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# On the Dominance of Moral Categories in Impression Formation

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*Based on the notion that approach-avoidance underlies impression formation processes and that approach-avoidance is more directly based on appraisals of others' morality (M) than competence (C), we hypothesized that M-related information played a more important role at various phases of global impression formation than C-related information on target persons. In four studies (N = 342 university students), we predicted and found that (a) M traits showed a higher chronic accessibility than C traits; (b) when gathering information to formulate a global impression, perceivers were more interested in M traits than C traits; (c) global impressions of real persons were better predicted from M trait ascriptions than C trait ascriptions, and (d) positivity-negativity of impressions of fictitious persons was decided mainly by the M content of their behavior, whereas C information served as a weak modifier of impression intensity. The dominance of M traits over C traits was more pronounced for female perceivers than for male perceivers.*

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**A** goal-oriented approach to person perception (Trzebinski, 1985) and personality description (Pervin, 1989) assumes that goals are central both to the scientific assessment and lay perception of personality. This approach distinguishes two general types of goal categories: one that refers to the actor's intended goals and another that concerns the probability of goal attainment. Identification of the actor's goal is frequently a prerequisite for drawing inferences about his or her traits (Read, Jones, & Miller, 1990), and the intended goal is paramount in deciding whether an action is moral or immoral (Shultz & Wright, 1985). On the other hand, efficiency of goal attainment is crucial in determining the actor's competence and abilities (Darley & Goethals,

1980). It may be expected, then, that morality (M) and competence (C) constitute two basic and relatively independent meanings of social behavior and personality traits.

This expectation found substantial support in a number of studies. Moral- and competence-related traits frequently appear in voters' open-ended commentaries on political candidates; Kinder and Sears (1985) claimed that M and C constitute two separate and basic clusters of traits in the perception of political leaders. Wojciszke (1994) asked his participants for recollections of episodes in which they had come to clear-cut evaluative conclusions on other people or themselves. Content analyses of more than 1,000 episodes showed that in three fourths of them, the evaluative impression was based on M- or C-related considerations. Finally, in classical studies on the structure of implicit personality theories, Rosenberg and his coworkers (Rosenberg & Sedlak, 1972) showed that co-occurrences of traits in person impressions were underlain by two relatively independent dimensions. Although Rosenberg dubbed the

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dimensions intellectually good-bad and socially good-bad, the terms *competence* and *morality* may be equally or even more appropriate. Numerous traits marking the intellectually good-bad dimension have more to do with competence in general than with intellect (e.g., persistent, industrious, wavering), whereas many of the traits defining the socially good-bad dimension clearly pertain to morality (e.g., sincere, helpful, dishonest).

#### *Differences Between Moral- and Competence-Related Categories*

At least two theories—the schematic model of attribution (Reeder, 1985) and the cue-diagnostics model of impression formation (Skowronski & Carlston, 1987)—hypothesize differences in the processing of M and C information. Both theories assume that people infer personality traits from others' actions and that in the M domain, negative information is more decisive or diagnostic than positive information, whereas the opposite is true in the C domain. An important effect of this positive-negative asymmetry is that integration of incongruent information results in a negativity bias in the M domain, but it results in positivity bias in the C domain (Kubicka-Daab, 1989; Skowronski & Carlston, 1987; Wojciszke, Brycz, & Borkenau, 1993).

Another important difference between the two domains is that M judgments are more saturated with affect than C judgments. For example, using literally hundreds of behavior descriptions, Wojciszke, Pieńkowski, Maroszek, Brycz, and Ratajczak (1993) found that behavioral acts elicited more extreme evaluations when they exemplified M traits rather than C traits. In a similar vein, Brycz and Wojciszke (1992) showed that in the M domain, lay predictions of a target person's future behavior were to some degree based on the perceiver's purely affective responses to the target, whereas in the C domain, the predictions were solely based on cool ascriptions of a relevant personality trait.

Why should morally relevant behavior instigate a stronger emotional response than behavior revealing (in)competence? One possible answer is that perceivers typically tend to construe incoming information in terms of its bearing on their own self-interest (unless they are driven by other specific goals) and that others' morality is typically more relevant for the perceiver's interests than is their competence. Usually, an individual's immoral behavior is harmful to other people, whereas his or her moral behavior is beneficial to them. Perceivers are involved as targets of those harms or benefits, either actually or potentially. On the other hand, C qualities of behavior are of only secondary importance to perceivers (with the exception of observers processing information under a specific, C-related goal, such as

when making employment decisions). They are consequential to the extent that the actor's competence leads to a higher or lower efficiency in inflicting harm or furnishing benefits.<sup>1</sup>

#### *Dominance of Moral Categories in Global Impression Formation*

All of this suggests that M-related information should receive special treatment in the global appraisals of others. Such appraisals have been studied in countless experiments under the impression formation heading. The ease and willingness with which people make such impressions, even without a specific goal in mind and based on a very impoverished base, suggests that this is a natural task for them. Why do people engage in formation of evaluative impressions in natural settings? The most straightforward answer seems to be that such impressions reflect the location of others on the approach-avoidance dimension. All organisms have at least one mechanism for differentiating agreeable environments from adverse environments (Martin & Levey, 1978), and people have many such mechanisms, including evaluative processes, such as attitudinal responses (Cacioppo & Berntson, 1994) and global impressions of others.

If the main function of global evaluative impressions is to distinguish between persons who should be approached and persons who should be avoided, it is clear why M categories occupy a privileged position in impression formation. These categories are instrumental in locating others on the approach-avoidance dimension to a higher extent than any other concept (C traits included)—a decision about whether a person is moral amounts to a direct settlement of whether the person is beneficial rather than dangerous.<sup>2</sup> In contrast, information on his or her competence plays the role of a modifier. That is, it helps to decide how beneficial or how dangerous the person is, and it comes to play only after the basic approach-avoidance decision (i.e., moral judgment) has been made. Therefore, we expect M categories to play a dominant role at different stages of impression formation—from gathering information on which an impression is to be based to concluding what the final impression is.

