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## Group virtue: the importance of morality (vs. competence and sociability) in the positive evaluation of in-groups.

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RUNNING HEAD: The importance of in-group morality

Group virtue: The importance of morality (vs. competence and sociability) in the positive  
evaluation of in-groups

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### Abstract

Although previous research has focused on competence and sociability as the characteristics most important to positive group evaluation, we suggest that morality is more important. Studies with pre-existing and experimentally-created in-groups showed a set of positive traits to constitute distinct factors of morality, competence, and sociability. When asked directly, Study 1 participants reported that their in-group's morality was more important than its competence or sociability. An unobtrusive Factor Analytic method also showed morality to be a more important explanation of positive in-group evaluation than competence or sociability. Experimental manipulations of morality and competence (Study 4) and morality and sociability (Study 5), showed that only in-group morality affected aspects of the group-level self-concept related to positive evaluation (i.e., pride in, and distancing from, the in-group). Consistent with this, identification with experimentally-created (Study 2b) and pre-existing (Studies 4 and 5) in-groups predicted the ascription of morality to the in-group, but not competence or sociability.

## Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups

Both Western and Eastern metaphysics specify the characteristics that constitute people's greatest virtues and vices (for discussions, see MacIntyre, 1984; Nietzsche, 1887/1967; Shweder, Much, Mahapatra, & Park, 1997). For example, Aristotle listed 14 human virtues in his *Ethics*, including "righteous indignation," "the just," "sincerity," "wisdom" and "friendliness" (Robinson, 1989). According to Aristotle, people who display these characteristics should be evaluated positively, as good and virtuous people. Contemporary research on the characteristics used to positively evaluate groups has tended to focus on two of the virtues mentioned by Aristotle -- competence (i.e., wisdom) and sociability (i.e., friendliness). This emphasis of competence and sociability has meant that little attention has been given to the characteristic that Aristotle, and most metaphysics, considers most important to the evaluation of human virtue – morality (see MacIntyre, 1984; Nietzsche, 1887/1967).

Metaphysics is not the only branch of thought that considers morality the most important of virtues. De Waal's (1996) comparative studies of primates have led him to argue that the complex social interaction required for survival within the highly interdependent groups in which humans (as well as Chimpanzees and Bonobos) live requires that individual behavior be guided by a sense of morality. In quite different work, Schwartz (1992) has shown that people across the world consider moral values among the most important "guiding principles" in their lives. Thus, this paper extends previous work on the role of competence and sociability in individuals' positive evaluation of in-groups by also examining the role of morality. In five studies, we use different methods to compare the importance of morality, competence, and sociability in the positive evaluation of pre-existing (Studies 1, 3, 4 and 5) and experimentally created (Studies 2a and 2b) in-groups.

### The Basis of Positive Evaluation

A wide variety of research has shown that the single traits people ascribe to themselves and others (e.g., intelligent, skilled, competent) tend to cluster together to describe a specific human characteristic (i.e., competence; Anderson & Sedikides, 1991; Osgood, Suci, and Tannenbaum, 1957; White, 1980; Williams & Best, 1982). In turn, these characteristics (e.g., competence, sociability, morality, strength, prestige) tend to fall along two more general dimensions of positive evaluation: power (i.e., agency, dominance, dynamism) and benevolence (i.e., communion, nurturance, favorability; for reviews, see Leach, 2006; Osgood, 1971; White, 1980; Williams & Best, 1982).<sup>1</sup> For example, Rosenberg, Nelson, and Vivekananthan (1968) showed that the single personality traits ascribed to individuals tended to coalesce into specific clusters indicating the more abstract human characteristics of competence (i.e., “skillful,” “industrious,” “intelligent”), sociability (i.e., “good-natured,” “happy,” “warm,” “sociable”), and morality (i.e., “honest,” “sincere”), among others. The competence cluster fell along one, more general, dimension described as “intellectual goodness,” whereas the sociability and morality clusters fell along a second, more general, dimension described as “social goodness.”

### *Competence and Sociability*

Although a wide variety of human characteristics may be used to evaluate groups (Brewer & Campbell, 1979; Osgood et al., 1957; Williams & Best, 1982; for a review, see Leach, 2006), most contemporary research tends to examine only competence and sociability. For example, a wide variety of research shows that groups that are *more* successful than others tend to be ascribed high competence (e.g., Conway et al., 1996; Eagly & Steffen, 1984; Fiske et al., 2002; Judd et al., 2005; Poppe & Linssen, 1999; Ridgeway, Boyle, Kuipers, & Robinson, 1998). In contrast, groups that are *less* successful tend to be ascribed moderate sociability. Theories of social role (Eagly & Steffen, 1984), status-expectation

(Ridgeway et al., 1998), interdependence (e.g., Alexander, Brewer, & Herrmann, 1999), social dominance (Sidanius & Pratto, 1999), and system justification (Kay & Jost, 2003), all suggest that this differential ascription of characteristics serves to legitimate differential success by providing each group a distinct basis of positive evaluation (see also Fiske et al., 2002). More specifically, the functionalist perspective at the heart of these theories suggests that competence and sociability enable more and less successful groups to evaluate themselves positively if they characterize themselves in a way that legitimates their level of success. It is argued that a more successful in-group can feel good about itself because of its competence whereas a less successful in-group can feel good about itself because of its sociability.

Despite the popularity of the functionalist perspective, few studies have directly asked people how important competence and sociability are for their in-groups (as we do in Study 1). More critically, little work has empirically examined the importance of competence and sociability in individuals' positive evaluation of their in-groups. It has simply been presumed that those characteristics that individuals most *ascribe* to their in-group are most important to individuals' positive evaluation of the in-group and to individuals' (group-level) self-concept. However, the degree to which traits are ascribed to an in-group may be influenced by a number of contextual concerns that have little to do with the *psychological importance* these traits have for in-group membership (e.g., Judd et al., 2005; van Knippenberg, 1978). For example, success at a task may lead individuals to ascribe more competence to their in-group without necessarily making competence more important to the positive evaluation of the in-group (for a discussion, see Spears, Jetten, & Doosje, 2001). Thus, rather than assuming that the degree to which characteristics are ascribed to an in-group is an indication of their importance, the present studies use both direct and unobtrusive methods to actually assess the importance of competence and sociability in individuals' positive evaluation of their in-

group.

As the vast majority of research on the ascription of characteristics to groups has not examined morality, we know very little about its importance to positive evaluation. In addition, the importance of morality is unclear because the few studies that aimed to address morality conflated it with other characteristics, such as dominance (Phallet and Poppe, 1997) or sociability (Fiske et al., 2002; Jost & Kay, 2005; see also Wojciszke, 1994).<sup>2</sup> However, a group may be moral (i.e., honest and trustworthy) without necessarily being sociable (i.e., warm and friendly), and vice versa. For example, a moral in-group may be honest about an out-group's failings, even where this means that they are being less warm and friendly toward the out-group. And, a sociable in-group may be warm and friendly in a disingenuous (and thus immoral) attempt to win friends and influence people. Although morality and sociability can be seen as falling along the same general dimension of evaluation (i.e., benevolence), they are conceptually distinct characteristics. Indeed, research at the individual level shows people to treat personality traits related to morality as distinct from traits related to sociability (e.g., Anderson & Sedikides, 1991; Rosenberg et al, 1968; White, 1980). There is no reason this should not also be the case at the group level. Thus, in several studies, we establish the validity of distinct, trait-based, measures of in-group morality, competence, and sociability. If morality is a distinct in-group characteristic, it should play a distinct role in the positive evaluation of in-groups.

### The Importance of Morality

The social identity tradition assumes that *any* characteristic ascribed to an in-group *can* provide a basis for positive evaluation (see Oakes, Haslam, & Turner, 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Thus, at a theoretical level, the social identity tradition *allows* for morality to be the most important characteristic in the positive evaluation of in-groups. However, most empirical work within the social identity tradition has examined

competence as the basis of positive in-group evaluation (for reviews, see Bettencourt, Dorr, Charlton, & Hume, 2001; Ellemers, 1993; Spears et al., 2001). Thus, research in the social identity tradition tends to share the functionalist approach in other work on competence and sociability in group evaluation. More specifically, in the social identity tradition, the sense of competence thought to follow from an in-group's intellectual or economic success is presumed to enable both the positive evaluation of the in-group (i.e., "in-group favoritism") and the negative evaluation of a less successful out-group (i.e., "out-group derogation"). As such, in-group competence is widely considered "status-defining" – the basis of a status distinction that favors the in-group over an out-group (for reviews, see Bettencourt et al., 2001; Spears et al., 2001).

Given that competence is presumed to be the most important basis of positive in-group evaluation, the social identity tradition suggests that in-groups lacking in competence must use "alternative" characteristics to evaluate themselves (Lemaine, 1974). For example, Tajfel and Turner (1979) argued that low status in-groups may evaluate themselves positively by emphasizing their artistry, rather than their (low) competence. In this way, low status groups are expected to exercise "social creativity" to replace competence as a basis of their collective virtue. Thus, some studies in the social identity tradition have interpreted unsuccessful groups *ascribing* relatively high morality to their in-group as the use of morality as an "alternative" basis of positive evaluation (e.g., Blanz, Mummendey, & Otten, 1995; Ellemers & Van Rijswijk, 1997). However, these studies did not directly ask participants how much importance they gave to their in-group's morality, competence, or sociability. Neither did these studies actually examine the importance of in-group morality, competence, and sociability in the positive evaluation of the in-group. Thus, there is little evidence that competence is especially important to the positive evaluation of in-groups, or that morality is an "alternative" characteristic that only becomes important when it is difficult to positively



evaluate the in-group based on its competence. Despite the theoretical possibility in the social identity tradition that morality *can* be most important to positive in-group evaluation, most research is based on the presumption that competence *is* most important.

