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# Why People Stereotype Affects How They Stereotype: The Differential Influence of Comprehension Goals and Self-Enhancement Goals on Stereotyping

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*In four studies, the authors examined the hypothesis that the way people stereotype is determined by the motives that instigate it. Study 1 measured and demonstrated the effectiveness of a commonly used priming technique to manipulate comprehension and self-enhancement goals. Study 2 demonstrated that why people stereotype determines how they stereotype: When a comprehension goal was salient, positive as well as negative stereotypes were applied, whereas a salient self-enhancement goal led to the application of negative but not positive stereotypes. Study 3 replicated these effects with different stereotypes. Study 4 replicated these effects and gave more insight in the consequences of goal fulfillment on stereotyping. Results indicated the fulfillment of a salient self-enhancement or comprehension goal led to the reduction of stereotyping. These effects were goal specific: Fulfillment of a self-enhancement goal decreased enhancement-driven but not comprehension-driven stereotyping; fulfillment of a comprehension goal decreased comprehension-driven but not enhancement-driven stereotyping.*

**Keywords:** *stereotyping; goals; motivation; comprehension; self-enhancement*

Stereotypes are cognitive structures that contain knowledge, beliefs, and expectations about social groups (Kunda, 1999). For instance, men are seen as aggressive, women are perceived as dependent, and people with glasses are thought to be intelligent. Stereotyping (using stereotypes to judge a person) may

at least serve two different functions: It can aid in increasing one's self-worth and it can aid in comprehending the behavior of others. In other words, stereotyping can serve two important social motives that have a central place in social life, namely, self-enhancement and comprehension motives (Kunda & Spencer, 2003). In the present studies, we argue and demonstrate that which of these two motives is underlying stereotyping processes is an important determinant of the way people stereotype: *Why* people stereotype influences *how* they stereotype and perceive others. Specifically, we test the hypothesis that when people stereotype to fulfill a comprehension goal they are likely to use negative stereotypes as well as positive stereotypes (e.g., "Lawyers are insincere and hardworking," "Skinheads are aggressive and energetic"). Conversely, when stereotyping is to serve a self-enhancement function, it is likely that mainly negative stereotypes will be used (e.g., "Lawyers are insincere," "Skinheads are aggressive"). In previous research it has been argued that people may use

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stereotyping as a means to attain a self-enhancement goal or to reach a comprehension goal (e.g., Bodenhausen & Macrae, 1998; Fein & Spencer, 1997; Pendry & Macrae, 1996; for a review, see Kunda & Spencer, 2003). To our knowledge, however, the hypothesis that the motives behind stereotyping may affect what stereotypical knowledge will be applied has never been put to a systematic, empirical test. And that is what we will demonstrate in the present studies: Why people stereotype determines the kind of stereotypes they use.

### *Stereotyping Is for Self-Enhancement*

Fein and Spencer (1997) have shown that when stereotyping is enhancement-driven, people stereotype to increase or repair their self-esteem via the derogation of others (see also Solomon, Greenberg, & Pyszczynski, 1991). Stereotypes are considered especially helpful when the need for the derogation of others is relatively high because by providing a cognitive basis for it, such derogation may be perceived as more justifiable. Thus, stereotyping may constitute an indirect route toward self-repair: As previous research has shown (e.g., Schwinghammer, Stapel, & Blanton, 2006; Tesser, 1988) derogating others is an effective way to attain a positive self-view. Congruently, Fein and Spencer showed that people with a high need to enhance their self-esteem evaluated individual members of stereotyped groups (Jews, gays) more negative compared to individual members of other groups. Furthermore, this derogation actually resulted in self-esteem lifts for those with a self-enhancement goal. Also, Spencer, Fein, Wolfe, Fong, and Dunn (1998) reported automatic stereotype activation as a result of negative feedback in spite of a cognitive load imposed on the participants.

In the current studies, we extend this “stereotyping is for self-enhancement” research by examining in what way enhancement-driven stereotyping influences stereotyping effects. Specifically, we test the hypothesis that this type of stereotyping will involve mainly the use of negative (rather than positive) stereotypes when interpreting certain vague behaviors because especially those may aid in the derogation of others. Of course, there are specific occasions where derogation of others is not typically conducive to enhancing the self (e.g., when one is praised by the target; also see Sinclair & Kunda, 1999). In these cases, negative stereotyping is unlikely to occur. In the present studies we focus on situations where there is no such special relationship between the perceiver and target. Furthermore, we compare and contrast these “stereotyping is for self-enhancement” effects with situations in which “stereotyping is for comprehension.”

### *Stereotyping Is for Comprehension*

A second stereotyping motive that has been well studied in the relevant literature involves the goal to increase comprehension of others. In fact, in mainstream social cognition studies of stereotyping effects, “comprehension” has typically been defined as the main motive behind social categorization processes in general and stereotyping effects in particular (see Fiske & Taylor, 1991; Kunda, 1999; Macrae & Bodenhausen, 2000). Without the use of categorical information it would be impossible to make sense of all incoming information; by generalizing and using stereotypes, people can use their limited cognitive resources more efficiently, thus enabling themselves to construe a comprehensible image of others. Furthermore, stereotyping may contribute to comprehension goals because it enables perceivers to go beyond the information given (Fiske, 2002; Stapel & Koomen, 2001) and construe meaningful coherent person impressions (“Why is Lisa behaving so eccentric? Ah, she is an artist, that’s why!”). It is important to note that we like to distinguish the construct of comprehension from the construct of accuracy since the latter is linked more to more careful, critical consideration of accessible knowledge and decreased stereotyping (e.g., Stapel, Koomen, & Zeelenberg, 1998; Weary, Jacobson, Edwards, & Tobin, 2001). Accuracy refers more to the goal of making veridical, stimulus-based judgments (say what you see; nothing more, nothing less), whereas comprehension is more about constructing meaning (making sense of what you see, even when that means going beyond the information given).

Thus, when in need to comprehend and confronted with information that cannot already easily and unequivocally be interpreted on the basis of the information given, stereotyping can assist in constructing comprehensive, meaningful, and coherent impressions. Congruently, exposure to comprehension-related words results in increased stereotypical interpretations of vague behavior, and situations in which one discovers a puzzling disagreement with someone have been found to result in increased stereotyping (Miller & Prentice, 1999; Stapel & Koomen, 2001; for an overview, see Kunda & Spencer, 2003). In the current studies, we extend this “stereotyping is for comprehension” approach to understanding stereotyping effects by examining in what way comprehension-driven stereotyping influences what stereotypical information will be applied when interpreting behavior. Specifically, we test the hypothesis that this type of stereotyping will involve increased use of applicable negative as well as positive stereotypes because both may assist

people in disambiguating others and making sense of the social world.

### *Why Determines What*

Although previous research has separately looked into the effects of self-enhancement or comprehension goals on stereotyping, a systematic integrative inquiry of the differential effects of these two basic stereotyping goals has been lacking. We intend to fill this lacuna by investigating the specific effects of both goals on stereotyping in one paradigm, by pitting the two goals against each other. Also, we investigate the relation between the two goals and ways to counteract enhancement- and comprehension-driven stereotyping.

In summary, we posit that whether stereotyping is enhancement-driven or comprehension-driven is likely to be an important determinant of what stereotypical knowledge is used. More specifically, when stereotyping is enhancement-driven, negative rather than positive stereotypes are likely to be used in the judgment of others. However, when stereotyping is comprehension-driven, both negative and positive stereotypes may be used in the interpretation of other people's behaviors.

