

# The Role of Applicability in the Emergence of the Overattribution Bias

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Study 1 assessed participants' theories regarding various issues previously used in overattribution bias studies. Results suggest that personality plays an important role in explaining positions on these issues. Studies 2, 3, and 4 indicated that the overattribution bias is contingent on the explanatory applicability of accessible concepts for a particular issue. Study 2 used an issue associated with personality; an overattribution bias emerged only when personality was stressed in the instructions. Study 3 used an issue associated with a sociological theory; this time, an overattribution bias appeared only when a socioeconomic concept was emphasized. Essays were not circulated in Studies 2 and 3, but were in Study 4. Again, the bias appeared only when an applicable (personality) concept was activated. These results, which extend the range of applicability, are discussed within the framework of the social judgability approach.

People often have the impression that the ideal social perceiver is some kind of Sherlock Holmes or Hercule Poirot. Contrary to their faire-valoir Doctor Watson and Captain Hastings, they are able to generate lots of hypotheses and to validate them in strict rationality or veracity. A cognitive miser view of human nature holds that we resemble Watson more than Holmes, Hastings more than Poirot. However, more recent theoretical developments and empirical evidence have accumulated to testify that, in everyday life, our performances are not as deficient as first thought: All things considered, we are "good-enough perceivers" (Fiske, 1992, 1993). In this article we attempt to illustrate the "good-enough" capacities of Watson and Hastings regarding the overattribution bias. Specifically, we show that people judge a target who was forced to behave in a given way when the available information is applicable to the task at hand.

## The Overattribution Bias: Artifact or Salience?

Research on the overattribution bias can be seen as a mystery story. For researchers, this story is much more fascinating than

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The present research was supported by Grant FRFC 15.078.91 F from the Belgian National Foundation for Scientific Research and by a doctoral fellowship to Olivier Corneille.

We would like to thank Dominique Vilain and Gabriela Gonçalves for their help in running some of the experiments. We are grateful to Susan Fiske, Benoit Dardenne, and Glenn Reeder for their thoughtful comments on an earlier version of this article. Thanks are also due to Stephanie Goodwin for her thorough editing of the text.

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Sir Arthur Conan Doyle's or Agatha Christie's novels. The mystery started with data obtained by Jones and Harris (1967) in an experiment aimed at testing the *correspondent inference theory* (Jones & Davis, 1965). According to this theory, personal dispositions are attributed to actors only when these actors behave freely; indeed, absence of freedom is not indicative of intentions and, therefore, of internal dispositions. In Jones and Harris's (1967) experiment, participants estimated that targets who were forced to write an essay in favor or against a given issue really believed in the stand they defended in the essay. This result was mysterious, and the first and obvious hypothesis was to incriminate some artifact. For instance, people may downplay the constraint, or they may consider the essay so convincing that its author had to believe what he or she had written. Subsequent research revealed that the essay's quality was indeed important (Jones, Worchel, Goethals, & Grumet, 1971; see also Miller, Ashton, & Mishal, 1990; Schneider & Miller, 1975). It also showed, however, that the essay's quality was insufficient to explain the effect. A series of experiments by Snyder and Jones (1974) answered the criticisms about the perceived constraint and the essay's quality. Their participants were obliged to write an essay in a given direction. The essays were then exchanged, and the participants had to rate the "real attitude" of the author whose essay they had received. Such a situation should make the constraint particularly salient. Also, the average quality of the essays should not be extreme. Although participants did not necessarily believe what they themselves had been forced to write, they estimated that the other person did believe what he or she had written. These various sets of data established the reliability of the phenomenon that would take different names: *overattribution bias* (Quattrone, 1982), *correspondent bias* (Jones, 1990; Gilbert & Malone, 1995), or *fundamental error* (Ross, 1977). This bias refers to an overestimation of the extent to which targets' behavior corresponds to their disposition and to an underestimation of the situational constraints on the behavior.

Heider (1944, p. 361) was credited to have predicted the overattribution bias when he wrote that, although "changes in

the environment are almost always caused by acts of persons in combination with other factors, the tendency exists to ascribe the changes entirely to persons" (for the same idea, see also Ichheiser, 1949). This is so because the behavior "tends to engulf the total field" (Heider, 1958, p. 54), because the actors and their actions are especially salient and form a figure against the circumstantial background. To Jones (1979) and other researchers, invoking salience is merely substituting one description for another. Why should salience lead to person attribution rather than to situation attribution? After all, Jones and Harris (1967) expected the latter effect. Moreover, the author of the essay stands out merely through what he or she has written. This is a far cry from a salience manipulation.

Jones (1979, 1990) did not downplay the role of salience but changed its content. For him, the behavior itself is not at the foreground but is the link—the causal unit—between this behavior and the actor. As he noted (Jones, 1979, p. 114), "What is more reasonable, after all, than the brute, palpable fact that there can be no action without an actor? The notion that situations can cause an action is abstract and derivative, almost metaphorical in its implications."

### Anchoring and Adjustment

Jones circumscribed the plot in 1979. He transformed the overattribution bias from a unique phenomenon into a special case of the anchoring-insufficient-adjustment heuristic (see also Gilbert, 1989; Reeder, 1993; Trope, 1986). Quattrone (1982) provided the experimental evidence for this hypothesis. Quattrone induced his participants to pay particular attention to the situation, specifically to experimental demands that may invalidate the data. Participants then read an essay that favored or opposed the legalization of marijuana. For all participants, the author was presented as having been free to select his stand. In half of the cases, however, participants were informed that the author had no opinion about the issue, whereas the other half of the participants learned that his strong feelings about the issue were reflected in the essay. Of course, when the author was presented as not having an opinion about the issue, participants invoked the situational pressures to account for what they read. Interestingly, participants also invoked situational demands when they knew that the author completely endorsed the content of the essay. Quattrone's general explanation of the phenomenon is as follows: Participants use as an initial anchor what first attracts their attention (i.e., the actor or the situation); they then adjust (i.e., for the forced situation or the author's opinion), but insufficiently, their initial judgment.

