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Social attribution, correspondence bias, and the emergence of stereotypes*

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Yzerbyt, Rogier and Fiske (1998) argued that perceivers confronted with a group high in entitativity (i.e., a group perceived as an entity, a tight-knit group) more readily call upon an underlying essence to explain people's behavior than perceivers confronted with an aggregate. Their study showed that group entitativity promoted dispositional attributions for the behavior of group members. Moreover, stereotypes emerged when people faced entitative groups. In this study, we replicate and extend these results by providing further evidence that the process of social attribution is responsible for the emergence of stereotypes. We use the attitude attribution paradigm (Jones & Harris, 1967) and show that the correspondence bias is stronger for an entitative group target than for an aggregate. Besides, several dependent measures indicate that the target's group membership stands as a plausible causal factor to account for members' behavior, a process we call Social Attribution. Implications for current theories of stereotyping are discussed.

Key words: Stereotypes, attribution, entitativity, essence

- Belgian people and American people are likely to have different experiences about voting behaviors in their respective country. An American, hearing that 98% of
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Belgian people vote for the elections, might react in the following way: "Belgians must be very interested in politics and very involved citizens!" Facing such a reaction, a Belgian would answer something like: "No, they are just forced to vote". "But still", the American would conclude, "there must be something about them that makes so many of them vote".

What this example illustrates is people's strong tendency to make a dispositional attribution when they are confronted with other people's behavior. Indeed, in this example as in many real life cases, perceivers' first tendency is to assume that people possess a dispositional characteristic that accounts for their behavior. Only after a dispositional attribution has been made does a correction for situational factors enter the picture. As contemporary models of attribution suggest (Gilbert & Malone, 1995; Gilbert & Osborne, 1989), the correction may not be sufficient. To return to the example, even though the mandatory aspect of voting seems to be the most objective factor to account for the large proportion of voters among the

Belgians, the American may still believe that it is - at least partly - due to an internal factor, the most salient one. Furthermore, what is remarkable in this example is that an attribution is made about a group, not just an individual. The attribution rests on a characteristic of all members of the group: it must be something about the Belgianness of Belgians.

In sum, we assume that people are likely to call upon internal characteristics supposedly common to all group members in order to account for their behaviors.

This process of social attribution has much in common with the essentialization process evoked by Medin (1989) and by Rothbart and Taylor (1992). According to the latter, social groups are perceived as having essences, just like natural categories. The essence would be the core of what all group members have in common and that is crucial to the group's identity. When people refer to the essence of a group, they make a link between surface, observable characteristics, and deep underlying features that are thought to be responsible for these characteristics. For example, if females behave the way they do, and if they have the characteristics they have, this is due to deep properties, like their genetic make up. The same would be true of homosexuals, of Black people, or of any social group. Importantly, we do not necessarily assume the "essence" of a group to be genetic in nature. The essence would be more like a hidden substance that explains why the group members are what they are - but it can have a biological, psychological, or geographical basis, for example. Also, we do not state that social groups really have essences. In contrast, we simply assume that some people believe that groups have an essence, and actually behave as if they did.

Yzerbyt, Rocher and Schadron (1997) further elaborated this perspective by suggesting that subjective essentialism serves an important function: It helps to rationalize the stereotypic beliefs about groups. Indeed, people need to convince themselves that their beliefs are correct and grounded in reality, and thus, that they are right to behave the way they do (Fiske, 1993, 1997; Hoffman & Hurst, 1990; Jost & Banaji, 1994; Tajfel, 1981). In other words, people would justify their stereotypes by referring to an essence shared by all group members. To us, calling upon such an essence means that observers make some kind of dispositional attribution. People who explain group members' behaviors by some dispositional traits that they all share - the essence, the core of the group would find it easier to confirm their stereotypes and would feel justified in using them.

It has been found that dispositional attributions are likely to be made to an individual, but also to a group, as long as the target is perceived to be entitative (Yzerbyt, Rogier & Rocher, in press). Campbell (1958) defined entitativity as "the degree of having the nature of an entity, of having real existence" (p. 17). It is widely accepted that, in western cultures, an individual is likely to be perceived as an entity because of his or her assumed consistency. In contrast, the entitativity of groups is less obvious: groups vary in their degree of entitativity. Some groups are homogeneous and meaningful while others are only aggregates of different individuals having little in common. Research suggests that perceivers may deal with meaningful social entities very much in the way they handle information about individual targets. For instance, in a recent review of similarities and differences in information processing of individual and group targets, Hamilton and Sherman (1996) state that the information processing will depend not on the nature of the target (individual or group) but rather on the perception of entitativity. As a matter of fact, despite the fact that individuals' entitativity is often more obvious than the groups', both individuals and groups may vary on this continuum (McConnell et al, 1997).

