# Social Judgeability Concerns in Impression Formation

Vincent Y. Yzerbyt, Benoit Dardenne and Jacques-Philippe Leyens

Journalist: "You said that this was an emotional verdict. Could you elaborate on that?"

LA District Attorney Gil Garcetti: "Well, it took less than three hours deliberation!"

Broadcast on CNN the day after the acquittal of O.J. Simpson

As the above quotation suggests, a widely shared belief is that sound judgments about people require a substantial amount of time and effort. The general idea is that one should not give too much credit to quick judgments. Of course, because the deliberation about O.J. Simpson will forever remain secret, there is no way to know the information used by the jurors to reach their decision. At first glance, the situation is different when our own judgment is at stake. To the extent that we spend sufficient time and effort, we believe that we are able to assess the validity of our decisions. In other words, we hardly doubt our metacognitive abilities and see ourselves as in the best of positions to appreciate what led us to make a particular judgment. But is the belief that we have access to the sources of our thoughts justified? How do we really know what led us to form a specific impression? And how do we know that our judgment is accurate? In the present chapter, we propose that people often evaluate the validity of their impressions by relying on naive theories about judgment processes.

In the first section, we provide a general overview of the social judgeability model (SJM). We propose that, when people form impressions about others, they check for the trustworthiness of their judgment. This metacognitive exercise aims at bringing the judgment in line with a series of normative standards sedimented in the form of naive theories of judgment. To the extent that current research on person perception embodies a powerful norm concerning social judgment – that perceivers should not make a judgment about a specific target on the sole basis of category-based information – we argue that a similar norm influences people's judgment whenever they evaluate their knowledge about others. However, because perceivers have limited access to the processes underlying a particular impression, a series of irrelevant cues may affect their metacognitive evaluation and create a feeling

of confidence. That is, a variety of aspects of the judgmental context are likely to inform perceivers when a particular impression is or is not to be trusted.

In the second section, we test the idea that people are not particularly good at identifying the true sources of their judgment. We provide empirical support showing that perceivers may misinterpret the factors underlying their impression. We show that the subjective availability of individuating information contributes to the expression of (stereotyped) judgments. In the third section, we further examine whether people rely on these rules of judgment for presentational reasons or whether the judgment is truly affected by private beliefs. To this end, we explore the effect of judgeability in a series of settings where social desirability is unlikely to play a role.

In the fourth section, we evaluate the contribution of people's naive theories in the dilution effect. Specifically, we suggest that judgeability effects may contribute to cautious or polarized judgments depending on whether perceivers are more or less aware that their stereotypes influence their ratings. We address alternative accounts of the data in terms of conversational rules. We also detail the unique qualities of the social judgeability model compared to other models of judgment correction.

In the fifth section, we suggest that other well-established findings may be fruitfully examined within the social judgeability framework. We focus on the overattribution bias which corresponds to the fact that people overestimate the causal contribution of dispositional factors and understimate the impact of situational forces. We examine the conditions that may lead perceivers to overlook the situational factors and utter a dispositional judgment. As we show, the mere theoretical adequacy of the judgmental setting can increase observers' feeling of confidence and lead to the expression of a polarized judgment.

In a final section, we suggest that the contribution of naive theories in metacognitive episodes is not restricted to those situations in which perceivers seem to reflect on their judgment after the fact. Instead, implicit rule of judgment construction also exerts an impact on-line and ends up affecting the nature of our judgment in a dramatic way. We provide recent evidence from our laboratory that the mode of information acquisition may also influence impression formation. In other words, whether people actively search for the information or passively receive the data can make a difference at the level of people's subjective confidence.

## The social judgeability model

Recent years have witnessed an increased emphasis on the social embeddedness of person perception. Attention has been paid to the pragmatic concerns that could be at work when people are confronted with others (Fiske, 1993; Kunda, 1990). Congruent with this pragmatic trend, the social judgeability model (Leyens, 1993; Leyens, Yzerbyt, & Schadron, 1992,

1994; Schadron & Yzerbyt, 1991; Yzerbyt & Schadron, 1996) tries to improve our understanding of person perception phenomena by taking into account a variety of social factors that influence social judgment.

First, the SJM posits that social judgments are not only constrained by some objective reality supposed to be "out there." Whereas some models of social judgment remain agnostic with regard to the possibility of a true perception of the target people, others tend to make the assumption that a final call can be made. The SJM stresses the inherent flexibility of perception; it acknowledges the fact that people can be appraised in a great variety of ways that are equally "real" (for a related discussion in cognitive psychology, see Medin, 1989; Medin, Goldstone, & Gentner, 1993; Murphy & Medin, 1985). In fact, the degree of adequacy of social perception must be examined in light of the agendas of both the perceivers and the targets (Swann, 1984, 1987).

Because the external reality hardly limits the way people perceive their environment, other concerns need to enter the picture. These additional levels of adequacy, as we call them, limit the possible construals of the target. That is, they are additional ways to impose constraints on people's judgments about others. In addition to the reality level of adequacy, a most important level is the integrity of the personal and social self. The SJM proposes that perceivers make judgments in order to reach desirable conclusions as far as their personal or social identity is concerned (Leyens & Yzerbyt, 1992; Leyens, 1993; Yzerbyt & Castano, 1997; Yzerbyt, Leyens, & Bellour, 1995; see also Kunda, 1990). Clearly, space limitation does not allow us to dwell on this aspect here but a number of theoretical perspectives suggest that social judgments are conditioned by the way they serve the personal (e.g. Swann, 1987) and social (e.g. Tajfel & Turner, 1986) identity.

A third level of adequacy for social judgment and the focus of the present chapter is what we call the normative level. According to the SJM, people like to see their social judgments meet certain socially shared criteria of validity. These criteria can be seen as social norms sanctioning the materials and the processes used to build one's knowledge about others. Interestingly, current models of impression formation give us a hint as to which sources of information should be taken into consideration in order to evaluate others. During the last two decades, researchers have accumulated impressive evidence for the "cognitive miser" view and the idea that categorial information such as stereotypes or schemas ease up the cognitive burden of person perception (for a review, see Fiske & Taylor, 1991). A first stream of evidence comes from research demonstrating an increased reliance on stereotypes when cognitive resources are lacking during impression formation. Researchers have manipulated resource depletion in a number of ways including time allocated to the impression formation task (Kruglanski & Freund, 1983), pace of presentation (Bargh & Thein, 1985; Pratto & Bargh, 1991), task complexity (Bodenhausen & Lichtenstein, 1987), number of target groups (Stangor & Duan, 1991), stimulus set size (Rothbart, Fulero, Jensen, Howard, & Birrel, 1978), distraction by a concurrent task (Gilbert & Hixon, 1991), arousal during impression formation (Kim & Baron, 1988; Paulhus, Martin, & Murphy, 1992), mood (Bodenhausen, 1993; Hamilton, Stroessner, & Mackie, 1993; Stroessner & Mackie, 1992; Wilder & Shapiro, 1988), and time of day (Bodenhausen, 1990). The message is that perceivers rely on stereotypes to characterize an individual when capacity limitations prevent them from fully examining the available information (Macrae, Hewstone, & Griffiths, 1993). Additional support for the fact that categorial knowledge exerts little pressure on attentional resources comes from priming studies. This line of investigation indicates that the rapidity of processing stereotype-consistent information increases when the stereotype has been activated prior to the presentation of the information (Dovidio, Evans, & Tyler, 1986; Gaertner & McLaughlin, 1983; Macrae, Stangor, & Milne, 1994; Perdue & Gurtman, 1990). More recent work demonstrates the resource-preserving properties of stereotype activation in an even more direct manner. In a series of convincing studies, Macrae, Milne and Bodenhausen (1994) used a dual-task paradigm to show that stereotypes liberate resources that perceivers can then allocate to other activities.

Quite clearly, the two classes of information under consideration in the person perception literature are the specific evidence about the target on the one hand and the prestored knowledge concerning the people belonging to the same category as the target on the other hand. With this distinction in mind, the trend is to adopt a very cautious stand about category-based judgments; they are presented as the default option that is relied upon when cognitive resources are scarce or motivation is lacking. Perceivers are thought to quickly identify the group the target is a member of and to rely on the category-based information even when a consideration of the unique characteristics of the target would be more desirable (for reviews, see Brewer, 1988; Fiske & Neuberg, 1990; Hamilton & Sherman, 1994). In contrast, the ideal impression would be grounded in individuating information. We would like to suggest that the logic of the "official" models embodies and formalizes a widely accepted norm that category-based judgments are less valid than target-based impressions (Yzerbyt & Schadron, 1996). We think that social norms indicate that an impression concerning a specific target should generate a substantial degree of suspicion whenever it is based on category rather than target information. We thus claim that laypeople and person perception researchers share the same social norm. Together with the reality level of adequacy, the integrity and normative levels contribute to shape the inferences perceivers draw about others.

The work developed by Kunda and colleagues (Klein & Kunda, 1992; Kunda, 1990; Kunda, Fong, Sanitioso, & Reber, 1993; Kunda & Sanitioso, 1987) nicely illustrates the way the integrity and the normative levels of adequacy combine with reality to orient judgment. In one study, Klein and Kunda (1992, Experiment 1) showed that, when motivated to hold a particular opinion about a person, people may construct general beliefs justifying their desired view of this person. Participants were induced to view another person as either low or high in ability because he was said

to be either their partner or their opponent in a 50-dollar prize game. They were then (allegedly) randomly assigned to the role of questioner in a game and informed that the other person, the answerer, had performed very well on two versus eight questions in a sample quiz. Klein and Kunda's (1992) findings fully support the idea that perceivers do not feel at liberty to believe anything they want about others. Indeed, participants were sensitive to the number of questions answered when they rated the target's ability. They were more impressed by the target's ability and more confident about their evaluation when the target had correctly answered eight rather than two questions. This result demonstrates that participants took the actual evidence into account and were not blindly endorsing their beliefs. However, rather than simply claiming their desired beliefs, participants constructed justifications for them. Compared to those who thought that the target was their partner, participants believing that the other person was their opponent considered that the ability of the target's peers was higher and that luck played a larger role in his successful performance. According to Klein and Kunda (1992, p. 164), "people feel committed to a rational process of belief justification and attempt to rely as best they can on appropriate evidence and rules . . . but their interpretations of the evidence and of the theories they construct are themselves biased by their motives." A critical dimension of social judgment is thus that reality, desired beliefs, and rules of justification combine to shape people's reactions.