Although we undertook the present studies because there has been little examination of the importance of in-group morality, some work is broadly consistent with the notion that morality is of special importance to people. For example, at the individual level, Rodriguez Mosquera, Manstead, and Fischer (2002) found university students in Spain and the Netherlands to both show a very strong belief that being dishonest and untrustworthy would make them feel bad about themselves. Consistent with this, Schwartz and colleague's series of cross-national studies shows individuals to consider moral values among the most important "guiding principle" in their lives (for a review, see Schwartz, 1992). Even the most success-oriented sample, university students in the United States, rated values related to morality as more important than values related to competence (Schwartz & Bardi, 2001).

At the group level, De Waal's (1996) comparative studies of primate behavior led him to argue that a sense of morality is essential to the group life of primates such as humans. Without a sense of morality in the group, he argued, it would be difficult for members to coordinate their behavior in ways that maximize benefits for themselves and the group as a whole. Consistent with this, recent models of procedural justice suggest that the perceived "trustworthiness" of an in-group is a major determinant of individuals' positive evaluation of the group and their willingness to cooperate with other members (for reviews, see Skitka, 2003; Tyler & Blader, 2003). This may be why Campbell and colleague's large-scale, multi-method studies of ethnocentrism throughout the world found morality (i.e., honesty, trustworthiness) to be central to how individuals evaluated their ethnic in-group relative to out-groups (Brewer & Campbell, 1979; Levine & Campbell, 1972). Thus, there appears to be good reason to expect that morality is of central importance to the positive evaluation of in-

groups and to the group-level self-concept.

Although morality has been given little place in contemporary Western psychology, the broader tradition of Western thought has long viewed morality as the most important of human virtues (for discussions, see MacIntyre, 1984; Nietzsche, 1887/1967; Shweder et al., 1997). The classical view, perhaps best represented by Aristotle's *Ethics*, sees morality as the most important basis upon which people should evaluate themselves, and others, positively (MacIntyre, 1984). Indeed, Aristotle argued that all other virtues were, to some degree, dependent on morality. According to Aristotle, competence and sociability are only virtuous if they are expressed through a moral character that makes them sincere and trustworthy (MacIntyre, 1984). This suggests that morality is most important to positive self-evaluation because determines the meaning of every other human characteristic (see Osgood et al., 1957). For example, a political party that is competent in administration or sociable in campaigning is most assured of its goodness if it is also trustworthy. Competence or sociability in an immoral party gives little basis for positive self-evaluation. Indeed, immoral competence is dangerous and immoral sociability is disingenuous (Osgood et al., 1957; Wojciszke, 1994).

### Overview

No prior research of which we are aware has examined the importance of morality to individuals' positive evaluation of their in-group. Although a great deal of work has examined the mean-level *ascription* of competence and sociability to groups, this work has tended to either exclude morality or to assume that the importance of a characteristic is indicated by the degree to which it is ascribed to a group. Rarely has the actual importance of morality, competence, and sociability to the positive evaluation of in-groups been examined.

In an important first step, Studies 1 and 2 use Confirmatory Factor Analysis (CFA) to validate trait measures of morality, sociability, and competence as distinct in-group

characteristics. Study 1 *directly* asks individuals to explicitly indicate whether morality, competence, or sociability is the characteristic most important for their in-group to possess. To complement this approach, Studies 1-3 use Exploratory Factor Analysis (EFA) to *unobtrusively* examine the importance of morality, competence, and sociability in participant's positive evaluation of their in-groups. EFA shows which of the three characteristics explains the most variance common to the positive traits ascribed to the in-group. In Study 3, we also examine relative group success as a potential moderator of the importance of morality, competence, and sociability to in-group evaluation. If morality is most important, it should remain so irrespective of the in-group's success relative to an out-group. In addition, morality should *not* be most important to the positive evaluation of an *out-group*. Thus, we also examine the importance of morality, competence, and sociability to out-group evaluation.

Studies 4 and 5 take an experimental approach. Here we manipulate the morality, competence, and sociability of a pre-existing in-group to examine effects on two aspects of the group-level self-concept related to positive evaluation: group pride and perceived group variability. If morality is most important to individual's positive evaluation of their in-group, then high morality should lead to greater group pride. Conversely, low morality should lead individuals to distance themselves from the in-group. Study 4 compares the effects of in-group morality and competence whereas Study 5 compares the effects of in-group morality and sociability.

To offer yet another approach of examining the importance of in-group morality, competence, and sociability, Studies 2b, 4 and 5 assess participants' identification with their in-group. If morality is central to the group-level self-concept, then in-group identification should lead individuals to ascribe morality to their in-group. In contrast, in-group identification should be less predictive of ascriptions of competence or sociability to the in-

group.

### Study 1

We use this study to offer evidence of the construct validity of trait measures of in-group morality, competence, and sociability. First, we used CFA to examine the latent structure of the positive traits designed to indicate these three group characteristics. Second, we included a number of traits to indicate the general positive valence (“virtue”, “value”, “worth”) of the in-group. By correlating this measure of valence to the three in-group characteristics, we aimed to establish that morality, competence and sociability are equally positive characteristics. Third, we correlated each of the three group characteristics to a set of closely related traits. By showing that in-group morality, competence, and sociability are only correlated to those traits that are conceptually similar we aimed to demonstrate the convergent and divergent validity of the three group characteristics. As we conceptualize in-group morality as an in-group’s collective “correctness,” we expect morality to be most associated with the evaluation of the in-group as “good” and “correct,” rather than “bad” and “wrong” (see Osgood et al., 1957). As suggested by Eagly and Steffen (1984), Conway et al. (1987), and Poppe and Linnsen (1999), we expect in-group competence to be most associated with achievement (e.g., “successful,” “prestigious”). And, based in Rosenberg et al. (1968) and Osgood et al. (1957), we expected in-group sociability to be most associated with communality (e.g., “kind,” “helpful”).

This study uses both a direct and an unobtrusive method to assess the importance of in-group morality, competence, and sociability. In a *direct* method, we ask participants to explicitly indicate how important it is for their in-group to possess traits indicating morality, competence, and sociability. If morality is as important as we suggest, then individuals should recognize it as such. We also used the *unobtrusive* method of EFA to assess the importance given morality, competence, and sociability in the positive evaluation of the in-

group. EFA is based on the common factor model (for discussions, see Fabrigar, Wegener, MacAllum, & Strahan, 1999; Tabachnick & Fidell, 1996). As such, EFA examines the variance that the positive in-group traits have in common with each other in search of factors that account for the covariance between these traits. Each factor explains a proportion of the common variance in the positive traits (see Tabachnick & Fidell, 1996). Thus, we use EFA to examine to what degree morality, competence, and sociability actually explain the common variance of participants' positive evaluation of their in-group. Famously, Osgood et al. (1957) used a similar approach to show that favorability tended to be a more important factor than strength and activity in the evaluation of people and other entities. Here, we expect that morality explains more of the common variance in positive in-group evaluation than competence or sociability. EFA serves as an unobtrusive method of examining the importance of morality, competence, and sociability in positive in-group evaluation because (1) it does not rely on the mean level at which traits are ascribed to the in-group, and (2) it does not require us to directly ask individuals to explicitly state the importance they give to in-group traits.

### *Method*

#### Participants and Procedure

Eighty-four male and female students at Leiden University in the Netherlands received partial course credit for their participation ( $M_{\text{age}} = 21$ ,  $SD = 4.29$ ). Participants were brought into a “lab” to complete a multi-part questionnaire. In the first part of the questionnaire, we asked participants to indicate *how important* it was for the groups to which they belonged to possess a list of traits.

#### Measures

Drawing on the literature summarized above, and the more extensive review by Leach (2006), we provided participants with nine traits designed to indicate group morality,

competence, and sociability. These traits were interspersed with the other traits described below. Responses were given on a seven-point scale, anchored by 1 (*not very important*) and 7 (*very important*). In an improvement on previous research at the group level, morality ( $\alpha = .80$ ) was assessed with the traits “honest,” “sincere,” and “trustworthy” (see also Anderson & Sedikides, 1991; Osgood et al., 1957; Rosenberg et al., 1968). As in a good deal of stereotype research, sociability was assessed with the traits “likeable,” “warm,” and “friendly” ( $\alpha = .69$ ) whereas competence was assessed with the traits “competent,” “intelligent,” and “skilled” ( $\alpha = .86$ ).

Based on Leach (2006), we used 16 other traits to assess valence (virtuous, valuable, constructive, worthless[reversed],  $\alpha = .57$ ) as well as correctness (good, right, bad[reversed], wrong[reversed],  $\alpha = .66$ ); communality (benevolent, kind, helpful, safe,  $\alpha = .69$ ); and achievement (superior, successful, prestigious, ambitious,  $\alpha = .79$ ). These characteristics were used to validate our measures of in-group morality, competence, and sociability.

### *Results*

#### Confirmatory Factor Analysis

As a first step, we examined our suggestion that morality, competence, and sociability are distinct in-group characteristics. Thus, we submitted the nine items assessing participant's explicit statements of the importance of these in-group characteristics to a CFA using maximum likelihood estimation. Each item was specified to indicate only its hypothesized factor and no errors were allowed to correlate. However, the three hypothesized latent factors of morality, competence, and sociability were allowed to correlate with each other.

The hypothesized three-factor measurement model fit the data well (for a review of the indices used below, see Hu & Bentler, 1999). The model adequately reproduced the observed covariance matrix, as the Chi-square statistic was small and non-reliable,  $\chi^2(24) = 28.59, p = .24$ . However, this is not surprising given the small sample size. More telling is

that the  $\chi^2/df$  ratio (= 1.19) fell below 2.5. Good model fit was also suggested by a wide variety of fit (NNFI = .975, CFI = .983, IFI = .984, GFI = .940) and residual (SRMR = .064, RMSEA = .048) indices. In addition, the factor loadings for morality (.51-.90), competence (.76-.93), and sociability (.60-.77) were all sizeable and statistically reliable (all  $p < .05$ ). The inter-correlations between factors were low (i.e., .02, .29, .30).