Within the social cognition field, several authors have in fact compared the way people perceive and encode memory information for groups and individuals (Allison & Messick, 1985; Brewer & Harasty, 1996; Brewer, Weber & Carini, 1995; Hamilton, 1991; Yzerbyt et al., 1997). For example, Srull (1981) investigated how people process consistent and inconsistent pieces of information about a target that varies in entitativity. Participants recalled the inconsistent information better when they were told that the target was a coherent group than when they thought the target was an aggregate of unrelated individuals. Moreover, the results were no different whether the target was presented as a meaningful group or as a unique person (Srull, Lichtenstein & Rothbart, 1985). The way to account for this is to distinguish between two different kinds of information processing, depending on the degree of entitativity of the target (see McConnell et al., 1997, for an elaboration of this point, which is not directly relevant to our perspective). Wilder (1978) also showed that the distinction between an aggregate of persons and a psychological group has implications for social perception.

In the present paper, we make an explicit link between the process of making dispositional attributions to explain the behavior of group members and the development of stereotypes for these groups1. Specifically, some behav-

The issue of internal attribution at the level of the group is also found in Pettigrew's (1979) work on the ultimate attribution error. According to Pettigrew, prejudiced people will be more likely to make dispositional (and genetic) attributions for negative acts performed by an outgroup member than for the same acts performed by an ingroup member. In contrast, positive acts performed by an outgroup member will be less likely to receive a dispositional attribution. This work is very different from our perspective, however.

iors or traits get associated with some people because of their group membership, and are generalized to the whole group. In line with the work on entitativity, this would be the case only for an entitative group. The first empirical demonstration of such stereotype formation was performed by Yzerbyt, Rogier and Fiske (1998). These authors adapted the Ross, Amabile and Steinmetz (1977) Quiz Show paradigm. Participants were randomly selected to be members of a group of questioners, answerers, or observers in a quiz game. Unknown to the contestants, their group was presented as either entitative or non-entitative to the observers. In the entitative condition, the 3 group members were said to come from the same school. In the non-entitative condition, each member of the group allegedly was from a different school. In line with predictions, observers confronted with aggregates did not draw a distinction in their evaluations of the questioners' and answerers' general knowledge. In contrast, observers of entitative groups rated the questioners as more knowledgeable than the answerers. Thus, Yzerbyt et al (1998) showed that a group may stand as a meaningful causal factor for the group members' behaviors. In other words, when the group is salient and meaningful, it allows perceivers to account for the behavior of group members. We believe that, when people attribute dispositions to group members in terms of their group memberships, they do so because they hold an essentialistic perception of the group. That essence is used to justify their judgments, and the situational determinants of the behavior are neglected. In sum, we propose that the behavior of group members will be perceived in a way that helps perceivers rationalize the situation. Our way to address this is by explaining whatever behavior is observed in terms of a stable disposition. Group membership, as far as it is an internal characteristic of the actor, will be seen as a meaningful causal factor. This is what we call social attribution. The idea of a social attribution (Tajfel, 1981) had already been proposed by Deschamps (1973-74, 1977, 1983) who was the first to emphasize the social nature of attribution, implying that attribution involves intergroup phenomena that have an impact on inference processes (Deschamps & Clémence, 1987; also see Hewstone & Jaspars, 1982). Oakes (1987) also argued that group membership is as an important dispositional aspect of the person. She advanced the idea of a distinct form of attribution to group membership as an internal, dispositional property. It is our hypothesis that social attribution will be facilitated by the belief that the group is entitative. The present experiment was planned with three main goals. First, the results obtained by Yzerbyt et al. (1998) needed to be replicated and generalized with another paradigm and other groups. Second, we wanted to collect more information about the process involved in this social attribution. And finally we wanted to apply

the findings to the attitudinal sphere. This is of particular interest given the enduring importance in the links between attitudes and behaviors. Moreover, it is a highly relevant test of our essentialist perspective: it seems to us that, according to people, what you believe is undoubtedly part of what you are.

Method

Overview

Participants watched a video tape showing target group members preparing arguments favorable to euthanasia. The group members did not have a choice about their position, which was imposed by the experimenter. In addition, they either belonged to an entitative group or to an aggregate. These target group members then rated by the participants on several scales.

Participants and Procedure

Seventy-one female psychology students at the university of Louvain-la-Neuve took part in the experiment in exchange for credit for their class. Participants arrived in groups of between 2 and 8 people. Each of them was seated in front of a video monitor and was separated from the others by dividers. A female experimenter greeted them, thanked them for their participation and gave them brief oral instructions: They were to see a short video first, and to answer a questionnaire afterwards.

