secondary emotions, we hypothesised that nicer responses would be directed towards ingroupers compared to outgroupers. This pattern of responses should not appear for primary emotions, since these emotions do not reflect one’s humanity. Results confirmed the hypotheses (see Table 4). The use of secondary emotions, compared to primary ones, increased solidarity responses towards an ingrouper and decreased those responses towards an outgroup member.

Perspective taking

We followed the same reasoning as above concerning perspective taking (Vaes, Paladino, & Leyens, in press). Perspective taking refers to the

TABLE 4
Mean solidarity scores as a function of sender’s group membership and type of emotion expressed (Vaes et al., 2003, Study 1).

		Primary emotion	Secondary emotion
Ingroup (university member)	M	− 0.96 _a	− 0.18 _b
	SD	1.43	1.19
	N	25	28
Outgroup (private worker)	M	− 0.67 _a	− 1.13 _a
	SD	1.13	1.14
	N	24	30

Logical comparisons (i.e., excluding diagonal contrasts) that do not share a common subscript differ at $p < .05$.

capacity to focus on the context of the target person and to draw on contextual features to infer the perceptions and the inner state of this target. To measure it, we used the draw-an-E-on-your-forehead procedure developed by Hass (1984).¹ The person whose perspective was to be taken belonged either to the ingroup or to an outgroup, and expressed herself with secondary or primary emotions. The pattern of results was identical to the one obtained in the lost-email studies. In other words, participants were better at taking the perspective of ingroupers expressing themselves with secondary emotions than the perspective of outgroupers expressing themselves with the same emotions.

Conformity to a model

To test further the hypothesis that the use of secondary emotions by an outgroup member leads to negative reactions, we investigated the process of conformity to a model (Vaes et al., 2003, Expts. 2 & 3). A long research tradition has shown that conformity to a model is greatly dependent on the model's characteristics (Mackie & Skelly, 1994) and, specifically, that liking and similarity with the model usually increases conformity (Brock, 1965; Mills & Kimble, 1973; Sampson & Insko, 1964). Given the important role of similarity in conformity towards a target, we hypothesised that the use of secondary emotions would have a differential impact on conformity as a function of group membership (ingroup vs outgroup). Because people are motivated to maintain positive distinctiveness for the ingroup (Brewer, 1991) and a psychological distance from the outgroup (Branscombe et al., 1999), induced human similarity through the use of secondary emotions should make people more likely to conform with an ingroup member and, at the same time, less likely to conform to an outgroup member's judgement. In this sense, similarity should mediate conformity with a model describing himself in terms of secondary emotions. This pattern of differential conformity should not occur in the case of primary emotions.

This assertion was examined in two studies (Vaes et al., 2003, Expts. 2 & 3). Both experiments assessed conformity to a target using an adapted version of Castelli et al.'s conformity paradigm (Castelli, Vanzetto, Sherman, & Arcuri, 2001a). Italian participants had to form an impression of an ingroup target (Marco, an Italian) or an outgroup target (Almad, a Nigerian) who described his past week mainly in terms of primary or secondary

¹The Draw-an-E-on-your-forehead procedure was developed to measure people's tendencies to take another person's perspective. Specifically, participants are requested to draw an "E" on their forehead. If the person takes the perspective of the observer, then s/he should write the letter the other way around (i.e., "Э"), such that the observer can easily read it. If the person does not take the perspective of the observer, s/he should then write the letter according to her/his own perspective (i.e., "E").

emotions. In Study 2, participants formed their impression about only one of the two targets (ingroup or outgroup) whereas in Study 3 they had to form an impression of both targets. Participants performed an unrelated conformity task at the same time as (Study 2) or shortly after the impression formation task (Study 3). In this task, participants had to estimate several times the number of As appearing on a computer screen. For each matrix of As, targets' (ingroup vs outgroup) estimates were provided. Calculating the mean distance between targets' estimates and participants' actual judgements assessed participants' conformity to the target's opinion.

Results confirmed the general hypothesis (see Table 5 for the results of Vaes et al., 2003, Study 3). In the conditions where the targets described their past week with secondary emotions, conformity towards an ingroup and an outgroup target diverged. Specifically, participants conformed significantly more towards the ingroup than towards the outgroup target. This pattern did not appear in primary emotions contexts. In this case, conformity towards the two targets was equivalent.