In a similar vein, the SJM proposes that perceivers rely on several criteria to evaluate the validity of their judgment. Because the objective level remains largely unconstrained, perceivers are also sensitive to the integrity and normative levels of adequacy in order to express meaningful judgments about others. One key feature affecting the normative level of adequacy, however, is that perceivers are notoriously ill-equipped when it comes to scrutinizing their own cognitive processes (for reviews, see Metcalfe & Shimamura, 1994; Nelson, 1992). In other words, although people are expected to call upon their metacognitive abilities to assess the quality of their knowledge about others, they are not very good at identifying the various ingredients comprising their judgment nor, for that matter, are they good at pinpointing the factors which led them to form a specific impression (Nisbett & Wilson, 1977; Schachter & Singer, 1962). It is our contention that this state of affairs will allow for more diagrammatic information as well as for more formal aspects of the situation to play a role in the metacognitive exercise of evaluating the trustworthiness of judgments. We further unfold this reasoning and provide empirical evidence in the following section.

## Impression formation and impression misattribution

Imagine that you interview a candidate for a job as a secretary. Like most people, you may end up asking yourself whether your favorable or unfavorable impression of the person derives from the candidate's intrinsic

qualities (a creative mind, a warm personality versus a lack of organization) or from a variety of category-based cues (the candidate is a North African man versus a rather nice-looking female). As we indicated above, current norms of judgment construction indicate that we should expect perceivers to feel comfortable with their impression if it is known to draw upon individuating information. In contrast, people with a similar impression would be very careful if category-based evidence is thought to be the primary basis for their judgment.

There is one difficulty with this reasoning. Indeed, all current perspectives on person perception underline the fact that perceivers are extremely quick at categorizing others on the basis of a minimal amount of information. Categories provide people with a host of information about a specific target. Perceivers are thus likely to know quite a bit about any given person simply because of his or her category membership. The critical question then becomes to determine how exactly people are to interpret the resulting impression. Are perceivers in a position to disentangle the individuating from the category-based pieces of information? The answer seems to be that they are not. In their now classic study, Nisbett and Wilson (1977) suggested that people are quite inefficient at identifying those factors that objectively affected their judgments or behaviors. The message of their provocative review of the literature is that people have little or no direct access to the processes that lead to particular contents of the mind. As a result, naive theories play a major role in people's accounts of why they think what they think or why they do what they do. Building upon this work, we reasoned that social judgment may partly derive from the misattribution of one's stereotypical impression to the available target information.

We (Yzerbyt, Schadron, Leyens, & Rocher, 1994) designed a study in which participants were first provided with category information about a target individual. Half of the participants thought that the target person was a comedian, a profession associated with extroversion, and the remaining participants learned that the target was an archivist, a profession related to introversion. After a minimal presentation of the target via an audiotaped interview, all participants were given a pair of headphones and requested to shadow the voice played in one of the two channels. This dichotic listening task, allegedly used to mimic the cognitive burden of everyday life, was selected because people are unable to monitor the information provided in the unattended channel. At the end of the task, the experimenter informed half of the participants (the "informed" subjects) that they had subliminally received target information via the unattended channel. All subjects were then given a so-called ego-strength scale (ESS) and asked to indicate the target's answers by checking "yes," "no," or "don't know" for each item; most of the items dealt with extroversion and introversion.

According to the SJM, all participants should form an impression about the target on the basis of the category information provided in the first portion of the experiment. Given the normative rules of judgment, we also expected the participants to refrain from judging a specific target on the sole basis of category information. However, to the extent that people are not good at appraising their cognitive processes, the alleged presence of individuating information should allow a misattribution process: the "informed" participants should believe that their impression is grounded on the appropriate kind of evidence. In other words, when perceivers are confronted with diagnostic category information along with illusory target evidence, the resulting impression may be conceived of as one that stems from the individuating information. As a consequence, the final judgment is deemed valid and expressed with some confidence.

In agreement with these predictions, control participants' ratings did not differ as a function of the target's profession. In sharp contrast, the judgments were totally congruent with the stereotypical expectations when the participants thought that they had received individuated information during the shadowing task. This misattribution happened despite the fact that subjects were not able to mention which pieces of information they had received. In a follow-up study (Yzerbyt et al., 1994, Experiment 2), we wanted to evaluate the fact that perceivers needed to believe that they had received target-specific information before they felt entitled to judge. We presented participants with minimal information about a comedian and again told some of them that they had been subliminally confronted with target information. In a third condition, the additional information allegedly concerned the category of comedians as a whole. This third condition provides a stringent test of our hypothesis on several grounds. First, the inclusion of this condition offers a means to check if the instruction about subliminal information simply made the category more salient in the "informed" than in the control condition. It could be that the "informed" participants expressed confident and polarized ratings because they more readily than the control participants activated their categorical knowledge. Second, this condition allows us to examine the conversational impact of the instruction about the presence of subliminal information. Indeed, such an instruction could induce participants to believe that they are expected to judge the target person despite the lack of diagnostic information. In contrast, if they indeed conform to the rule that one should not judge a specific individual on the basis of category information, the participants should clearly refrain from judging the target. As expected, those participants who thought that they had received subliminal information about the category as a whole did not judge the target.

## Private beliefs versus impression management

The above studies provide strong empirical support for our hypotheses. Clearly, subjects rely on the rule that one's impression is hardly valid when no individuating information is made available. In sharp contrast, the metacognitive evaluation of their impression leads them to feel comfortable

about expressing their views when they think that individuating evidence was made available to them. Importantly, our subjects never received individuating information but were simply led to believe that they had received it. Moreover, they did not feel entitled to judge the target person when they were told that the subliminal information concerned the category the target was a member of. The pattern of data proves encouraging in that it suggests that perceivers asked to judge another person engage in a metacognitive process in which naive theories of judgment of the kind we identified play a role.

The above studies provide convergent evidence that normative rules of judgment are indeed at work when people form impressions about others. In particular, people are reluctant to evaluate another person only on the basis of category information. An important question concerning Yzerbyt et al.'s (1994) findings concerns the extent to which the participants' answers reflect their true impression. The SJM posits that perceivers have internalized a series of widely accepted rules concerning social judgment and that overt responses directly echo the participants' private evaluations. The control condition in which subjects are left uninformed is particularly interesting in this respect. A private belief account holds that these control participants are truly convinced that their impression is ill-founded because it is not based on individuated information. The absence of judgments therefore informs us about the participants' state of knowledge about the target person. An alternative reading of the results might be that control participants do not produce stereotypical answers simply because they are aware that social judgments ought to be grounded on individual information in order to be socially acceptable. In other words, the cautious ratings observed in the control condition could derive from the participants' motivation to appear unprejudiced. The data of the experimental conditions can be interpreted along similar lines. Whereas the private belief perspective stresses the fact that participants only judge the other person because they think it is merited, the impression management account suggests that the stereotypical judgments result from the participants' impression that a judgment is indeed desirable.

To examine the viability of these two alternative interpretations, we again relied on the dichotic listening task paradigm but we introduced one important modification (Yzerbyt, Leyens, & Corneille, in press a). Half of the participants filled in the questionnaire about the target person while being connected to a bogus pipeline apparatus (Jones & Sigall, 1971). This change in procedure allowed us to collect the participants' true impressions about the target. Indeed, research indicates that the bogus pipeline procedure provides one of the best means to eliminate presentational concerns among participants (for a review, see Roese & Jamieson, 1993).

Upon their arrival at the laboratory, all participants were first requested to answer a series of general knowledge questions about their university, allegedly in order to comply with a departmental regulation. This short questionnaire used the same "yes," "no," and "don't know" scale as the

ESS scale and was presented via a computer screen. Unknown to the participants, their answers were directly sent to a remote server. The actual experiment then took place in another laboratory located in a different building. At the end of the dichotic listening task, half of the participants were told that their answers to the ESS scale would be evaluated in light of the information collected by the sophisticated apparatus present in the room. A cover story ensured that participants were totally convinced of the efficacy of the bogus pipeline. Indeed, after the experimenter had connected the participants to the apparatus by way of several electrodes, he presented them with a selection of questions issued from the general knowledge questionnaire answered earlier. The task of the participants was to let the machine guess their true answers. Although the guesses were far from perfect for the first few items, the machine was increasingly correct for the remaining ones and approached a perfect match for the final items. In reality, the machine was reading the participants' answers from the remote server, adding some random noise in the presentation of the initial guesses. All participants, whether they had been confronted with the bogus pipeline or not, were then asked to fill in the ESS scale about the target person.

The private belief interpretation holds that people make a judgment only because it is merited. This means that the difference in social judgment between the informed and uninformed participants should emerge whether or not the participants have been connected to the bogus pipeline apparatus. The impression management view assumes that people do whatever they think is socially acceptable. Because the bogus pipeline forces participants to report their true impression, the difference between informed and uninformed participants observed in the absence of the bogus pipeline should vanish in the presence of the device.