#### *Perceiver's Sex*

In traditional sex-role stereotypes, caring for others' needs and well-being is considered the domain of women rather than men, whereas task orientation and striving for occupational achievement and excellence is considered the domain of men rather than women. Although in modern societies these sex-role stereotypes have decreased in their scope and intensity, they are still being built into people's self-identities. In the course of

socialization, males learn more about the importance of C traits, whereas females learn more about the importance of M traits (Eagly, 1987). These differential socialization practices can result in females' tendency to base their impressions of people to a higher degree on M judgments than on C judgments; the opposite is true for male perceivers. In effect, the dominance of M categories over C categories postulated in impression formation should be more pronounced for female perceivers than for male perceivers.

#### *Overview of the Studies and Hypotheses*

In Study 1, we asked our participants to list those personality trait descriptors that they considered to be most important in other persons. These trait names were then rated for their M relatedness and C relatedness to test the hypothesis that the most (chronically) accessible descriptors of others are more related to morality than to competence. In Study 2, we examined the information gathering process and tested the hypothesis that when forming global impressions of others, people are more interested in their M traits than their C traits. In Study 3, we studied M traits and C traits ascribed to several target persons and tested hypotheses that global impressions of real persons are better predicted from M trait than C trait ascriptions. Finally, in Study 4, we investigated global impressions based on behavioral information concerning both M and C of fictitious target persons. We tested the hypothesis that the global impression of positivity-negativity was decided mainly by the M content of targets' behavior, whereas C information served only as a relatively weak modifier of impression intensity.

#### STUDY 1: CHRONIC ACCESSIBILITY OF M TRAITS AND C TRAITS

It is well known that people differ in the content of the chronically accessible constructs that they use in their perception of others, presumably due to frequent and consistent use of these categories in the past. Heightened chronic accessibility of a construct (e.g., such as the person descriptor of honesty) results in a greater likelihood of detection of information that is relevant to the construct (Bargh & Pratto, 1986) and greater sensitivity to the construct-relevant information in the person-perception process (Higgins, King, & Mavin, 1982). Chronic accessibility was understood in the cited studies as individual differences in heightened probability of use of single constructs (such as intelligent, honest, or conceited). However, the present theorizing implies chronic accessibility of a whole class of concepts (i.e., M-related traits). Despite possible individual differences, this heightened accessibility (compared to C-related

traits) should be a general tendency (although more pronounced for female perceivers than for male perceivers).

To test these hypotheses, we elicited from our Study 1 participants their most accessible person descriptors and then had the descriptors rated for their M relatedness and C relatedness.

#### METHOD

##### *Participants*

The study consisted of 46 male and 44 female university students, who participated in groups of 5 to 15.

##### *Procedure*

*Measurement of chronically accessible constructs.* Participants were informed that the study dealt with the influence of sex and age on person perception and were asked to think of the 10 most important personality traits ("traits that you personally think are most important in others and that draw your attention more than other traits") and to write them down in slots printed below each instruction. Only one third of the participants wrote 10 traits, but nearly all (96%) of the participants wrote at least 5 traits. Therefore, the first 5 traits produced by each participant were analyzed for their M relatedness and C relatedness. Domain relatedness of these trait names (and others, including traits most typical for both domains, elicited in another study; altogether 200 traits) were obtained from a recent study of Wojciszke, Dowhyluk, and Jaworski (1997). These authors asked three groups of students (each of 19 persons) to rate the traits for their M relatedness, C relatedness, and global favorability. M relatedness was rated on a scale ranging from 0 (*not related to morality at all*) to 10 (*very strongly related to morality*). M-related traits were defined as those that pertained to breaking or maintaining of moral rules and/or with doing good or bad things to others. C relatedness was rated on a similar 10-point scale, with C-related traits defined as those that enable people to efficiently attain their goals or obstruct the goal attainment (whatever the goals were). Global favorability of the traits was rated on a scale ranging from 5 (*very unfavorable*) to 0 (*neutral*) to 5 (*very favorable*)—participants simply indicated how much they considered each trait to be positive or negative in general. Because ratings appeared very consistent (Cronbach's estimates of reliability varied from .92 to .99), cross-rater averages served as the domain-relatedness indices of the traits. Morality relatedness of an individual's chronically accessible traits was estimated by averaging M relatedness of the first five traits given by the individual. Individual differences in C relatedness of chronically accessible traits were ascertained in a similar way.

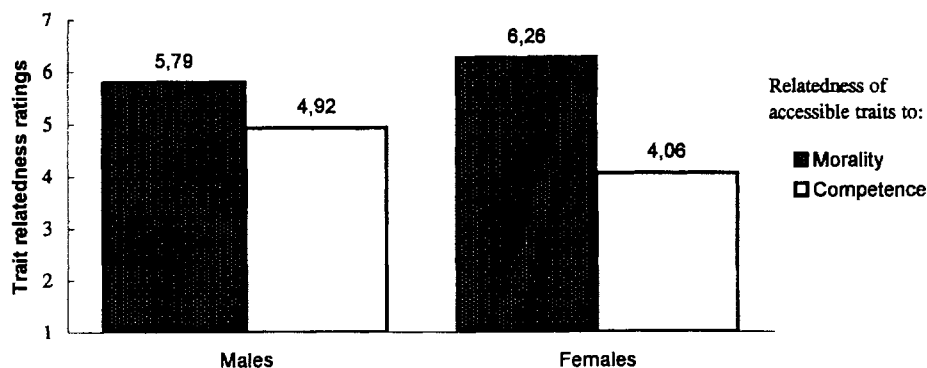


Figure 1 Chronic accessibility of moral-related and competence-related traits in male and female perceivers (Study 1).