Approach and avoidance

It has been demonstrated that the mere presence of a stimulus can activate a motor response compatible with approach (e.g., flexing an arm or moving towards the stimulus) and avoidance (e.g., extending an arm or moving away from the stimulus) behaviours (Chen & Bargh, 1999; Wentura, Rothermund, & Bak, 2000). Given the importance of approach and avoidance behaviours in intergroup interactions, we (Vaes et al., 2003, Expt. 4) proposed that the behavioural disposition to approach or avoid an ingroup or an outgroup should be influenced by the fact that the target expressed him/herself in terms of secondary or primary emotions. Specifically, the authors expected that the common tendency to act in a more positive way towards the ingroup compared to the outgroup should especially be present in the secondary

TABLE 5
Mean difference scores from estimates of an ingroup or outgroup target as a function of type of emotion (Vaes et al., 2003, Study 3)

		<i>Primary emotions</i>	<i>Secondary emotions</i>
Ingroup target	M	47.91 _{ab}	44.63 _b
	SD	14.07	14.18
Outgroup target	M	56.36 _{ac}	65.60 _c
	SD	18.78	19.01

The table contains distance scores. Consequently, the lower the number, the more participants conformed towards the estimate of the target. Logical comparisons (i.e., excluding diagonal contrasts) that do not share a common subscript differ at $p < .05$.

emotion condition, so that the dispositions to approach the ingroup and to avoid the outgroup would appear when secondary emotions are used.

As in the conformity studies, participants were exposed to primary or secondary emotions used by an ingroup target (Marco) or outgroup target (Almad) to describe their past week. This time, a picture of Marco, an Italian, and of Almad, a Nigerian, accompanied their respective emotions. After having formed a mental impression of each target, participants were instructed that they would see in random order on their computer screen pictures of Marco and Almad, and that they had to react with different keys. There were only three keys available, which were arranged perpendicular to the screen. Participants were told to keep their finger on the middle key when there was no picture on the screen. During a first session, they were further instructed to press as fast as possible the upper key (moving towards: approach) when seeing the picture of Marco and the lower key (moving away: avoidance) for Almad's picture. The order of the keys was reversed during the second session. This procedure provided independent scores for approach and avoidance relative to the two targets.

Table 6 shows the results. When targets expressed secondary emotions, approach and avoidance responses were relatively facilitated towards the ingroup and the outgroup target respectively. As expected, the results for primary emotions were not significant. These results are extremely important because they show that an ingroup member expressing secondary emotions is approached, whereas an outgroup member expressing the same emotions is avoided.

Motivated reasoning

One alternative explanation for the preceding results would be that people interpret emotional information differently depending on the person who is

TABLE 6
Mean reaction times (ms) to approach or avoid an ingroup or outgroup target that expresses primary or secondary emotions (Vaes et al., 2003, Study 4)

		<i>Approach</i>		<i>Avoidance</i>	
		<i>Ingroup</i>	<i>Outgroup</i>	<i>Ingroup</i>	<i>Outgroup</i>
Primary emotions	M	998 _a	937 _a	944 _a	939 _a
	SD	216.07	131.32	173.82	196.74
Secondary emotions	M	850 _b	919	918 _a	816 _b
	SD	81.79	168.16	223.88	111.18

Logical comparisons (i.e., excluding diagonal contrasts) within type of behaviours that do not share a common subscript differ at $p < .05$.

expressing it. We tested this hypothesis by utilising the overattribution bias paradigm (Gaunt, Leyens, & Sindic, 2004). Our reasoning went as follows. On the one hand, theories concerning the influence of motivation on social inferences suggest that the motivation to arrive at a particular conclusion will determine the hypotheses on which people focus (Kruglanski, 1989; Kunda, 1990). In other words, people will search their memory for those beliefs and rules that could support their desired conclusion (Kunda, 1990). On the other hand, numerous studies have shown that people often underutilise situational information and overattribute behaviour to inner dispositions (see, e.g., Gilbert & Malone, 1995; Leyens, Yzerbyt, & Corneille, 1996). Building on those models, we predicted that people are motivated to avoid the undesirable conclusion that outgroup members share the same humanity as ingroup members. Consequently, people will be more likely to use situational information to discount humanity inferences in the case of an outgroup member reporting secondary emotions. They will look for information on situational constraints that could have forced the target person to express the specific emotion.