As can be seen in Figure 8.1, our data (Yzerbyt et al., in press a) provide strong support for the private belief interpretation and cannot be accounted for by the presentational view. In line with predictions, the informed participants are more confident and express more stereotypical ratings than the uninformed participants. This pattern emerges whether participants were linked to the bogus pipeline or not. Such a finding shows that, although perceivers are sensitive to a series of naive theories of judgment, their overt answers are much less strategic than may appear at first sight. Interestingly, bogus pipeline perceivers report more stereotypical judgments than the other participants. This additional result indicates that the dichotic listening paradigm is hardly favoring the expression of category-based judgments and further strengthens our social judgeability analysis of earlier findings.

Recent work by Banaji (see Chapter 9 in this volume) bears much resemblance to our demonstration that a variety of cues may lead perceivers to misinterpret the origin of their (stereotyped) impression. In this research, participants are asked to make a judgment of criminality on names that vary in race. Instead of informing some of the participants that subliminal information has been given to them, the experimenter indicates that some of

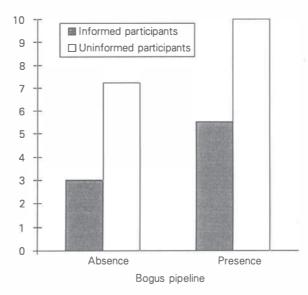


Figure 8.1 Number of congruent answers (adapted from Yzerbyt et al., in press a, Experiments 1 and 2)

the names on the list may be familiar because they have appeared in the media as names of criminals. In line with predictions, this simple instruction suffices to produce one and a half more "black" than "white" identifications. More interestingly, participants in the "media" condition are convinced that their evaluation is based on genuine memory of the criminal names. Clearly, the misattribution of the impression to the media coverage leads participants to feel confident about their judgment. As is the case in our own studies, this pattern of findings stresses the difficulty of performing the metacognitive task of evaluating the origin of an impression (see also Greenwald & Banaji, 1995).

# Judgeability concerns and the dilution effect

The stereotyping literature is replete with examples of the impact of stereotypic expectations on judgments (Darley & Gross, 1983; Duncan, 1976; Sagar & Schofield, 1980). Other research, however, also reveals that people sometimes disregard category-based information. In a well-known series of studies, Nisbett, Zukier and Lemley (1981) asked their participants to predict the level of electric shock that engineering or music majors would tolerate. Not surprisingly, engineering majors were thought to tolerate more shocks than music majors. This difference vanished, however, when the participants saw a short video excerpt of the target person mentioning name, place of birth and a few other non-diagnostic pieces of information. In other words, the judgments of the target were much less affected by

stereotypical knowledge when perceivers received a minimal amount of individuating information. The fact that people are hardly influenced by diagnostic category information has come to be known as the dilution effect. This effect appears when people judge ingroupers as well as outgroupers (Denhaerinck, Leyens, & Yzerbyt, 1989); it is not restricted to judgments but also influences behavior (de Dreu, Yzerbyt, & Leyens, 1995).

Champion among the explanations for the dilution effect is the idea that people face limited intellectual sophistication and rely instead on the representativeness heuristic (Kahneman & Tversky, 1973). Because perceivers have a prototypical representation of the category, provision of trivial information about the target lessens the similarity between this target and the prototypical member of the category. As a result of the reduced similarity, people make less stereotypical judgments (Tversky, 1977). Needless to say, the dilution effect enjoys a more desirable status than other well-established cognitive biases because it stands out as one example of the possibility of escaping the power of stereotypes in social judgments. The fact that perceivers fail to integrate category information when judging individuals may sound reassuring given the negative reputation that stereotypes carry with them. The problem, however, is when this neglect takes place at the expense of the actual informativeness of category-based information.

Given that the dilution effect is a robust phenomenon (Locksley, Borgida, Brekke, & Hepburn, 1980; Locksley, Hepburn, & Ortiz, 1982; Zukier, 1982), it is most intriguing in light of other results in the stereotyping area. For instance, Darley and Gross (1983) found that their participants refrained from judging a target after they had seen a video depicting her in her socio-economic status background. Other subjects expressed stereotypical ratings after they had also seen a second video showing the target person during an intelligence test. What can account for this apparent paradox between a dilution effect, when asked to judge after the first video, and an hypothesis confirmation, when asked to judge after both videos? In our view, social judgeability may prove useful to reconcile these two sets of findings.

A simple analogy between Darley and Gross' (1983) and Nisbett et al.'s (1981) findings may be unwarranted. According to social judgeability theory, the belief that stereotypes unduly influence the impression of a specific individual leads perceivers to withhold their judgment and feel less confident. Conversely, when people believe that individuating information forms the basis of their judgment, they should feel more comfortable at expressing their views. This analysis leads us to distinguish three different situations. The first situation is one in which subjects are requested to produce a judgment about an abstract target person or, more generally, a social group. Quite naturally, stereotypes should emerge because they provide the only relevant information to answer the question. We would argue that Nisbett et al.'s (1981) no-information condition corresponds to such a situation. The second situation happens when perceivers face a specific person and have little or no information to form their judgment. In

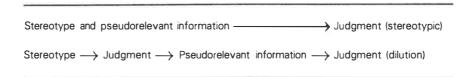


Figure 8.2 Pseudorelevant information. Design and expected judgment (in parentheses) for the final-judgment-only condition (top) and the two-judgment condition (bottom) (Yzerbyt, Schadron, & Leyens, 1997)

this case, they should avoid judging along the lines implied by their stereotypes. Indeed, the first video to Darley and Gross' (1983) participants or the short excerpt for Nisbett et al.'s (1981) participants leads perceivers to withhold their judgment. Finally, there is a third situation in which people encounter a real target but receive additional information that looks as if it is relevant. In this case, people should feel entitled to judge and express their impression with some confidence. The two-video condition imagined by Darley and Gross (1983) clearly meets the latter criterion. Not surprisingly, perceivers give stereotypical ratings because they have received no diagnostic information other than a categorical one (Yzerbyt et al., 1994).

The above analysis accounts for a long-standing paradox in the stereotyping literature. Yet, if our a posteriori interpretation is to be taken seriously, it should stand the test of new experimental situations. In a first experiment (Yzerbyt, Schadron, & Leyens, 1997), participants were given pseudorelevant information about a student in business or history and asked to rate his competitiveness and cooperativeness. In line with Hilton and Fein's (1989) distinction, pseudorelevant information is often useful for making trait judgments but irrelevant for the particular judgment at hand. As such, pseudorelevant information should prove most important in providing perceivers with the feeling that they know something about the target person and that their impression is therefore valid. Our key manipulation concerned the presence or absence of a judgment before the participants received the pseudorelevant information (see Figure 8.2). To the extent that an intermediate judgment makes stereotypical knowledge more salient, it should prevent the misattribution of the stereotype-based impression to the pseudorelevant information. In other words, we expected to find diluted ratings in the two-judgment condition and a polarized rating in the final-judgment-only condition because perceivers should be more sensitive to the potential impact of their stereotypical expectations in the former than in the latter condition.

The results fully confirmed our predictions. The judgments in the final-judgment-only condition significantly departed from the scale's midpoint. Moreover, they were not significantly different from a control group in which participants indicated their stereotypic views about the group as a whole. In contrast, the ratings in the two-judgment condition revealed the presence of a dilution effect. In this condition, neither the first nor the

second judgment differed significantly from the scale's midpoint. As expected, both were significantly different from the stereotype. In sum, the confrontation with a real target but no individuating information led perceivers to avoid expressing their stereotype in the first judgment; the second judgment remained unchanged in spite of the provision of pseudorelevant information because participants could not misattribute their stereotype-based impression to the pseudorelevant information.

Our claim that subjects are sensitive to a variety of rules of impression formation leads us to address one potential difficulty. The provision of pseudorelevant information after a first judgment may surreptitiously indicate that subjects ought to stick to their original rating. Fortunately, data from a second experiment (Yzerbyt, Leyens, & Schadron, 1998) do not conform to a conversational interpretation of this kind. In addition to the conversational issue, the other goal of this study was to examine in a more direct manner the conjecture that misattribution facilitates the expression of polarized judgments. To this end, we manipulated the nature of the individuating information.

In a first condition, participants were given category-based information along with pseudorelevant individuating information and asked only a final judgment. We hoped to replicate our earlier findings that people express stereotyped judgments when they think they possess sufficient individuating evidence. Another condition was modeled after our earlier two-judgment situation with one important modification. Indeed, when asked to make a first judgment, these two-judgment participants were given permission to rely on the available category-based information. By doing this, we hoped to bypass standard social judgeability rules and show that the participants were perfectly aware of the relevant stereotype, that is, we expected the first judgment to be stereotypic. We also expected that this modification would have an impact on the second judgment. When given additional pseudorelevant information about the target, participants should become aware that their stereotype may influence their evaluation. As a result, they should refrain from judging the person. As can be seen in Figure 8.3a, our predictions were totally borne out.

Turning the above conversational interpretation on its head, it is possible to argue that participants first given the permission to use the category and later confronted with the pseudorelevant information may think that pseudorelevant information is entirely worthless but that it was simply provided in order for them to change their stereotypical answer. We see two major problems in this account of our data. For one thing, the assumed lack of relevance of the pseudorelevant information in the two-judgments condition strongly contradicts the evidence accumulated on our pretest subjects and by Hilton and Fein (1989). By definition, pseudorelevant information conveys the feeling that some information has been given about the target. The feeling that a real individual is at stake is thus very likely to emerge when facing that kind of information. For another, and more importantly, the absence of modification of the participants' judgment in

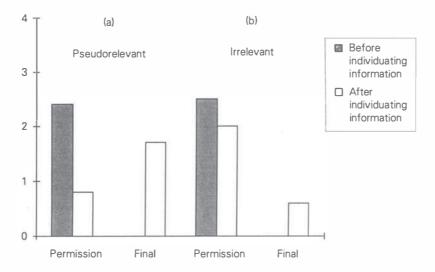


Figure 8.3 Judgment in the two-judgment and final-judgment only conditions with pseudorelevant and irrelevant information. Scores could range from -4 (not all ambitious) to 4 (very ambitious)

the two-judgment condition designed by Yzerbyt, Schadron and Leyens (1997) stands in total contradiction to the idea that participants change from a stereotyped to a diluted judgment simply because they think that the experimenter expects them to do so. In conclusion, the fact that participants sometimes did and sometimes did not reproduce their first rating when asked to evaluate the target anew strongly suggests that the lack of impact of the stereotype on the second judgment is the result of people's judgeability concerns.