Further analysis showed the hypothesized three-factor measurement model to fit better than more parsimonious alternatives. Thus, a two-factor model that specified a competence factor and a combined morality-sociability factor fit less well than the three-factor model,  $\Delta\chi^2(2) = 32.89, p < .005$ . This two-factor model also fit poorly in an absolute sense: NNFI = .821, CFI = .871, IFI = .875, GFI = .873 and SRMR = .107, RMSEA = .127. In addition, a two-factor model that specified a morality factor and a combined competence-sociability factor fit less well than the three-factor model,  $\Delta\chi^2(2) = 113.49, p < .005$ . This model also fit poorly in an absolute sense: NNFI = .414, CFI = .577, IFI = .592, GFI = .739 and SRMR = .169, RMSEA = .231. Lastly, a one-factor model of general positive in-group evaluation fit less well than the hypothesized three-factor model,  $\Delta\chi^2(3) = 146.65, p < .005$ . This one-factor model also fit poorly in an absolute sense: NNFI = .279, CFI = .459, IFI = .477, GFI = .695 and SRMR = .189, RMSEA = .256.

### Construct Validity

To further examine the construct validity of our measures of in-group morality, competence, and sociability, we computed (zero-order and partial) correlations between these characteristics and the four others we included. Results are shown in Table 1. Consistent with our conceptualization of morality, competence, and sociability as equally positive characteristics, they were similarly correlated to the individual items as well as the composite scale of valence. As expected, in-group morality was uniquely correlated with correctness whereas in-group competence was uniquely correlated with achievement. Also as expected,

in-group sociability was uniquely correlated with communality.

### The Importance of Morality, Competence, and Sociability

We examined the importance of morality, competence, and sociability with two different methods. To unobtrusively examine the importance of the morality, competence, and sociability factors, we submitted the nine traits to a Principal-Axis FA (with maximum likelihood estimation and Oblimin rotation). As oblique rotation tends to equalize the common variance explained by each factor, we report the percent of variance each factor explains upon initial extraction (see Tabachnick & Fidell, 1996). Examination of the common variance each factor explained upon initial extraction showed morality to be most important (i.e., 32.98%). Competence explained 15.64% of the common variance whereas sociability explained 6.95%. This three-factor solution fit the data well --  $\chi^2(12) = 6.13, p = .91, \chi^2/df = .511$ , and accounted for a majority of the common variance in the items (55.57%).

We also used a direct method to examine the importance participants explicitly gave to the morality, competence, and sociability of their in-groups. We asked participants to indicate the importance of each group trait in an absolute fashion. Paired samples t-tests showed that participants viewed the traits constituting morality ( $M = 6.39, SD = .65$ ) as more important for their in-group than competence ( $M = 5.10, SD = .99$ ),  $t(84) = 11.28, p < .001, d = 1.22$ , or sociability ( $M = 6.11, SD = .69$ ),  $t(84) = 3.19, p = .002, d = .35$ . In addition, in-group competence was deemed less important than sociability,  $t(84) = 7.86, p < .001, d = .85$ .

### *Discussion*

This study offered initial support for our suggestion that morality, competence, and sociability are distinct in-group characteristics. We used CFA to show that morality, competence, and sociability factors account well for the associations between a set of positive traits designed to indicate these characteristics. More parsimonious alternatives did not



account for the latent structure in the in-group traits as well as these three distinct factors, which were only modestly correlated. The validity of these morality, competence, and sociability factors was further suggested by their correlations with other in-group traits. Morality was uniquely associated with correctness, competence was uniquely associated with achievement, and sociability was uniquely associated with communality. However, in-group morality, competence, and sociability, were equally positive in valence.

This study used two different approaches to show that in-group morality is more important to individuals than is competence or sociability. When individuals were directly asked about the importance of traits indicating morality, competence, and sociability, they reported that morality traits were the most important for their in-groups to possess. In contrast to what is suggested by previous theory, competence was deemed the least important characteristic for participant's in-groups to possess. This direct method of asking participants to report the importance of morality, competence, and sociability was complemented by an *unobtrusive* approach. EFA showed the morality factor to explain twice the common variance explained by competence and over four times the common variance explained by sociability. Thus, morality was the characteristic most important to the participants' positive evaluation of their in-groups.

Although a promising first step, Study 1 did not force participants to focus on one specific in-group. Indeed, participants were likely to have thought of quite different in-groups when indicating the importance of morality, competence, and sociability. Thus, Studies 2a and 2b sought to corroborate and extend the present results by assigning participants to an experimentally-created in-group with which participants had no prior experience. This allowed us a greater degree of methodological control by having participants judge a single in-group that we represented in the same way to all participants. In addition, Studies 2a and 2b sought to extend Study 1 by having participants *ascribe* traits indicating morality,

competence, and sociability to the experimentally-created in-group. As this kind of trait ascription is typical of previous studies of group competence and sociability, Studies 2a and 2b aimed to be more comparable to previous work. However, unlike previous work, we actually gauge the importance of morality, competence, and sociability in the positive evaluation of experimentally-created in-groups. As in Study 1, we utilize the unobtrusive method of EFA to accomplish this.

## Study 2

Two, highly similar, studies were designed to pursue three main aims. First, we use CFA to show that the nine traits we designed to indicate group morality, sociability, and competence constitute three distinct factors. Unlike Study 1, these studies ask participants to *ascribe* positive traits to an experimentally created in-group with which they had no prior experience. Second, we use the *unobtrusive* method of EFA to examine the actual importance of the morality, sociability, and competence factors in explaining the variance common to the positive traits ascribed to the in-group. As in Study 1, we expect morality to be more important than competence or sociability to the positive evaluation of the in-group.

The third aim of Study 2 is to provide yet another method for assessing the importance of morality, competence, and sociability to in-group membership. Thus, we assess the degree to which identification with an in-group predicts the degree to which individuals ascribe morality, competence, and sociability to this in-group. As group identification is strongly associated with the positive evaluation of the in-group, and with the incorporation of the in-group into the self-concept (e.g., Leach et al., 2006; for reviews, see Ashmore, Deaux, & McLaughlin-Volpe, 2004; Ellemers et al., 1999), we expect in-group identification to be an especially good predictor of participant's ascription of morality to their in-group. In-group identification should be less predictive of the ascription of competence or sociability to the in-group, as these characteristics should be less important to positive in-

group evaluation and the group-level self-concept. With Study 2b we also aim to further corroborate the results of Studies 1 and 2a by working in a different national context.

### *Method*

#### Participants

*Study 2a.* Participants were 105 (72 women, 33 men) psychology students at the University of Amsterdam, the Netherlands ( $M_{\text{age}} = 21$ ,  $SD = 4.29$ ). They participated for course credit.

*Study 2b.* Participants were 158 (119 women, 39 men) students at the University of Sussex in England ( $M_{\text{age}} = 21$ ,  $SD = 4.49$ ). They participated for course credit or payment (of 5 British pounds).

#### Procedure

Both studies were embedded within experiments focused on social comparison within an experimentally created in-group (i.e., Vliek, Leach, & Spears, 2006). Participants were brought to a classroom and seated in separate cubicles for a computer-administered study. The computer introduced the study as an “exploration into different kinds of perception.” Participants were told that research had revealed that people could be characterized as having one of two perceptual styles: “global” and “detailed.” The ostensible goal of the experiment was to discover whether these styles of visual perception mattered for performance on the kind of perception-based tasks often used to measure intelligence. Admittedly, this oft-used cover story is more relevant to in-group competence than morality or sociability. Nevertheless, we still expected morality to be most important to participants’ positive evaluation of the in-group.

In order to determine their perceptual style, participants completed several trials of two different tasks: a dot-estimation task and a dice-recognition task. Upon completion, the computer ostensibly calculated the participants’ score on the tasks. Presumably based on this

score, the computer categorized each participant as a “detailed perceiver.” Participants were then presented with a list of positive traits and asked to indicate to what degree each characterized detailed perceivers. Responses were given on a seven-point scale, anchored by 1 (*not all*) and 7 (*very much*). The traits, including the nine designed to indicate morality, competence, and sociability, were presented in a random order. In Study 2b, participant’s group identification was measured immediately after in-group categorization.

### Measures

In Study 2a, the scales of morality ( $\alpha = .79$ ;  $M = 4.85$ ,  $SD = .89$ ), sociability ( $\alpha = .76$ ;  $M = 4.57$ ,  $SD = .89$ ), and competence ( $\alpha = .72$ ;  $M = 5.35$ ,  $SD = .72$ ) used in Study 1 all proved reliable. The scales of in-group morality ( $\alpha = .90$ ;  $M = 4.81$ ,  $SD = .96$ ) competence ( $\alpha = .88$ ;  $M = 5.15$ ,  $SD = .91$ ), and sociability ( $\alpha = .85$ ;  $M = 4.57$ ,  $SD = .86$ ) also proved reliable in Study 2b.

Using a seven-point Likert-type response scale, Study 2b participants were asked to what degree they identified as a “detailed perceiver” with 4 items ( $\alpha = .75$ ) from the scale developed by Ellemers et al. (1999). Thus, we asked participants to what degree they “identified with” detailed perceivers, whether they were “glad to be categorized as a detailed perceiver,” whether they felt “strong ties” with detailed perceivers, and whether they “saw themselves as” a detailed perceiver.

## Results

### Confirmatory Factor Analysis

The nine traits designed to indicate in-group morality, competence, and sociability were submitted to a Confirmatory Factor Analysis with maximum likelihood estimation parallel to that of Study 1. As Studies 2a and 2b were highly similar in method, we examined the combined data in a multi-group analysis. In essence, this approach estimated one measurement model that constrained each item’s loading on its hypothesized factor to be

equal across the two studies. As in Study 1, items were specified as loading on only on factor and no errors were allowed to correlate. However, the three latent factors corresponding to morality, competence, and sociability were allowed to correlate.