Participants had to read an essay presumably written by an ingroup or an outgroup target. The essay reported the target's frequent experience of a primary or a secondary emotion. Depending on the condition, the target had been free or not to select the topic of the essay. Participants then rated the extent to which the writer tended to actually experience the corresponding emotion. We predicted that participants would use the situational information ("to be forced to write the essay") to discount the actual experience of the corresponding emotion only in the condition where an outgroup member expressed a strong tendency to experience a secondary emotion. Results confirmed the hypothesis, suggesting that when motivated to avoid the undesirable correspondent humanity attribution, people are more sensitive to information about the situational constraints on the target's behaviour. All the other conditions (i.e., ingroup and outgroup reporting primary emotions and ingroup reporting secondary emotions) in the experiment replicated the well-documented overattribution bias.

Summary

The preceding studies evaluated the behavioural consequences of infra-humanisation in intergroup settings. Specifically, the following question was addressed: Do perceivers react and behave differently towards an ingroup and an outgroup member who gives evidence of possessing uniquely human emotions?

The common underlying hypothesis of all the studies was that, because secondary emotions are reflective of one's level of humanity, they should be reserved to the ingroup (Leyens et al., 2000). Therefore, an outgroup

member expressing uniquely human emotions is perceived as attempting to upgrade him/herself to the ingroup's level. Because this upgrading is inconsistent with one's wishes (Gaunt et al., 2004) or because it threatens the positive distinctiveness of the ingroup by implying human similarity between various groups (Vaes et al., 2003), the use of secondary emotions in a target's discourse will lead to differential responses as a function of the target's group membership. All results confirmed this hypothesis. When people express themselves with secondary emotions, the resulting similar humanity is beneficial for an ingroup member and detrimental for an outgroup member. Obviously, trying to present oneself as a "complete human" can backfire when one does not belong to the right group.

GENERAL CONCLUSIONS

In the present chapter we have introduced the theory of infra-humanisation as well as empirical evidence supporting its core hypotheses. Since the infra-humanisation project started, about 4 years ago, we have accumulated a large amount of data illustrating the importance of uniquely human emotions in intergroup relations. All results converge to stress the distinction between uniquely and non-uniquely human emotions and to show their differential impacts on ingroups vs outgroups.

Yet infra-humanisation theory is not only based on uniquely human emotions. On the contrary, we suggested in the introduction that potential infra-humanisation discrimination should apply to all uniquely human characteristics; that is, also intelligence, language, and morality. Following our theory, discriminating outgroup members on only one of these uniquely human characteristics is sufficient to qualify for some degree of infra-humanisation. Indeed, we described the human essence as a set of necessary, but insufficient, conditions. Therefore, all uniquely human characteristics should be reserved for one's ingroup. Because the infra-humanisation claim goes well beyond uniquely human emotions, we should be cautious about including these other human features in future research. Because intelligence and language are linked to structural dimensions of society (Glick & Fiske, 1999), infra-humanisation through these features may be limited to high-status groups (Jost & Hunyady, 2002). Because the moral values tested by Schwarz and Bilsky (1990) and the human secondary emotions are universal, they should not be influenced by structural dimensions. Infra-humanisation through universal values and secondary emotions could, however, be affected by the affective relations between the groups.

Such a line of research would converge with a concept similar to infra-humanisation. Schwarz and Struch (1989, p. 154) spoke of "a lesser perceived humanity of the outgroup"—that is, "outgroupers are assumed to share our humanity to a lesser degree". Basing their studies on the perception of value

similarity between groups, Struch and Schwarz (1989) showed that perceived dissimilarity between values of groups mediates the aggression of ingroup members towards outgroupers. Also, values such as equality, helpfulness, and honesty, all signs of morality, typically differentiate the ingroup from an outgroup (Schwarz & Struch, 1989; see also Campbell's 1967 notion of "universal stereotypes"; LeVine & Cambell, 1972) and correlate with willingness for outgroup contact (Sagiv & Schwarz, 1995).