## RESULTS

The indices of domain relatedness of chronically accessible traits were subjected to a 2 (Sex)  $\times$  2 (Domain) MANOVA with repeated measurements on the second factor. This analysis revealed a significant main effect of the domain with higher M relatedness ( $M = 6.02$ ) than C relatedness ( $M = 4.50$ ) of the chronically accessible traits,  $F(1, 88) = 27.35, p < .001$ . The 10 most frequently listed traits (which were listed by at least one fifth of the participants) were: sincere, honest, cheerful, tolerant, loyal, intelligent, truthful, unselfish, reliable, and kind. Of the 10 most frequently listed adjectives, 8 referred to morality rather than competence. Moreover, the analysis revealed a significant Sex  $\times$  Domain interaction,  $F(1, 88) = 5.18, p < .05$ , which is illustrated in Figure 1. M relatedness was reliably higher than C relatedness both for males,  $t(44) = 2.01, p < .05$ , and females,  $t(44) = 5.54, p < .001$ ; however, as expected, this difference was significantly greater for females.<sup>5</sup>

## STUDY 2: SELECTION OF M TRAITS OVER C TRAITS

A person's perception process typically starts either with an active search for information about the perceived person or with a more passive choosing among different items of incoming information. Whether active or passive, the outset of person perception involves a selection of information on which the impression will be based. The dominance of morality hypothesis suggests that when selecting information, perceivers should be generally more interested in M qualities than C qualities of the perceived person. Generally, however, does not mean always. Human information processing is highly flexible and dependent on the perceiver's cognitive and motivational goals (Hilton & Darley, 1991). When the perceiver's goal pertains to the target's competence (as

in the course of employment decisions), the former will be highly tuned to information on the latter's abilities. In a similar vein, when the perceiver is for some reason or another interested in the target's integrity, the latter's morality will draw his or her attention.

The dominance of morality hypothesis suggests a high interest in the target's morality, even when this concern is not fueled by current specific goals of the perceiver. Specifically, we predict that perceivers should be interested in gaining information about the target's morality when forming a global evaluative impression, that is, when functioning under this unclearly specified goal (which is, however, frequently pursued by perceivers both outside and inside of the laboratory).

To test this hypothesis, we devised a simple trait-selection task in which participants chose traits that they considered important to accomplishing one of the three goals: (a) to form a global evaluative opinion of a person (impression goal), (b) to decide whether they should confide in a person (M-relevant goal), and (c) to decide whether they should charge a person with the task of negotiating in a complicated labor dispute (C-relevant goal). Participants were presented with a list of 24 traits potentially characterizing a target person and were asked to select traits that they would like to be informed about to pursue their relevant impression goal. The prediction was that participants would select C traits rather than M traits under the C-relevant goal; however, the opposite would be true under both the M-relevant and global-impression goals.

## METHOD

### Participants and Overview

The participants consisted of 46 male and 54 female university students. Each student was asked to carry out

**TABLE 1: Moral-Related and Competence-Related Traits Selected Under Different Goals (conditions) of Study 2**

Goal/Condition	Domain		t (df = 99)
	Morality	Competence	
Number of traits selected			
Personal secret	4.48	1.50	12.55
Negotiator	2.36	4.62	8.71
Impression	4.33	2.23	7.62
Domain relatedness of the traits selected			
Personal secret	6.53	3.78	12.54
Negotiator	4.72	6.72	8.02
Impression	5.44	4.10	6.18

NOTE: All *t* tests are significant at  $p < .001$ .

the trait-selection task under all three goals. The order of the goals/conditions was varied between participants, with every sixth participant carrying out the tasks in a different order (altogether, six orders were possible).

#### Goal Induction

The goals were induced by a verbal instruction, which read as follows for the impression goal:

Imagine that you are in a room together with a few strangers and for some reason you have to decide who deserves your most favorable opinion. To decide this, you should, of course, know who those people are; for example, you should know what their important features or traits are. A list of personality traits is printed below. Please underline all of those traits that you would like to check (whether or not a person has a trait) to decide whether the person deserves your generally positive opinion. Underline all of the traits that you would like to know about in such a situation.

In the morality-relevant condition, the phrase "you have to decide in whom you could confide with a personal secret" was inserted into the instruction. In the competence-relevant condition, the phrase "you have to decide whom to charge with a task of an impartial negotiator in a complicated dispute between management and employees in a plant" was inserted.

#### Materials and Dependent Measures

Below each instruction, 24 positive trait names were printed. There were 8 M traits (fair, generous, helpful, honest, righteous, sincere, tolerant, and understanding) and 8 C traits (clever, competent, creative, efficient, foresighted, ingenious, intelligent, and knowledgeable). The average favorability ratings for M traits was 4.12, and the average favorability ratings for C traits was 4.14 (on a scale ranging from -5 to +5) (cf. the Method section of Study 1). The average rating of the M traits was 8.26 for their morality relatedness and 2.42 for their competence

relatedness. The average rating of the C traits was 2.29 for their morality relatedness and 9.19 for their competence relatedness (on a scale ranging from 0 to 10) (cf. the Method section of Study 1). In addition, 8 buffer traits related neither to M nor to C were dispersed over the list.

Two dependent measures were used. The first was simply the number of M and C traits selected by the participant. The second measure was the domain relatedness score; that is, the average M-relatedness and C-relatedness ratings of all traits selected by the participant, calculated on the basis of domain-relatedness ratings described in the Method section of Study 1.

#### RESULTS AND DISCUSSION

Each dependent measure was subjected to a  $6 \times 2 \times 3 \times 2$  ANOVA, with the task order and sex serving as between-participant factors and the goal (impression vs. morality relevant vs. competence relevant) and the content of selected traits (M vs. C) serving as repeated measures. The analyses yielded no significant effects involving task order or sex. Both analyses revealed a significant main effect of domain, with M traits being selected more frequently than C traits (e.g., for the trait number measure, the means were 3.72 vs. 2.78). These main effects were completely constrained by the predicted Goal  $\times$  Trait content interaction, which appeared strong and significant for both the number of traits selected,  $F(2, 176) = 131.44$ ,  $p < .001$ , and the domain-relatedness measure,  $F(2, 176) = 115.99$ ,  $p < .001$ . As can be seen in Table 1, participants were more interested in C traits than M traits under the negotiator goal; however, clearly the opposite was true under the two remaining goals.