The big progress with this explanation is that it freed the overattribution research from reliance on specific contents. Indeed, the anchor did not have to be dispositional but could instead be situational (see also Krull, 1993, and Webster, 1993, Experiment 3). Subsequent research concentrated on the factors likely to affect the degree of adjustment. In particular, four types of factors were investigated: (a) cognitive factors, (b) motivational factors, (c) cognitive-motivational factors, and (d) reliability of information.

Gilbert (1989) proposed an attributional model that elegantly accounts for the impact of cognitive resources on attribution. His three-Cs model consists of the three stages of *cate-*

*gorization* (perception in its extensive sense), *characterization* (the equivalent of anchoring), and *correction* (the equivalent of adjustment). An essential notion in Gilbert's approach is the decreasing automaticity involved along the different steps. As automaticity is replaced by control, people need cognitive resources. By definition, correction—or adjustment—is the least automatic stage and thus necessitates most cognitive abilities to be successful. In a demonstration of the model (Gilbert, Pelham, & Krull, 1988, Experiment 2), half of the participants heard another person reading an assigned pro- or antiabortion essay. The other half were warned that, after their diagnosis, they would themselves write a speech on an assigned topic. This warning was intended to use up participants' cognitive resources; as expected, a greater bias was obtained in this condition than in the control one.

In a recent series of experiments, Webster (1993) showed that motivational factors also are capable of moderating adjustment. Motivation was operationalized through need for closure, a factor that promotes judgmental freezing (Kruglanski, 1989). Compared to control participants, high-need-for-closure participants revealed a greater overattribution bias. In contrast, low need for closure led to a smaller overattribution bias, that is, to a greater adjustment, than did the control condition.

Accountability is a cognitive-motivational factor that usually is operationalized by asking participants to justify their answer to someone (Tetlock, 1992). Compared to nonaccountable participants, accountable ones have a specific goal and process the online information differently. Tetlock (1985) showed that this variable almost completely reduces the overattribution bias when participants are made accountable before reading the essay. No such effect occurs when participants are made accountable after reading the essay. The difference due to the timing of the manipulation reveals the cognitive side of the accountability variable.

Very few studies have investigated the kind of information people need to make an overattribution bias. Ajzen, Dalto, and Blyth (1979) hypothesized that judges examine the consistency of the implied disposition with the available information. According to these authors, the information may be interpreted as confirming the hypothesized attitude. In the test of their hypothesis, and as they had predicted, no bias occurred when no information about the writer was provided and when no essay was circulated. Wright and Wells (1988) adopted another strategy: They told some of their participants that the information might not be relevant or sufficient for making a judgment. These participants produced a much smaller bias than did control participants (see also Miller, Schmidt, Meyer, & Colella, 1984). Finally, Fein, Hilton, and Miller (1990) introduced suspicion about the target information. They presented their participants with an essay and told them that the specific position was chosen freely. However, participants also were led to believe that the position could have been selected to ingratiate an important person or to avoid an unwanted job. Not surprisingly, they located the target's "true attitude" on the middle of the scale whether the target wrote in favor of or against the controversial issue. Presumably, the absence of an overattribution bias was due to the unreliability of the "real" personality of the actor (see also Jones, Davis, & Gergen, 1961).

In conclusion, several types of factors affect the magnitude of

the overattribution bias. This research established the anchoring-adjustment heuristic as the main mechanism responsible for the overattribution bias. It also could be said that this heuristic is in fact a variation of the correspondent inference; indeed, people infer an attribution corresponding to what attracts their attention and then proceed to correct it.

### Overattribution Bias and Applicability

Until now, research has concentrated on the supposed explanation for the overattribution bias. The anchoring-adjustment heuristic was privileged (but see Reeder, 1993), and empirical evidence accumulated to account for the magnitude of the adjustment. In the present article we investigate a further question: Is any anchor adequate to provoke an overattribution bias? Our hypothesis was that it is not. Our reasoning borrows from priming research. Experimental tests of priming usually consist of the presentation of two supposedly distinct tasks to the participants. During the first task, a concept is activated and made more accessible. Priming occurs if the accessible concept influences the processing of the target information presented during the second task. Several variables have been investigated to account for the impact of the prime (Higgins, 1989). One of the most important ones is applicability. Applicability often is defined in terms of denotative similarity (e.g., Higgins, Rholes, & Jones, 1977), that is, in terms of similarity of meaning between the prime and the target information (but see Martin & Achee, 1992). In this article we define applicability in terms of explanatory potential, that is, the fact that the prime refers to a concept that is capable of accounting for, or explaining, the target information. For instance, the concept of gender may explain why a target behaves in an aggressive or dependent way (Banaji, Hardin, & Rothman, 1993).

We hypothesized that research on the overattribution bias has capitalized on an unforeseen explanatory match between the general concept elicited in the instructions, on the one hand, and the target information, on the other hand. More specifically, previous researchers have consistently activated personality concepts—the primes—and employed attitude issues that were adequately explained by these personality concepts (e.g., attitude toward abortion, homosexuality, etc.). We suggest that the applicability of the prime is responsible for the anchoring and thus for the overattribution bias.

Here is an overview of the instructions used in the first study conducted by Jones and Harris (1967, Experiment 1). The study was presented as “an attempt to determine if people can make valid judgments of another’s *personality* and attitudes on the basis of very limited information”; several targets would be evaluated on the basis of either their “*autobiography*,” an essay prepared for a creative writing course, or for a political science exam. “The essay was followed in the booklet by (a) a 12-item semantic differential scale for rating various *personal qualities* of the target person” (Jones & Harris, 1967, pp. 4–5; italics added). It is obvious from this overview that references to personality were numerous. Admittedly, other experiments have not emphasized personality to the same extent. Nevertheless, they have most often been presented as dealing with interpersonal sensitivity (e.g., the talent to read other people’s minds). Even when they were not presented as such, the focus was iden-

tical, with the participants being told, for instance: “You will have to use all of your skills and intuitions as a person perceiver to figure out what [the speaker] really believes” (Gilbert et al., 1988, p. 737), or “Your task is much like that of the clinical psychologist who is seeking to understand another person’s inner feelings and personal attitudes” (Gilbert & Jones, 1986, p. 275).