Perhaps this *why-determines-what* logic is best illustrated with an example. Imagine the following situation: It is a dreadful day. It rains cats and dogs, and you have just failed an important exam. Self-enhancement is thus on top of your mind (see Schwinghammer et al., 2006). Then a man drives by in his car. He honks his horn and makes wild gestures with his arms. We predict that as a result of your self-enhancement goal, you are more likely to utilize the existing negative male stereotype aggressiveness than the positive stereotype assertiveness when interpreting the driver's behavior. After all, you are motivated to derogate the other and do not want to see him in a positive light. As a result, you view the driver as an aggressive person. On the other hand, imagine that you have a comprehension goal in this particular situation (e.g., because you have just attended a lecture in psychology about "understanding the human mind"). Then, we predict that as a result of this goal, you will try to utilize all available applicable social knowledge (i.e., stereotypical information) in order to further your understanding of the driver. As a consequence, this means that in this situation you will be relatively likely to use not only existing negative male stereotypes (e.g., aggressiveness) but also existing positive male stereotypes (e.g., assertiveness) because all of these fit the information given and will help you to make sense of the driver and the behavior he is displaying. In other words, we hypothesize that whether mainly negatively valenced stereotypical information or both positively and negatively valenced stereotypical information will be applied in social evaluations depends

on whether stereotyping is enhancement-driven or comprehension-driven, respectively. We call this hypothesis the *valence hypothesis*.

Furthermore, by elaborating on the notions that self-enhancement and comprehension goals underlie stereotyping and are conceptually independent of each other, we test the *independence hypothesis* that attainment of a self-enhancement goal will only lead to diminished stereotyping when stereotyping is indeed enhancement-driven (rather than comprehension-driven) and similarly, that attainment of a comprehension goal will only lead to diminished stereotyping when stereotyping is comprehension-driven (rather than enhancement-driven). In other words, we hypothesize that self-affirmation should decrease enhancement-driven but not comprehension-driven stereotyping and that obtaining comprehension is more likely to decrease comprehension-driven than enhancement-driven stereotyping.

We test both hypotheses in a series of studies. First, in Study 1, we test whether a comprehension versus self-enhancement goal can be manipulated successfully in an experimental set-up. That is, we first expose participants to manipulations designed to activate these goals and subsequently test whether participants are indeed differentially motivated and whether this can be measured by straightforward self-reports. Then, in Study 2, we test the valence hypothesis by examining to what extent comprehension-driven versus enhancement-driven participants use positive and negative stereotypes in the interpretation and evaluation of vague, stereotype-relevant behavior. In Study 3, we test the robustness of our general hypothesis by using a different stereotype. In Study 4, we extend the experimental design of Studies 2 and 3 and also test the independence hypothesis.

## STUDY 1

When studying the effects of comprehension-driven and enhancement-driven stereotyping in an experimental set-up, it is imperative to make sure that one can successfully induce these goals in participants in an experiment. In the current study we do so by testing the motivational impact of a procedure that has been used in previous research to induce comprehension goals and self-enhancement goals: priming of related constructs (e.g., Bargh, 1997; Chartrand & Bargh, 2002; Gollwitzer & Moskowitz, 1996; Riketta & Dauenheimer, 2003; Srull & Wyer, 1979; Stapel & Koomen, 2001). Although this construct priming procedure has been linked to the actual activation of goals and results have been interpreted in terms of the activation of these goals, we know of no empirical studies that tested empirically and directly whether participants actually

exhibited an increased goal to comprehend or self-enhance as a result of these manipulations. Mental goal representations not only specify the state that is desired (“attain comprehension”) but also contain information that such a state is desirable (“comprehension is good”; also see Custers & Aarts, 2005). By incorporating these goal attributes in a modified version of a sentence unscrambling task (e.g., Srull & Wyer, 1979; Stapel & Koomen, 2001), we aimed to effectively activate comprehension versus self-enhancement goals.

### Method

*Participants and design.* Participants were 44 Dutch students (27 males and 17 females) who were randomly assigned to one of the three conditions (goal: no-goal vs. self-enhancement vs. comprehension).

*Materials and procedure.* All participants were offered a booklet<sup>1</sup> consisting of two tasks. The first task was a sentence unscrambling task and the second task consisted of filling in a questionnaire with questions concerning the height of comprehension goals and self-enhancement goals.

The first task, the sentence unscrambling task, was used to induce either a comprehension goal or a self-enhancement goal. Under the guise of a “language and imagination task,” the participants were informed that they would encounter 12 scrambled sentences. In the goal conditions, 6 of these scrambled sentences contained words related to the goal in question (e.g., *understanding, grasping, comprehension vs. self-worth, self-respect, feeling better*). These sentences were also self-related (by inclusion of the word *I*), thereby potentially making the objective (comprehension, self-esteem) desirable. Also, by including motivational words (*want*), the sentences clearly referred to desired goal states. The participants were asked two things: (a) to unscramble sentences and (b) to imagine themselves in the situations that the self-related sentences described. In the comprehension condition for example, when exposed to the scrambled sentence *I – it – understand – want to – chair*, participants were asked to write down *I want to understand it* and to imagine a situation where they wanted to understand something. Participants in the self-enhancement goal condition underwent a similar procedure, with the exception that the scrambled sentences contained words related to self-enhancement. For example, when exposed to the scrambled sentence *I – myself – feel better – want to – about*, participants were asked to write down *I want to feel better about myself* and to imagine a situation in which they wanted to feel better about themselves. In the control condition, participants underwent a sentence unscrambling task with the

exception that there were no self-related words, no goal was implied, and they were only asked to unscramble (and not imagine) neutral sentences.

The second task, a personality questionnaire, was designed to measure current self-enhancement goals and comprehension goals. Participants were asked to indicate how much they agreed with six statements on a scale from 1 (*totally not*) to 9 (*totally*). The first and second statements were related to the self-enhancement goal (“At this moment I have the need to heighten my self-esteem” and “At this moment I would like to increase my self-worth”). The third and fourth statements touched on different aspects of the comprehension goal (“I have the need to explain things that happen around me” and “I am interested in the drives of people”). The fifth and sixth statements tapped the current mood of the participant (“I feel positive/negative at this moment”). We constructed participants’ mood scores by calculating how good people felt on average (amount of positivity minus the amount of negativity, divided by 2).

### Results and Discussion

To measure participants’ goal to increase self-esteem, a one-way analysis of variance (ANOVA) on the combined self-enhancement scores revealed a main effect of goal,  $F(2, 41) = 7.84, p < .01, \eta^2 = .28$ . As predicted, planned comparisons revealed a higher need to increase self-esteem in the self-enhancement goal condition compared to the no-goal condition,  $F(1, 41) = 10.37, p < .01, \eta^2 = .25$ ; and the comprehension goal condition,  $F(1, 41) = 12.54, p < .01, \eta^2 = .31$  (see Table 1 for means and standard deviations).

With respect to the comprehension goal, an ANOVA on the combined comprehension scores showed a main effect of goal,  $F(2, 41) = 13.20, p < .001, \eta^2 = .39$ . As predicted, planned comparisons showed an elevated motivation to understand in the comprehension goal condition compared to the no-goal condition,  $F(1, 41) = 21.85, p < .001, \eta^2 = .53$ ; and the self-enhancement goal condition,  $F(1, 41) = 17.99, p < .001, \eta^2 = .44$ .