As predicted, then, impression formation instigated greater interest in obtaining information on morality than competence of the target person. The greater interest in M traits was not driven by their higher favorability because the average favorability ratings of the eight M and eight C traits used in the present study were virtually identical and invariably high (as reported in the Method section).

#### STUDY 3: M-TRAIT VERSUS C-TRAIT ASCRIPTIONS AS IMPRESSION PREDICTORS

Our basic claim is that when perceivers make global evaluations of others, they rely more on categorizations related to the morality of others than on categorizations related to their competence. We subjected this conjecture to two divergent tests in the remaining studies of the present series. In Study 3, participants were asked for their global impressions of 20 persons from their own social milieu and were to describe them with 10 M traits

**TABLE 2: Differences Between the Moral and Competence Domains in Their Influence on Global Impressions and the Intradomain Integration (Study 3)**

Measure	Domain		F
	Morality	Competence	
Influence on global impressions (regression analyses)			
Number of significant traits/predictors	1.90	1.40	9.36
Impression variance explained by the traits	52.99	29.26	8.45
Intradomain integration (principal components analyses)			
Number of factors (eigenvalue > 1)	1.70	2.12	15.43
Variance explained by the first factor	67.75	61.35	19.61

NOTE: All *F*s are significant at  $p < .005$  (one tailed).

and 10 C traits. Two hypotheses were tested. First, we predicted that global impressions would be more influenced by specific judgments of M traits than C traits: A greater amount of impression variance should be explained by the former than the latter, despite the balanced favorability of traits representing the two domains.

Second, a higher intradomain integration in the M domain than in the C domain was expected. We predicted that ratings of M traits would show a simpler factorial structure (a smaller number of factors of eigenvalues exceeding 1.00 and a greater amount of variance explained by the first factor) than ratings on C traits. This prediction was based on our idea that M judgments reflect a participant's responses on a single interpersonal approach-avoidance continuum.

## METHOD

### Participants

The study consisted of 33 male and 40 female university students, who participated in small groups that included 5 to 10 individuals.

### Materials and Procedure

Each participant received a grid with 20 trait names printed in rows and 20 numbered columns to be filled with initials of persons known to him or her (identified by a role, e.g., mother, closest friend, neighbor, etc.). Ten traits exemplified the M domain (fair, generous, good-natured, helpful, honest, righteous, sincere, tolerant, truthful, and understanding), and 10 traits exemplified the C domain (clever, competent, creative, efficient, energetic, foresighted, gifted, ingenious, intelligent, and knowledgeable). These two sets of traits were balanced in favorability: Mean favorability was 4.06 for M traits and 4.04 for C traits on a scale ranging from -5 to +5 (based on the data gathered by Wojciszke et al., 1997). Participants described all target persons with each trait using a

rating scale ranging from 0 to 6. In the final row, they indicated their global impressions of the targets using a scale of the same format.

Approximately half of participants were instructed to make their ratings by targets (first target person rated for all consecutive traits, then second person, etc.). The remainder made their ratings by traits (all persons rated for the first trait, then for the second trait, etc.).

### Dependent Measures

Measures of the influence of domain on global impressions were drawn from stepwise regression analyses performed separately for each participant. In those analyses, global impressions served as a dependent variable and ratings of specific traits served as predictors. The number of significant traits/predictors (entering the regression equation) from each domain and the amount of impression variance explained (i.e., a sum of changes in the  $R^2$  indices) by M traits versus C traits were analyzed as indicators of the influence of domain on global impressions.

In addition, two principal component analyses of the correlations among ratings were performed for each participant, separately for the M-trait and C-trait ratings. In this way, two measures of intradomain integration were obtained for each domain: first, the number of factors (eigenvalues exceeding 1.00) underlying the ratings and second, the amount of variance explained by the first factor (expressed in percentages).

## RESULTS AND DISCUSSION

Each measure was subjected to a  $2 \times 2 \times 2$  MANOVA with the instruction (by persons vs. by traits) and sex serving as between-participant factors and domain serving as a within-participant factor. The instruction yielded no significant effects.

### Domain Influence on Global Impressions

Judgments of M traits emerged as a relatively better predictor of global impressions than judgments of specific C traits. As can be seen in Table 2, a higher number of M traits than C traits entered the regression equation as significant predictors of global impressions, and the former also explained a greater amount of impression variance. When the traits were ordered according to the cross-participant averages of impression variance explained by each of them, six M traits (helpful, sincere, fair, understanding, truthful, honest) appeared among the seven strongest predictors of impression, but only one referred to competence (resourceful).

A significant Domain  $\times$  Sex interaction was also found,  $F(1, 69) = 6.49$ ,  $p < .02$ , reflecting the fact that the between-domain difference ( $M$ s = 60.7 vs. 19.9) was

significant for females,  $t(39) = 4.50, p < .001$ , but not for males ( $M_s = 43.5$  vs.  $40.8$ ). Sex differences in the relative importance of M predictors versus C predictors of global impressions contributed to this interaction. M traits predicted a smaller amount of variance of global impressions in male perceivers than female perceivers,  $t(72) = 2.16, p < .05$ . The opposite was true for C-trait judgments, which predicted more variance in males than females,  $t(59) = 4.50, p < .02$  ( $t$  test for unequal variance).

#### *Intradomain Integration*

Judgments of different M traits appeared significantly more integrated than judgments of C traits. As can be seen in Table 2, principal component analyses yielded a smaller number of factors in the M domain than in the C domain. Indeed, the M ratings were underlain by a single factor (i.e., showed a maximum level of integration on this measure) for as many as 44% of participants, whereas for the C ratings, this was true only in the case of 21% of participants. Similarly, the amount of variance explained by the first factor was significantly greater in the M domain than in the C domain, as also shown in Table 2. M judgments tend to be more unidimensional than judgments on C traits.