The three-factor model fit the data well,  $\chi^2(54) = 110.88, p < .001, \chi^2/df = 2.05$ . This was also shown in a variety of fit (NNFI = .963, CFI = .972, IFI = .972, GFI = .919) and residual (SRMR = .042, RMSEA = .064) indices. A model specifying a combined morality-sociability factor and a competence factor, fit less well than the hypothesized model,  $\Delta\chi^2(4) = 176.76, p < .001$ . This alternative model also fit poorly in an absolute sense, as shown in a variety of fit (NNFI = .860, CFI = .887, IFI = .888, GFI = .789) and residual (SRMR = .072, RMSEA = .123) indices.

#### The Importance of Morality, Competence, and Sociability

As in Study 1, we used an EFA to unobtrusively examine the importance of morality, competence, and sociability in the positive traits ascribed to participant's in-group. In Study 2a, the three-factor solution fit the data well,  $\chi^2(12) = 19.79, p = .07, \chi^2/df = 1.65$ , and accounted for a majority of the common variance (58%). As expected, morality was the first factor extracted before rotation. Thus, group morality explained the greatest amount of the common variance in the positive traits participant's ascribed to their in-group (i.e., 33.34%). Sociability was the second factor extracted (explaining 15.45% of the common variance) and competence was the third factor extracted (explaining 9.62% of the common variance).

In Study 2b, the three-factor solution fit the data satisfactorily,  $\chi^2(12) = 28.74, p = .004, \chi^2/df = 2.40$ , and accounted for a majority of the common variance (i.e., 72.46%). Morality was the first factor extracted before rotation and thus explained the greatest amount of the common variance (i.e., 55.29%). Competence (8.61%) and sociability (8.57%) explained near equal amounts of variance.

#### In-group Identification

In Study 2b, we performed a MANOVA, with in-group identification as a continuous predictor of participants' ascription of morality, competence, and sociability to their in-group. We also included gender as a categorical predictor. As gender had no main or interaction effects (both  $p > .93$ , both partial  $\eta^2 < .003$ ) it is not discussed further.

In-group identification had a multivariate effect on the ascription of the three characteristics to the in-group,  $F(3, 152) = 8.98, p < .001$ , partial  $\eta^2 = .15$ . At the univariate level, in-group identification predicted the ascription of competence --  $F(1, 158) = 15.64, p < .001$ , partial  $\eta^2 = .09$ , as well as sociability --  $F(1, 158) = 17.19, p < .001$ , partial  $\eta^2 = .10$ . However, as predicted, in-group identification had the largest effect on participants ascription of morality to their in-group --  $F(1, 158) = 23.02, p < .001$ , partial  $\eta^2 = .13$ . Analysis of partial correlations, accounting for all three group characteristics, showed in-group identification to uniquely predict in-group morality, partial  $r = .19, p = .02$ . However, partial correlations revealed that in-group identification did not uniquely predict in-group sociability ( $r = .12, p = .15$ ) or competence ( $r = .06, p = .43$ ).

### *Discussion*

Studies 2a and 2b categorized participants as members of a quasi-minimal in-group. We then asked them to indicate to what degree a list of positive traits characterized this in-group. As participants had no pre-conceived notion of this in-group or its characteristics, they were free to imbue the in-group with whichever traits they preferred. A CFA showed these traits to constitute distinct factors of morality, sociability, and competence. We used the unobtrusive method of EFA to show that the morality factor explained much more of the common variance in these positive traits than did competence or sociability. In these two ways, Studies 2a and 2b corroborate Study 1. That morality is the most important factor in the positive evaluation of the in-groups in these two studies is all the more impressive given that in-group membership was defined in terms of a perceptual style presumably linked to

intelligence. Clearly the competence-oriented context of this study, and participants' status as students, made morality fairly irrelevant to the in-group membership examined. Thus, Study 2 may be considered a conservative test of our hypotheses.

Additionally, Study 2b showed that the more individuals identified with the in-group to which they were assigned, the more they ascribed morality to this in-group. Indeed, in-group identification uniquely predicted in-group morality; In-group identification did not uniquely predict in-group competence or sociability. Thus, identification with an experimentally created in-group determined positive evaluation of this in-group only in terms of its morality. Despite these encouraging results, we thought it important to show that our hypotheses also apply to the ascription of traits to a real, pre-existing in-group. And, because much previous work suggests that relative group success affects the importance given to morality, competence, and sociability in the positive evaluation of in-groups, we thought it important to manipulate relative group success. These concerns guided the design of Study 3.

### Study 3

As outlined in the introduction, a functionalist perspective suggests that competence should be the characteristic most important to the positive evaluation of an in-group that is *more* successful than an out-group. In addition, a functionalist perspective suggests that either sociability or morality should be the characteristic most important to the positive evaluation of a *less* successful in-group, as competence is presumed unavailable as a basis of positive evaluation. However, as stated in the introduction, little previous work has examined the actual importance of morality, competence, and sociability in the positive evaluation of more or less successful in-groups. Thus, as shown in Studies 1 and 2, we expect that where in-group morality is examined as a characteristic distinct from competence and sociability, morality should be most important to the positive evaluation of an in-group. In contrast to work that presumes that morality is an alternative way of positively evaluating a less

successful in-group, we expect that morality will be most important to the positive evaluation of the in-group irrespective of the in-group's success relative to an out-group.

Study 3 also aimed to extend the previous two by having individuals ascribe positive traits to an *out-group* (relative to which the in-group was more or less successful). If morality is most important to the positive evaluation of in-groups because morality is central to the group-level self-concept, then morality must necessarily be less important in the positive evaluation of out-groups (as they are not part of the self). Thus, we suggest that competence and sociability should be more important than morality in the positive evaluation of *out-groups*. Our reasoning is consistent with what is implied in some research on group stereotypes. Studies that have utilized measures of sociability free of morality suggest that sociability is most important to the positive evaluation of *less* successful out-groups (e.g., Conway et al., 1996; Eagly & Steffen, 1984; Judd et al., 2005). When an out-group is *more* successful than the in-group, competence appears to be more central to the positive evaluation of the out-group (e.g., Conway et al., 1996; Eagly & Steffen, 1984; Fiske et al., 2002; Poppe & Linnsen, 1999; Ridgeway et al., 1998). However, these studies did not examine the actual importance of competence or sociability in the positive evaluation of more or less successful out-groups as we do here.

### *Method*

#### Participants and Procedure

One-hundred and twenty male and female students at Leiden University in the Netherlands received partial course credit for their participation. As in numerous studies of in-group bias, we manipulated relative in-group success by providing participants with false feedback about students at their university. Ostensibly on the basis of their reputation among employers, the cover page of the questionnaire reported that students at participants' university had better (or worse) "general ability," "social skills," "international orientation,"



and “communication skills,” than students at a relevant nearby university (i.e., the University of Amsterdam). This manipulation was designed to provide feedback about the in-group’s general success by referring to a number of behavioral domains relevant to student’s future career prospects. We included information regarding these different domains so that the in-group’s relative success would be seen in general terms, rather than in the more specific terms of morality, competence, or sociability. However, these domains of group performance appear more relevant to competence and sociability than to morality, implying a stringent test for our contention that morality is most important in the positive evaluation of the in-group, regardless of its relative success.

Immediately after the manipulation of relative group success, participants were asked to indicate to what degree a list of traits characterized students at their university. Responses were given on a seven-point scale, anchored by 1 (*not all*) and 7 (*very much*). The 9 items used in the preceding studies were included here to measure in-group morality ( $\alpha = .86$ ;  $M = 4.76$ ,  $SD = .92$ ), competence ( $\alpha = .79$ ;  $M = 5.36$ ,  $SD = .76$ ), and sociability ( $\alpha = .77$ ;  $M = 4.91$ ,  $SD = .83$ ). Participants were then asked to ascribe these same traits to the out-group: morality ( $\alpha = .80$ ;  $M = 4.60$ ,  $SD = .73$ ), competence ( $\alpha = .82$ ;  $M = 5.10$ ,  $SD = .78$ ), and sociability ( $\alpha = .66$ ;  $M = 4.69$ ,  $SD = .70$ ).

### Results

A series of ANOVAs with Target Group (in- vs. out-group) as a within-participant factor and Relative Group Success as a between participants factor, showed Target Group to have main effects on morality, competence, and sociability. Thus, participants showed a consistent pattern of in-group favoritism on all three characteristics.<sup>4</sup> However, these results have little bearing on our examination of the *importance* of morality, competence, and sociability in the positive evaluation of in-group and out-group.

In-group

The nine traits designed to indicate in-group morality, competence, and sociability were analyzed with EFA, as described in the preceding studies. The three-factor solution fit the data well,  $\chi^2 (12) = 16.82$ ,  $p = .16$ ,  $\chi^2/df = 1.40$ , and accounted for a majority of the common variance (63%) when the in-group was more successful than the out-group. This was also the case when the in-group was less successful,  $\chi^2 (12) = 17.56$ ,  $p = .13$ ,  $\chi^2/df = 1.46$  (and 65% common variance explained). The factor loadings for both conditions are shown in the top half of Table 2. It is worth noting that the cross-loadings on factors other than those the items were designed to indicate tended to be low ( $< .300$ ). This is further evidence that morality, competence, and sociability are distinct in-group characteristics.

As we expected, morality was the first factor initially extracted, whether the in-group was more or less successful than the out-group. Thus, morality explained 41.46% of the common variance when the in-group was *more* successful. Sociability explained the second most common variance (i.e., 12.36%) and competence explained the least (i.e., 9.33%) when the in-group was *more* successful. Morality also was the first factor initially extracted when the in-group was *less* successful, explaining 30.05% of the common variance. Competence explained slightly less variance (i.e., 28.42%) and sociability accounted for the least variance (i.e., 6.48%) when the in-group was *less* successful than the out-group. However, it is worth noting that the importance of competence in the positive evaluation of the less successful in-group appears to be exaggerated. As shown in Table 2, the items “friendly” and “sincere” both have moderate loadings on the competence factor. Thus, competence is nearly as important as morality partly because competence in this case involves some morality and sociability.