Even if the distinction between primary and secondary emotions is not very salient in a distracting context, and even though we used sophisticated paradigms, it seems almost unthinkable that all outgroups should be infra-humanised (but see Viki & Abrams, 2003). One of the main tasks for the future should therefore be to find theoretical conditions that impede the emergence of infra-humanisation. At the same time, it is necessary to conduct further investigations concerning the links between essentialisation and ingroup identification, on the one hand, and infra-humanisation of outgroups, on the other hand. Up to now, essentialisation has been examined in a single study. Replication of the effect would be highly desirable.

Links with other theories of intergroup conflicts are also needed. The ingroup projection model (Mummendey & Wenzel, 1999) constitutes an obvious example. This model stipulates that, given a common superordinate category for ingroup and outgroup, ingroup members will project onto the inclusive category those features that are prototypical of themselves. Consequently, the more the outgroup is perceived as deviant from the prototype of the inclusive category (i.e., the ingroup prototype), the more negatively it will be evaluated. One could reverse such an assumption and suggest that, given the existence of both ingroups and outgroups within a pre-existing superordinate category, ingroup members will project the prototypical features of the inclusive category onto themselves. In other words, given that all members of social groups are also, and before anything else, human beings, ingroup members should tend to project the prototypical human features more onto themselves than onto the outgroup. It follows that ingroupers will perceive themselves as prototypes of what human beings are, and consider outgroup members to have lesser humanity. Consequently, the more the outgroup is viewed as deviant from the ingroup prototype (i.e., the human prototype), the more negatively it is evaluated, and the more it will be infra-humanised.

Another example is Brewer's (1991) optimal distinctiveness theory. According to this theory, human beings are guided by two fundamental needs: a need for assimilation and a need for differentiation. When one of these needs is not fulfilled, people try to recover the equilibrium by increasing the discrimination between ingroup and outgroup. It would be interesting to see how these two needs could impact infra-humanisation. Still another example is terror management theory (Becker, 1973). According to

this latter theory, the combination of the animal instinct for survival and the human awareness that death is inevitable leads to an existential terror. Studies have shown that “culture” and the belief in a symbolic “humanity” allow us to reduce and manage thoughts linked to death (Goldenberg, McCoy, & Pyszczynski, 2000). Also, any reminder of animality as well as confrontation with a person who does not share one’s vision of the world induces a psychological threat. Vaes (2001) hypothesises that only the belief in a humanity associated with one’s own culture is likely to reduce the existential terror—as a consequence any person outside one’s own cultural boundary will be attributed a lesser degree of humanity.

Despite the deficiencies in our theory, we remain convinced of the truth contained in the following sentences, written by Jahoda (2002, pp. 2–3, *italics in the original*), and which will serve as conclusion to this chapter:

The basic image of the *Other* has been and continues to be of someone bad, immoral, and often a threat. However, the *Other* need not necessarily be *physically* different and often was not. (...) the most common epithet applied to “*Others*” has been “beastly”, implying that they are less human. These tendencies, although less crude than in the past, have by no means disappeared altogether ...

REFERENCES

- Abrams, D., & Hutchison, D. (2002). *From paragon to pariah: How groups react to deviance and extremity among their members*. Paper presented at the British Psychological Society’s Annual Conference, Blackpool, 13–15 March.
- Allport, G. W., & Kramer, B. M. (1946). Some roots of prejudice. *Journal of Psychology*, 22, 9–39.
- Andersen, S. M., & Cole, S. W. (1990). “Do I know you?”: The role of significant others in general social perception. *Journal of Personality and Social Psychology*, 59, 384–399.
- Aristotle. (1941). *Ethica Nicomachae*. In R. McKeon (Ed.), *The basic works of Aristotle* (pp. 935–1126). New York: Random House.
- Bar-Tal, D. (1989). Deligitimization: The extreme case of stereotyping. In D. Bar-Tal, C. F. Grauman, A. Kruglanski, & W. Stroebe (Eds.), *Stereotyping and prejudice: Changing conceptions*. Berlin: Springer-Verlag.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachment as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Becker, E. (1973). *The denial of death*. New York: Free Press.
- Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity* (pp. 35–58). Oxford: Blackwell.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475–482.
- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues*, 55, 429–444.
- Brock, T. C. (1965). Communicator–recipient similarity and decision change. *Journal of Personality and Social Psychology*, 1, 650–654.
- Brown, R. (2000). Social Identity Theory: Past achievements, current problems, and future challenges. *European Journal of Social Psychology*, 30, 745–778.