If, indeed, the overattribution bias corresponds to a proclivity to favor personality over circumstances, these instructions contribute to make personality not only an accessible concept but also an applicable one. The demonstration is even stronger in Ajzen et al.’s (1979) study. As noted above, these authors did not circulate the essay, and they did not obtain the bias when no information was provided about the essay’s author. The other half of the participants did not receive the essay either but were given a bogus profile of the author’s personality. Pretests of this profile indicated that it was totally irrelevant to make decisions about the essay’s issue. This profile was sufficient to produce the overattribution bias, presumably, the researchers reasoned, because participants found ambiguous information in the profile that they could interpret along their dispositional hypothesis. We argue instead that the profile made personality an applicable concept.

Finally, the essay is the central target information in the experiments, and its topic may contribute to the applicability of the personality concept. For example, people may entertain the naive belief or theory that the position adopted on demand about abortion depends on personality factors. The explicit focus on personality in the instructions and the implicit one in the essay may indicate to the participants that personality is an applicable concept. Anchoring will result, but with insufficient adjustment for the situation. The same reasoning applies to the experiments in which a situational anchor was induced; the instructions insisted on situational demands that were applicable to the participants’ task.

This last remark is important. It means that the general frame of the study (that is, the instructions) can activate any concept (e.g., sociological, educational, biological, etc.) that can be applicable or not, with regard to the judgment participants are asked to express. For instance, if the general frame of the study activates a personality concept, this concept will be applicable when the attitude issue is explained, in the participants’ minds, by a personality naive theory that is associated with the activated concept. This concept will be inapplicable, however, when the attitude issue is explained, in the participants’ minds, by factors that are not associated with the activated concept. We propose that, if an inapplicable concept is activated, participants will refrain from judging an actor’s behavior. They will give middle-of-the-scale responses, and no bias will take place. If, however, an applicable concept is activated, participants will feel they are in a position to judge, and the overattribution bias will occur.

### Overview of the Studies

To support our general analysis, it was necessary to first establish that several controversial issues—especially those issues used in past research within the attitude attribution paradigm—are explained by personality theories, whereas other is-

issues are explainable by theories other than personality ones. In Study 1 we addressed this question.

In Studies 2 and 3, we either activated an applicable concept or an inapplicable one. We had a control condition in which no concept at all was activated. The activation of the concept was done by means of instructions focusing, for example, on personality, social background, or formal education. The applicability was manipulated by the link between these instructions and the particular controversial issue.

In Study 2, the essay dealt with euthanasia, an issue explained in terms of personality. When the instructions activated a personality concept, this concept was thus applicable. The concept was inapplicable when the instructions focused on formal education. In Study 3, the essay concerned the closing of mines in the United Kingdom, an issue explained in terms of social background. When the instructions stressed sociology, the concept was applicable; however, when the instructions stressed personality, this concept was inapplicable.

Studies 2 and 3 differed from the original paradigm in that no essay was distributed to the participants. Indeed, we wanted to show the impact of applicability in the emergence of the overattribution bias while excluding the possibility that the bias resulted from hypothesis confirmation (Ajzen et al., 1979).

In Study 4, the essay was circulated as in the classic studies, and it dealt with euthanasia. The general instructions focused on specific personality dimensions. For half of the participants, the essay's author was presented as coming from a sample of emotionally stable or unstable people. To the other half, the author was presented as coming from a sample of reserved or assertive participants. Pretests had indicated that the attitude toward euthanasia was explainable, in participants' minds, by the emotional stability–unstability dimension and that it was not explainable by the reserve–assertiveness dimension. Stated otherwise, the first dimension was applicable; the second one was not.

### Study 1

Students were asked to rate the extent to which three different theories (i.e., personality, formal education, social background) explained different positions taken from a list of 15 controversial issues. The range of these issues was large and included 5 classic issues adopted in the attitude attribution literature.

We had two aims in conducting this first study. First, we wanted to determine whether previous research on the overattribution bias relied mainly on controversial issues best explained by personality theories. Second, we wanted to find issues for which people's positions were explainable mostly by personality and others that were mostly explainable by concepts other than personality.

### Method

*Participants.* Twenty-eight undergraduates, 14 majoring in economics and 14 in psychology, were approached at random in libraries of the University of Louvain at Louvain-la-Neuve, Belgium. The study was presented as part of the first step of a larger survey, and students were asked to contribute by filling in a short questionnaire. No differences between economics and psychology majors are reported because only one was significant, and it was irrelevant for our purpose.

*Questionnaire.* On the basis of a review of the overattribution bias literature, we selected five issues (legalization of marijuana, legalization of homosexuality, alcohol consumption for underaged people, military duties for women, and legalization of abortion). It was not possible to consider all issues used in previous research as some issues were meaningless in the Belgian context. These either did not apply to the population (e.g., racial segregation is not a relevant issue in Belgium) or were not controversial enough (e.g., capital punishment exists in Belgium as a possible penalty for crimes, but it is never implemented). Previous testing allowed us to select a list of 10 additional controversial issues. Pilot participants had indicated issues that seemed well accounted for by personality, formal education, and social background.

*Procedure.* Participants estimated the impact of causal factors on people's positions on each of these issues and reported their answer on a 7-point scale that ranged from *not at all* (1) to *very much* (7). The order of presentation of the issues remained constant.

### Results

We submitted participants' ratings for the five classic attitude attribution issues to a multivariate analysis of variance (MANOVA) with causal factor (personality vs. formal education vs. social background) as a within-subject variable. As predicted, the effect for causal factor was highly significant,  $F(10, 17) = 8.42, p < .0001$  (see Table 1). Personality was preferred to the social background and formal education causal factors (all  $F_s > 11.00$ ).

For each of the 10 new issues, we submitted the data to a one-way repeated measures analysis of variance (ANOVA) using the same independent variable. For these issues (see Table 1), personality was rated first in four cases, and for these four items the difference was significant between personality and the factor next in importance. Personality was rated second in importance for three issues but, in each case, the difference was not significant from the first-ranked factor. Social background was rated first in six cases, but in only three cases were the ratings significantly different from those of personality. Level of education was never ranked first.