An ANOVA on mood showed a main effect of goal,  $F(2, 41) = 4.70, p < .05, \eta^2 = .19$ . Planned comparisons indicated lower mood scores in the self-enhancement goal condition compared to the no-goal condition,  $F(1, 41) = 7.50, p < .01, \eta^2 = .18$ ; and the comprehension condition,  $F(1, 41) = 6.21, p < .05, \eta^2 = .15$ .

These findings show that it is possible to successfully activate comprehension versus enhancement goals through a sentence unscrambling procedure. Participants in the comprehension goal condition showed a greater interest in comprehending their social environment compared to participants in the enhancement or no-goal conditions,

**TABLE 1:** Means and Standard Deviations of Self-Enhancement and Comprehension Goals and Mood as a Function of Goal Condition

	Goal					
	Control		Self-Enhancement		Comprehension	
	M	SD	M	SD	M	SD
Need for self-enhancement	3.39 <sub>a</sub>	1.04	4.47 <sub>b</sub>	0.94	3.29 <sub>a</sub>	0.73
Need for comprehension	4.54 <sub>a</sub>	0.75	4.69 <sub>a</sub>	0.87	5.79 <sub>b</sub>	0.38
Mood	1.04 <sub>a</sub>	0.99	-0.16 <sub>b</sub>	1.61	0.93 <sub>a</sub>	0.70

NOTE: Means in the same row that do not share the same subscript differ significantly ( $p < .05$ ).

whereas participants in the self-enhancement condition showed a greater need to feel better about themselves compared to participants in the no-goal or comprehension goal conditions. Also, in the self-enhancement condition, participants exhibited more negativity compared to the other conditions. This is consistent with research indicating that low self-esteem is related to negative affect (e.g., Esses & Zanna, 1995; Heatherton & Polivy, 1991; Pelham & Swann, 1989).

## STUDY 2

Now that we have established that we are able to successfully activate a self-enhancement goal versus a comprehension goal, we can test the hypothesis that when stereotyping is comprehension-driven, it is more likely to lead to increased use of both positive and negative stereotypes in person judgments, whereas when it is enhancement-driven, it will mainly lead to more use of negative rather than positive stereotypes.

In the current study, we test this valence hypothesis by looking at the effects of self-enhancement goals and comprehension goals on stereotype use when evaluating another person. For this purpose, we adapted the well-known stereotyping paradigm of Banaji, Hardin, and Rothman (1993). In their paradigm, they show that a match between a person's perceived category membership and performed vague behavior positively influences the construal and interpretation of this behavior toward the stereotypes associated with that person. In our version, all the participants read a story about a particular person. This person was either a man or a woman and displayed behavior that was vaguely related to the negative male stereotypes aggressiveness and egoism as well as the positive stereotypes assertiveness and self-confidence.<sup>2</sup> Our expectation was that participants with a comprehension goal would interpret the information given in a stereotype-consistent way, using both positive and negative stereotypes. Following our logic, we thus predict that when a man displays this vaguely aggressive/assertive behavior, participants in the comprehension condition will apply the stereotypes and view him as more aggressive and assertive compared to participants

in the control condition. In line with Banaji et al. and Stapel and Koomen (2001), we predict no effects of a comprehension goal when the target is a woman because there are no female stereotypes that fit the information given (pointing to aggression and assertiveness) and add to a comprehensive person judgment. In other words, the behavior of the target cannot be meaningfully interpreted as part of a female stereotype. Therefore, no female stereotypes will be applied because this is not functional in order to further comprehension.

On the other hand, we predict that participants with a self-enhancement goal will use mainly negative stereotypes to interpret the target's behavior because such stereotype-based derogation may help to increase their self-esteem (see Fein & Spencer, 1997). So when the target is a man, we predict that participants in the self-enhancement condition will view him as more aggressive but not as more assertive compared to participants in the control condition. When the target is a woman, we predict no differences in perceived assertiveness and aggressiveness between participants in the self-enhancement condition and the control condition because no female stereotype that relates to—and fits in—the information given (men are aggressive, not women) can be applied to further a self-enhancement goal.

### Method

**Participants and design.** Participants were 78 students (37 males and 41 females) who were randomly assigned to one of the six conditions of a 3 (goal: no-goal vs. self-enhancement goal vs. comprehension goal)  $\times$  2 (target: male vs. female) between-participants design.

**Materials and procedure.** Participants received a questionnaire package that contained three seemingly unrelated tasks. The first task embodied the goal manipulations. This task was identical to the tasks used in Study 1. After this goal manipulation followed the person perception task. This task was presented as a study involving impression formation. On the first page, participants were instructed to read a short target paragraph about Peter (male) or Petra (female) and to try to form an impression of this target. Underneath

**TABLE 2:** Means and Standard Deviations of the Negative (Aggressive/Egoistic) and Positive (Assertive/Self-Confident) Male Stereotypical Ratings as a Function of Goal Condition and Target Gender

	Goal											
	Control				Self-Enhancement				Comprehension			
	Male		Female		Male		Female		Male		Female	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Aggressive/egoistic	4.42 <sub>a</sub>	1.61	4.46 <sub>a</sub>	1.23	6.62 <sub>b</sub>	1.18	5.58 <sub>c</sub>	0.87	6.77 <sub>b</sub>	0.78	4.46 <sub>a</sub>	1.43
Assertive/self-confident	5.73 <sub>a</sub>	1.39	6.00 <sub>a</sub>	1.97	5.92 <sub>a</sub>	1.41	5.96 <sub>a</sub>	1.01	7.85 <sub>b</sub>	0.90	6.04 <sub>a</sub>	0.82

NOTE: Means in the same row that do not share the same subscript differ significantly ( $p < .05$ ).

this instruction, the target paragraph described a series of activities involving the target to be judged and included behaviors that could be interpreted as aggressive/egoistic (e.g., the target was in an aggressive argument with his/her girlfriend/boyfriend) or assertive/self-confident (e.g., the target saw a coffee cup was somewhat dirty and immediately asked the waitress for a new one) embedded among neutral behaviors (for details, see Banaji et al., 1993; Stapel & Koomen, 1998). After reading the target paragraph, on the next page, participants were asked to indicate on a scale of 1 (*totally not*) to 9 (*totally*) how much they viewed certain traits to be a part of the target's personality. The traits in question were assertive, self-confident (positive stereotypical,  $r = .62$ ), aggressive, egoistic (negative stereotypical,  $r = .70$ ), optimistic, competent, ungrateful, and pessimistic (target unrelated). These unrelated traits were analyzed separately. The positive and negative stereotypical traits were not correlated (all  $r$ s  $< .18$ , *ns*).

### Results

A 3 (goal)  $\times$  2 (target) ANOVA revealed a main effect of goal on the negative stereotypes,  $F(2, 72) = 12.41$ ,  $p < .001$ ,  $\eta^2 = .20$ ; and positive stereotypes,  $F(2, 72) = 5.57$ ,  $p < .01$ ,  $\eta^2 = .12$ . Furthermore, a main effect of target on the negative stereotypes,  $F(1, 72) = 15.66$ ,  $p < .001$ ,  $\eta^2 = .12$ , was found. These main effects were qualified by Goal  $\times$  Target interaction effects on negative stereotypes,  $F(2, 72) = 6.07$ ,  $p < .01$ ,  $\eta^2 = .10$ ; and positive stereotypes,  $F(2, 72) = 5.02$ ,  $p < .01$ ,  $\eta^2 = .10$ . We interpreted these interaction effects by means of planned comparisons in the light of our valence hypothesis and will discuss them separately in the following. No main or interaction effects were found on ratings of any of the unrelated traits (all  $F$ s  $< 2$ ,  $p$ s  $> .1$ ). Furthermore, no effects of participants' gender were found when taken up as a factor in the analyses (all  $p$ s  $> .1$ ).