Our experiment also comprised two additional conditions in which participants received irrelevant rather than pseudorelevant information (see Figure 8.4). According to the social judgeability analysis, participants given category-based and irrelevant individuating information at once should not feel informed about a specific individual. As a consequence, dilution should be found. In sharp contrast, participants asked a first categorical judgment should later remain unaffected by the irrelevant information and keep on expressing polarized ratings. This is because irrelevant information makes explicit that no useful individuating information has been added. Figure 8.3b shows that the predicted pattern was found. These findings reveal the heuristic value of the social judgeability analysis. Not only does the model account for disparate findings in the literature, but a number of new predictions can be tested.

The present findings do not mean that every dilution pattern reported in the literature can be accounted for in social judgeability terms. Different processes can lead to similar results. This is obvious in the case of stereotypic judgments. Clearly, people may end up using their stereotypes because

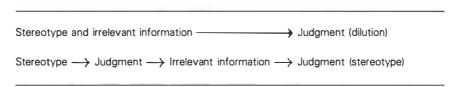


Figure 8.4 Irrelevant information. Design and expected judgment (in parentheses) for final-judgment-only condition (top) and two-judgment condition (bottom) (Yzerbyt et al., 1998)

they confirm their hypothesis. Alternatively, perceivers may express stereotypical evaluations because they think that their category-based impression rests on a valid basis, i.e. individuating information. To further complicate matters, several processes can join forces to produce the predicted results. For example, going back to Darley and Gross' (1983) study, both hypothesis confirmation and judgeability rules may have contributed to the formation of impression. We would like to argue that the same situation holds for the dilution effect. In a study by Zukier and Jennings (1984, Experiment 1), participants acted as jurors in a murder trial. Control subjects received diagnostic information indicating guilt, estimated the likelihood that the defendant was guilty, and sentenced him. Other participants received additional non-diagnostic information, i.e. information that was of no help in making the judgment, concerning physical and behavioral characteristics. Whereas in the "typical" condition the defendant was average on a number of dimensions (e.g. "average height and vision"), in the "atypical" condition he was extreme on the same dimensions (e.g. "extremely tall and very good vision"). Only participants confronted with the typical non-diagnostic information diluted their judgments. In line with the classic representativeness interpretation (Tversky, 1977), Zukier and Jennings (1984) argued that typical non-diagnostic information appears inconsistent with an extreme outcome but that atypical non-diagnostic information seems to confirm the likelihood of such an outcome. An alternative interpretation can be formulated within the framework of the social judgeability model. Indeed, a social judgeability analysis suggests that people confronted with atypical information feel better informed about the target and, as a result, express polarized judgments. In contrast, average non-diagnostic information reduces the feeling of being informed and dilution ensues.

Interestingly, there are a number of similarities between the social judgeability model and Martin's (1986) set-reset model (see Martin & Achee, 1992). According to this author, assimilation effects typically observed in priming studies derive from participants' failure to recognize the prior activation of the prime. In other words, to the extent that primes remain in consciousness at the time of judgment, they are used to interpret new information. When participants realize that they have been primed, they seem to "reset" their frame of reference and attempt to partial out the primed information. Admittedly, our participants' reactions in the

pseudorelevant conditions (see Figure 8.2) could be interpreted in the context of Martin's (1986) set-reset model. Still, it is less clear how this model could account for the results in the irrelevant conditions (see Figure 8.4). Indeed, participants withheld their judgment when they simultaneously received category and irrelevant information but stuck to their first categorical judgment when the irrelevant information came after the category information. Such a pattern can only be explained by assuming that the participants are sensitive to the very nature of the individuating information, a crucial assumption of the social judgeability model. In the same vein, the ability of the set-reset model to account for our findings can also be questioned on the basis of Yzerbyt, Schadron, and Leyens' (1997) data. Participants in this study received nothing but the category membership before judging a real individual. Because they were not encouraged to rely on their stereotypical knowledge, it is hardly surprising that they conformed to the naive rules of social judgment and diluted their judgments. Contrary to the set-reset model but in line with a social judgeability analysis, participants later provided with pseudorelevant information about the target did not alter their judgment. In conclusion, the social judgeability model seems better able than the set-reset model to handle these various sets of data.

The above results provide convincing evidence that judgeability concerns play a role in the production of dilution effects. However, dilution effects have also been obtained in settings different from the one we used here. For instance, Locksley, Hepburn, and Ortiz (1982) collected beliefs about "night people" and "day people." Three weeks later, one group of participants received only category information about eight individual targets, a second group of participants received both category and non-diagnostic information, and a third group both category and diagnostic information. Dilution occurred when participants received non-diagnostic information despite the fact that the non-diagnostic information very much looked like pseudo-relevant information.

A number of recent findings, mostly issued from research on the base rate fallacy, offer a nice way to reconcile Locksley et al.'s (1982) results and our data. Questioning the role of the representativeness heuristic in the production of the base rate fallacy, Gigerenzer (1991) looked at reactions to an uninformative description when participants received no or several other descriptions. He found a striking correlation between the number of descriptions and the mean difference between the answers in the two base rate conditions. More interestingly, Gigerenzer, Hell, and Blank (1988) found that separate analyses on those participants who read several descriptions and encountered the uninformative description first revealed the presence of a strong base rate effect for this description. Along with similar claims about the role of the experimental context on the emergence of the base rate fallacy (Leyens et al., 1994), these findings suggest that the simultaneous presentation of several individuated targets leads participants to differentiate between them. This kind of empirical evidence has obvious implications for

Locksley et al.'s (1982) study. In line with self-categorization theory (Oakes, Haslam, & Turner, 1994), the simultaneous presentation of eight targets who differ only in terms of their category can only make salient the difference between the categories. In contrast, when individuating information is provided, the presentation of eight targets is likely to lead participants to differentiate the targets from one another, resulting in much less discrimination between the two categories (Abele-Brehm, 1996; Gigerenzer, 1991; Leyens et al., 1994).

To sum up, we acknowledge the potential impact of the lack of representativeness of the target in the emergence of dilution effects, but we also suspect that a series of pragmatic and judgeability aspects contributes to produce the specific patterns of data. Clearly, additional research is needed to better understand how various context aspects of the judgmental situation influence the production of social judgments. With this concern in mind, the next section examines the role of naive theories in the emergence of the overattribution bias.

## The adequacy of the judgmental context

The overattribution bias (OAB) is one of social psychologists' most cherished patterns of findings (Jones, 1990). Along with the famous Asch paradigm, Milgram's experiments and a few other classic findings, the OAB is a must in any introductory course on social psychology. In addition to being a real winner in the eyes of university teachers, the OAB remains a hotly debated phenomenon in contemporary research circles. Also known as the "fundamental attribution error" (Ross, 1977), the "correspondence bias" (Gilbert & Jones, 1986) or the "observer bias" (Jones & Nisbett, 1972), the OAB corresponds to the fact that observers tend to explain other people's behavior in terms of their intrinsic characteristics and to overlook the impact of situation constraints (Gilbert & Malone, 1995).

The first and perhaps most enlightening experiment illustrating the impact of the overattribution bias is a study by Jones and Harris (1967) in which subjects were asked to read an essay opposing or supporting Castro, the communist Cuban president. In line with Jones and Davis' (1965) correspondent inference theory, subjects who learned that the author had been free to express his own views in the essay simply inferred the presence of corresponding attitudes. In other words, the author who favored Castro was thought to like Castro and the one who opposed Castro in the essay was seen to dislike Castro. More surprisingly, subjects who were told that the author had been forced to advocate the position taken in the essay also inferred the presence of correspondent attitudes. Although the difference between the favorable and the unfavorable author was less important in the forced-choice than in the free-choice conditions, this pattern is totally at odds with the prediction derived from correspondent inference theory. Indeed, the theory predicts that the absence of choice should logically

prevent subjects from making a distinction between the author favoring Castro and the one opposing Castro. Since this seminal study, the OAB has been replicated a great many times and has become a favorite dish on social psychologists' plate (for a review, see Gilbert & Malone, 1995)

From our social judgeability perspective, the attitude attribution paradigm imagined by Jones and Harris (1967) is ideally suited to examine how naive theories affect perceivers' metacognitive work. As we know, participants have every reason to decline the opportunity to judge the target person and, yet, they feel confident enough to make dispositional judgments. What could motivate such a reaction? In our view, the observer's metacognitive work favors the expression of a correspondent judgment partly because the attitude attribution paradigm confronts the observer with a meaningful judgmental setting.