### Discussion

As these results indicate, participants' naive theories about the world are associated with personality for many issues. This "psychologization" (Leyens, Aspeel, & Marques, 1987) may explain why the so-called fundamental error is so fundamental, that is, so frequent (Ross, 1977). Also, the issues used in past research on the overattribution bias have a systematic and privileged link with personality. Interestingly, the two classical attribution issues for which personality did not produce a significant difference in our sample are not very controversial among our subjects—despite our a priori selection. Marijuana use is infrequent among Belgian university students, and it would hardly occur to them that there would be an age restriction for drinking beer! To the extent that the instructions and the essay topic typically found in the attitude attribution paradigm emphasize personality, one may propose that participants have excellent reasons to infer that personality constitutes an applicable con-

Table 1  
*Mean Estimated Impact of Causal Factors on People's Positions as a Function of Issue (Study 1)*

Issue	Causal factor			F(2, 54)
	Personality	Formal education	Social background	
<b>New issues</b>				
Legalization of euthanasia	5.750 <sub>a</sub>	3.464 <sub>b</sub>	2.750 <sub>b</sub>	31.698
Marriage of homosexuals	5.929 <sub>a</sub>	2.536 <sub>b</sub>	3.000 <sub>b</sub>	38.041
Adoption by homosexual couples	6.250 <sub>a</sub>	2.786 <sub>b</sub>	3.179 <sub>b</sub>	32.228
Regional funding of social welfare	2.667 <sub>b</sub>	3.593 <sub>b</sub>	5.741 <sub>a</sub>	32.220
Brussels: capital of Europe	3.393 <sub>b</sub>	3.821 <sub>b</sub>	5.143 <sub>a</sub>	10.478
Compulsory blood test for AIDS	5.107 <sub>a</sub>	4.036 <sub>b</sub>	3.393 <sub>b</sub>	7.801
Closing of coal mines in the United Kingdom	2.000 <sub>c</sub>	3.214 <sub>b</sub>	6.036 <sub>a</sub>	62.772
Weapon trade with countries in war	4.111 <sub>ab</sub>	2.693 <sub>ab</sub>	5.111 <sub>a</sub>	7.994
Asylum rights for foreigners	5.179 <sub>a</sub>	3.750 <sub>b</sub>	5.821 <sub>a</sub>	12.463
Foreigners' right to vote in city election	4.679 <sub>ab</sub>	3.821 <sub>b</sub>	5.286 <sub>a</sub>	5.419
<b>Overattribution literature</b>				
Legalization of marijuana	4.893 <sub>a</sub>	2.750 <sub>b</sub>	4.321 <sub>a</sub>	9.480
Legalization of homosexuality	5.357 <sub>a</sub>	2.929 <sub>b</sub>	2.929 <sub>b</sub>	25.070
Alcohol consumption for underaged people	5.179 <sub>a</sub>	4.036 <sub>b</sub>	4.607 <sub>a</sub>	2.489
Military duties for women	5.357 <sub>a</sub>	3.000 <sub>b</sub>	3.929 <sub>b</sub>	13.347
Legalization of abortion	6.000 <sub>a</sub>	3.464 <sub>a</sub>	4.250 <sub>b</sub>	17.819

Note. Means range from 1 (*not at all*) to 7 (*very much*). Means with the same subscript are not significantly different from each other on the basis of Bonferroni contrast (within-issue familywise error rate is  $p < .05$ ).

cept.<sup>1</sup> The typical overattribution bias may thus depend on the framing of the experimental situation. Conversely, the present data suggest that overattribution may be more avoidable than is usually believed.

### Study 2

We designed Study 2 to test the role of applicability in the attitude attribution paradigm by activating concepts that were either applicable or inapplicable with regard to the attitude issue. On the basis of Study 1, we chose euthanasia as the controversial topic, primarily because positions on this issue were most attributable to personality and almost not at all attributable to formal education. Additionally, euthanasia was a hot topic at that time, and our participants were equally divided on the issue.

As in Ajzen et al.'s (1979) study, the essay was not circulated, to provide minimal information to the subjects. Participants were told about a target person who either had free choice or had been forced to write an essay in favor of or against euthanasia. The Choice × Position design was replicated with each of three different instructions.

For a third of the participants, care was taken not to induce a particular concept: No mention of personality or formal education was made. For these participants, we expected no difference between the pro and con euthanasia essays in the forced-choice conditions. For another third of the participants, the concept of personality was activated; it was applicable to the theory emanating from the controversial issue. We expected a difference in the forced-choice conditions. For the remaining participants, we activated the concept of formal education. Because this concept is not related to views on euthanasia, we expected the same

results as in the control conditions. For all participants, we expected a difference between the pro and con euthanasia essays in the free-choice conditions.

### Method

**Participants.** Male and female university students ( $n = 192$ ) were recruited in the streets of Louvain-la-Neuve. Participants took part in the experiment voluntarily in small groups ranging from 2 to 5 people ( $n = 16$  per condition). There were no significant gender differences.

**Procedure.** On their arrival at the laboratory, participants were

<sup>1</sup> One could argue that the issue about Fidel Castro used by Jones and Harris (1967) has nothing to do with personality and therefore contradicts our general reasoning. We did not include the Castro item in Study 1 because our participants were not yet born at the time of the Cuban missile crisis, and Castro never constituted a big issue in Europe in general, or in Belgium in particular. We conducted a second study, however, with 14 psychology students and 14 economics students and asked them the following question: "To what extent is the fact that an American was in favor of Castro during the missile crisis with Cuba explainable in terms of a) personality, b) education, and c) social background?" Participants rated each factor on a 7-point scale. Although the problem was abstract for the participants, they answered that it was explainable by personality ( $M = 4.60$ ), as much as by the other two factors ( $M_s = 4.53$  and  $4.96$ ). This result seriously attenuates criticism about the Castro issue, as do the results for items included in Study 1 concerning the "asylum rights for foreigners" and "foreigners' right to vote in city elections." Who would have predicted that personality was as important as social background for these items, even among economics students? Finally, the instructions used by Jones and Harris insisted so much on personality that they may have accentuated the role of personality for this issue.

seated at individual tables. The experimenter then gave a brief oral overview of the study.