*Negative stereotypes.* As can be seen in Table 2 and consistent with our predictions, Peter (the male, stereotype-compatible target) was viewed as less aggressive/egoistic in the no-goal condition compared to the comprehension goal condition,  $F(1, 71) = 23.81$ ,  $p < .001$ ,  $\eta^2 = .19$ ; and the self-enhancement goal condition,  $F(1, 71) = 20.79$ ,  $p < .001$ ,  $\eta^2 = .17$ .

Petra (the female, stereotype-incompatible target) was viewed as no more or less aggressive/egoistic in the comprehension condition compared to the no-goal condition,  $F < 1$ , while she was seen as more aggressive/egoistic in the self-enhancement goal condition compared to the no-goal condition,  $F(1, 71) = 5.23$ ,  $p < .05$ ,  $\eta^2 = .04$ . Importantly, in the self-enhancement goal condition, Peter was viewed as more aggressive/egoistic compared to Petra,  $F(1, 72) = 4.42$ ,  $p < .05$ ,  $\eta^2 = .04$  (see Table 2).

*Positive stereotypes.* Our expectation was that a comprehension goal, but not a self-enhancement goal, results in more use of positive stereotypes. In line with this expectation, results indicated that compared to the no-goal condition, Peter was viewed as more assertive/self-confident in the comprehension goal condition,  $F(1, 71) = 16.97$ ,  $p < .001$ ,  $\eta^2 = .18$ , while there was no difference between the no-goal and self-enhancement goal condition,  $F < 1$ .

With regard to the perception of Petra's assertiveness, the control condition did not differ from the comprehension goal condition,  $F < 1$ , and self-enhancement goal condition,  $F < 1$  (see Table 2).

### Discussion

These outcomes provide strong support for our valence hypothesis. The results show that participants who are comprehension-driven more easily apply both positive and negative stereotypes compared to participants who do not have a comprehension goal. Participants who are enhancement-driven apply stereotypes more

selectively and more strategically: They mainly use negative (but not positive) stereotypes.

The influence of the self-enhancement motive is also evident in the observation that enhancement-driven participants not only assigned the negative traits aggressive/egoistic to Peter but also to Petra, despite the fact that these traits are male stereotypes. This finding indicates that the drive to self-enhance through the derogation of others can be sufficiently strong to bypass social applicability rules (e.g., “women are not aggressive”). In the current experiment, the target’s behavior probably already offered enough opportunity to evaluate the target negatively and “see” aggressiveness and egoism, even when this trait did not fit the target’s social stereotype.

At first sight, these results may perhaps be interpreted as not ruling out the possibility that a self-enhancement goal leads to generally perceiving the world in a more negative way rather than a stereotypical negative response set. Importantly however, the finding that self-enhancement participants viewed Peter as relatively more aggressive and egoistic than Petra suggests that negative traits will be used most strongly when they fit the stereotype (“men, not women, are aggressive”). Thus, the extent to which self-enhancement drives may lead to the derogation of others is a function of both the target behavior and salient stereotypes. Moreover, no effects were found on the unrelated traits, indicating that participants did not show an overall negativity bias as a result of a self-enhancement goal.

Consistent with Banaji et al. (1993), no intergroup bias effects were found; participants’ gender exerted no effects on target evaluations (see also Stapel & Koomen, 1998, 2001). We investigated participants’ responses in a context in which their social identity as a man or a woman was not particularly salient. Furthermore, gender categories are very broad and include a wide variety of unique subcategories one can easily identify with. Thus, it is likely that the participants viewed the target as a person suitable for downward social comparison.

### STUDY 3

Now that we have tested our valence hypothesis, it is important that we test the robustness of these effects by using a different stereotype. Therefore, in the present study we test our why-leads-to-what logic in a study of the use of the religious stereotype of Muslims.

#### Method

*Participants and design.* Participants were 87 Dutch students (38 males and 49 females) who were randomly assigned to one of the six conditions of a 3 (goal: no goal vs. self-enhancement goal vs. comprehension goal)

× 2 (target religion: Muslim vs. non-Muslim) between-participants design.

*Materials and procedure.* Participants received a questionnaire package similar to the one used in Study 2. The first task embodied the goal manipulations and was identical to the task in Study 1. After this goal manipulation followed the person perception task. This task only differed in content and traits from Study 2 and was presented as a study involving impression formation. Participants were instructed to read a short target paragraph about Peter (religion: non-Muslim) or Hafid (religion: Muslim) and to try to form an impression of this target. The target paragraph described a series of activities involving the target to be judged and included behaviors that could be interpreted negatively as intolerant and violent or positively as devoted and fearless embedded among neutral behaviors. A pretest ( $n = 20$ ) showed that these particular behaviors are seen as stereotypical for Muslims but not for other religious people in the Netherlands. After reading the target paragraph, participants were asked to indicate on a scale of 1 (*totally not*) to 9 (*totally*) how much they viewed certain traits to be a part of the target’s personality. The traits in question were devoted, fearless (positive stereotypical,  $r = .53$ ), intolerant, violent (negative stereotypical,  $r = .77$ ), optimistic, competent, ungrateful, and pessimistic (target unrelated). The positive and negative stereotypical traits did not correlate (all  $r$ s < .25,  $n$ s).

#### Results

A 3 (goal) × 2 (target) ANOVA revealed a main effect of goal on the negative stereotypes,  $F(2, 81) = 19.62$ ,  $p < .001$ ,  $\eta^2 = .21$ ; and positive stereotypes,  $F(2, 81) = 3.85$ ,  $p < .05$ ,  $\eta^2 = .07$ . Furthermore, main effects of target on the negative stereotypes,  $F(1, 81) = 13.51$ ,  $p < .001$ ,  $\eta^2 = .10$ ; and positive stereotypes,  $F(1, 81) = 4.52$ ,  $p < .05$ ,  $\eta^2 = .04$ , were found. These main effects were qualified by Goal × Target interaction effects on negative stereotypes,  $F(2, 81) = 6.46$ ,  $p < .01$ ,  $\eta^2 = .09$ ; and positive stereotypes,  $F(2, 81) = 8.09$ ,  $p < .01$ ,  $\eta^2 = .15$ . We interpreted these interaction effects by means of planned comparisons in the light of our valence hypothesis and will discuss them separately in the following. No main or interaction effects were found on ratings of the unrelated traits (all  $F$ s < 2,  $p$ s > .20).

*Negative stereotypes.* As can be seen in Table 3 and consistent with our predictions, Hafid (the Muslim, stereotype-compatible target) was viewed as less intolerant/violent in the no-goal condition compared to the comprehension goal condition,  $F(1, 81) = 25.23$ ,  $p < .001$ ,  $\eta^2 = .18$ , and the self-enhancement goal condition,  $F(1, 71) = 25.93$ ,  $p < .001$ ,  $\eta^2 = .19$ .