#### Out-group

For the positive traits ascribed to the *less* successful out-group, the three-factor solution fit the data satisfactorily,  $\chi^2 (12) = 21.74$ ,  $p = .04$ ,  $\chi^2/df = 1.81$ , and accounted for a

majority of the common variance (58%). Sociability was the first factor extracted before rotation and thus it explained the most common variance (i.e., 29.59%). Morality explained the second most common variance (i.e., 14.74%) and competence explained the least common variance (i.e., 13.88%). For the positive traits ascribed to the *more* successful out-group, the three-factor solution fit the data extremely well,  $\chi^2(12) = 8.72, p = .73, \chi^2/df = .727$ , and accounted for a majority of the common variance (i.e., 59%). Competence was the first factor extracted before rotation and it explained much more of the common variance (i.e., 44.80%) than the two other factors (i.e., 7.87% and 6.28% respectively).

The factor loadings for both conditions are shown in the bottom half of Table 2. It is worth noting that the cross-loadings on factors other than those the items were designed to indicate tended to be low ( $< .300$ ). This is further evidence that morality, competence, and sociability are distinct in-group characteristics. However, it is also clear that morality and sociability were less distinct when ascribed to the *more* successful out-group. In fact, this is the only case in this study, or in the preceding studies, where morality and sociability had a moderate to high correlation ( $r = .61, p < .001$ ).

### Discussion

Regardless of whether participants' in-group was more or less successful than a relevant out-group, the positive traits ascribed to the in-group fell into distinct factors of morality, competence, and sociability. In this way, the less specified measurement model examined in the EFAs reported here corroborated the better-specified model examined in the CFAs reported Studies 1 and 2. In further corroboration of the preceding studies, morality was again the characteristic that was most important to the positive evaluation of the in-group. Morality explained the most variance in the positive traits ascribed to the in-group regardless of the in-group's success relative to an out-group. That morality is the most important factor in the positive evaluation of the in-groups in this study is all the more

impressive given that we examined students' university in-group and manipulated relative group success in a context largely irrelevant to morality. Indeed, the manipulation of the groups' reputation among employers regarding their "general ability" and "communication skills" appears much more relevant to the in-group's competence and sociability. Thus, Study 3 constitutes a conservative test of our hypotheses.

Study 3 also extended the preceding studies by having individuals ascribe positive traits to a relevant out-group that was either more or less successful than the in-group. As predicted, the morality ascribed to this out-group was *not* most important to its positive evaluation, irrespective of relative group success. In fact, competence was most important to the positive evaluation of the *more* successful out-group, and sociability was most important to the positive evaluation of the *less* successful out-group. Given that the functionalist perspective has been most often applied to the ascription of traits to out-groups of varying success, it is perhaps not surprising that this is where our findings are most consistent with the functionalist view. This confirmation of the functionalist view of competence and sociability in out-group evaluation makes all the more compelling our consistent finding that it is morality that is most important to the positive evaluation of in-groups.

#### Study 4

Together, the first three studies offer consistent support for our suggestion that morality (not competence or sociability) is the most important factor in individuals' positive evaluation of in-groups. Never the less, in all three studies we *measured* in-group morality, competence, and sociability in one way or another. Thus, we focused on the degree to which individuals' positive evaluation of their in-group is imbued with traits corresponding to morality, competence, and sociability. Although this kind of evidence is useful, it may be important to complement it with evidence that in-group morality has causal effects on individuals' positive evaluation of their in-group. Thus, Studies 4 and 5 experimentally

*manipulated* the characteristics of a pre-existing in-group. This enabled us to cross different levels of in-group morality with competence (in Study 4), and sociability (in Study 5), in order to systematically compare how these characteristics causally affect individuals' positive evaluation of their in-group.

If morality is most important to the positive evaluation of in-groups, then the in-group's level of morality should most *affect* aspects of the group-level self-concept that are related to positive evaluation. Thus, in this study we compare the effects that (high or low) in-group morality and competence have on group pride and perceived group variability. Individuals generally take more pride in in-groups that they evaluate positively (e.g., Leach et al., 2006; for a review, see Ashmore et al., 2004). Therefore, individuals who belong to an in-group high in morality should take more pride in it than individuals who belong to an in-group low in morality. Additionally, members of an in-group high in morality should perceive their in-group as *less* variable than those who belong to an in-group low in morality. Perceiving a highly moral in-group as less variable allows an individual member to apply this characteristic, and the positive evaluation it implies, to all group members, including themselves (for a review, see Doosje, Spears, Ellemers, & Koomen, 1999). Conversely, when an in-group is low in morality, individuals should perceive the in-group as *more* variable, in an effort to avoid having to apply this negative characteristic to themselves. Perceiving the in-group as more variable when it is low in morality may thus allow individuals to protect their personal virtue by distancing themselves from an in-group that possesses a negative characteristic (e.g., Leach et al., 2006; for a discussion, see Doosje et al., 1999).

As competence should not be as important as morality in positive in-group evaluation, the in-group's competence should have less of an impact on group pride and perceived group variability when the in-group's morality is also known. Although prior research shows that informing individuals about their in-group's competence alone can affect a range of

outcomes, we expect that when information about *both* competence and morality is provided, morality will be more important than competence to in-group membership. To examine these hypotheses, we orthogonally manipulated the competence and morality of a pre-existing in-group and examined its effect on individual's pride in, and perceived variability of, this in-group.

### *Method*

#### Participants and Procedure

62 female and 34 male students at Leiden University participated ( $M_{\text{age}} = 20$ ,  $SD = 2.77$ ) in exchange for 2 Euros (approx. \$3). The experiment took approximately ten minutes to complete and was part of a longer session that included a number of different studies.

At the beginning of the study we assessed identification with the pre-existing in-group with four items (similar to the items used in Study 4, e.g. "I identify with [this] University",  $\alpha = .75$ , adapted from Ellemers et al., 1999). Identification with the in-group has been shown to correlate with pride in (for a review, see Ashmore et al., 2004), and the perceived variability of, the in-group (for a review, Doosje et al., 1999). Thus, we wanted to account for the effect of group identification to show that the experimental manipulations in this study have *independent* effects on the dependent measures. In addition, we sought to corroborate Study 2b by showing that identification with a pre-existing in-group predicts the morality, but not the competence and sociability, ascribed to the in-group.

In a 2x2 factorial design, we orthogonally manipulated the competence (high or low) and morality (high or low) of participants' university in-group. Thus, we told participants that a recent investigation conducted by the Ministry of Education had revealed some striking differences between students at Dutch universities in terms of their *academic results* and their *moral behaviour*. More specifically, participants were told that students from their university had better (or worse) course grades, and submitted higher (or lower) quality papers and theses

than students at other universities. This constituted a manipulation of the in-group's competence as high (or low). The in-group's morality was manipulated by telling participants that the ministry's investigation found that more (or less) cases of fraud had been revealed, and the incidence of plagiarism was higher (or lower) among students at participant's university than at others. After these manipulations, checks and dependent measures were assessed. Except when indicated otherwise, all items were presented with seven-point response scales that ranged from 1 (*not at all*) to 7 (*very much*).

### Measures

*Manipulation Checks.* *Perceived credibility* of the experimental manipulation was assessed with three separate items: "I think it is not so easy to interpret the results of this study correctly", "The Ministry of Education has little knowledge about the performance of students", and "This investigation of the Ministry of Education has yielded a number of important facts about students".

Two questions assessed whether our manipulations had the intended effects. To check the manipulation of in-group *competence*, participants were asked to estimate the "academic competence" of students at their university. To check the manipulation of in-group morality, participants were asked to estimate the "moral attitude" of students at their university. For these two questions responses were given on a scale that ranged from 1 (*very negative*) to 7 (*very positive*).

*Dependent Measures.* After the manipulation checks, dependent measures assessed the consequences of in-group morality and competence on the positive evaluation of the in-group. *Group pride* was assessed with two items ( $\alpha = .68$ ). Students were asked to indicate whether they thought that students at their university had "much to be proud of," and whether they were "proud to be a student at" their university ( $M = 4.57$ ,  $SD = 1.17$ ). Next, *perceived in-group variability* was assessed with a single item asking participants to indicate the extent

to which they thought students at their university “differ from each other” ( $M = 4.21$ ,  $SD = 1.44$ ).

### Results

All dependent variables were analyzed using a 2 (Competence: High or Low) by 2 (Morality: High or Low) ANCOVA, in which pre-existing identification with the in-group was included as a covariate. Preliminary analyses confirmed that in-group identification did not moderate the effects of our experimental manipulations on any of the checks or dependent measures.

#### Manipulation checks

The *perceived credibility* of the ostensible ministry report was not affected by in-group identification or the manipulations of in-group morality or competence. The absence of main or interaction effects (all  $F$ s  $< 1$ ,  $p$ s  $> .10$ ) showed that the manipulations were considered equally credible in all conditions (“not easy to interpret” --  $M = 5.43$ ,  $SD = 1.14$ , “little knowledge” --  $M = 5.26$ ,  $SD = 1.28$ , and “important facts” --  $M = 4.02$ ,  $SD = 1.31$ ).

In-group identification did *not* affect participant’s estimate of in-group competence ( $F < 1$ ,  $p > .10$ ). As intended, however, there was a sizable main effect of the competence manipulation on estimated in-group competence,  $F(1, 91) = 61.97$ ,  $p < .001$ , partial  $\eta^2 = .41$ . Participants in the High Competence condition estimated in-group competence as higher ( $M = 5.21$ ,  $SD = .95$ ) than did participants in the Low Competence condition ( $M = 3.67$ ,  $SD = 1.03$ ). As intended, the manipulation of in-group competence had no effect on estimated in-group morality ( $F < 1$ ,  $p > .10$ ).