Our analysis builds upon a close inspection of the experimental situation. On the one hand, the whole context stresses a psychological approach to the task (Higgins, 1996; Leyens, Yzerbyt, & Schadron, 1994; Quattrone, 1982; Webster, 1993). Subjects are requested to rely on their interpersonal skills, they are reminded that their role is pretty much like one of a clinician facing a patient, some of the dependent variables involve personality traits, etc. Clearly, thus, the psychological tone of the setting is made very salient. On the other hand, there is little doubt that the attitudinal issues typically used in the attitude attribution paradigm have a strong dispositional tone. In other words, people's position on the issue is probably thought to be dictated by personality factors. Given that subjects see people's views on the specific issue as being determined by their personality and that the judgmental context makes salient the idea that the personality of the author is at stake, there is a strong adequacy between the context and the requested judgment. The question is then: Could such a match play a role in the emergence of the OAB? Could it be that people feel sufficiently entitled to judge because they misinterpret their correspondent inference?

We tested this social judgeability interpretation of Jones and Harris' (1967) well-known attitude attribution paradigm in a series of studies (Leyens, Yzerbyt, & Corneille, 1996). First, we verified that our participants spontaneously accounted for people's opinion about a particular topic, i.e. euthanasia, in terms of their personality whereas they related people's views about an alternative topic, i.e. the closing of the coal mines in the UK, to their social background. We then proceeded to show, and found, that when participants confronted someone who had been forced to write an essay against the legalization of euthanasia, they made a correspondent inference if the context of the study stressed the idea of personality but not if the context emphasized the idea of social background. Conversely, participants overattributed an essay about the closing of coal mines to its author when the context of judgment focused on social background but not when it underlined the idea of personality. For both topics, a control condition stressing neither personality nor social background also failed to produce the classic fundamental attribution error. Clearly, perceivers did not

systematically fall prey to the OAB. Instead, they proved to be very sensitive to the theoretical relevance of the target behavior and of their own judgment. Perceivers felt entitled to judge only when the context of their judgment was meaningfully related to the behavior of the target.

The above results are most intriguing in light of current social psychological wisdom. Although many theoretical models address the OAB and all of them display some unique features, it is still possible to distinguish two broad categories of explanation. According to the sequential views, the OAB emerges because perceivers rely on the anchoring-adjustment heuristic (Tversky & Kahneman, 1974). More specifically, sequential views propose that people spontaneously explain an event in terms of the characteristics of the author (the dispositional anchor) and then adjust this first inference by taking into account competing information (the situational adjustment) (Jones, 1979). Presumably, the OAB is the consequence of insufficient adjustment. Strong support for this anchor-adjustment process comes from data showing that motivation reduces the bias (Tetlock, 1985; Webster, 1993; Yost & Weary, 1996). Other studies reveal instead that a shortage of cognitive resources increases the bias (Gilbert, 1989; Gilbert, Pelham, & Krull, 1988; Gilbert & Silvera, 1996). The observation that perceivers may sometimes end up making erroneous situational attributions provided that they start out with a situational anchor offers yet another demonstration of the insufficient adjustment process (Krull, 1993; Quattrone, 1982; Webster, 1993). In sum, the sequential views hold that a better job could be performed if perceivers were to examine the information more closely.

Instead of explaining the OAB by looking at perceivers' cognitive limitations, a second group of explanations celebrates the work people undergo to give meaning to the judgmental setting. These conversational approaches suggest that the OAB paradigm very much urges participants to express a judgment about the author of the essay. Indeed, to the extent that participants are sensitive to the rules of conversation and assume that the experimenter, like them, conforms to these rules (Grice, 1975), they must take the essay to be a valid piece of information and the attitudinal question to be a legitimate question. In other words, the paradigm entails implicit pressures to rely on the characteristics of the essay to judge the author (Miller & Rorer, 1982; Miller, Schmidt, Meyer, & Collela, 1984; Wright & Wells, 1988). In line with such a conversational analysis, participants do refrain from making an OAB when they receive no information about the author of the essay (Ajzen, Dalto, & Blyth, 1979), when the information that they receive appears completely irrelevant with regard to the author's behavior (Miller & Lawson, 1989), or when they are warned that they may not have the right information to make a judgment (Wright & Wells, 1988).

Both the sequential views and the conversational approaches offer useful insight as to why the OAB may emerge. Interestingly, however, the results presented by one line of research are not easily cast in terms of the alternative framework. For instance, if motivated perceivers are indeed

expected to make better sense of the available information than less motivated perceivers, a conversational theorist would probably predict more and not less bias among the former participants. Conversely, the sequential view is ill-equipped to account for the impact of a number of conversational manipulations. More importantly for our purpose, both perspectives are silent as to what would happen when no essay at all is given to the participants. This means that Leyens et al.'s (1996) findings presented above can simply not be accounted for in strict sequential or conversational terms. Only our judgeability analysis of the experimental situation provides a satisfactory explanation of the results. Indeed, whether perceivers did or did not face an adequate judgmental context was clearly a critical factor in the emergence of a correspondent inference.

One interesting way to test the viability of the judgeability interpretation is to show that Leyens et al.'s (1996) participants make a dispositional inference because they rely on the adequacy of the judgmental context as a ready-made indicator of the validity of their inference. Should perceivers be more motivated, they would realize that they received no real information about the target and would refrain from making dispositional inferences. This prediction was tested in a follow-up study (Corneille, Leyens, & Yzerbyt, 1996, Experiment 1). As before, we did not distribute any essay. We told half of the participants that a student had taken part in an experiment in psychology. The remaining participants learned that the experiment concerned sociology. To manipulate the topic, we informed half of the participants that the essay dealt with euthanasia. The other participants were told that the essay was about the closing of mines in the UK. In other words, we activated an adequate context in two of the four conditions. In each condition, half of the participants were made accountable by being told that they would have to explain their answers to the head of research. Earlier work indicates that this kind of accountability instruction is quite successful in motivating the participants to carefully process the information (Tetlock, 1983, 1985). Our prediction was straightforward. On a very general basis, we expected that the adequacy of the judgmental context would lead our subjects to feel entitled to judge the target. This is exactly what we found. More important, the predicted three-way interaction confirmed that the impact of adequacy on the emergence of dispositional inferences was observed only for our non-motivated participants. When made accountable, perceivers did not seem to be happy with the mere adequacy of the context. In contrast, when motivation was low, participants fell prey to the OAB when the essay concerned euthanasia and the study was allegedly conducted in a psychological context. Similarly, lowmotivation participants expressed dispositional attributions when the essay dealt with the closing of mines and the experiment was allegedly carried out in the context of research in sociology.

These findings provide a very convincing demonstration of the intrusion of judgeability concerns in the attitude attribution paradigm. As such, they underline the relevance of naive theories of judgment in a wide variety of

settings. Interestingly, they do share one important feature with the earlier illustrations of judgeability concerns in stereotyping settings. Indeed, as far as we can tell, these metacognitive inferences very much seem to play a role at the end of the judgmental process. In other words, it is as if perceivers reflect on their impression and its validity right before they are requested to utter their judgment. Is it possible that some sort of metacognitive work takes place along the way rather than at the end of the journey? Could judgeability concerns affect the judgment as the impression is being constructed? In the next section, we present our initial efforts in answering this question.

## The many sources of confidence

A paramount feature of the impression formation research examined above is that participants always passively receive rather than search for the information concerning the judgmental target(s). Although such a procedure enables methodological concerns to be met, it fails to provide a full picture of real-life social perception: Perceivers do not only receive information from others, they also invest time and effort to gather new information in order to make up their minds. In our earlier work (Yzerbyt and Leyens, 1991), we explicitly addressed this shortcoming of the impression formation literature. We evaluated the impact of the active selection of the information in a hypothesis confirmation paradigm (Snyder & Swann, 1978). Our participants were asked to request as many pieces of trait information as they saw fit in order to select a series of candidates for a theater role. In perfect agreement with other research on the confirmation bias (Klayman & Ha, 1987) and on the negativity effect (Peeters & Czapinski, 1990), we found that participants requested more information when the traits were positive and confirming rather than negative and disconfirming.

Building on this early empirical demonstration of the role of the active information search in impression formation, Johnston and Macrae (1994) looked at the impact of the mode of information acquisition on stereotype maintenance. These authors provided some of their participants with information concerning a specific target person. Some items of information were consistent with the stereotype, others were inconsistent, still others were neutral. Other participants were allowed to request the specific pieces of information that they wanted. Still others only knew the category membership of the target. The data revealed that, compared to the situation in which all of the evidence was given, the control of the information search led participants to express more stereotypical answers. Because the active search participants did not differ from the category participants, these findings reveal that stereotypes may be more resistant in real-life settings than most laboratory studies seem to indicate.

In our view, these studies are important because they suggest that perceivers may in fact be very sensitive to the mode of acquisition of the information. Specifically, people may have more confidence in the evidence that they themselves gathered than in information they passively received. Unfortunately, two weaknesses in Johnston and Macrae's (1994) demonstration prevent us from drawing firm conclusions regarding our conjecture. First, these authors included no condition in which participants received exactly the same information as the active search participants. Second, the feedback information always confirmed the question asked by the participants, with the consequence that the targets often appeared incoherent. We took care of these problems in a series of experiments (Dardenne & Yzerbyt, 1996).

In a first study (Dardenne & Yzerbyt, 1996, Experiment 1), participants first read a six-trait description of a person. For each trait, a percentage mentioned the proportion of peers attributing that particular trait to the person. Depending on the condition, we created a positive or a negative expectancy. For instance, the positive expectancy participants learned that 64% and 20% of the people thought that the person was spontaneous and envious, respectively. Active search participants then received a list of 12 positive and 12 negative traits and were asked to select six additional traits in order to form an impression. For each trait, the experimenter successively revealed the proportion of people attributing the trait to the person. Importantly, the feedback was always consistent with the initial impression. Passive reception participants were yoked with their active search colleagues in that we simply provided exactly the same information requested by an active search participant to a passive reception participant. Finally, active search and passive reception participants conveyed their impression of the person (likeability) as well as their confidence on a number of dependent measures. Our prediction was that the control of the data collection process would lead participants to make more extreme impressions and to feel more confident. As can be seen in Figure 8.5, the data fully support our hypotheses.