- Campbell, D. T. (1967). Stereotypes and the perception of group differences. *American Psychologist*, 22, 817–829.
- Castelli, L., Vanzetto, K., Sherman, J., & Arcuri, L. (2001a). The explicit and implicit perception of ingroup members who use stereotypes: Blatant rejection but subtle conformity. *Journal of Experimental Social Psychology*, 37, 419–426.
- Castelli, L., Zogmaister, K., & Arcuri, L. (2001b). Exemplar activation and interpersonal behavior. *Current Research in Social Psychology*, 6, 33–44.
- Chaikin, A. L., & Derlega, V. J. (1978). Nonverbal mediators of expectancy effects in black and white children. *Journal of Applied Social Psychology*, 8, 117–125.
- Chen, M., & Bargh, J. A. (1999). Consequences of automatic evaluation: Immediate behavioral predispositions to approach or avoid the stimulus. *Personality and Social Psychology Bulletin*, 25, 215–224.
- Cortes, B. P., Demoulin, S., Rodriguez, R. T., Rodriguez, A. P., & Leyens, J. Ph. (in press). Infra-humanisation or familiarity? Attribution of uniquely human emotion to the self, the ingroup, and the outgroup. *Personality and Social Psychology Bulletin*.
- Crocker, J., Major, B., & Steele, C. M. (1998). Social stigma. In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, pp. 504–553). Boston, MA: McGraw Hill.
- Demoulin, S., Cortes, B. P., Viki, G. T., Rodriguez, A. P., Rodriguez, R. T., Paladino, M. P. et al. (2002a). *The role of ingroup identification in infra-humanization*. Unpublished manuscript, Catholic University of Louvain, Louvain-La-Neuve, Belgium.
- Demoulin, S., Leyens, J. Ph., Paladino, M. P., Rodriguez, R. T., Rodriguez, A. P., & Dovidio, J. F. (2004). Dimensions of “uniquely” and “non-uniquely” emotions. *Cognition and Emotion*, 18, 71–96.
- Demoulin, S., Leyens, J. Ph., Rodriguez, R. T., Rodriguez, A. P., Paladino, M. P., & Fiske, S. T. (2002b). *Liked and disliked associations with human emotions: Infra-humanization via biased reasoning about emotions*. Unpublished manuscript, Catholic University of Louvain, Louvain-La-Neuve, Belgium.
- Demoulin, S., Leyens, J. Ph., & Yzerbyt, V. (2003). *Subjective essentialism: Two kinds of underlying realities*. Unpublished manuscript, Catholic University of Louvain, Louvain-La-Neuve, Belgium.
- Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology*, 31, 410–436.
- Ekman, P. (1992). An argument for basic emotions. *Cognition and Emotion*, 6, 169–200.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29, 371–389.
- Ellemers, N., Spears, R., & Doosje, B. (1999). *Social identity: Context, commitment, content*. Oxford: Blackwell.
- Fein, S., & Spencer, J. S. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, 73, 31–44.
- Gaertner, S. L., Dovidio, J. F., Anastasio, A., Bachman, B., & Rust, M. (1993). The common ingroup identity model. Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, 4, 1–26.
- Gaertner, L., & Insko, C. A. (2001). On the measurement of social orientations in the minimal group paradigm: Norms as moderators of the expression of intergroup bias. *European Journal of Social Psychology*, 31, 143–154.
- Gaunt, R., Leyens, J. Ph., & Demoulin, S. (2002). Intergroup relations and the attribution of emotions: Controllability of memory for secondary emotions associated to ingroup versus outgroup. *Journal of Experimental Social Psychology*, 38, 508–514.