These main effects, however, were seriously constrained by the Sex  $\times$  Domain interaction, which appeared significant both for the number of factors,  $F(1, 69) = 9.39, p < .005$ , and the amount of variance explained by the first factor,  $F(1, 69) = 6.82, p < .02$ . The interaction meant that domain differences were much less pronounced for males than for females. For the latter, the amount of variance explained by the first factor was significantly greater in the M domain ( $M = 67.78$ ) than the C domain ( $M = 58.22$ ),  $t(39) = 5.02, p < .001$ . For males, however, this difference ( $M_s = 67.73$  vs.  $65.19$ ) was smaller and only marginally significant,  $t(39) = 1.32, p < .10$  (one tailed).

Finally, it should be noted that participants' judgments of M traits and C traits explained jointly a huge part of the global impression variance (82.25% on the average). This supports our claim that morality and competence indeed constitute the two content domains that are basic for impression formation.

#### STUDY 4: M VERSUS C BEHAVIORAL INFORMATION INFLUENCES ON IMPRESSION

Study 3 is haunted by the dilemma typical for all correlational studies—what is the cause, what is the effect? This problem may be solved experimentally, and this was the goal of the present study. Moreover, although the previous studies suggest the priority of M over C categories in person perception, they do not imply that social perceivers ignore competence considerations

when forming their impressions of others. On the contrary, Study 2 revealed that perceivers showed a great interest in gathering information about C traits when this was important under their cognitive goal, and Study 3 revealed that, on the average, nearly 30% of global impression variance was accounted for by C-trait ascriptions. This raises a question of how information about a target's M and C is integrated into an impression.

Classical models of impression formation (Anderson, 1981) suggest that partial evaluations implied by M and C information on target persons are simply summed up or averaged, and the relatively greater contribution of M-driven evaluations can be taken into account by assigning higher weight to M information than to C information. Our thesis of the dominance of M information over C information suggests, however, that there is more to the M information than simply its higher weight. Because the main function of moral judgments is to locate a target person on the interpersonal approach-avoidance dimension, we suggest that M information serves as the basis for a decision as to whether a target person should be approached or avoided, but C information only intensifies this basic decision. In other words, we hypothesize that whereas the valence of global evaluative impression is based on the positivity-negativity of M information, the extremity of impression is secondarily influenced by the negativity-positivity of C information on the same target person.

Moreover, the contribution of M and C information to the global impression should be interactive rather than additive. The present analysis in terms of self-interest suggests that competent moral deeds bring forth a greater amount of benefits than inefficient moral deeds (e.g., efficient help is simply better than inefficient help). Therefore, a person who is both moral and competent should elicit a more favorable impression than a person who is moral and incompetent. By the same logic, because efficient immoral deeds produce more harm than inefficient deeds (an efficient burglary is more damaging than an inefficient burglary), a person who is both immoral and competent should instigate a more unfavorable impression than an immoral but incompetent person. An additive model would predict the opposite in this study because the combination of a negative piece of information and a positive piece of information should result in a less unfavorable impression than the combination of two negative pieces.

This analysis, however, applies to situations in which competence means efficiency in good or wrongdoing, whereas incompetence means inefficiency. In other words, our predictions hold when M and C constitute different aspects of the same behavioral act (which is immoral and efficient, immoral and inefficient, etc.) but not when the information on M and C is embedded in

entirely different behavioral acts. To test these predictions, we used behavior descriptions that conveyed either positive or negative information on a target's morality and either positive or negative information on the target's competence. Half of the participants received the descriptions in the separate acts format, in which two behavioral acts were described, one pertaining to M and one pertaining to C (e.g., Mark spreads untrue gossip to discredit a colleague; Mark talks in such an obscure and illogical way that he cannot persuade anybody). The remaining participants received the identical content in the same act format, in which a single behavioral act pertained both to M and C (e.g., Mark spreads untrue gossip to discredit a colleague, but he talks in such an illogical way that he cannot persuade anybody).

## METHOD

### *Participants*

The study consisted of 79 university students who participated in the main study and 60 students who participated in a pilot study aimed at the preparation of materials for the main study. The participants were between the ages of 21 and 25; 62 participants were male.

### *Procedure and Design*

The main study participants participated in groups of 3 or 4 and were told that the experiment dealt with formation of global impressions as based on the description of targets' behavior. Each participant formed impressions of 12 targets: 2 (M-Positive vs. M-Negative Information)  $\times$  2 (C-Positive vs. C-Negative Information)  $\times$  3 (Replications of Three Specific Contents of Behavioral Descriptions) in a random order decided for each participant separately. For 40 participants, each target description consisted of two behavioral acts, one pertaining to M and one to C (the separate acts format). For the remaining participants, each description consisted of an equivalent single act pertaining both to M and C (the same act format).

The resulting impressions were averaged over replications and analyzed in a 2 (Format)  $\times$  2 (M Valence: Positive vs. Negative)  $\times$  2 (C Valence: Positive vs. Negative) design, with repeated measures on the two last factors.

### *Materials*

We devised an initial pool of 27 pairs of behavioral act descriptions that would fulfill the following criteria: (a) the acts within a pair could be presented both separately as two different acts and jointly as the same act, (b) the pairs would cover all four M (positive vs. negative) by C (positive vs. negative) combinations of interest, (c) within a pair, one of the acts would pertain to M but not

to C, (d) the other act would pertain to C but not to M, (e) M relatedness and C relatedness would be of the same strength, and (f) the component act descriptions would be balanced for their favorability-unfavorability.

To verify the criteria in b, c, d, e, and f, we performed a pilot study in which a group of 20 participants rated all of the act descriptions for their favorability-unfavorability (on a scale ranging from -4 to 0 to +4). Another group of 20 rated them for M relatedness on a scale ranging from -4 (highly immoral) to 0 (neither moral nor immoral) to +4 (highly moral). A final 20 participants rated the descriptions for C relatedness using a similar scale ranging from -4 to +4. The ratings appeared highly reliable—in all three cases, Cronbach's alpha exceeded .90.