In-group identification predicted estimated in-group morality,  $F(1, 91) = 5.52$ ,  $p = .021$ , partial  $\eta^2 = .057$ . Additionally, there was a sizable main effect of manipulated in-group morality on estimated in-group morality,  $F(1, 91) = 102.62$ ,  $p < .001$ , partial  $\eta^2 = .53$ . Participants in the High Morality condition ( $M = 5.32$ ,  $SD = 1.09$ ) estimated their in-group’s



morality as higher than did participants in the Low Morality condition ( $M = 3.23$ ,  $SD = .95$ ). As intended, the manipulation of in-group morality did not have a reliable effect on estimated in-group competence,  $F(1, 91) = 1.99$ ,  $p = .16$ .

In sum, the manipulation checks revealed that: (a) the manipulations were equally credible in both experimental conditions, (b) the manipulations affected estimates of the in-group's competence and morality in the intended way, (c) both the competence and morality manipulations yielded comparable mean values and effect sizes, and (d) identification with the in-group predicted participants' subsequent estimate of their in-group's morality but not its competence.

#### Group Pride

After accounting for the effect of in-group identification --  $F(1, 91) = 31.59$ ,  $p < .001$ , partial  $\eta^2 = .26$ , the analysis only yielded a main effect of the manipulation of in-group morality,  $F(1, 91) = 3.97$ ,  $p = .049$ , partial  $\eta^2 = .04$ . Participants reported more pride in their in-group when students at their university were high ( $M = 4.76$ ,  $SD = 1.18$ ), rather than low ( $M = 4.39$ ,  $SD = 1.15$ ) in morality. No main effect of in-group competence was obtained, nor was there an interaction between the manipulations of in-group morality and competence,  $F(1, 91) < 1$ ,  $p > .10$ .

#### Perceived In-group Variability

The analysis of in-group variability showed only a main effect of in-group morality,  $F(1, 91) = 5.34$ ,  $p = .012$ , partial  $\eta^2 = .06$ . Participants perceived their in-group as more variable when it was low ( $M = 4.52$ ,  $SD = 1.49$ ) rather than high ( $M = 3.85$ ,  $SD = 1.29$ ) in morality. Neither in-group identification --  $F(1, 91) < 1$ ,  $p > .10$ , nor in-group competence --  $F(1, 91) = 1.49$ ,  $p = .23$ , had main effects on perceived in-group variability. In addition, in-group competence did not interact with in-group morality to affect perceived in-group variability,  $F < 1$ ,  $p > .10$ . Thus, in-group competence had no effect on the perceived

variability of the in-group.

### *Discussion*

As predicted, Study 4 showed that participants' pride in their in-group was affected by the in-group's morality rather than its competence. Although we were able to show that the manipulations of in-group competence and morality were both considered equally credible and had comparable effects on manipulation checks, only the in-group's morality affected pride in the in-group. Thus, only high in-group morality led participants to evaluate themselves, and their group as a whole, more positively.

The same pattern emerged for the perceived variability of the in-group. When the in-group was high in morality, participants perceived the group as *less* variable in an apparent attempt to share in this positive group characteristic. However, when the in-group was low in morality, participants appeared to distance themselves from their in-group's negative characteristic. In this context, the in-group's competence did not appear to be important enough to participant's group-level self-concept to have any effects on the perceived variability of the group.

In further support of our argument, we found identification with the in-group to predict subsequent estimates of the in-group's morality, but not its competence. This corroborates and extends the findings of Study 2b using a different in-group and a different measure of in-group morality. Thus, Study 4 used a different methodological approach to the preceding studies to corroborate the view that an in-group's morality is more important to its positive evaluation than is competence. As in the preceding studies, in-group morality proved more important than competence despite the fact that the in-group and the context examined appear more relevant to competence than to morality.

### Study 5

Whereas Study 4 compared the effects of in-group morality and competence, in Study

5 we compare the effects of in-group morality and sociability by orthogonally manipulating these two characteristics. Although Study 5 again focuses on group pride and perceived in-group variability as dependent measures, we improved these by increasing the number of items used to measure each construct. We also made several other improvements to our dependent measures.

Instead of solely relying on the global assessment of group pride used in Study 4, in Study 5 we also ask participants to indicate the extent to which they are proud of the in-group's morality and sociability. In addition, we expanded our measure of pride to include items that indicated its opposite -- the negative self-evaluation of shame. We predict that participants will report greater pride in their group when it is high in morality. In contrast, we expect the sociability of the in-group to have little effect on group-based pride.

In Study 4, we measured perceived in-group variability to assess the degree to which individuals perceived themselves and other in-group members as close or distant from their in-group. However, this measure was a quite indirect way of getting at this process and did not explicitly refer to the participants themselves. In the present study, we wanted to more directly assess the degree to which participants perceived themselves as part of an in-group high or low in morality (or sociability). Thus, we included items that asked individuals to what degree they perceived themselves as similar to their in-group as a whole. When the in-group is high in morality, individuals should perceive themselves as more similar to the group in an effort to gain a positive self-evaluation from sharing this positive group characteristic (Tajfel & Turner, 1979). When the in-group is low in morality, individuals should perceive themselves as less similar to the in-group in an attempt to distance themselves from a negative characteristic that threatens their self-evaluation (see Doosje et al., 1999). Because we expect that the in-group's morality is most important to positive self-evaluation at the group level, perceived similarity to the in-group should be more affected by

our manipulation of in-group morality than sociability.

### *Method*

#### Participants and Procedure

27 female and 60 male students at Leiden University participated ( $M_{\text{age}} = 22$ ,  $SD = 2.83$ ) in exchange for 2 Euros (approx. \$3). The experiment took about 10 minutes to complete and was part of a longer session that included a number of different studies.

At the beginning of the study we assessed identification with the in-group with the same four items used in Study 4 ( $\alpha = .88$ ). As in Study 4, we controlled for in-group identification when examining the effects of our experimental manipulations on the dependent variables, and tested whether in-group identification affected participants' estimates of the group's morality and sociability.

In a 2x2 experimental design, we manipulated the sociability (high or low) and morality (high or low) of participant's university in-group. As in Study 4, participants were instructed that a recent investigation conducted by the Ministry of Education had revealed some striking differences between students at universities in the Netherlands. In the present study, the investigation revealed differences in student's *social behaviour* and their *moral behaviour*. To manipulate in-group sociability, participants were told that students from their university were more (or less) friendly than students at other universities, and their interactions with others were more (or less) warm than at other universities (cf. Judd et al., 2005). The in-group's morality was manipulated with the same instructions as Study 4. After these manipulations, the checks and dependent measures were assessed.

#### Measures

*Manipulation Checks.* *Perceived credibility* of the experimental manipulations was assessed with the same three items used in Study 4. And, as in Study 4, two questions assessed whether our experimental manipulations had the intended effect on participants'

estimates of their in-group's morality and sociability. To check the manipulation of in-group sociability, participants were asked to estimate the "social behavior" of students at their university. The estimated morality of the in-group was assessed with the same item used in Study 4.

*Dependent Measures.* After completion of the manipulation checks, dependent measures assessed the consequences of in-group morality and sociability for positive evaluation of the in-group. This time, *group pride* was assessed with six items ( $\alpha = .68$ ,  $M = 4.94$ ,  $SD = .86$ ). Two items asked students to indicate the extent to which they were generally "proud" or "ashamed" (reversed) to be a student "at [this university]." Two more specific items asked participants how much pride or shame (reversed) they felt about the social behavior of students at their university whereas two other items asked participants how much pride or shame (reversed) they felt about the moral behavior of students at their university.

The degree to which participants perceived themselves as similar to their in-group was assessed with three items adapted from Doosje et al. (1999) and Ellemers et al. (1999): "I am similar to other students at...", "I am like other students at...", "I see myself as a student at..." ( $\alpha = .86$ ,  $M = 4.10$ ,  $SD = 1.42$ ). Importantly, all three items focused on the individual self and its similarity to the in-group, rather than on the variability within the group as a whole.

### Results

All dependent variables were analyzed using a 2 (Sociability: High or Low) by 2 (Morality: High or Low) ANCOVA, with pre-existing in-group identification treated as a covariate. Preliminary analyses confirmed that in-group identification did not moderate the effects of our experimental manipulations on any of the checks or dependent measures.

#### Manipulation checks

As in Study 4, *perceived credibility* of the ostensible ministry report designed to

manipulate the in-group's characteristics was not affected by identification with the in-group or the manipulations of in-group morality or sociability. The total absence of reliable main or interaction effects (all  $F$ s < 1,  $p$ s > .10) showed that the experimental manipulations were considered equally credible in all conditions ("not easy to interpret" --  $M = 5.38$ ,  $SD = 1.06$ , "little knowledge" --  $M = 4.55$ ,  $SD = 1.40$ , and "important facts" --  $M = 3.63$ ,  $SD = 1.19$ ).

Identification with the in-group did not affect estimates of the in-group's sociability ( $F < 1$ ,  $p > .10$ ). However, there was a sizable, and statistically reliable, main effect of the sociability manipulation on estimated in-group sociability,  $F(1, 81) = 32.17$ ,  $p < .001$ , partial  $\eta^2 = .28$ . Participants in the High Sociability condition estimated the in-group to be more sociable ( $M = 5.67$ ,  $SD = .81$ ) than participants in the Low Sociability condition ( $M = 4.30$ ,  $SD = 1.34$ ). As intended, the manipulation of in-group sociability did not affect estimated in-group morality ( $F < 1$ ,  $p > .10$ ).