**TABLE 3:** Means and Standard Deviations of the Negative (Intolerant/Violent) and Positive (Devoted/Fearless) Muslim Stereotypical Ratings as a Function of Goal Condition and Target

	Goal											
	Control				Self-Enhancement				Comprehension			
	Muslim		Non-Muslim		Muslim		Non-Muslim		Muslim		Non-Muslim	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Intolerant/violent	4.39 <sub>a</sub>	1.23	4.61 <sub>a</sub>	0.86	6.60 <sub>b</sub>	1.31	5.63 <sub>c</sub>	1.39	6.61 <sub>b</sub>	1.23	4.60 <sub>a</sub>	0.97
Devoted/fearless	4.86 <sub>a</sub>	0.97	5.00 <sub>a</sub>	1.68	4.97 <sub>a</sub>	1.30	5.17 <sub>a</sub>	0.59	6.61 <sub>b</sub>	1.24	4.73 <sub>a</sub>	0.53

NOTE: Means in the same row that do not share the same subscript differ significantly ( $p < .05$ ).

Peter (the non-Muslim, stereotype-incompatible, target) was viewed as no more or less intolerant/violent in the comprehension goal condition compared to the no-goal condition,  $F < 1$ , while in the self-enhancement goal condition he was viewed as more intolerant/violent compared to the no-goal condition,  $F(1, 71) = 5.61, p < .05, \eta^2 = .04$ . Importantly, in the self-enhancement goal condition Hafid was viewed as more intolerant/violent compared to Peter,  $F(1, 72) = 5.15, p < .05, \eta^2 = .04$  (see Table 3).

*Positive stereotypes.* In line with our valence hypothesis, results indicated that Hafid was viewed as more devoted/fearless (positive stereotypical) in the comprehension goal condition compared to the no-goal condition,  $F(1, 71) = 17.14, p < .001, \eta^2 = .16$ , while there was no difference between the no-goal and self-enhancement goal condition,  $F < 1$ .

With regard to the perception of Peter's devotedness/fearlessness, participants' ratings in the control condition did not differ from ratings in the comprehension goal condition,  $F < 1$  and self-enhancement goal condition,  $F < 1$  (see Table 3).

### Discussion

These outcomes replicate the results of Study 2 and provide strong support for our valence hypothesis. Specifically, the results showed that comprehension-driven participants apply both positive and negative stereotypes, whereas enhancement-driven participants apply stereotypes more selectively and more strategically: They mainly use negative (but not positive) stereotypes.

Importantly, Studies 2 and 3 indicate that the effects of comprehension and self-enhancement goals on stereotype use are not a function solely of the target behavior that is to be interpreted. Rather, the effects of these goals on judgment depend on the behavioral information presented as well as the applicability of available stereotypes.

### STUDY 4

The aim of this study was twofold. First, we wanted to replicate and extend Studies 2 and 3. The replication involved testing our valence hypothesis. To manipulate a self-enhancement goal, we chose an adapted version of the well-known negative feedback procedure<sup>3</sup> (e.g., Fein & Spencer, 1997).

The second objective of this study was to zoom in on the consequences of attaining comprehension and self-affirmation: What happens to stereotyping when comprehension or self-affirmation is attained? We argue that this depends on what goal was active in the first place. Comprehension goals and self-enhancement goals are seen as different core social motives (Fiske, 2002), and when goals are largely independent and do not tap into the same superordinate goal, fulfillment of one goal will not affect the other goal (Shah, Kruglanski, & Friedman, 2002). Hence, we expect that attaining comprehension only reduces stereotyping when a heightened comprehension goal was present, while self-affirmation only reduces stereotyping when there was an increased need to self-enhance. In other words, attaining self-enhancement or comprehension will only lead to less stereotyping when the type of fulfillment matches the goal that instigated the stereotyping effects in the first place. We call this the independence hypothesis. Besides measuring the stereotyping levels, at the end of the procedure we also included a measure of the activation levels of the goals. We expected activation levels of salient goals that are attained (through stereotyping or otherwise) to be comparable or lower than activation levels of nonsalient goals (e.g., Förster, Liberman, & Higgins, 2005).

### Method

*Participants and design.* Participants were 79 Dutch students (45 males and 34 females) who were randomly assigned to one of the six conditions of a 3 (goal: no goal vs. self-enhancement goal vs. comprehension goal)  $\times$  2

(goal fulfillment: comprehension vs. self-affirmation) between-participants design.

*Materials and procedure.* Participants received a questionnaire package that contained five seemingly unrelated tasks. The first task (involving a negative feedback procedure) and the second task (the sentence unscrambling task) embodied the goal manipulations.

The first task was used to manipulate a self-enhancement goal. All participants were instructed to complete six items from a remote associates task (RAT). A RAT item consists of three words that have something in common. Participants' task is to figure out the one thing these three words have in common (see also Stapel & Schwinghammer, 2004). Because participants in all three conditions received this task, it was presented in two different versions.

In the self-enhancement goal condition, the RAT was constructed to manipulate a self-enhancement goal through negative feedback: It was described as an important instrument in selection batteries, useful for predicting important abilities, one of the best predictors of managerial success that exists, and a test that correlates surprisingly well with interpersonal skills. The items were constructed to be very difficult. After completing this task, participants were given the correct answers and were exposed to a (bogus) scale that revealed how well they had performed. The performance always turned out to be far below the (fictitious) mean performance. An example of a difficult item is *light-figure-paper* (answer: watermark). In the control condition and the comprehension goal condition, the RAT was described as an unimportant pretest and it was stressed that performance on this test does not reflect any important qualities whatsoever. Participants had to complete six relatively easy RAT items and received no feedback. An example of an item used in this second version of the RAT is *bakery-loaf-grain* (answer: bread).

The second task was a sentence unscrambling task, identical to those used in Studies 1, 2, and 3; participants in the control and self-enhancement condition were presented with a neutral sentence unscrambling task, while in the comprehension condition, the goal to increase comprehension was manipulated.

After the goal manipulations followed the third task, involving the goal fulfillment procedure. The attainment of comprehension was manipulated by exposing the participants to riddles and their solutions. Under the guise of the need for a database of riddles, participants were asked to indicate their liking of two riddles. These riddles were selected because the problems they pose are clear and when exposed to the solutions, an *aha-erlebnis* and a feeling of understanding arises. After participants

were exposed to the first riddle they were asked to think about the riddle and how it could be solved. Next, participants were given the solution to the riddles and they were asked to indicate the quality of the riddle. Then, the same procedure was repeated for a second riddle. Self-enhancement fulfillment was manipulated by asking the participants to describe three positive aspects of their personalities and to accompany each of them by an example taken from real-life experience. Schwinghammer et al. (2006) showed that this is a simple and successful way to fulfill a self-enhancement goal and effectively increases self-esteem (see also Steele, 1988).

The fourth task, the stereotyping task, was identical to the task used in Study 2. The task was presented as a study involving impression formation. Every participant received the instruction to read a short story about a person and to answer some questions about what kind of person this individual is. The content of the story was identical to the story used in Study 2, the only difference being that the target was always a man (Peter). After reading the story, participants were asked to indicate on a scale of 1 (*totally not*) to 9 (*totally*) to what extent they viewed several traits as representative for the target. The traits in question were assertive, self-confident (positive stereotypical), aggressive, egoistic (negative stereotypical), optimistic, competent, ungrateful, and pessimistic (target unrelated).