- Gaunt, R., Leyens, J. Ph., & Sindic, D. (2004). Motivated reasoning and the attribution of emotions to ingroup and outgroup. *International Review of Social Psychology*, 17, 5–20.
- Gaunt, R., Sindic, D., & Leyens, J. Ph. (in press). Intergroup relations in football finals: Predicting emotional reactions of ingroup and outgroup football fans. *Journal of Social Psychology*.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, 117, 21–38.
- Giles, H., & Coupland, J. (1991). *Language: Contexts and consequences*. Pacific Grove, CA: Brooks/Cole.
- Glick, P., & Fiske, S. T. (1999). Sexism and other “isms”: Interdependence, status, and the ambivalent content of stereotypes. In W. B. Swann, J. H., Langlois, & L. A. Gilbert (Eds.), *Sexism and stereotypes in modern society: The gender science of Janet Taylor Spence* (pp. 193–222). Washington: APA.
- Goldenberg, J. L., McCoy, S. K., & Pyszczynski, T. (2000). Fleeing the body: A terror management perspective on the problem of human corporeality. *Journal of Personality and Social Psychology*, 79, 118–130.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Haslam, N., Rothschild, L., & Ernst, D. (2000). Essentialist beliefs about social categories. *British Journal of Social Psychology*, 39, 113–127.
- Haslam, N., Rothschild, L., & Ernst, D. (2002). Are essentialist beliefs associated with prejudice? *British Journal of Social Psychology*, 41, 87–100.
- Hass, R. G. (1984). Perspective taking and self-awareness: Drawing an E on your forehead. *Journal of Personality and Social Psychology*, 46, 788–798.
- Hegarty, P., & Pratto, F. (2001). The effects of social category norms and stereotypes on explanations for intergroup differences. *Journal of Personality and Social Psychology*, 80, 723–735.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, 53, 575–604.
- Jacoby, L. L. (1991). A process dissociation framework: Separating automatic from intentional uses of memory. *Journal of Memory and Language*, 30, 513–541.
- Jahoda, G. (1999). *Images of savages: Ancient roots of modern prejudice in Western culture*. London: Routledge.
- Jahoda, G. (2002). On the origins of antagonism towards “the others”. *Zeitschrift für Ethnologie*, 127, 1–16.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system justification and the production of false consciousness. *British Journal of Social Psychology*, 33, 1–27.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 13, pp. 111–153). Hove, UK: Psychology Press.
- Kelman, H. C. (2001). Social and psychological processes of legitimization and deligitimization. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*. Cambridge: Cambridge University Press.
- Krueger, J., Rothbart, M., & Sriram, N. (1989). Category learning and change: Differences in sensitivity to information that enhances or reduces intercategory distinctions. *Journal of Personality and Social Psychology*, 56, 866–875.
- Kruglanski, A. W. (1989). The psychology of being “right”: The problem of accuracy in social perception and cognition. *Psychological Bulletin*, 106, 395–409.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–498.