Identification with the in-group marginally predicted the estimated morality of the in-group,  $F(1, 81) = 3.38$ ,  $p = .07$ , partial  $\eta^2 = .04$ . Additionally, there was a sizable main effect of in-group morality on participants' estimate of their in-group's morality,  $F(1, 81) = 37.43$ ,  $p < .001$ , partial  $\eta^2 = .32$ . Participants in the High Morality condition estimated their in-group as more moral ( $M = 5.45$ ,  $SD = 1.19$ ) than did participants in the Low Morality condition ( $M = 3.76$ ,  $SD = 1.37$ ). As intended, the manipulation of in-group morality had no effect on estimated in-group sociability ( $F < 1$ ,  $p > .10$ ).

Thus, parallel to the results of Study 4, the manipulation checks revealed that: (a) the manipulations were equally credible in all experimental conditions, (b) the manipulations affected estimated in-group sociability and morality in the intended way, (c) both the competence manipulation and the morality manipulation yielded comparable mean values and effect sizes, and (d) identification with the in-group predicted subsequent estimates of the in-group's morality but not its sociability.

### Group Pride

After accounting for the effect of in-group identification,  $F(1, 82) = 38.86, p < .001$ , partial  $\eta^2 = .32$ , only the manipulation of in-group morality yielded a main effect on group pride,  $F(1, 82) = 7.21, p = .009$ , partial  $\eta^2 = .08$ . Participants reported greater pride when their in-group was high ( $M = 5.16, SD = .80$ ), rather than low ( $M = 4.73, SD = .86$ ) in morality. No main effect of in-group sociability was obtained, nor was there an interaction between in-group morality and sociability ( $F < 1, p > .10$ ).

### Perceived similarity to the in-group

After accounting for the effect of in-group identification --  $F(1, 83) = 289.13, p < .0001$ , partial  $\eta^2 = .77$ , only the manipulation of in-group morality yielded a main effect on perceived similarity to the in-group,  $F(1, 83) = 6.66, p = .012$ , partial  $\eta^2 = .07$ . As predicted, participants perceived themselves as more similar to the in-group when it was high ( $M = 4.34, SD = 1.37$ ), rather than low ( $M = 3.85, SD = 1.44$ ) in morality. In-group sociability had no main effect on perceived similarity to the in-group ( $F < 1, p > .10$ ), and the interaction between in-group sociability and in-group morality was not statistically reliable,  $F(1, 83) = 2.53, p = .12$ .

### Discussion

With a methodology parallel to that used to compare the effects of in-group morality and competence in Study 4, Study 5 compared the effects of in-group morality and sociability. As predicted, Study 5 showed that participants' pride in, and perceived similarity to, their in-group was affected by a manipulation of the in-group's morality, but not its sociability. Although we were able to show that the manipulations of in-group sociability and morality were equally credible and had comparable effects on manipulation checks, only the in-group's morality had effects. Thus, when information regarding the in-group's morality was presented, the in-group's sociability had no effect on participant's pride in, and perceived

similarity to, their in-group. In contrast, in-group morality increased participant's pride and perceived similarity. Further support for the central importance of morality was shown in the effects of participant's identification with their in-group. In line with the results of Study 2b and Study 4, Study 5 showed in-group identification to uniquely predict participant's subsequent estimate of their in-group's morality. However, in-group identification did not predict estimates of the in-group's sociability.

### General Discussion

Although a great deal of work on stereotypes has examined the degree to which individuals ascribe the characteristics of competence and sociability to groups, no previous work of which we are aware had examined these characteristics in conjunction with morality. Where the perception of individual (Wojciszke et al., 1998) or group (e.g., Fiske et al., 2002; Kay & Jost, 2003; Phallet & Poppe, 1997) morality had been examined, it conflated traits that indicate morality (i.e., honest, sincere, trustworthy) with those indicating sociability (i.e., friendly, warm, likeable, kind) or other characteristics. This meant that it was important for us to first show that traits designed to indicate morality, competence, and sociability constituted distinct group characteristics. In three studies we found consistent evidence for this. These measures enabled us to examine the empirical importance of morality, competence, and sociability in individuals' positive evaluation of their in-groups.

We showed that morality is more important to individuals' positive evaluation of their in-group than is competence or sociability in five different ways. First, Study 1 showed individuals to state explicitly that their in-group's morality is more important than its competence or sociability when asked directly. This direct method was complemented by an unobtrusive method.

Thus, in a second approach, three different studies used the common factor model of EFA to show that morality was the factor that explained the most variance in positive in-



group traits. Whether the in-group was pre-existing (Studies 1 and 3) or experimentally-created (Studies 2a and 2b), morality was most important. Study 3 also showed that morality was the most important factor in the positive evaluation of the in-group, irrespective of whether the in-group was more or less successful than a relevant out-group. Importantly, the EFAs used in the first three studies assessed the empirical importance of morality, competence, and sociability. Thus, unlike previous work on competence and sociability, we did not infer the importance of these characteristics from the degree to which individuals ascribed them to groups. As the ascription of traits to a group may be affected by a number of contextual concerns (e.g., Judd et al., 2005; for a discussion, see Spears et al., 2001), we thought it better to use EFA to actually assess the importance of morality, competence, and sociability in positive evaluation. The EFA approach had the advantage of being an *unobtrusive* assessment of the importance of the group characteristics. When participants were asked to ascribe (Studies 2 and 3), or to indicate the importance of (Study 1), positive traits to their in-group, they could not anticipate our analysis of common variance in their responses.

Third, we manipulated the characteristics of participants' in-group to gauge their effects on aspects of the group-level self-concept related to positive evaluation. By manipulating in-group morality, competence, and sociability, Studies 4 and 5 complemented Studies 1-3, which measured these characteristics. Despite this different methodology, both Studies 4 and 5 supported the same general conclusion of the first three studies. Whether measured or manipulated, in-group morality proved most important to the positive self-evaluation of the in-group. When manipulations of in-group morality were pitted against competence (Study 4) or sociability (Study 5), only in-group morality affected participants' pride in their in-group and their distancing from it.

In a fourth approach, we used participants' pre-existing identification with their in-

groups as a predictor of in-group morality, competence, and sociability. Identification with the in-group led participants to ascribe morality to the in-group (Study 2b) or to estimate the in-group as acting more morally (Studies 4 and 5). This pattern was observed whether the in-group was experimentally created (Study 2b) or pre-existing (Study 4 and 5). Identification with the in-group was not a strong predictor of ascribed competence or sociability.

In a fifth approach, Study 3 had participants ascribe positive traits to a relevant out-group, as well as to their in-group. Irrespective of relative group success, the morality ascribed to this out-group was never of central importance to its positive evaluation. Consistent with a functionalist perspective, competence was most important to the positive evaluation of a more successful out-group, whereas sociability was most important to the positive evaluation of a less successful out-group. Thus, the functionalist thinking that has predominated in work on competence and sociability appears to apply better to the evaluation of out-groups than to in-groups.

It is important to note that the participants we used, the group memberships we examined, and the contexts of the studies themselves were unlikely to make morality important. Indeed, there is good reason to expect that university students are among the least concerned with morality (e.g., Schwartz & Bardi, 2001), especially in contexts where their university in-group or academic competence is made salient. Thus, in all five of the studies reported here, morality was *less* relevant to group membership than competence or sociability. With participants less concerned with competence and sociability, and in contexts more relevant to morality, there is good reason to expect that morality would be even more important to group membership than was shown here. In any case, our consistent finding that morality is of greater importance than competence or sociability in the positive evaluation of in-groups raises a number of implications for existing social psychological approaches to in-group identity and group evaluation.

### *Implications*

#### Competence

Social identity theory argues that individuals compare their in-group to relevant out-groups in “status-defining” domains in an attempt to evaluate themselves positively (Tajfel & Turner, 1979). Although it is rarely made explicit, most work within this tradition appears to presume that “status-defining” domains are those related to competence. Thus, it is argued that positive evaluation is best achieved through an inter-group comparison that establishes an in-group as more successful than an out-group in economic, academic, or other domains suggestive of competence (for reviews, see Bettencourt et al., 2001; Ellemers et al., 1999; Spears et al., 2001). A functionalist view of stereotypes suggests something similar. It suggests that groups who are economically, or otherwise, successful use this as a basis upon which they can ascribe competence to themselves (e.g., Eagly & Steffen, 1984; Fiske et al., 2002). This ascribed competence presumably serves to legitimate the in-group’s success and solidifies its positive evaluation of itself. Thus, most previous work on group characteristics suggests that individuals can identify with, and positively evaluate, an in-group ascribed competence with little regard for its morality or sociability (e.g., Blanz et al., 1995; Kay & Jost, 2003).

As described above, most previous research has presumed that the simple ascription of competence to an in-group indicates its psychological importance. Thus, the ascription of competence to economically successful national, ethnic, and gender in-groups, or intellectually successful experimentally-created in-groups, has been taken as evidence of the psychological importance of competence to group identity and positive evaluation. Rather than presuming that the ascription of traits indicate their importance, we chose to actually examine this issue. Although all of our studies were done with university students, who highly value competence (e.g., Schwartz & Bardi, 2001), competence was never most

important to positive evaluation of their in-groups. In fact, where the in-group was more successful than a relevant out-group (in Study 3), competence was much less important in the positive evaluation of the in-group than was morality. And, when we used a manipulation to establish the in-group as highly competent (in Study 4), this did not increase in-group pride (in the presence of information regarding in-group morality).

Although competence may be “status-defining” for in-groups, it does not appear to define group virtue. Indeed, as suggested by Study 3, successful in-groups that ascribe competence to themselves may treat their morality as especially important to their positive evaluation. As success-based competence may be seen as antithetical to morality (e.g., Judd et al., 2005), or as dangerous in the absence of morality (e.g., Alexander et al., 1999; Osgood et al., 1957), successful, highly competent in-groups seem especially likely to treat morality as most important to their positive evaluation of themselves. In this way, attention to morality leads to an important qualification of the functionalist view of success-based competence as most important to group membership.