After the stereotyping task, under the guise of a personality questionnaire, questions concerning current comprehension and self-enhancement needs were asked. This procedure was identical to the goal measurement procedure used in the Study 1.

## Results

With regard to the fulfillment of the active goals, we predicted that stereotyping will only be reduced when the salient goal that is driving this stereotyping effect has been fulfilled and not when a goal other than the salient one has been fulfilled. First we will discuss the stereotyping effects, then we will discuss the differences in the reported needs for comprehension and self-enhancement.

A 3 (goal)  $\times$  2 (goal fulfillment) ANOVA revealed a main effect of goal on the negative stereotypical traits,  $F(2, 73) = 9.37, p < .001, \eta^2 = .13$ ; and positive stereotypical traits,  $F(2, 73) = 11.61, p < .001, \eta^2 = .18$ . Furthermore, an ANOVA revealed a main effect of goal fulfillment on the positive stereotypical traits,  $F(2, 73) = 10.53, p < .01, \eta^2 = .08$ ; there was no main effect of goal fulfillment on the negative stereotypical traits ( $F < 1$ ). These main effects were qualified by Goal  $\times$  Goal Fulfillment interaction effects on negative stereotypical

**TABLE 4:** Means and Standard Deviations of Stereotype Use as a Function of Goal Condition and Goal Fulfillment

Goal Fulfillment	Goal											
	Control				Comprehension				Self-Enhancement			
	Comprehension		Enhancement		Comprehension		Enhancement		Comprehension		Enhancement	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Positive stereotypes	5.27 <sub>a</sub>	1.07	5.32 <sub>a</sub>	0.81	5.42 <sub>a</sub>	0.61	6.80 <sub>b</sub>	0.46	5.25 <sub>a</sub>	0.61	5.38 <sub>a</sub>	0.46
Negative stereotypes	5.23 <sub>a</sub>	0.97	4.86 <sub>a</sub>	0.67	5.19 <sub>a</sub>	0.83	6.57 <sub>b</sub>	0.45	6.32 <sub>b</sub>	0.70	4.92 <sub>a</sub>	0.45

NOTE: Means in the same row that do not share the same subscript differ significantly ( $p < .05$ ).

traits,  $F(2, 73) = 27.47, p < .001, \eta^2 = .37$ ; and positive stereotypical traits,  $F(2, 73) = 7.38, p < .01, \eta^2 = .12$ . We interpreted these interaction effects by means of planned comparisons and will discuss them separately in the following. No main or interaction effects were found on ratings of the unrelated traits (all  $F$ s  $< 2, p$ s  $> .17$ ).

*Negative stereotypes.* In the comprehension goal condition, less negative stereotypes were attributed to the target when this goal subsequently was fulfilled compared to when the nonsalient self-enhancement goal was fulfilled,  $F(1, 73) = 26.83, p < .001, \eta^2 = .18$ . A similar pattern emerged for the self-enhancement goal condition: Less negative stereotypes were attributed to the target after self-affirmation compared to when the nonsalient comprehension goal was fulfilled,  $F(1, 73) = 26.94, p < .001, \eta^2 = .18$ . With respect to the comprehension fulfillment and self-affirmation procedures in the no-goal condition, no difference in attributing these stereotypes to the target were found,  $F(1, 73) = 1.64, ns$ . Thus, compared to the other participants, only participants with an unfulfilled (comprehension or self-enhancement) goal displayed a heightened use of negative stereotypes in their judgments of the target person.

*Positive stereotypes.* As the results in Table 4 indicate, and in line with the finding of Studies 2 and 3 that a self-enhancement goal does not lead to the use of positive stereotypes, there was only an effect of goal fulfillment for participants with a comprehension goal: These participants attributed less positive stereotypes to the target when this salient goal, comprehension, was fulfilled compared to when the nonsalient goal, self-enhancement, was fulfilled,  $F(1, 73) = 26.21, p < .01, \eta^2 = .21$ . In the no-goal and self-enhancement goal conditions, the kind of fulfillment did not play a role (all relevant  $F$ s  $< 1$ ). Thus, compared to the other participants, only participants with an unfulfilled comprehension goal displayed an increased use of these positive stereotypes to evaluate the target (for all means and standard deviations, see Table 4).

*Goal measurement after person evaluation task.* To recapitulate: The procedure the participants went through consisted of four phases: (1) goal manipulation, (2) receiving self-affirmative/comprehension stimulating information (goal-fulfillment procedure), (3) impression formation task, and (4) needs measure. With respect to the needs measure, a 3 (goal)  $\times$  2 (fulfillment) ANOVA on the strength of the comprehension goal after the goal manipulation and fulfillment procedures revealed main effects of goal,  $F(2, 73) = 5.56, p < .01, \eta^2 = .09$ ; and fulfillment,  $F(2, 73) = 27.89, p < .001, \eta^2 = .22$ ; that were qualified by an interaction effect,  $F(2, 73) = 6.30, p < .01, \eta^2 = .10$ . As can be seen in Table 5, the need for comprehension after a self-affirmation procedure (Phase 2) and the person evaluation task (Phase 3) did not differ between the no-goal condition, comprehension goal condition, and self-enhancement goal condition, all  $F$ s  $< 1$ . After attaining comprehension (Phase 2) and the person evaluation task (Phase 3), however, participants who were initially primed with a comprehension goal displayed a higher (but importantly still comparable to average) need for comprehension compared to participants in the no-goal condition,  $F(1, 73) = 18.01, p < .001, \eta^2 = .14$ ; and self-enhancement goal condition,  $F(1, 73) = 16.86, p < .001, \eta^2 = .13$ .

A similar pattern was present with respect to the strength of the self-enhancement goal. A 3 (goal)  $\times$  2 (fulfillment) ANOVA on the strength of the self-enhancement goal after the goal manipulation and fulfillment procedures revealed main effects of goal,  $F(2, 73) = 8.41, p < .01, \eta^2 = .12$ ; and fulfillment,  $F(2, 73) = 30.30, p < .001, \eta^2 = .22$ ; qualified by an interaction effect,  $F(2, 73) = 9.16, p < .001, \eta^2 = .13$ . Planned comparisons indicated that after a comprehension fulfillment procedure and person evaluation task, the need for self-enhancement did not differ between the no-goal condition, the comprehension goal condition ( $M = 4.00, SD = 0.58$ ), and the self-enhancement goal condition,  $F$ s  $< 1$ . After affirming self-esteem and the person evaluation task, however, participants who were initially primed with a self-enhancement goal showed a larger

**TABLE 5:** Means and Standard Deviations of Comprehension and Self-Enhancement Needs After the Person Evaluation Task as a Function of Goal Manipulation and Goal Fulfillment

Goal Fulfillment	Goal											
	Control				Comprehension				Self-Enhancement			
	Comprehension		Enhancement		Comprehension		Enhancement		Comprehension		Enhancement	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Need for comprehension	3.19 <sub>b</sub>	0.80	4.41 <sub>a</sub>	1.00	4.35 <sub>a</sub>	0.52	4.40 <sub>a</sub>	0.60	3.25 <sub>b</sub>	0.43	4.46 <sub>a</sub>	0.75
Need for self-enhancement	3.92 <sub>a</sub>	0.73	2.64 <sub>b</sub>	0.45	4.00 <sub>a</sub>	0.58	2.83 <sub>b</sub>	0.56	3.93 <sub>a</sub>	0.70	4.00 <sub>a</sub>	0.74

NOTE: Means in the same row that do not share the same subscript differ significantly ( $p < .05$ ).

need to self-enhance compared to the no-goal condition,  $F(1, 73) = 27.21, p < .001, \eta^2 = .20$ ; and comprehension goal condition,  $F(1, 73) = 23.28, p < .001, \eta^2 = .17$  (see Table 5).