Based on these ratings, 12 best pairs of behavior descriptions were selected with three pairs for each of four M (positive vs. negative) by C (positive vs. negative) combinations. For the M act descriptions, the average M relatedness was 2.77 and the average C relatedness was 0.46. For the C act descriptions, the average C relatedness was 2.11 and the average M relatedness was 0.48. The component act descriptions did not differ significantly in their saturation with the M versus C meaning.

Our stimulus material meets, then, the first five of our criteria. The sixth criterion (balancing the M and C component acts in favorability), however, appeared impossible to satisfy. Despite several attempts, we always obtained M component acts that were more saturated with evaluation than the C component acts. In the finally accepted 12 pairs of behavior descriptions, the absolute value of favorability ratings of M component acts was 2.98, but it was only 1.79 for the C component acts.<sup>4</sup> This constrains the interpretation of differences between M information and C information in its influence on the final global impressions, although it does not impair the comparisons that involve the format variable (because the identical component information was presented in these two conditions).

A typical example of the M-negative/C-negative combination was given in the introduction to the present experiment. The following is an example of the M-negative/C-positive combination in the same act format: Because Adam could skillfully adjust his arguments to each listener, he persuaded a friend to endorse a bank loan to him that he (Adam) had not intended to pay back. In the separate act format, this sentence was split into two detached sentences: Adam can skillfully adjust his arguments to each listener; Adam persuaded a friend to endorse a bank loan to him that he (Adam) had not intended to pay back. An example of the M-positive/C-negative combination is: Bob defended an absent friend against groundless accusations, but he spoke in such an illogical and obscured way that he could not



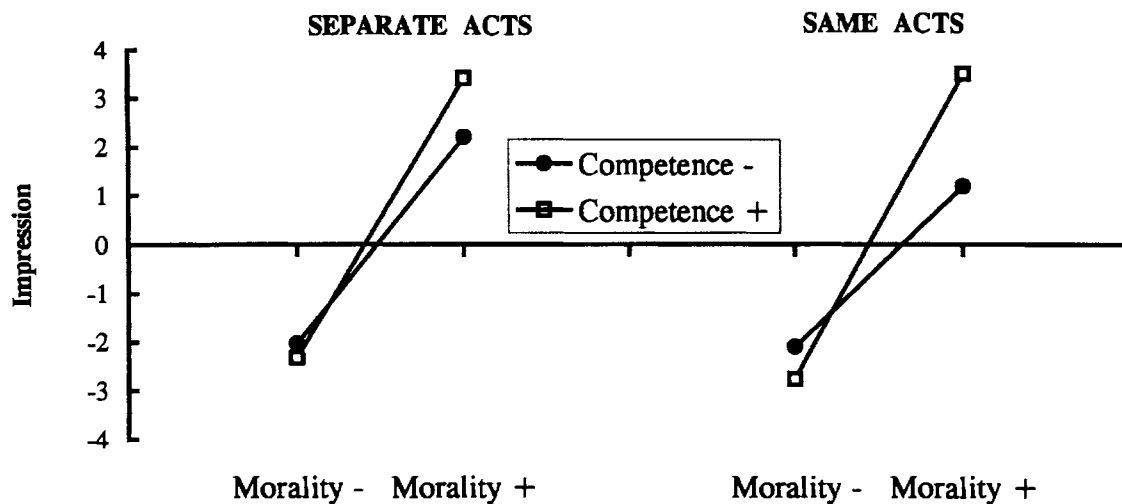


Figure 2 Global impression as a function of the valence of moral-related and competence-related behavioral information in the separate acts and the same acts conditions (Study 4).

persuade anybody. Finally, a sample of the M-positive/C-positive combination is: Although himself in a hurry, Andrew stopped on his way seeing a helpless woman; he right away found what was wrong with her car and got it going using an ingenious trick.

#### Dependent Measure

A single 9-point rating scale ranging from -4 (negative) to 0 (neutral) to +4 (positive) was used to measure the global impressions of target persons.

## RESULTS AND DISCUSSION

### Nonadditivity of M Influences and C Influences

The predicted interaction of the Format (Separate Acts vs. Same Act)  $\times$  M Information (Positive vs. Negative)  $\times$  C Information (Positive vs. Negative) was significant,  $F(1, 77) = 19.51, p < .001$ . As can be seen in Figure 2, the M and C information interacted in different ways under the two formats. In the separate acts condition, C positive information increased the impression when the M information was positive, although the C information did not influence the impression under the negative M information. In other words, moral persons were liked better when they were competent rather than incompetent, whereas immoral persons were disliked independently of their competence.

In the same acts condition, the impression of a moral target was higher when the target was also competent, rather than incompetent ( $M_s = 3.49$  vs.  $1.19$ ),  $t(38) = 11.67, p < .001$ . The impression of an immoral target,

however, was significantly lower when the target showed also a high rather than low competence level ( $M_s = -2.77$  vs.  $-2.11$ ),  $t(38) = 4.80, p < .001$ . Moreover, in the same acts condition, the M-negative and C-positive combination produced the lowest impression of all cell means, and this combination of input information produced a significantly lower mean in the same acts condition than in the separate acts condition ( $M = -2.77$  vs.  $-2.33$ ),  $t(77) = 2.22, p < .05$ .

Altogether, this pattern of results is more consistent with the present idea of the dominance of M categories in person perception than with additive models of impression formation (which assume that content of input does not matter, only its favorability). Such models are based on the parallelity theorem, implicated by the assumption of stable and context-independent scale values of the pieces of information that are being integrated. This theorem is clearly not supported by the present data.<sup>5</sup>

### Morality Versus Competence Influence on Impressions

The analysis also revealed significant effects of the valence of both M and C information. The impressions were much higher when based on positive rather than negative M information ( $M_s = 2.57$  vs.  $-2.31$ ),  $F(1, 77) = 1434.20, p < .001$ ; they were also higher when based on positive rather than negative C information ( $M_s = 0.45$  vs.  $-0.19$ ),  $F(1, 77) = 52.85, p < .001$ . This pattern of results is partially due to the input M information being relatively more extreme in its favorability. However, we believe that this factor alone cannot explain the enor-

mous difference in the size of the M-valence and C-valence influence on impressions. Partial  $\eta^2$  amounted to .95 in the case of the former but only to .41 in the case of the latter. Moreover, when M information was negative, the global impressions were always negative (even when the C input information was positive), but when M information was positive, the impressions were always positive, as can be seen in Figure 2.