These findings lend credit to the idea that perceivers who control the acquisition of the information express more confident and polarized ratings. They remain silent, however, as far as the underlying process is concerned. One possibility is that polarization takes place at the end of the data collection phase. This "end-product" hypothesis assumes that perceivers in both conditions complete their data collection with a similar impression. Before they convey their impression, they take into account the mode of information acquisition and correct their impression accordingly. Supposedly, a more active control is conducive to better judgments. As a result, perceivers may feel more confident and polarize their judgments. Alternatively, the active search for additional information could have an on-line influence on the impression. According to this hypothesis, perceivers deal with the information in a distinctive manner from early on and may end up with a very different impression. One way to tell apart these two possibilities is to provide information that disconfirms the perceivers' initial hypothesis. Indeed, active and passive perceivers may come up with very different final impressions if the mode of information acquisition exerts its impact from the first piece of information on. On the other hand, if



#### Metacognition

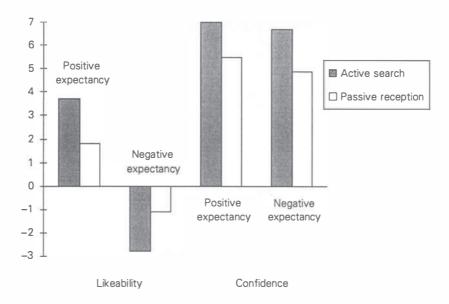


Figure 8.5 Likeability ratings and level of confidence for active search and passive reception participants (Dardenne and Yzerbyt, 1996, Experiment 1). For likeability ratings, scores range from -9 (very negative) to 9 (very positive); for confidence ratings, scores range from 0 (very low) to 9 (very high)

perceivers bring in only at the end the fact that they either searched for or received the evidence, active participants should simply be more confident and extreme in their final impressions than passive participants.

In a second study (Dardenne & Yzerbyt, 1996, Experiment 2), we replicated the above experiment except that we provided half of the participants with disconfirming rather than confirming evidence. To the extent that the final impression is very sensitive to the mode of information acquisition (see Figure 8.6), our data clearly support the "on-line" hypothesis. In fact, whereas passive reception ended up with positive impressions, active search always led participants to form negative impressions. This pattern of findings is highly reminiscent of the distinction between the positivity bias and the negativity effect (Peeters & Czapinski, 1990). Apparently, active search perceivers appraise the old and the new information in a more cautious and responsible manner.

In conclusion, the mode of acquisition of the information has a noticeable impact on people's final judgments. Interestingly enough, whereas earlier research indicates that negative information leads to more intense cognitive work (Fiske, 1980; Kahneman & Tversky, 1984), the present data show that a more accountable set of mind leads perceivers to weigh the negative evidence more than the positive evidence. In contrast to a "sufficiency" orientation which favors positive information and confirming evidence, the active search may correspond to a "necessity" orientation in which

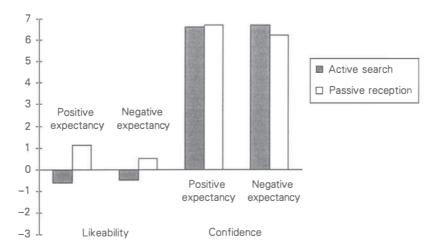


Figure 8.6 Likeability ratings and level of confidence for active search and passive reception participants (Dardenne and Yzerbyt, 1996, Experiment 2). For likeability ratings, scores range from -9 (very negative) to 9 (very positive); for confidence ratings, scores range from 0 (very low) to 9 (very high)

perceivers feel highly accountable for their decision. This distinction between the active search and the passive reception of the information shares many characteristics with the well-established impact of mood on impression formation (Bodenhausen, 1993; Fiedler, 1991; Forgas, 1991; see also Mackie & Hamilton, 1993) as well as with many other observations showing the existence of a more conscientious mode of processing the information and a more superficial way of handling the data (Fiske & Taylor, 1991; for a similar argument in the attitude area, see Chaiken, 1987; Petty & Cacioppo, 1986). With regard to stereotyping, the message from our data is not very optimistic. On the one hand, people tend to stick more to their a priori views when they are negative rather than positive. On the other, perceivers are likely to embrace new information more readily when it is derogatory rather than flattering. In short, an egotistic and ethnocentric approach of the world may largely benefit from an active search for information.

## **Conclusions**

The culture we inhabit has its rules of functioning. People carry with them a number of naive theories regarding social judgment. Some conditions are thought to render a judgment valid; others lead to a questionable decision; we may or may not feel entitled to judge. The present chapter examined the impact of two different naive theories. In a first research program, we examined the widely shared assumption that social perceivers are supposed to judge others on the basis of valid individuating judgment. This prescriptive

rule, we argued, is largely embodied in current impression formation models. In several experiments, we showed that the mere belief that individuating information has been made available may facilitate the expression of judgments. To the extent that the perceivers' expectations are the only real source of information, people's judgment ends up confirming the stereotypes. Although our findings do not mean that hypothesis confirmation is unlikely to contribute to the maintenance of stereotypes, they stress the fact that implicit rules of judgment can combine with people's limited access to the actual basis of their impression to perpetuate long-standing characterizations of social groups. Our conclusion is further supported by the fact that explicit manipulations of the authentic versus strategic nature of this metacognitive calculus by means of a bogus pipeline failed to support the idea that our participants' answers could be motivated by impression management concerns.

Our work on the dilution effect adds an important aspect to the demonstration of the role of naive theories in social judgment. Instead of informing participants that they had received relevant individuating information, we actually provided all participants with pseudorelevant evidence. Our data suggest that the presence of pseudorelevant information may increase people's reliance on stereotypic knowledge. However, any factor increasing subjects' awareness that category-based information unduly contaminates their individuated judgment will reduce the expression of the stereotype. In other words, social perceivers will refrain from using their stereotypes when rating another person to the extent that they better appreciate the impact of category information. Our findings further show that the neglect of stereotypes in certain judgment situations, i.e. the dilution effect, may have less to do with the heuristic of similarity and comparisons with the prototype than with simple social rules of judgment.

In all these studies, we concentrated our efforts on one particular rule of judgment. Indeed, building upon current impression models, we conjectured that people may be reluctant to base their judgment on stereotypes. Of course, our findings do not mean that perceivers will always guard against category-based judgments. The degree to which the norm is salient in any given situation will be highly related to the kind of social category. People are likely to be less comfortable basing their impression on the social category when the target person is a member of a socially protected group than when ambient norms are less favorable to the group. At the time of this writing, homophobic judgments remain less problematic than impressions based on people's gender. Also, there is no reason to exclude the possibility that perceivers may consider category-based judgments to be quite valid, especially when a group-based interaction appears meaningful (Leyens et al., 1994; Oakes, Haslam, & Turner, 1994; Yzerbyt, Rogier & Fiske, in press b). That is, some people should see no difficulty in relying on group membership in order to judge others. However, the legitimacy of category-based impressions is likely to be sensitive to the specific group at stake and the kind of interaction involved.

More recently, we tested the idea that pseudorelevant information may give perceivers the feeling that they possess a substantial degree of information about the target person in a totally different context. Specifically, our research program turned to the attitude attribution paradigm. Our data suggest that dispositional inferences may often emerge as a consequence of the theoretical match between the kind of judgment requested from the perceiver and the judgmental context. As far as we can see, the data recently collected in our laboratory are hardly accountable in terms of mainstream interpretations of the OAB. Instead, we suspect that perceivers will feel comfortable judging others to the extent that they can come up with a coherent explanation for the observed behavior. Depending on the judgmental context, such a coherent explanation will be more or less easy to construe and observers' confidence in their judgment will be high or low. Clearly, further research is needed to disentangle the role of the various factors at work.

In the last section, we tackled a somewhat different question. Indeed, we built upon earlier work on the active search for information in order to examine the possible impact of naive theories on the confirmation of hypotheses. Our studies reveal that people react very differently to the data when they search rather than receive the information. In our view, on-line metacognitive inferences could explain the difference between the active search and the passive reception. A qualitatively different appraisal of information that one has collected oneself would explain why active search leads the evidence to be processed in a more critical and conscientious way.

In their own way, all the studies examined in the present chapter directly address the normative level of adequacy. As a set, they provide strong evidence in favor of the SJM by showing that naive theories of judgment intrude into the metacognitive assessment of our judgments about others and inform us whether we may or may not trust our impression. There is little doubt that a better awareness of the various ways by which normative standards affect the very fabric of our judgments is one true benefit of the interest in metacognition in social psychology.

## Acknowledgments

Most of the studies reported in this chapter were supported by the Belgian National Science Foundation. For their helpful comments on an earlier draft, we are grateful to our colleagues or graduate students Fanny Bellour, Olivier Corneille, Steve Rocher, Anouk Rogier, and Georges Schadron.

#### References

Abele-Brehm, A. (1996). Assimilation and contrast in social judgment as reflecting pragmatical information use. Paper presented at the XIth general meeting of the European Association of Experimental Social Psychology, Gmunden, Austria, July 13-17, 1996.