### Discussion

These results show that the fulfillment of salient comprehension or self-enhancement goals leads to the dissipation of the accompanying stereotyping effects. Specifically, a comprehension-attaining event is likely to reduce stereotyping when stereotyping is comprehension-driven but not when it is enhancement-driven. Vice versa, a self-affirming event mainly reduces stereotyping when the stereotyping is enhancement- rather than comprehension-driven. The goal measurement findings fit into this pattern: Participants exhibited more stereotyping when they had a salient comprehension or self-enhancement goal compared to when these goals were not salient. However, the strength of these goals after this act of stereotyping was the same compared to when these goals were not salient (and no information congruent to the goal that was going to be measured was presented) in the first place. Thus, the act of stereotyping can be seen as a fulfillment procedure of a salient comprehension or self-enhancement goal, consequently leading to a decline in goal strength, bringing it back to a baseline level. Furthermore, when such a comprehension goal (similar reasoning for self-enhancement needs apply) was not salient to start with and participants “received” comprehension (without needing it in the first place), the corresponding need for comprehension was even lower than this baseline level. This is not surprising because these participants were not in special need of comprehension to begin with, but they received it nonetheless.

Both sets of findings indicate that a fulfillment procedure of a comprehension or self-enhancement goal—be it stereotyping or a stereotype-unrelated fulfillment procedure—leads to a decline of goal strength. Furthermore, the results also speak to the interconnectedness of the two goals in question: If they were linked to each other in a

hierarchical way or both functioned as subgoals for a higher order goal, the fulfillment of one goal would be expected to decrease the strength of the other goal and consequently stereotyping as well (Shah et al., 2002). Contrary to this, although stereotyping can function as a means to fulfill both comprehension and self-enhancement goals, substitutability mechanisms of different means only function within self-esteem and comprehension domains, not between them. Thus, fulfillment of a stereotype-relevant goal does not automatically lead to a decrease in stereotyping. The *right* goal has to be fulfilled. Goal fulfillment is most likely to lead to less stereotyping when there is *congruency* between the goal that is driving stereotyping and the goal that is fulfilled. Also of importance is the fact that the fulfillment procedures used in this study did not have any relation with stereotyping, so by fulfilling a stereotyping-related goal in a nonstereotyping way, future stereotyping can be averted.

## GENERAL DISCUSSION

### Summary of Results

The present studies were designed to examine the hypothesis that the kind of stereotypical knowledge used in person perception is determined by the motives behind stereotyping. Study 1 measured and demonstrated the effectiveness of the manipulation of comprehension and self-enhancement goals by means of sentence unscrambling. Study 2 demonstrated that when a comprehension goal was on the top of one’s mind, positive as well as negative stereotypes were applied in social evaluation, whereas a self-enhancement goal typically led to more negative but not to more positive stereotyping. Study 3 increased the external validity of this effect by using a religious instead of a gender stereotype. Study 4 showed the same pattern of effects as was found in Studies 2 and 3. Moreover, this study also gave more insight in the consequences of goal fulfillment on stereotyping. Results indicated that the fulfillment of a

salient self-enhancement or comprehension goal in a nonstereotype-related manner leads to the reduction of stereotyping, whereas stereotyping behavior as a result of a salient self-enhancement or comprehension goal remains unaffected when a goal other than the salient one is fulfilled. Besides this, results showed that stereotyping as a result of these goals also leads to a decrease in strength of the goal that was the drive behind this stereotyping, indicating that stereotyping is not merely a side effect of an increased need for comprehension or self-enhancement; it can also function as a means to fulfill these goals.

To our knowledge, these studies represent the first successful attempt to systematically pit against each other the motives underlying stereotyping and relate these underpinnings of stereotyping to its effects. Taken together, the results of these studies suggest that there are at least two social motives that lead to (more) stereotyping when they are made chronically or contextually salient: the goal to increase comprehension and the need to enhance self-esteem. Importantly, which of these two motives is underlying stereotyping processes is an important determinant of stereotyping effects: *Why* people stereotype determines *how* they stereotype and perceive others. Specifically, a comprehension goal leads to the use of positive as well as negative stereotypes, whereas a self-enhancement goal results mainly in the use of negative stereotypes.

### *Motivation and Stereotyping*

“Stereotyping emerges in various contexts to serve particular functions necessitated by those contexts” (Hilton & von Hippel, 1996, p. 237). From a functional cognitive motivational perspective, people can selectively use cognitions to aid in attaining their goals: Motivation can influence the retrieval and representation of information (e.g., Sinclair & Kunda, 1999). In this article, we have elaborated on this idea by highlighting two important motivational contexts where stereotyping emerges and by specifying the accompanying forms of stereotyping. Of course, the activation and application of stereotypes can serve other motives next to self-enhancement and comprehension goals. For example, when one is in need for closure or structure, stereotypes might come in handy by providing a quick and clear basis for evaluation (e.g., Neuberg & Newsom, 1993). Importantly, other motives can also attenuate the use of stereotypes, like the motive to be egalitarian and the goal to be accurate (Moskowitz, Salomon, & Taylor, 2000; for an overview, see Kunda & Spencer, 2003).

### *Implications for Reduction of Stereotyping*

Gender, religion, age, ethnic background, sexual inclination, physical appearance: Stereotypes manifest

themselves in many forms and shapes in contemporary societies. Because of the ubiquitous nature of stereotyping and prejudice combined with the often negative outcomes for both the individuals who are stereotype’s targets and for society at large, social psychology has been looking for points of departure to combat their negative consequences. One of the main routes toward reducing prejudice and discrimination is centered around lowering the tendency of individuals to apply stereotypes to members of stereotyped groups and increasing the focus on unique, individual characteristics (Stangor, 2000). The results of the current studies strongly suggest that for stereotype change efforts to be effective it is important to know the motives that drive stereotyping in the first place. For example, because stereotypes provide a cognitive basis for other-derogation and thus make it seem more justifiable (see Fein & Spencer, 1997), the very recognition of this link between self-enhancement and negative stereotyping takes away this illusion of justifiability and might lead to the attenuation of this link. As a result, instead of derogating others, other strategies to enhance the self might become more attractive, like focusing on the positive aspects of the self.

Thus, the perspective on stereotyping put forward in this article stipulates the importance of making people aware of specific personality structures (e.g., chronic need for structure) and social situations that are linked to comprehension and self-enhancement motives because these are consequently related to specific forms of stereotyping. An employment situation is an important example of a social situation in which stereotypes can exert harmful influence (see e.g., Ko, Judd, & Stapel, 2007). Ironically, especially in job interview situations, a comprehension goal could be salient because the selection committee is usually motivated to get a *comprehensive* picture of the candidate (see also Stapel & Koomen, 2001). By teaching people about the motivational underpinnings of stereotyping and their specific consequences, and by pointing them toward specific situations and psychological states in which these motivations are especially salient, people can arm themselves against and correct for the use of stereotyping.