Our results show some similarity to those of Martijn, Spears, Van der Pligt, and Jakobs (1992), who used M and C trait names as input information and also found a greater effect of moral information. Although those authors did not provide any direct effect size measures, they reported three-digit *F*s for the M valence information influence on impression but only one-digit *F*s for the C information effect.

To summarize, the present study shows that M-related information retains its evaluative meaning independent of the context (co-occurring information on competence). Just the opposite is true for the C information, which shows a substantial instability of evaluative meaning: High efficiency may easily change its meaning from positive to negative in a morally negative context. These results support our claim of the dominance of M over C information: Information on morality provides the context for ascertaining evaluative implications of competence but not vice versa.

#### GENERAL DISCUSSION

Despite their divergent methods, the present studies converge in demonstrating the prevalence of M over C categories in impression formation. Our preferred explanation of these data is that M categories occupy a privileged position in global evaluative impressions of others because they are instrumental in locating others on the approach-avoidance dimension to a higher extent than any other concept (C traits included).

M traits are more directly related to the perceiver's self-interest than are C traits. Because the moral content of information on others is more important to the perceivers' interests, this content typically receives special consideration. The appropriate constructs are chronically accessible (Study 1), M information is more frequently sought when data on others is gathered (Study 2). When it is already gathered, information on M traits influences global conclusions on others to a higher degree than information on C traits, whether these conclusions concern actual, well-known persons (Study 3) or fictitious strangers (Study 4). From the self-interest perspective, such a global conclusion about others amounts to an unequivocal approach-avoidance decision. Moral judgments, on which the decision is mainly based, are also relatively more unambiguous (unidimen-

sional), as found in Study 3. The judgments of different aspects of others' competence are much less correlated with each other and evaluative implications of C traits are volatile; even the valence of C traits depends on the context of co-occurring moral information about the perceived person (Study 4).

In two studies (Study 1 and Study 3), these M versus C differences were less pronounced for male than for female perceivers, presumably because C-related categories play a relatively more important role for males. However, no sex differences were found in a conceptually similar Study 2 (the differences were not pursued in Study 4). These differences need further empirical clarification, especially with systematic control of the perceived target's gender in addition to gender of the perceiver.

#### *Limitations and Alternative Explanations*

These M-C differences have been predicted and can be parsimoniously explained in terms of the relatively higher bearing of moral categories on the perceiver's self-interest. The simplest alternative explanation is that M information instigates more extreme evaluative responses than does C-related information, as found in Study 4 and in previous studies (Wojciszke, Pienkowski, et al., 1993). This does not solve the problem, however, because the prevalence of M information over C information was clear even when the two were carefully balanced in favorability (Study 2 and Study 3).

A second possibility is that for global impression, moral judgments are more diagnostic than are judgments of competence.<sup>6</sup> The diagnosticity notion fares well when applied to cues distinguishing between such descriptive categories as intelligent-stupid (Skowronski & Carlston, 1987), and it may be argued that M traits are more diagnostic of whether a person is likable or dislikable than C traits, even when both are equivalent in their favorability. Still, the diagnosticity notion does not explain why it should be so. In contrast, the present analysis in terms of self-interest explains why M information is more important (and, therefore, diagnostic) for global impressions (because it is more pertinent to the perceiver's self-interest). We think that some of our data can be described in terms of diagnosticity, although it is hard to see how they could be predicted within that framework.

Unlike the diagnosticity notion, our explanation sets clear limits to the dominance of moral categories, predicts important reversals of this tendency, and delineates conditions in which C-related categories will be more pertinent to the perceiver's self-interest than moral-related categories. One such case is self-perception: Actors' own competence is directly relevant for their self-interest (whatever they do, it is more profitable for

them to do it efficiently), and it is more important than their morality. In effect, when construing their own actions, actors pay much attention to competence and base their self-evaluations to a higher degree on C-related considerations than M-related considerations, as shown by Wojciszke (1994). Another case in which competence may be more important for impressions involves the perception of others for whom the self is extended symbolically (e.g., close intimates and in-groups) or functionally (i.e., persons who are already on "our side" during a social discourse and whose competence decides on our own benefits, e.g., "my lawyer," "my president").

A final caveat has to do with the perceiver's current goal. When this goal involves judgments of specific features of others, categories relevant to those features easily dominate the impression formation process (Hilton & Darley, 1991). This was shown in Study 2: Under a C-related goal (looking for a negotiator), an interest in information on competence replaced the interest in moral information. More important, however, the dominance of morality was shown not only under an M-related goal but also under an unspecified goal of forming a global impression. Forming a global evaluative impression is a general (and frequently realized) goal under which moral categories gain dominance. This shows that our dominance of morality is typical not for person perception in general or for specific trait impressions, but it is typical for unspecified evaluative impressions. The spontaneous impression goal looks much more like the trust instructions than like the competence instructions. Finally, when dependent measures involve any descriptive specification of the global evaluation (as in the cases of voting for political candidates or judgments of respectability that may be based on competence), the dominance of morality is probably replaced by various considerations that are dependent on the current context and the perceiver's goal, even if induced only by the nature of dependent measures.

Thus, despite its consistent empirical support, the dominance of morality hypothesis is expected to have several limitations. Of importance, however, virtually all of those limitations can be explained and predicted within the same theoretical framework as the basic regularity itself (i.e., in terms of self-interest and its influence on information processing).

*Beyond Immediate Self-Interest: Some Evolutionary-Based Speculations*

Some goals have been more important and more frequently realized not only in the individual's biography but also in the history of the human species. There is an increasing recognition of this assumption in regard to sex-differences in perception (Buss, 1994) that are attri-

buted to evolutionary pressures involved in sexual selection. We believe that evolutionary-based regularities in social cognition include the dominance of morality in global evaluative impressions (cf. Barkow, Cosmides, & Tooby, 1992, for other regularities).