In the no-concept conditions, the experiment was presented as dealing with decision making on the basis of little information. The experimenter explained to the participants that a person had been asked to write an essay about euthanasia in the context of an exam question. The experimenter specified the adopted position (pro or con) and whether this stance had been chosen freely or dictated by the question. Immediately after these instructions, participants received the questionnaire that measured the dependent variables.

In the personality conditions, the experiment was presented as dealing with social perception on the basis of little information. The experimenter explained to participants that the target had taken part in a personality exam and had been asked to fill out several personality questionnaires. We then circulated a bogus personality questionnaire among the participants, supposedly so they could get a feel of what the target had been doing. This blank questionnaire contained trivial questions (e.g., "It is difficult for me to imitate others"; "I do not believe that it is possible to think with pictures") but no answers from the target. The experimenter also told the participants that the target had been asked to write an essay about euthanasia in the context of the personality exam. He specified the adopted position (pro or con) and whether this stance had been chosen freely or dictated by the question. Immediately after hearing these instructions, participants answered the dependent variables.

In the formal-education conditions, the experiment was presented as dealing with decision making on the basis of little information. The target had allegedly taken part in a university admissions examination and had been asked to fill out several forms. Again, a bogus form was circulated. This time, the questions concerned demographic variables (e.g., name, sex, age, and address) and school curriculum (number of years in primary, secondary, and higher schools; specializations). As before, the sheet was blank except for the questions themselves. The experimenter told participants that the target had been asked to write an essay about euthanasia during this admissions examination. As in the other experimental conditions, he specified the adopted position (pro or con) and whether this stance had been chosen freely. Participants answered the dependent variables immediately after these instructions were given.

**Dependent variables.** Participants were asked to rate the target's true attitude about euthanasia on a 9-point scale (1 = *totally against euthanasia*; 9 = *totally in favor of euthanasia*). They also rated their confidence in the attitude rating (1 = *totally uncertain*; 9 = *totally certain*). Third, they indicated by check mark whether the target had been free or forced to take the stand. Finally, participants were fully debriefed and thanked for their participation.

## Results

**Attribution ratings.** We submitted the true-attitude ratings to an ANOVA with concept (none vs. applicable vs. inapplicable), choice (free vs. forced), and position (pro vs. against) as between-subjects independent variables. The analysis revealed a main effect for position,  $F(1, 180) = 357.64, p < .000$ ; overall, the true attitude was judged more in favor of euthanasia when the content of the essay was in favor of euthanasia ( $M = 6.44$ ) than when it was against ( $M = 2.88$ ). This main effect was qualified by a significant Choice  $\times$  Position interaction,  $F(1, 180) = 225.88, p < .000$ . The former main effect for position was present in the free-choice conditions (1.60 vs. 7.98 for anti and pro euthanasia, respectively) but absent in the forced-choice conditions (4.17 vs. 4.90 for anti and pro euthanasia, respectively). A more interesting finding for our purpose was the significant three-way interaction,  $F(2, 180) = 3.54, p =$

.03. As can be seen in Table 2, this interaction is driven by the means obtained in the forced-choice conditions.

To best test our hypothesis, we conducted a planned contrast analysis on the data of the forced-choice conditions (see Table 2). As expected, it indicated the presence of an overattribution bias in the applicable-concept conditions, but not in the no-concept and in the inapplicable-concept conditions, with the contrast  $F(1, 90) = 9.89, p = .002$ ; residual  $F(4, 90) < 1, ns$ ; one-way ANOVA  $F(5, 90) = 2.22, p = .059$ .

**Confidence ratings.** We analyzed confidence ratings using an ANOVA according to the same design as for the true-attitude scores. As could be expected, more confidence was expressed in the free-choice ( $M = 6.12$ ) than in the forced-choice conditions ( $M = 3.97$ ),  $F(1, 180) = 31.20, p < .000$ . The significant Concept  $\times$  Choice interaction also was significant,  $F(2, 180) = 3.07, p = .05$ . Although the free-choice participants were always significantly more confident than the no-choice participants, this was especially true in the free-choice no-theory condition ( $M = 7.31$ ).

## Discussion

Results for participants in the control conditions were exactly as expected: a huge polarization in the free-choice conditions and no overattribution bias in the forced-choice conditions. The presence of an overattribution bias in the personality conditions, in spite of the lack of a personality profile, indicates that confirmation of information is unnecessary, contrary to what Ajzen et al. (1979) proposed. Moreover, not all background information is capable of producing the bias, as shown by the results in the formal-education conditions. The accompanying information, or mere allusion to it, has to be related to the activated concept to have an impact. Polarization is identical in all free-choice conditions, regardless of the activated concept. Recall that Ajzen et al. (1979) found a depolarization in the personality profile conditions compared with the no-information ones. These authors attributed this result to the potentially disconfirming nature of the profile. In the present study, there was no information to be disconfirmed (Miller, 1976).

As expected, participants were more confident in their judgment in the free-choice than in the forced-choice conditions.

Table 2  
*Estimated Attitudes of the Target as a Function of Applicability, Choice, and Assumed Essay Position (Study 2)*

Choice	Concept applicability		
	No concept (none)	Formal education (inapplicable)	Personality (applicable)
Free			
Pro	8.35	7.93	7.62
Con	1.68	1.37	1.75
Forced			
Pro	4.56 (0)	4.68 (0)	5.44 (-1)
Con	4.19 (0)	4.50 (0)	3.81 (+1)

Note. Numbers in parentheses refer to the weights used in the contrast analysis.

However, the emergence of the attribution bias in the forced-choice applicable (personality) concept conditions was not associated with a greater confidence. These confidence ratings conform to previous research. Indeed, the overattribution bias may appear even though participants are not very confident in their ratings (Devine, 1989a) or consider that they did not receive useful information (Miller et al., 1984).

Study 3

Study 2 provides solid evidence that an applicable concept is important for the overattribution bias to occur. Still, it remains to be seen whether this concept necessarily needs to be related to personality for the phenomenon to appear or if other applicable concepts can similarly lead to such an attribution bias. In Study 3 we activated a sociological concept and chose an issue for which the best explanatory theory was socioeconomic status and not personality. On the basis of Study 1, we selected as an issue the closing of coal mines in Great Britain. This issue was making the headlines in newspapers at the time of the study. We chose a sociological concept rather than an educational one because results of Study 1 indicated that issues not explainable in terms of personality were explainable by social background and not by formal education.