### Sociability

As suggested by a functionalist perspective, Study 3 found sociability to be the most important factor in in-group member’s positive evaluation of a less successful *out-group*. This is broadly consistent with the view that individuals may use the ascription of sociability to legitimate an out-group’s lack of success. However, in contrast to a functionalist perspective on *in-group* evaluation, sociability was *least* important to the positive evaluation of a less successful in-group in Study 3. This contrasts with the functionalist presumption that less successful in-groups emphasize their sociability to achieve positive evaluation through characteristics other than competence (e.g., Kay & Jost, 2003; Judd et al., 2005). Indeed, our consistent finding that sociability was more important than competence in the positive evaluation of in-groups suggests against interpreting the ascription of sociability to an in-

group as a creative strategy designed to combat the negative effects of lesser success. A wide variety of research with pre-existing national, gender, and ethnic in-groups shows that individuals tend to ascribe both competence *and* sociability to their in-groups (e.g., Brewer & Campbell, 1979; Eagly & Steffen, 1984; Fiske et al., 2002). It is indeed a virtue to be nice.

### Morality

Although individuals did not always ascribe greater morality than competence or sociability to their in-group, morality was always most important to the positive evaluation of the in-group. In addition, individuals' identification with their in-group was most predictive of ascribing morality, rather than competence or sociability, to the in-group. This consistent pattern of results is *inconsistent* with the notion that individuals evaluate their in-group positively on the basis of its morality only as a "creative" attempt to achieve positive evaluation by succeeding in "alternative" domains, other than competence (see Tajfel & Turner, 1979). The present pattern of results also suggest that it is problematic to interpret less successful group's ascription of morality to themselves as an acknowledgment of a "negative" group identity or a legitimization of their lesser success (e.g., Blanz et al., 1995; Kay & Jost, 2003; Phallet & Poppe, 1999). Even where an in-group was more successful (as in Study 3) or high in competence (as in Study 4), in-group morality was most important to positive in-group evaluation. As Aristotle, and most metaphysics, argues, morality is the most important virtue.

Morality appeared to be less important to the positive evaluation of out-groups. This contrasts with previous thinking. Social identity theory, and other functionalist perspectives on stereotypes, suggest that more successful in-groups evaluate less successful out-groups as moral as a form of *noblesse oblige*.<sup>3</sup> It is argued that by evaluating a less successful out-group as moral, the in-group can evaluate the out-group positively in an "alternative" domain other than competence (e.g., Blanz et al., 1995; Judd et al., 2005; Kay & Jost, 2003; Phallet &

Poppe, 1999). As such, evaluating a less successful out-group as moral is believed to legitimate the in-group's relative success in a "status-defining" domain suggestive of competence. However, as the present studies suggest that morality is most important to *in-group* evaluation, it seems unlikely that ascribing high morality to a less successful out-group functions to legitimate unequal success. Indeed, in Study 3, morality was relatively unimportant to individuals' positive evaluation of a relevant out-group, irrespective of the out-groups level of success relative to the in-group. Given how important morality is to the positive evaluation of in-groups, it is not surprising that it is less important to the evaluation of out-groups. Regardless of how much morality is ascribed to an out-group, it should have relatively little importance in the positive evaluation of this out-group if morality is indeed central to in-group membership.

As group morality appears most important to positive evaluation, groups may compete for moral status more than they compete for material status. This is suggested by Campbell and colleagues' large-scale cross-cultural studies of ethnocentrism (Brewer & Campbell, 1979; Levine & Campbell, 1972). From the Arctic circle to the Amazon, East Africa, and the South Pacific, morality was the only characteristic that in-groups consistently ascribed to themselves more than to out-groups. Although some in-groups viewed themselves as less competent, sociable, strong, or prestigious than neighboring out-groups, morality was the characteristic that appears most important to in-group favoritism. Recognizing the importance of morality to in-group membership may be an important first step in understanding its importance in inter-group relations.

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## Footnotes

1. Leach (2006) recently reviewed work on the evaluation of groups in the stereotyping, prejudice, attitude, and group bias literatures. He built on Osgood et al. (1957) and Rosenberg et al. (1968) to suggest an integrative two-dimensional framework. He conceptualized the characteristics of competence, strength, prestige, and activity as falling along a more general dimension of *power*, whereas the characteristics of sociability, morality, cooperation, and compatibility fall along a more general dimension of *benevolence*. That morality and sociability both fall along the more general dimension of benevolence suggests why these two characteristics have often been treated as one in work at both the individual (e.g., Wojciszke, 1994) and group (e.g., Fiske et al., 2002; Phallet & Poppe, 1997) level.

2. A similar problem can be found in research examining person perception. Wojciszke (1994) argued that morality is more important to individual's evaluation of *other* people than it is to evaluation of the self because other people's morality suggests whether they will enable, or thwart, one's goals. In apparent support of this reasoning, Wojciszke et al. (1998, Study 1) reported that participants identified more "morality-related" attributes (e.g., sincere, honest, fair, but also good-natured, helpful, and understanding) than "competence-related" attributes (e.g., competent, intelligent, knowledgeable, efficient) as among those most important for *other people* to possess. However, interpretation is muddled by the fact that the measure of "morality" conflates moral traits (i.e., sincere, honest, fair) with sociable traits (i.e., good-natured, helpful, understanding).

3. A functionalist perspective has been used to argue that morality is the characteristic most important to individuals' positive evaluation of other people (see Wojciszke, 1994). For example, Phallet and Poppe (1997) argued that in-group member's perceptions of out-group morality is essential to trust in the out-group's benevolence in interactions. However, previous research has tended to conflate out-group morality with sociability (e.g., Fiske et al.,

2002; Wojciszke, 1994) or dominance (Phallet and Poppe, 1997). Thus, the role of morality is unclear. It is the case, however, that studies which have assessed sociability free of morality show it to be very important to the positive evaluation of out-groups (e.g., Conway et al., 1996; Eagly & Steffen, 1984).

4. We performed three parallel ANOVAs with Target Group (in- vs, out-group) as a within-participant factor and Relative Group Success as a between participants factor. In-group morality, competence, and sociability were only affected by a main effect of Target Group. Participants ascribed more of all three characteristics to their in-group than to the out-group: morality --  $F(1,118) = 6.96, p = .009$ , partial  $\eta^2 = .06$ ; competence --  $F(1,118) = 19.54, p < .001$ , partial  $\eta^2 = .14$ ; sociability --  $F(1,118) = 10.79, p = .001$ , partial  $\eta^2 = .08$ .

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Table 1: Correlations between importance given in-group morality, sociability, and competence and closely related traits, Study 1.

	Morality	Sociability	Competence
<u>Valence</u>	<u>.38*</u>	<u>.33*</u>	<u>.41*</u>
Virtuous	.29*	.26*	.24*
Valuable	.42*	.24*	.35*
Constructive	.31*	.21*	.38*
Worthless	-.27*	-.27*	-.15
<u>Correct</u>	<u>.39*</u>	<u>.20</u>	<u>.10</u>
Good	.42*	.31*	.25*
Correct	.40*	.20	.24*
Bad	-.29*	-.15	-.05
Wrong	-.23*	-.21	-.01
<u>Communality</u>	<u>.08</u>	<u>.52*</u>	<u>.10</u>
Benevolent	-.12	.31*	-.12
Kind	.16	.59*	-.01
Helpful	.35*	.41*	.29*
Safe	.27*	.32*	.15
<u>Achievement</u>	<u>-.16</u>	<u>-.10</u>	<u>.44*</u>
Superior	-.20	-.21	.27*
Successful	.06	-.07	.37*
Prestigious	-.07	-.07	.36*
Ambitious	.01	-.01	.30*

*Note:* Underlined numbers are inter-scale correlations with the other characteristics partialled.

Table 2: Item loadings from Principal-Axis Factor Analyses with Oblimin rotation, Study 3.

	<u>Morality</u>		<u>Sociability</u>		<u>Competence</u>	
	In >	In <	In >	In <	In >	In <
<u>In-group</u>						
honest	<b>.885</b>	<b>.973</b>	-.084	.227	-.119	-.187
sincere	<b>.676</b>	<b>.490</b>	-.251	-.228	.107	.502
trustworthy	<b>.938</b>	<b>.546</b>	.095	.110	.032	.265
likeable	.234	.099	<b>-.630</b>	<b>.613</b>	.186	.262
friendly	.338	.048	<b>-.450</b>	<b>.428</b>	.247	.502
warm	.001	.114	<b>-.771</b>	<b>.608</b>	-.088	.008
intelligent	-.049	-.066	-.009	.072	<b>.667</b>	<b>.900</b>
competent	-.068	.001	-.138	.172	<b>.697</b>	<b>.598</b>
skilled	.218	.025	.274	-.024	<b>.650</b>	<b>.797</b>
variance (%)	<b>41.46</b>	<b>30.05</b>	12.36	6.48	9.33	28.42
<u>Out-group</u>						
honest	<b>-.717</b>	<b>-.548</b>	.046	.585	-.006	-.088
sincere	<b>-.820</b>	<b>-.713</b>	.003	.037	-.115	.414
trustworthy	<b>-.711</b>	<b>-.046</b>	.068	.894	.096	-.094
likeable	.157	-.104	<b>.793</b>	<b>.458</b>	-.249	.223
friendly	-.265	-.036	<b>.648</b>	<b>.516</b>	<.001	.111
warm	-.116	.084	<b>.629</b>	<b>.251</b>	.008	.084
intelligent	.066	-.023	.147	.080	<b>-.723</b>	<b>.825</b>
competent	.031	-.206	.222	-.017	<b>-.620</b>	<b>.653</b>
skilled	-.217	.131	-.316	.133	<b>-.790</b>	<b>.806</b>
variance (%)	14.74	7.87	<b>29.59</b>	6.28	13.88	<b>44.80</b>

Note: In > : In-group more successful than out-group ; In < : In-group less successful than out-group