- Levine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, attitudes and group behavior*. New York: Wiley.
- Lévi-Strauss, C. (1952/1987). *Race et histoire*. Paris: Denoël.
- Leyens, J. Ph., Cortes, B. P., Demoulin, S., Dovidio, J., Fiske, S. T., Gaunt, R. et al. (2003). Emotional prejudice, essentialism, and nationalism. *European Journal of Social Psychology*, 33, 703–717.
- Leyens, J. Ph., Paladino, P. M., Rodriguez, R. T., Vaes, J., Demoulin, S., Rodriguez, A. P. et al. (2000). The emotional side of prejudice: The role of secondary emotions. *Personality and Social Psychology Review*, 4, 186–197.
- Leyens, J. Ph., Rodriguez, A. P., Rodriguez, R. T., Gaunt, R., Paladino, P. M., Vaes, J. et al. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, 31, 395–411.
- Leyens, J. Ph., Yzerbyt, V. Y., & Corneille, O. (1996). The role of applicability in the emergence of the overattribution bias. *Journal of Personality and Social Psychology*, 70, 219–229.
- Leyens, J. Ph., Yzerbyt, V. Y., & Schadron, G. (1994). *Stereotypes and social cognition*. London: Sage.
- Mackie, D. M., & Skelly, J. J. (1994). The social cognition analysis of social influence: Contributions to the understanding of persuasion and conformity. In P. G. Devine, D. L. Hamilton, & T. M. Ostrom (Eds.), *Social cognition: Impact on social psychology* (pp. 259–289). San Diego, CA: Academic Press.
- Mackie, D. M., & Smith, E. (2002). *From prejudice to intergroup emotions: Differentiated reactions to social groups*. Philadelphia, PA: Psychology Press.
- McQuire, W. J., & McQuire, C. V. (1988). Content and process in the experience of the self. In L. Berkowitz (Ed.), *Advances in experimental psychology* (Vol. 21, pp. 97–144). San Diego, CA: Academic Press.
- Medin, D. L. (1989). Concepts and conceptual structure. *American Psychologist*, 44, 1469–1481.
- Medin, D. L., & Ortony, A. (1989). Psychological essentialism. In S. Vosnaidou & A. Ortony (Eds.), *Similarity and analogical reasoning* (pp. 179–195). Cambridge: Cambridge University Press.
- Miller, D. T., & Prentice, D. A. (1999). Some consequences of a belief in group difference: The category divide hypothesis. In D. A. Prentice & D. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 213–238). New York: Russell Sage Foundation.
- Mills, J., & Kimble, C. E. (1973). Opinion change as a function of perceived similarity of the communicator and subjectivity of the issue. *Bulletin of Psychonomic Society*, 2, 35–36.
- Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, 22, 103–122.
- Mummendey, A., & Otten, S. (1998). Positive–negative asymmetry in social discrimination. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*, 19, 107–143.
- Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: Reactions to intergroup difference. *Personality and Social Psychology Review*, 3, 158–174.
- Opatow, S. (1990). Moral exclusion and injustice: An introduction. *Journal of Social Issues*, 46, 173–182.
- Paladino, P. M., Leyens, J. Ph., Rodriguez, R. T., Rodriguez, A. P., Gaunt, R., & Demoulin, S. (2002). Differential association of uniquely and non uniquely human emotions to the ingroup and the outgroups. *Group Processes and Intergroup Relations*, 5, 105–117.
- Paladino, M. P., Vaes, J., Castano, E., Demoulin, S., & Leyens, J. Ph. (in press). Emotional infra-humanization in intergroup relations: The role of national identification in the attribution of primary and secondary emotions to Italians and Germans. *Current Psychology of Cognition*.

- Perdue, C. W., Dovidio, J. F., Gurtman, M. B., & Tyler, R. B. (1990). Us and them: Social categorization and the process of intergroup bias. *Journal of Personality and Social Psychology*, 59, 475–486.
- Prentice, D. A. (1990). Familiarity and differences in self- and other-representations. *Journal of Personality and Social Psychology*, 59, 369–383.
- Quiles, M. N., Leyens, J. Ph., & Rodriguez, A. P. (2001). Atribuciones a situaciones de interacción ambiguas: El punto de vista de la víctima y del agente de prejuicio. *Psicothema*, 13, 557–562.
- Reynolds, K. J., Turner, J. C., & Haslam, S. A. (2000). When we are better than them and they worse than us? A closer look at social discrimination in positive and negative domains. *Journal of Personality and Social Psychology*, 78, 64–80.
- Rohmann, A., Niedenthal, P., Brauer, M., & Leyens, J. Ph. (2002). *The attribution of primary and secondary emotions to the ingroup and the outgroup: The case of equal status countries*. Unpublished manuscript, Université Blaise-Pascal, Clermont-Ferrand, France.
- Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General*, 104, 192–233.
- Rosenberg, S., & Sedlak, A. (1972). Structural representations of implicit personality theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 235–297). New York: Academic Press.
- Rothbart, M., & Taylor, M. (1992). Category labels and social reality: Do we view social categories as natural kinds? In G. Semin & F. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 11–36). London: Sage.
- Rudman, L. A., & Glick, P. (1999). Feminised management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology*, 77, 1004–1010.
- Sagiv, L., & Schwartz, S. H. (1995). Value priorities and readiness for out-group social contact. *Journal of Personality and Social Psychology*, 69, 437–448.
- Sampson, E. E., & Insko, C. A. (1964). Cognitive consistency and performance in the autokinetic situation. *Journal of Abnormal and Social Psychology*, 68, 184–192.
- Scaillet, N., & Leyens, J. Ph. (2000). From incorrect deductive reasoning to ingroup favoritism. In D. Capozza & R. Brown (Eds.), *Social identity processes: Trends in theory and research* (pp. 49–61). London: Sage.
- Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extension and cross-cultural replication. *Journal of Personality and Social Psychology*, 58, 878–871.
- Schwartz, S. H., & Struch, N. (1989). Values, stereotypes, and intergroup antagonism. In D. Bar-Tal, C. F. Grauman, A. Kruglanski, & W. Stroebe (Eds.), *Stereotyping and prejudice: changing conceptions* (pp. 151–167). New York: Springer-Verlag.
- Sears, D. O. (1988). Symbolic racism. In P. A. Katz & D. A. Taylor (Eds.), *Eliminating racism: Profiles in controversy. Perspective in social psychology* (pp. 53–84). New York: Plenum Press.
- Shaver, P. R., Wu, S., & Schwartz, J. C. (1992). Cross-cultural similarities and differences in emotion and its representation. In M. S. Clark (Ed.), *Emotion. Review of Personality and Social Psychology*, N°13 (pp. 175–212). Newbury Park, CA: Sage Publications.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.
- Smith, E. E., & Medin, D. L. (1981). *Categories and concepts*. Cambridge, MA: Harvard University Press.
- Smith, E. R. (1998). Mental representation and memory. In D. T. Gilbert, S. T. Fiske, & L. Gardner (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 391–445). New York: McGraw-Hill.