Given that the free-choice conditions yielded identical results across all conditions in the previous study, in this experiment we included only the forced-choice conditions. Again, we expected a difference between the pro- and anti-closing conditions when the applicable concept was activated and expected no difference when either an inapplicable concept (i.e., personality) or no concept at all was activated.

Method

*Participants.* Male and female university students ( $n = 90$ ) were recruited in Louvain-la-Neuve to participate in the experiment on a voluntary basis in small groups ranging from 2 to 5 people ( $n = 15$  per condition).

*Procedure.* Except for the controversial issue (the closing of coal mines in Great Britain), the procedure for the no-concept and the personality concept conditions was identical to the one used in Study 2.

In the socioeconomic status conditions, the experiment was presented as part of the work for a doctoral thesis in sociology. The experimenter told participants that the target had participated in a survey for this thesis, and a bogus blank questionnaire was circulated with the kind of questions that had been asked (e.g., current employment status, family income, parental background). The experimenter also explained that the target had been asked to write an essay about the closing of coal mines in Great Britain. He specified the position (pro or con) dictated by the survey question. The dependent variables were identical to those in Study 2.

Results

*Attribution ratings.* As expected, the contrast analysis of the attitude ratings indicated the presence of an overattribution bias in the applicable conditions but not in the no-concept and in the inapplicable-concept conditions, with the contrast  $F(1, 84)$

Table 3  
*Estimated Attitudes of the Target as a Function of Applicability and Assumed Essay Position (Study 3)*

Essay position	Concept applicability		
	No concept (none)	Personality (inapplicable)	Sociology (applicable)
Pro	4.40 (0)	4.87 (0)	5.53 (-1)
Con	4.33 (0)	4.87 (0)	3.60 (+1)

*Note.* Numbers in parentheses refer to the weights used in the contrast analysis.

$= 11.34, p = .001$ ; residual  $F(4, 84) < 1, ns$ ; one-way ANOVA  $F(5, 84) = 2.58, p = .032$  (see Table 3).

*Confidence ratings.* The results for confidence ( $M = 4.09$ ) did not show any difference and replicated those in the no-choice conditions of Study 2.

Discussion

The data of Study 3 indicate that the emergence of the overattribution bias is not necessarily linked to the activation of a personality concept. Anchoring depends on the applicability of the concept, and in this case it was a sociological concept. When no concept was activated, or when an inapplicable personality concept was activated, no overattribution bias occurred.

Study 3 overrules two alternative explanations for the results obtained in Study 2. Indeed, in Study 2 the no-concept and inapplicable-concept conditions were presented as dealing with decision making, whereas the applicable concept conditions were introduced as dealing with social perception. One could argue that the differences observed in the results for the forced-choice conditions reflected a difference of threshold due to the instructions. Decision-making participants would be more cautious than social perception participants and, therefore, would remain closer to the midpoint of the scale. The instructions used in the personality and sociology concepts conditions of Study 3 dismiss this alternative explanation.

One could also argue that the overattribution bias in the personality concept conditions of Study 2 were due to the Gricean principle of cooperation (Grice, 1975). According to this explanation, participants who are engaged in a social perception task, provided with an example of a personality questionnaire, and asked about the true attitude of a target would feel that they had received relevant information to which they are expected to react by expressing a judgment. Presumably, participants in the decision-making context would feel that cooperation with the experimenter does not require them to move away from the midpoint of the scale. The cooperation explanation does not seem too plausible in the light of the differences found between Study 2 and Study 3. Indeed, why would the change in the topic of the essay (the closing of mines in the United Kingdom rather than euthanasia) make cooperation in the social perception conditions less expected?

Study 4

Does the explanatory applicability hypothesis extend to the classical attitude attribution paradigm when an essay is circu-

lated among participants? We addressed this question in Study 4 with an essay that either favored or opposed euthanasia.

From Study 1 we know that euthanasia is explained in participants' mind in terms of personality. In all the conditions of the Study 4, the general instructions activated personality. However, to manipulate applicability, we used a procedure typical to priming research. Depending on the conditions, the instructions stressed specific personality dimensions that were either applicable or not to the target information (i.e., the essay about euthanasia). The choice of having a single type of target information rather than two is aimed at answering a possible criticism of Studies 2 and 3. Indeed, one could argue that a personality context rendered personality-relevant opinions (e.g., on euthanasia) more informative in Study 2, whereas a sociological survey rendered socially relevant opinions (e.g., on closing mines) more informative in Study 3.<sup>2</sup> We preferred personality to sociology because it is more difficult to make it inapplicable in participants' minds (see Study 1). In other words, the choice of personality rather than of sociology, for instance, worked against our hypothesis, and it should give more weight to the data if they support the hypothesis.

The free-choice conditions were not run for the sake of simplicity. The design thus involved two variables: the applicability vs. nonapplicability of the personality dimension and the position (pro or con) about euthanasia. We hypothesized that the overattribution bias would occur when the personality dimension was applicable and would not occur when the personality dimension was not applicable.

### Method

**Participants.** Male and female university students ( $n = 52$ ) were recruited from the streets of Louvain-la-Neuve. Participants took part in the experiment voluntarily and individually ( $n = 13$  per condition). There were no gender differences.

**Procedure.** On their arrival at the laboratory, participants received a brief oral introduction from the experimenter, and they read the rest of the instructions.

The written instructions induced participants to believe that they would read part of a previous experiment and then answer questions about one of the participants. The previous study was described as dealing with the link between personality and position about controversial issues. The researcher who allegedly conducted this study thought that some personality dimensions affected the position people took about various issues, whereas other dimensions did not. The researcher thus tested participants for a specific personality dimension and asked them to write an essay. Half of the participants were warned that they would read the essay of someone tested for his or her emotional stability and instability. The remaining participants were led to believe that the sample was composed of persons tested for their reserved and assertive behaviors. A footnote explained what the different terms meant. This variable manipulated applicability. It was made clear that the target had been obliged to write an essay adopting a specific stance about euthanasia and that the arguments had been provided by the experimenter. Participants were encouraged to read the essay with this information in mind because they would subsequently be asked some questions about the author. Half of the participants received an essay that opposed euthanasia and the other half an essay that favored euthanasia. As in Studies 2 and 3, participants also received a blank questionnaire that dealt either with reserve-assertiveness or emotional stability-unstability.