- Ajzen, I., Dalto, C.A., & Blyth, D.P. (1979). Consistency and bias in the attribution of attitudes. *Journal of Personality and Social Psychology*, 37, 1871-1876.
- Bargh, J.A. & Thein, R.D. (1985). Individual construct accessibility, person memory, and the recall-judgment link: The case of information overload. *Journal of Personality and Social Psychology*, 49, 1129-1146.
- Bodenhausen, G.V. (1990). Stereotypes as judgmental heuristics: Evidence of circadian variations in discrimination. *Psychological Science*, 1, 319-322.
- Bodenhausen, G.V. (1993). Emotions, arousal, and stereotypic judgments: A heuristic model of affect and stereotyping. In D.M. Mackie & D.L. Hamilton (Eds), Affect, cognition, and stereotyping: Interactive processes in group perception (pp. 13-37). San Diego, CA: Academic Press.
- Bodenhausen, G.V. & Lichtenstein, M. (1987). Social stereotypes and information-processing strategies: The impact of task complexity. *Journal of Personality and Social Psychology*, 52, 871-880.
- Brewer, M.B. (1988). A dual process of impression formation. In T.K. Srull & R.S. Wyer (Eds), *Advances in social cognition* (Vol. 1, pp. 1-36). Hillsdale, NJ: Lawrence Erlbaum.
- Chaiken, S. (1987). The heuristic model of persuasion. In M.P. Zanna, J.M. Olson, & C.P. Herman (Eds), *Social influence: The Ontario Symposium* (Vol. 5, pp. 3-39). Hillsdale, NJ: Lawrence Erlbaum.
- Corneille, O., Leyens, J.-Ph, & Yzerbyt, V. (1996). Dispositional inferences need explanatory coherence: The interplay of accountability and concept applicability in the overattribution bias. Unpublished manuscript. University of Louvain at Louvain-la-Neuve.
- Dardenne, B. & Yzerbyt, V.Y. (1996). Implicit theory of judgment construction. Unpublished manuscript. University of Louvain at Louvain-la-Neuve.
- Darley, J.M. & Gross, P.H. (1983). A hypothesis-confirming bias in labeling effects. *Journal of Personality and Social Psychology*, 44, 20-33.
- de Dreu, C.K.W., Yzerbyt, V.Y., & Leyens, J.-Ph. (1995). Dilution of stereotype-based cooperation in mixed-motive interdependence. *Journal of Experimental Social Psychology*, 31, 575-593.
- Denhaerinck, P., Leyens, J.-Ph., & Yzerbyt, V.Y. (1989). The dilution effect and group membership: An instance of the pervasive impact of out-group homogeneity. European Journal of Social Psychology, 19, 243-250.
- Dovidio, J.F., Evans, N.E., & Tyler, R.B. (1986). Racial stereotypes: The contents of their cognitive representations. *Journal of Experimental Social Psychology*, 22, 22-37.
- Duncan, B. (1976). Differential social perception and attribution of intergroup violence: Testing the lower limits of stereotyping Blacks. *Journal of Personality and Social Psychology*, 34, 590-598.
- Fiedler, K. (1991). On the task, the measures, and the mood: Research on affect and social cognition. In J.P. Forgas (Ed.), *Emotion and social judgments* (pp. 83-104). Oxford: Persamon
- Fiske, S.T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38, 889-906.
- Fiske, S.T. (1993). Social cognition and social perception. Annual Review of Psychology, 44, 155-194.
- Fiske, S.T. & Neuberg, S.L. (1990). A continuum of impression formation from category based to individuating processes. Influences of information and motivation on attention and interpretation. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, pp. 1–74). New York: Academic Press.
- Fiske, S.T. & Taylor, S.E. (1991). Social cognition. New York: McGraw-Hill.
- Forgas, J.P. (Ed.) (1991). Emotion and social judgments. Oxford: Pergamon.
- Gaertner, S.L. & McLaughlin, J.P. (1983). The aversive form of racism. In S.L. Gaertner & J.F. Dovidio (Eds), *Prejudice, discrimination, and racism* (pp. 1-34). Orlando, FL: Academic Press.
- Gigerenzer, G. (1991). How to make cognitive illusions disappear: Beyond "heuristics and

- biases". In W. Stroebe & M. Hewstone (Eds), European Review of Social Psychology (Vol. 2, pp. 83–115). Chichester: Wiley.
- Gigerenzer, G., Hell, W., & Blank, H. (1988). Presentation and content: The use of base rates as a continuous variable. *Journal of Experimental Psychology: Human Perception and Performance*. 14, 513-525.
- Gilbert, D.T. (1989). Thinking lightly about others: Automatic components of the social inference process. In J.S. Uleman & J.A. Bargh (Eds), *Unintended thought: Limits of awareness, intention, and control* (pp. 189-211). New York: Guilford.
- Gilbert, D.T. & Hixon, J.G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Experimental Social Psychology*, 60, 509-517.
- Gilbert, D.T. & Jones, E.E. (1986). Perceiver-induced constraint: Interpretations of self-generated reality. *Journal of Personality and Social Psychology*, 50, 269-280.
- Gilbert, D.T. & Malone, P.S. (1995). The correspondence bias. Psychological Bulletin, 117, 21-38.
- Gilbert, D.T., Pelham, B.W., & Krull, D.S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology*, 54, 733-740.
- Gilbert, D.T. & Silvera, D.H. (1996). Overhelping. Journal of Personality and Social Psychology, 70, 678-690.
- Greenwald, A.G. & Banaji, M.R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. Psychological Review, 102, 4-27.
- Grice, H.P. (1975). Logic and conversation. In P. Cole & J.L. Morgan (Eds), Syntax and semantics: Speech acts (Vol. 3, pp. 41-58). Orlando, FL: Academic Press.
- Hamilton, D.L. & Sherman, J.W. (1994). Stereotypes. In R.S. Wyer Jr. & T.K. Srull (Eds), Handbook of social cognition (Vol 1, pp. 1-68). Hillsdale, NJ: Erlbaum.
- Hamilton, D.L., Stroessner, S.J., & Mackie, D.M. (1993). The influence of affect on stereotyping: The case of illusory correlations. In D.M. Mackie & D.L. Hamiton (Eds), Affect, cognition, and stereotyping: Interactive processes in group perception (pp. 39-61). San Diego, CA: Academic Press.
- Higgins, E.T. (1996). Biases in social cognition: Aboutness as a general principle. In C. McGarty & S.A. Haslam (Eds), The message of social psychology (pp. 182-199). Oxford: Blackwell.
- Hilton, J.L. & Fein, S. (1989). The role of typical diagnosticity in stereotype-based judgments. Journal of Personality and Social Psychology, 57, 201-211.
- Johnston, L.C. & Macrae, C.N. (1994). Changing social stereotypes: The case of the information seeker. European Journal of Social Psychology, 24, 581-592.
- Jones, E.E. (1979). The rocky road from acts to dispositions. American Psychologist, 34, 104–117.
- Jones, E.E. (1990). Interpersonal perception. New York: Freeman.
- Jones, E.E. & Davis, K.E. (1965). From acts to disposition: The attribution process in person perception. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 2, pp. 219-266). New York: Academic Press.
- Jones, E.E. & Harris, V.A. (1967). The attribution of attitudes. Journal of Experimental Social Psychology, 3, 1-24.
- Jones, E.E. & Nisbett, R. (1972). The actor and the observer: Divergent perceptions of the causes of behavior. In E.E. Jones, D.E. Kanouse, H.H. Kelley, R.E. Nisbett, S. Valins, & B. Weiner (Eds), *Attribution: Perceiving the causes of behavior* (pp. 79-94). Morristown, NJ: General Learning.
- Jones, E.E. & Sigall, H. (1971). The bogus pipeline: A new paradigm for measuring affect and attitude. *Psychological Bulletin*, 76, 349-364.
- Kahneman, D. & Tversky, A. (1973). On the psychology of prediction. Psychological Review, 80, 237-251.
- Kahneman, D. & Tversky, A. (1984). Choices, values and frames. American Psychologist, 39, 341-350.