### *Conclusion*

To conclude, this set of studies provides the first systematic and empirical demonstration of the relation between the motives that underlie stereotyping and the kind of stereotyping effects. We have shown that *why* people stereotype determines *how* they stereotype. Furthermore, by investigating the specific consequences and interrelations of comprehension- and enhancement-driven stereotyping, we offer a more fine-grained picture of the motivational dynamics underlying stereotyping behavior.

## NOTES

1. All experiments were conducted in the Dutch language.
2. In the Netherlands, both self-confidence and assertiveness are clearly defined as positive traits (see Stapel & Koomen, 1998, 2001).
3. A pretest ( $n = 28$ ) indicated that as a result of this procedure, participants in the negative feedback condition indeed exhibited on a 9-point scale significantly lower self-esteem ( $M = 4.00$ ,  $SD = 0.96$ ) compared to a neutral feedback condition ( $M = 5.00$ ,  $SD = 1.21$ ),  $F(1, 34) = 5.12$ ,  $p < .05$ ; and a greater need to enhance their self-esteem ( $M = 4.82$ ,  $SD = 1.20$  vs.  $M = 3.75$ ,  $SD = 1.20$ ),  $F(1, 34) = 5.92$ ,  $p < .05$ .

## REFERENCES

- Banaji, M. R., Hardin, C., & Rothman, A. J. (1993). Implicit stereotyping in person judgment. *Journal of Personality and Social Psychology*, *65*, 272-282.
- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer (Ed.), *Advances in social cognition* (pp. 93-130). New York: Guilford.
- Bodenhausen, G. V., & Macrae, C. N. (1998). Stereotype activation and inhibition. In R. S. Wyer (Ed.), *Advances in social cognition* (Vol. 11, pp. 1-52). Mahwah, NJ: Lawrence Erlbaum.
- Chartrand, T. L., & Bargh, J. A. (2002). Nonconscious motivations: Their activation, operation, and consequences. In A. Tesser, D. A. Stapel, & J. V. Wood (Eds.), *Self and motivation: Emerging psychological perspectives* (pp. 13-41). Washington, DC: American Psychological Association.
- Custers, R., & Aarts, H. (2005). Positive affect as implicit motivator: On the nonconscious operation of behavioral goals. *Journal of Personality and Social Psychology*, *89*, 129-142.
- Esses, V. M., & Zanna, M. P. (1995). Mood and the expression of ethnic stereotypes. *Journal of Personality and Social Psychology*, *69*, 1052-1068.
- Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, *73*, 31-44.
- Fiske, S. T. (2002). Five core social motives, plus or minus five. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), *Motivated social perception: The Ontario symposium* (Vol. 9, pp. 233-246). Mahwah, NJ: Lawrence Erlbaum.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York: McGraw-Hill.
- Förster, J., Liberman, N., & Higgins, T. E. (2005). Accessibility from active and fulfilled goals. *Journal of Experimental and Social Psychology*, *41*, 220-239.
- Gollwitzer, P. M., & Moskowitz, G. B. (1996). Goal effects on action and cognition. In T. E. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 361-399). New York: Guilford.
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale measuring state self-esteem. *Journal of Personality and Social Psychology*, *60*, 895-910.
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology*, *47*, 237-271.
- Ko, S. J., Judd, C. M., & Stapel, D. A. (2007). *A voice in the workplace: How vocal cues impact judgments related to hiring decisions*. Manuscript submitted for publication.
- Kunda, Z. (1999). The case for motivated reasoning. *Psychological Bulletin*, *108*, 480-498.
- Kunda, Z., & Spencer, S. J. (2003). When do stereotypes come to mind and when do they color judgment? A goal-based theoretical framework for stereotype activation and application. *Psychological Bulletin*, *129*, 522-544.
- Macrae, N. C., & Bodenhausen, G. V. (2000). Social cognition: Thinking categorically about others. *Annual Review of Psychology*, *51*, 93-120.
- Miller, D. T., & Prentice, D. A. (1999). Some consequences of a belief in group essence: The category divide hypothesis. In D. T. Miller & D. A. Prentice (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 213-238). New York: Russell Sage.
- Moskowitz, G. B., Salomon, A. R., & Taylor, C. M. (2000). Preconsciously controlling stereotyping: Implicitly activated egalitarian goals prevent the activation of stereotypes. *Social Cognition*, *18*, 151-177.
- Neuberg, S. L., & Newsom, J. T. (1993). Personal need for structure: Individual differences in the need for simple structure. *Journal of Personality and Social Psychology*, *65*, 113-131.
- Pelham, B. W., & Swann, W. B. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology*, *57*, 672-680.
- Pendry, L. F., & Macrae, C. N. (1996). What the disinterested perceiver overlooks: Goal-directed social categorization. *Personality and Social Psychology Bulletin*, *22*, 249-256.
- Riketta, M., & Dauenheimer, D. (2003). Manipulating self-esteem with subliminally presented words. *European Journal of Social Psychology*, *33*, 679-699.
- Schwinghammer, S. A., Stapel, D. A., & Blanton, H. (2006). Different selves have different effects: Self-activation and defensive social comparison. *Personality and Social Psychology Bulletin*, *32*, 27-39.
- Shah, J. Y., Kruglanski, A. W., & Friedman, R. (2002). Goal systems theory: Integrating the cognitive and motivational aspects of self-regulation. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), *Motivated social perception: The Ontario symposium* (Vol. 9, pp. 247-275). Mahwah, NJ: Lawrence Erlbaum.
- Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, *77*, 886-904.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). Terror management theory of self-esteem. In C. R. Snyder & D. R. Donelson (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 21-40). Elmsford, NY: Pergamon.
- Spencer, S. J., Fein, S., Wolfe, C. T., Fong, C., & Dunn, M. A. (1998). Automatic activation of stereotypes: The role of self image threat. *Personality and Social Psychology Bulletin*, *24*, 1139-1152.
- Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, *37*, 1660-1672.
- Stangor, C. (2000). Conceptualizing stereotypes and prejudice. In C. Stangor (Ed.), *Stereotypes and prejudice* (pp. 17-20). New York: Psychology Press.
- Stapel, D. A., & Koomen, W. (1998). When stereotype activation results in (counter) stereotypical judgments: Priming stereotype-relevant traits and exemplars. *Journal of Experimental Social Psychology*, *34*, 136-163.
- Stapel, D. A., & Koomen, W. (2001). When we wonder what it all means: Interpretation goals facilitate accessibility and stereotyping effects. *Personality and Social Psychology Bulletin*, *27*, 915-929.
- Stapel, D. A., Koomen, W., & Zeelenberg, M. (1998). The impact of accuracy motivation on interpretation, comparison and correction processes: Accuracy Motivation  $\times$  Knowledge Accessibility effects. *Journal of Personality and Social Psychology*, *74*, 878-893.
- Stapel, D. A., & Schwinghammer, S. A. (2004). Defensive social comparisons and the constraints of reality. *Social Cognition*, *22*, 147-167.
- Steele, C. M. (1998). Stereotyping and its threat are real. *American Psychologist*, *53*, 680-681.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 181-227). San Diego, CA: Academic Press.
- Weary, G., Jacobson, J. A., Edwards, J. A., & Tobin, S. J. (2001). Chronic and temporarily activated causal uncertainty beliefs and stereotype usage. *Journal of Personality and Social Psychology*, *81*, 206-219.

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