**Applicability of the personality dimensions.** On a 9-point scale (1 = not at all, 9 = very much), 15 psychology undergraduates rated the ex-

tent to which different characteristics (e.g., intelligence, aggressiveness, conservatism) were related to the issue of euthanasia and the stance adopted about this issue. Reserve-assertiveness was rated as alien to the issue ( $M = 2.07$ ); on the contrary, emotional stability-unstability was rated as quite relevant to the issue ( $M = 6.80$ ),  $t(14) = 14.32$ ,  $p < .000$ .

**Dependent variables.** First, participants indicated by check mark whether the target had been free or forced to take the stance. Second, they were asked to rate the extent to which they felt entitled to express an opinion about the general characteristics of the author (1 = not at all; 9 = completely). Third, they were asked the true attitude of the target about euthanasia (1 = totally against euthanasia; 9 = totally in favor of euthanasia). Fourth, they rated their confidence in the attitude rating (1 = totally uncertain; 9 = totally certain). Fifth, they rated the extent to which the essay favored or opposed euthanasia (1 = totally against euthanasia; 9 = totally in favor of euthanasia). Finally, participants were fully debriefed and thanked for their time.

### Results

**Manipulation check of the essay's position.** Not surprisingly, the essay was rated much more in favor of euthanasia when it supported ( $M = 7.19$ ) than when it opposed ( $M = 1.92$ ) this topic,  $F(1, 48) = 147.77$ ,  $p < .000$ .

**Overall judgment.** Participants felt moderately entitled to express an opinion about the general characteristics of the author ( $M = 4.82$ ). There were no differences between conditions.

**Attribution ratings.** As expected, the contrast analysis indicated an overattribution bias in the applicable conditions but not in the inapplicable ones, with the contrast  $F(1, 48) = 8.85$ ,  $p = .005$ ; residual  $F(2, 48) < 1$ , *ns*; one-way ANOVA  $F(3, 48) = 3.42$ ,  $p = .025$  (see Table 4).

**Confidence ratings.** Confidence ratings paralleled those obtained in Studies 2 and 3. Participants in all conditions were moderately and equally confident about their judgment of the target ( $M = 5.63$ ).

### Discussion

The results replicated those obtained in the previous two experiments: An overattribution bias occurred in the applicable conditions but not in the inapplicable ones. It is worth noting that, in this fourth study, an essay was circulated among participants, thus, the present set of data extends earlier results. Moreover, the topic of the essay was identical in all conditions; it always dealt with an issue explainable by personality in participants' minds, that is, euthanasia. We manipulated applicability through the general instructions that focused on applicable or inapplicable personality dimensions. In agreement with our previous reasoning, applicability had an impact on specific judgments. It influenced the ratings of the target's attitude about euthanasia but not those concerning the target's general characteristics (see also Cantor, Pittman, & Jones, 1982).

### General Discussion

The overattribution bias is "the most robust and repeatable finding in social psychology" (Jones, 1990, p. 138). Over the years, researchers have proposed different explanations for its

<sup>2</sup> We are grateful to a reviewer for having raised this point.

**Table 4**  
*Estimated Attitudes of the Target as a Function of Applicability and Essay Position (Study 4)*

Essay position	Concept applicability	
	Reserve-assertiveness (inapplicable)	Emotional stability-unstability (applicable)
Pro	5.38 (0)	6.46 (-1)
Con	4.53 (0)	4.07 (+1)

*Note.* Numbers in parentheses refer to the weights used in the contrast analysis.

existence: methodological impurities, implicit demand characteristics, salience of specific information, and the anchoring-and-insufficient-adjustment heuristic. The last explanation has proven the most valuable (see also Gilbert, 1989; Reeder, 1993; Trope, 1986). Participants begin by making a correspondent link between the actor's behavior (or, more rarely, the actor's situation) and his or her true attitude; this anchoring stage is followed by an attempt at adjustment that corrects for situational (dispositional) constraints. This adjustment, however, is insufficient, as indicated by a statistically significant difference between the final judgments that are obtained for opposing stances (for reviews, see Jones, 1990; Gilbert & Malone, 1995). Several factors contribute to this insufficiency: People may lack cognitive capacities, motivational resources, and reliable information to complete the adjustment.

In this article we advocate that not every anchor is adequate and that the overattribution bias emerges only in the case of an adequate anchor. We define adequacy in terms of a special kind of applicability (Higgins, 1989) that we call *explanatory applicability*. Experiments on the overattribution bias set a goal for the participants by activating, or priming, a given concept. For the anchor to be adequate, subsequent information (e.g., the issue of the essay written by the target) must be explainable in terms of the activated concept. In other words, the activated concept must be explanatorily applicable. Typically, the overattribution bias experiments have been introduced as a task to read other people's mind, and they have activated the concept of personality. In agreement with our hypothesis, Study 1 indicated that the controversial essay issues used in classic studies were explainable mostly by personality.

In Studies 2 and 3 we borrowed Ajzen et al.'s (1979) paradigm in that no essay was circulated among participants. In both studies, the activated concept was manipulated. In Study 2, the essay concerned euthanasia—an issue explainable, in participants' minds, in terms of personality. In Study 3, the essay concerned the closing of mines in the United Kingdom, an issue explainable by a naive sociological theory. In both studies, the overattribution bias was obtained only when the activated concept was applicable to the topic of the essay. These results highlighted the fact that the applicable concept need not be personality; it may be a sociological concept. Replicating Ajzen et al.'s findings, they also revealed that confirming information (i.e., the content of the essay) is not necessary for the emergence of the overattribution bias. As in classic studies, the essay was circulated among participants of Study 4.

Again, the overattribution bias appeared only in the case of an applicable (personality) concept.