The dominance of morality is assumed to result from the major role of approach-avoidance decisions, which probably had underlain the person perception process when it evolved in the distant evolutionary past of our species. Environments offered by modern societies are completely different from those of the Pleistocene, when social perception evolved. Nevertheless, the approach-avoidance dimension looms in every nook and cranny explored by modern social cognition students. Although people differ in their tendency to evaluate objects, "evaluation is a pervasive and dominant response for most people across the many situations and objects they encounter" (Jarvis & Petty, 1996, p. 173).

Dozens of studies have shown that people's final impressions of each other tend to be either negative or positive, even when the input information components point to a strictly neutral conclusion (cf. Skowronski & Carlston, 1989). People refrain from neutral conclusions as if they wanted to have everyone located precisely on one side of the approach-avoidance dimension. This dimension is also deeply built into the very language we use in describing each other. The frequency distribution of simple person-descriptive terms as a function of their evaluative meaning is bimodal, with numerous positive, and even more negative, but virtually no neutral trait adjectives (as shown by Anderson, 1968, for English; Lewicka, 1983, for Polish; and Ostendorf, 1994, for German). Using a natural language, it is simply impossible to say anything about another person without revealing at least implicit approval or disapproval of him or her. Finally, evaluation is the single most important dimension of meaning that is relevant in most, if not all, social contexts, as shown in classical studies of Osgood, Suci, and Tannenbaum (1957).

Although quite well known, all of these basic facts are hard to understand or explain under the metaphor of human mind as the general problem solver or, to put it in a more up-to-date way, as a general-purpose computer. Even if the computer metaphor has some validity (similar to how the mind-as-a-book metaphor had seemed satisfactory when the book was the main means to store information), it is probably valid only as far as we are able to uncover the basic default options built into the human mind. We think that the approach-avoidance decision can be such a default task built into human mind by pressures operating in our distant evolutionary past and that the dominance of morality shown in the present work is one of its consequences.

Furthermore, there are probably many more default options in social information processing beyond mere approach-avoidance. Their existence may be evidenced by some reliable and ubiquitous phenomena, such as the we-them distinction (cf. Brewer & Kramer, 1985) or the prevalence of categorical over individuating information (Brewer, 1988; Fiske & Neuberg, 1990), especially when the former pertains to sex, age, and race. Default options are, of course, easy to replace by alternatives imposed by the individual's current task or by a current state of mind and body; the present analysis in terms of self-interest sets some clear boundaries to the dominance of morality option.

The present results may be explained in terms of individual self-interest without involving evolutionary speculations—this line of research does not distinguish between these two explanations. However, the finding that the approach-avoidance dimension dominates impression formation cannot be explained solely in terms of individuals' adaptations to what was happening to them in the last hour, day, year, or even in their whole life. This is especially clear in the structure of language—it is very hard to understand how individual adaptations could have produced bimodal distributions of evaluative person-descriptors in different languages. Theorizing needs to go beyond immediate self-interest and incorporate evolutionary-evolved mechanisms to understand some basic regularities in person perception.

#### NOTES

1. The idea of differential relevance of personality traits under the observer perspective was originally formulated by Peeters (1983, 1992) and dubbed the other-profitability of traits. This idea was complemented by the self-profitability notion claiming that some qualities (such as intelligence or persistence) are especially important under the perspective of a person who has the trait. Based on this theorizing, Wojciszke (1997) showed that other-profitable traits are related to morality, whereas self-profitable traits are related to competence.

2. This discussion assumes a definition of the moral domain and relies on such concepts as other individual's harm, rights, and justice (Turiel, 1983), which is typical for individualistic societies. Shweder, Much, Mahapatra and Park (1994) call this ethical code the ethics of autonomy and identify two other moral codes (the ethics of community and the ethics of divinity) in which some actions can be seen as morally relevant even if they involve no harm or benefit to an individual. Societies differ in the degree to which moral judgments are based on these three codes (e.g., Shweder, Mahapatra, & Miller, 1987), however, in the broadly defined Western cultures, morality is implicitly seen as pertaining mainly to the ethics of autonomy, especially among well-educated people of high socioeconomic status (Haidt, Koller, & Dias, 1993). Therefore, in this research, we confined our understanding of moral-immoral actions to the ethics of autonomy.

3. In addition, to test the construct validity of our measure of chronically accessible traits, we provided one third of our participants with descriptions of specific behavioral acts construable both in M and C terms borrowed from Wojciszke (1994). Then, we computed correlations between the domain relatedness of chronically accessible traits and the construal of target behavioral acts (the construal was measured in a way identical to that of Wojciszke, 1994). The correlation between M relatedness of chronically accessible traits and construing the acts in moral terms was  $r(29) = .56, p < .01$ , whereas the correlation between

C relatedness of chronically accessible traits and construing the acts in competence-related terms was  $r(29) = .60, p < .001$ .

4. This seems to reflect the very phenomenon under study. As already mentioned, Wojciszke, Pienkowski, Maroszek, Brycz, and Ratajczak (1993) found that behavioral acts exemplifying M traits instigated typically much more extreme evaluations than behavioral acts exemplifying C traits. It should be added that those authors studied 12 M traits and 12 C traits (half of them positive and half of them negative), with 60 behavioral acts per trait—altogether, then, the conclusion is based on as many as 1,440 behavioral descriptions.

5. From Anderson's (1981) point of view, this violation of additivity may be explained by a multiplicative model, assuming that the moral content of behavior sets its evaluative direction and the degree of competence serves as a multiplier. The inference that a person is intelligent in addition to being helpful could be seen, then, as equivalent to the conclusion that the person is very helpful. Such an interpretation is possible, although only after the fact; that is, we doubt that the original integration theory suggests that competence information serves the same function as adverbs, the typical trait intensifiers used by Anderson.

6. Suggested by John Skowronski.

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