- Kim, H.S. & Baron, R.S. (1988). Exercise and the illusory correlation: Does arousal heighten stereotypic processing? *Journal of Experimental Social Psychology*, 24, 366-380.
- Klayman, J. & Ha, Y. (1987). Confirmation, disconfirmation and information in hypothesis testing. Psychological Review, 94, 211-228.
- Klein, W.M. & Kunda, Z. (1992). Motivated person perception: Constructing justifications for desired beliefs. Journal of Experimental Social Psychology, 28, 145-168.
- Kruglanski, A.W. & Freund, T. (1983). The freezing and unfreezing of lay-inferences: Effects of impressional primacy, ethnic stereotyping and numerical anchoring. *Journal of Experimental Social Psychology*, 19, 448-468.
- Krull, D.S. (1993). Does the grill change the mill? The effect of the perceiver's inferential goal on the process of social inference. *Personality and Social Psychology Bulletin*, 19, 340-348.
- Kunda, Z. (1990). The case of motivated reasoning. Psychological Bulletin, 108, 480-498.
- Kunda, Z., Fong, G.T., Sanitioso, R., & Reber, E. (1993). Directional questions direct self-conceptions. Journal of Experimental Social Psychology, 29, 63-86.
- Kunda, Z. & Sanitioso, R. (1987). Motivated changes in the self-concept. Journal of Experimental Social Psychology, 25, 272-285.
- Leyens, J.-Ph. (1993). Qu'est-ce qu'un bon jugement social? In J.-L. Beauvois, R.-B. Joule, & J.-M. Monteil (Eds), Perspectives cognitives et conduites sociales IV: Jugements sociaux et changements des attitudes (pp. 73-81). Neuchâtel, Suisse: Delachaux et Niestlé.
- Leyens, J.-Ph. & Yzerbyt, V.Y. (1992). The ingroup overexclusion effect: Impact of valence and confirmation on stereotypical information search. European Journal of Social Psychology, 22, 549-569.
- Leyens, J.-Ph., Yzerbyt, V.Y., & Corneille, O. (1996). The role of applicability in the emergence of the overattribution bias. *Journal of Personality and Social Psychology*, 70, 219-229.
- Leyens, J.-Ph., Yzerbyt, V.Y., & Schadron, G. (1992). The social judgeability approach to stereotypes. In W. Stroebe & M. Hewstone (Eds), European Review of Social Psychology (Vol. 3, pp. 91-120). New York: Wiley.
- Leyens, J.-Ph., Yzerbyt, V.Y., & Schadron, G. (1994). Stereotypes and social explanation. London. Sage.
- Locksley, A., Borgida, E., Brekke, N., & Hepburn, C. (1980). Sex stereotypes and social judgment. Journal of Personality and Social Psychology, 39, 821-831.
- Locksley, A., Hepburn, C., & Ortiz, V. (1982). Social stereotypes and judgments of individuals: An instance of the base-rate fallacy. *Journal of Experimental Social Psychology*, 18, 23-42.
- Mackie, D.M. & Hamilton, D.L. (1993). Affect, cognition, and stereotyping: Interactive processes in group perception (pp. 39-61). San Diego, CA: Academic Press.
- Macrae, C.N., Hewstone, M., & Griffiths, R.J. (1993). Processing load and memory for stereotype-based information. European Journal of Social Psychology, 23, 77-87.
- Macrae, C.N., Milne, A.B., & Bodenhausen, G.V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. *Journal of Personality and Social Psychology*, 66, 37–47
- Macrae, C.N., Stangor, C., & Milne A.B. (1994). Activating social stereotypes: A functional analysis. Journal of Experimental and Social Psychology, 30, 370-389.
- Martin, L.L. (1986). Set/reset: The use and disuse of concepts in impression formation. Journal of Personality and Social Psychology, 51, 493-504.
- Martin, L.L. & Achee, J.W. (1992). Beyond accessibility: The role of processing objectives in judgment. In L.L. Martin & A. Tesser (Eds), *The construction of social judgments* (pp. 195– 216). Hillsdale, NJ: Erlbaum.
- Medin, D.L. (1989). Concepts and conceptual structure. American Psychologist, 44, 1469-1481.
  Medin, D.L., Goldstone, R.L., & Gentner, D. (1993). Respects for similarity. Psychological Review, 100, 254-278.
- Metcalfe, J. & Shimamura, A.P. (1994). Metacognition. Cambridge, MA: MIT Press.
- Miller, A.G. & Lawson, T. (1989). The effect of an informational option on the fundamental attribution error. *Personality and Social Psychology Bulletin*, 15, 194-204.
- Miller, A.G. & Rorer, L.G. (1982). Toward an understanding of the fundamental attribution

- error: Essay diagnosticity in the attitude attribution paradigm. Journal of Research in Psychology, 16, 41-59.
- Miller, A.G., Schmidt, D., Meyer, C., & Colella, A. (1984). The perceived value of constrained behavior: Pressures toward biased inference in the attitude attribution paradigm. *Social Psychology Quarterly*, 47, 160-171.
- Murphy, G.L. & Medin, D.L. (1985). The role of theories in conceptual coherence. *Psychological Review*, 92, 289-316.
- Nelson, T.O. (1992). Metacognition: core readings (pp. ix-xi). Boston: Allyn & Bacon.
- Nisbett, R.E. & Wilson, T.D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Nisbett, R.E., Zukier, H., & Lemley, R.E. (1981). The dilution effect: Non-diagnostic information weakens the implications of diagnostic information. Cognitive Psychology, 13, 248-277.
- Oakes, P.J., Haslam, S.A., & Turner, J.C. (1994). Stereotypes and social reality. Oxford: Blackwell.
- Paulhus, D.J., Martin, C.L., & Murphy, G.K. (1992). Some effects of arousal on sex stereotyping. Personality and Social Psychology Bulletin, 18, 325-330.
- Peeters, G. & Czapinski, J. (1990). Positive-negative asymmetry in evaluations: The dictinction between affective and informational negativity effects. In W. Stroebe & M. Hewstone (Eds), European review of social psychology (Vol. 1, pp. 33-60). Chichester, UK: Wiley.
- Perdue, C.W. & Gurtman, M.B. (1990). Evidence for the automaticity of ageism. Journal of Experimental Social Psychology, 26, 199-216.
- Petty, R.E. & Cacioppo, J.T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 123–205). New York: Academic Press.
- Pratto, F. & Bargh, J.A. (1991). Stereotyping based on apparently individuating information: Trait and global components of sex stereotypes under attention overload. *Journal of Experimental Social Psychology*, 27, 26-47.
- Quattrone, G.A. (1982). Overattribution and unit formation: When behavior engulfs the person. Journal of Personality and Social Psychology, 42, 593-607.
- Roese, N.J. & Jamieson, D.W. (1993). Twenty years of bogus pipeline research: A critical review and meta-analysis. *Psychological Bulletin*, 114, 353-375.
- Ross, L. (1977). The intuitive psychologists and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology (Vol. 10, pp. 173-220). New York: Academic Press.
- Rothbart, M., Fulero, S., Jensen, C., Howard, J., & Birrel, P. (1978). From individual to group impressions: Availability heuristics in stereotype formation. *Journal of Experimental Social Psychology*, 14, 237-255.
- Sagar, H.A. & Schofield, J.W. (1980). Racial and behavioral cues in black and white children's perceptions of ambiguously aggressive acts. *Journal of Personality and Social Psychology*, 39, 590-598.
- Schachter, S. & Singer, J. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review*, 69, 379-399.
- Schadron, G. & Yzerbyt, V.Y. (1991). Social judgeability: Another framework for the study of social inference. Cahiers de Psychologie Cognitive/European Bulletin of Cognitive Psychology, 11, 229-258.
- Snyder, M. & Swann, W.B. (1978). Hypothesis testing processes in social interaction. Journal of Personality and Social Psychology, 36, 1202-1212.
- Stangor, C. & Duan, C. (1991). Effects of multiple tasks demands upon memory for information about social groups. *Journal of Experimental Social Psychology*, 27, 357-378.
- Stroessner, S.J. & Mackie, D.M. (1992). The impact of induced affect on the perception of variability in social groups. *Personality and Social Psychology Bulletin*, 18, 546-554.
- Swann, W.B. (1984). Quest for accuracy in person perception: A matter of pragmatics. Psychological Review, 91, 457-477.

- Swann, W.B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology*, 53, 1038-1051.
- Tajfel, H. & Turner, J.C. (1986). An integrative theory of intergroup relations. In S. Worchel & W.G. Austin (Eds), Psychology of intergroup relations (pp. 7-24). Chicago: Nelson-Hall.
- Tetlock, P.E. (1983). Accountability and the complexity of thought. *Journal of Personality and Social Psychology*, 45, 74-83.
- Tetlock, P.E. (1985). Accountability: A social check on the fundamental attribution error. Social Psychology Quarterly, 48, 227-236.
- Tversky, A. (1977). Features of similarity. Psychological Review, 84, 327-352.
- Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185, 1123-1131.
- Webster, D.M. (1993). Motivated augmentation and reduction of the overattribution bias. Journal of Personality and Social Psychology, 65, 261-271.
- Wilder, D.A. & Shapiro, P.N. (1988). Role of competition-induced anxiety in limiting the beneficial impact of positive behavior by an out-group member. *Journal of Personality and Social Psychology*, 56, 60-69.
- Wright, E.F. & Wells, G.L. (1988). Is the attitude-attribution paradigm suitable for investigating the dispositional bias? *Personality and Social Psychology Bulletin*, 14, 183-190.
- Yost, J.H. & Weary, G. (1996). Depression and the correspondent inference bias: Evidence for more effortful cognitive processing. Personality and Social Psychology Bulletin, 22, 192-200.
- Yzerbyt, V.Y. & Castano, E. (1997). Group identification, group homogeneity and ingroup overexclusion: How difficult is it to be a Walloon? Unpublished manuscript. University of Louvain at Louvain-la-Neuve.
- Yzerbyt, V.Y. & Leyens, J.-Ph. (1991). Requesting information to form an impression: The influence of valence and confirmatory status. *Journal of Experimental Social Psychology*, 27, 337–356.
- Yzerbyt, V.Y., Leyens, J.-Ph., & Bellour, F. (1995). The ingroup overexclusion effect: Identity concerns in decisions about group membership. *European Journal of Social Psychology*, 25, 1-16
- Yzerbyt, V.Y., Leyens, J.-Ph., & Corneille, O. (in press a). Social judgeability and the bogus pipeline: The role of naive theories of judgment in impression formation. Social Cognition.
- Yzerbyt, V.Y., Rogier, A., & Fiske, S. (in press b). Subjective essentialism and social attribution: On translating situational constraints into stereotypes. *Personality and Social Psychology Bulletin*, 23, 1312-1322.
- Yzerbyt, V.Y., Leyens, J.-Ph., & Schadron, G. (1998). Social judgeability and the dilution of stereotypes: The impact of the nature and sequence of information. *Personality and Social Psychology Bulletin*.
- Yzerbyt, V.Y. & Schadron, G. (1996). Connaître et juger autrui. Grenoble: Presses Universitaires de Grenoble.
- Yzerbyt, V.Y., Schadron, G., & Leyens, J.-Ph. (1997). Social judgeability concerns and the dilution of stereotypes. Swiss Journal of Psychology, 56, 95-105.
- Yzerbyt, V.Y., Schadron, G., Leyens, J.-Ph., & Rocher, S. (1994). Social judgeability: The impact of meta-informational cues on the use of stereotypes. *Journal of Personality and Social Psychology*, 66, 48-55.
- Zukier, H. (1982). The dilution effect: The role of the correlation and the dispersion of predictor variables in the use of non-diagnostic information. *Journal of Personality and Social Psychology*, 43, 1163-1174.
- Zukier, H. & Jennings, D.L. (1984). Nondiagnosticity and strategies in prediction. Social Cognition, 2, 187-198.