The fit between an activated concept and target information is what leads Watson and Hastings to express judgments: Crime fits with a wicked face and not with angelic and graceful manners. Watson's and Hastings's hasty judgments make us smile: How can they expedite a judgment with such naiveté? Apparently, we are even more superficial and blind than Watson and Hastings, because we are ready to emit a guilty or innocent verdict when angelism and vice are associated with crime.

### *Is Anchoring Avoidable or Completely Suppressed?*

Current research on the overattribution bias has never disputed the inevitability of anchoring. The originality of the present set of studies consists in questioning the fatality of anchoring. Two interpretations of our data are possible.

First, the results could mean that a preliminary step—the activation of an applicable concept—is necessary and sufficient for the occurrence of anchoring. Such interpretation is in agreement with data obtained by Gilbert and Hixon (1991). Their participants, who lacked cognitive resources because they were cognitively busy, gave a stereotypical answer only to the extent that they had activated a stereotype beforehand. When participants were always cognitively busy, they could neither activate the stereotype nor use it thereafter.

Second, one could argue that our studies indicate a complete adjustment rather than an absence of anchoring. To pursue the parallelism with Gilbert and Hixon (1991), this second interpretation is in agreement with Devine's (1989b) results. She found that unprejudiced participants interpreted ambiguous information in a stereotypical manner when they were unconsciously primed; unprejudiced participants, however, knew the stereotype and were capable of avoiding it when they could control their reaction. Applied to our paradigm, this interpretation means that the activated concept leads to an anchoring process that is completely suppressed because participants realize it leads to inadequacy.

Data from the present set of studies suggest that the first interpretation should be preferred to the second one. They seem to imply that anchoring does not occur in the absence of an applicable concept. Indeed, in such absence, and especially when the essay was not circulated, most people gave an answer around the midpoint of the scale. Obviously, this pattern of data is only suggestive, and further research to clarify the question is underway. It could well be that explanatory applicability of the activated concept is necessary but not sufficient to produce anchoring.

### *Extending Dimensions of Applicability*

“ . . . Recent and frequent activation of a construct increases the likelihood that the construct will be selected or retrieved first to apply to the stimulus information. If the construct is applicable to the stimulus (i.e., there is a sufficient match between the features of the construct and the features of the stimulus), then it will be used to encode or characterize the stimulus” (Higgins & Chaires, 1980, p. 351). Several studies have highlighted exactly which features constitute the “suffi-

cient match between the features of the construct and the features of the stimulus"; these features include (a) denotative similarity (e.g., Higgins, Rholes, & Jones, 1977; Srull & Wyer, 1979), (b) valence similarity (e.g., Bargh, Chaiken, Govender, & Pratto, 1992; Martin, 1986), (c) procedural similarity (e.g., Smith, 1989, 1990), and (d) matching between stereotyped behaviors and social categories (Banaji et al., 1993).

The present research proposes a fifth feature of applicability, that is, a concept is applicable when it corresponds to the kind of naive theory participants hold about the target information. Somehow, this explanatory matching includes the social category applicability proposed by Banaji et al. (1993). Indeed, these authors work with stereotypes that have, by definition, an explanatory component (Leyens, Yzerbyt, & Schadron, 1994; Tajfel, 1981; Yzerbyt & Schadron, 1994). Their experimental participants were primed either by aggressive behaviors stereotypical of men or by dependent behaviors stereotypical of women. In a supposedly unrelated task, they formed an impression of a male or female target person who performed behaviors weakly related to the primes. Priming occurred only for the target whose gender matched the activated stereotype, that is, the female target in the case of dependence and the male target in the case of aggression.

Obviously, several differences distinguish these two kinds of applicability. First, the applicability based on explanatory matching is broader than the social category applicability because it encompasses a whole range of naive theories or general beliefs, stereotypes being only one type of such beliefs or theories. Second, the output data are different. Banaji and her colleagues obtained a polarized judgment only when this judgment agreed with the stereotype of the social category. In our studies, a judgment was obtained when there was a link, whatever its direction, between the activated construct and the target information (e.g., emotional stability *and* instability worked for pro- and anti-euthanasia). Variations of paradigm certainly explain this last difference, and it would be interesting to single them out. For instance, our participants may have imagined that the essay's author had the specific personality dimension (i.e., stable or unstable) that explained the adopted stance. Such a possibility was precluded in Banaji et al.'s (1993) paradigm.

### *Coherence and Social Judgability*

The explanatory dimension of applicability broadens the perspective of the typical priming research. It links the notion of applicability to the one of coherence (Thagard, 1989). For participants to feel entitled to judge, they have to receive a coherent scenario that holds together. In the case of the overattribution paradigm, the experimental setting must provide participants with clues that indicate "it is OK to judge" even if the target was forced to take a given stance. In other words, the scenario must explain, or make plausible, that the target has indeed a "real attitude" about the issue. When the experiment supposedly deals with empathy, and when participants are encouraged to use all their "skills and intuitions" to figure out what the target really thinks about a problem usually associated with personality factors, the scenario is coherent, the target becomes judgable, people are ready to express their judgment, and they have a "theory" to support their judgment (Leyens, Yzerbyt, & Scha-

dron, 1992, 1994; Yzerbyt, Schadron, Leyens, & Rocher, 1994). When the activated concept and the naive theory driving the target information cannot coalesce, on the other hand, people refrain from judging. The situation is not appropriate for them to hazard a judgment, presumably because it is not self-explanatory.

Associating the overattribution bias with an explanatory applicability has several implications. First, it justifies the strength of the bias; indeed, shared beliefs or naive theories are very resistant because they provide social validity. Second, it justifies the broad range of the overattribution bias; concepts are easily activated, and people usually do not suffer from a shortage of naive theories. Third, it justifies the view of people as meaning-seekers rather than as cognitive misers. The meaning that people find is sometimes a lure; most of the time, however, it helps them a great deal in their social interactions. Watson and Hastings were not geniuses compared with Holmes and Poirot, but they each had a spouse and many friends, which Holmes and Poirot were incapable of finding and keeping.

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Received January 14, 1994

Revision received June 21, 1995

Accepted June 27, 1995 ■