- Spears, R., Jetten, J., & Doosje, B. (2001). The (il)legitimacy of ingroup bias: From social reality to social resistance. In J. T. Jost & B. Major. (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*. Cambridge: Cambridge University Press.
- Stangor, C., & McMillan, D. (1992). Memory for expectancy-consistent and expectancy-inconsistent social information: A meta-analytic review of the social psychological and social developmental literatures. *Psychological Bulletin*, 111, 42–61.
- Staub, E. (1989). *The roots of evil: The origin of genocide and other group violence*. Cambridge, England: Cambridge University Press.
- Stern, S. E., & Faber, J. E. (1997). The lost e-mail method: Milgram's lost-letter technique in the age of internet. *Behavioral Research Methods, Instruments, and Computers*, 29, 260–263.
- Struch, N., & Schwartz, S. H. (1989). Intergroup aggression: Its predictors and distinctness from in-group bias. *Journal of Personality and Social Psychology*, 56, 364–373.
- Sumner, W. G. (1906). *Folkways*. New York: Ginn.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press.
- Tajfel, H., Billig, M., Bundy, R., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1, 149–178.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, MI: Nelson-Hall.
- Vaes, J. (2001). *On the behavioral consequences of infra-humanization: The role of uniquely human emotions in intergroup relations*. Unpublished doctoral thesis, University of Louvain at Louvain-la-Neuve.
- Vaes, J., Paladino, M. P., Castelli, L., Leyens, J. Ph., & Giovanazzi, A. (2003). On the behavioral consequences of infra-humanization: The implicit role of uniquely human emotions in intergroup relations. *Journal of Personality and Social Psychology*, 85, 1016–1034.
- Vaes, J., Paladino, M. P., & Leyens, J. Ph. (2002). The lost e-mail: Pro-social behaviour induced by uniquely human emotions. *British Journal of Social Psychology*, 41, 521–534.
- Vaes, J., Paladino, M. P., & Leyens, J. Ph. (in press). Perspective taking in an intergroup context and the use of uniquely human emotions: Drawing an E on your forehead. *International Review of Social Psychology*.
- Viki, T. G. (raw data). University of Kent, Canterbury, UK.
- Viki, T. G., & Abrams, D. (2003). Infra-humanization: Ambivalent sexism and the attribution of primary and secondary emotions to women. *Journal of Experimental Social Psychology*, 39, 492–499.
- Wason, P. C. (1968). Reasoning about a rule. *Quarterly Journal of Experimental Psychology*, 20, 273–281.
- Wentura, D., Rothermund, K., & Bak, P. (2000). Automatic vigilance: The attention-grabbing power of approach- and avoidance-related social information. *Journal of Personality and Social Psychology*, 78, 1024–1037.
- Yzerbyt, V. Y., Castano, E., Leyens, J. Ph., & Paladino, M. P. (2000). The primacy of the ingroup: The interplay of entitativity and identification. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 11, pp. 257–295). Chichester, UK: Wiley.