Material

The study was adapted from Jones and Harris (1967) and relied on video material. In order to demonstrate a grouplevel correspondence bias, we had to confront participants with groups (instead of single individuals) advocating a position that had been imposed on them. The videotape showed students who had to find arguments either "pro" or "con" euthanasia, without having a choice about their position. The second group shown on the video was always an aggregate of 3 students defending the "con" position. This group was only shown to make the tape more credible and was held constant. The critical, experimental group was the first one, the "pro" euthanasia2 group, and was manipulated so that it was either an aggregate, or

The literature shows that there is no impact of this "content" variable (for reviews, see Gilbert, 1998; Leyens, Yzerbyt & Schadron, 1994). Therefore, and in order to simplify the design, we did not counterbalance for the position (pro/con).

an entity. Thus, our independent variable was the type of group (aggregate or entity). When the group was an aggregate, each of the 3 students came from a different department (law, science, economics). When the group was an entity3, all 3 of them came from the same department (law)4. None of the students came from the psychology department. This means that there were no ingroup members for the real participants. Two different videotapes were prepared, thereby allowing introduction of our critical manipulation. Except for the department-labels assigned to the students, the tapes were strictly identical.

On the video, six students were given instructions by a male experimenter. He explained that the study investigated how people react to political opinions expressed in the media. He started by randomly dividing the six students into two groups: students put their first names and the department they came from on little pieces of paper, which were drawn by the experimenter. The three names that were picked and read aloud first formed the "pro" euthanasia group, the remaining students the "con" group. The department each student came from was mentioned as well. The experimenter emphasized that the assignment of students to the two groups was random. The two groups went to sit down around two different tables. Then the students took a few minutes to think of three arguments each that could be given by someone who is pro or con euthanasia, depending on their group. It was also emphasized that they were not supposed to choose their own position, but had to adopt the one assigned to their group. The students had to work individually. While they were

It can be argued that we manipulated similarity or homogeneity of the group, instead of entitativity. Indeed, following several authors (Brewer & Harasty, 1996; Brewer, Weber & Carini, 1995; McGarty, Haslam, Hutchinson & Grace, 1995), we decided to operationalize entitativity as perceived homogeneity / similarity, although other operationalizations would also have been possible. Entitativity and homogeneity are separate but related constructs (also see Hamilton, Sherman & Lickel, 1998). Group entitativity would be at a higher level of abstractness than homogeneity (Castano & Yzerbyt, submitted). According to Gaertner & Schopler (1998), entitativity is a more global construct that combines two different research perpectives: small group research / interdependence (Moreland, 1987; Rabbie & Horwitz, 1988) and social category perspective (Tajfel & Turner, 1979). Thus, our interest does focus on the entitativity construct but we use homogeneity as a simple way to operationalize it. In future work different operationalizations should be used in order to make the results generalizable.

It could be argued that there is a confound between entitativity and the department, since the department was not systematically varied. However, this argument does not hold as we empirically established that there are no systematic differences between the perceived opinions of students from different departments on this issue.

doing this, the experimenter made table tents to put in front of each student. These table tents simply indicated the name of the student as well as the department he or she belonged to, as a reminder. Then, the first group started to read aloud the arguments they had found. The video ended just before the second group's turn - allegedly, the second group would be seen later, after a few questions about the first group. In fact, participants only saw the 3 "critical" students reading their arguments (favorable to euthanasia). Participants did not need to see the other group, as it was constant across the conditions and only served to enhance the credibility of the study⁵. Thus, the design has 2 conditions, the "entity" condition and the "aggregate" condition6.

The topic of euthanasia was chosen on the basis of a pretest run on 52 (other) psychology students. We checked that there were no significant differences in perceived opinions depending on the department people came from. Indeed, it was important to choose a topic that was independent of the department, to see if people could make a link between the topic and the group membership "online", although none existed. Thus, students were selected from economics, law, science, philosophy, and agronomy and had to rate to what extent they thought that students from each of these departments (including their own) were (un)favorable to a number of social issues. Ratings were made on scales from 1 to 5. The students from these diverse departments were believed to be neither particularly pro, nor against euthanasia (Ms = 3.17, 3.27, 3.08, 3.44, 3.14 for economics, law, science, philosophy, and agronomy, respectively), and there were no differences between them, F(4,204) = 1.476, p = .22. In other words, there is no a priori belief that students from a specific department have a particularly positive or negative opinion about euthanasia. Besides, they do not differ from other students on this point.

After watching the video, participants had to fill out a questionnaire independently. Afterwards, they learned the

- This credibility issue explains why the second group was presented as mixed in all cases. If it was entitative, the "entity" condition might have raised suspicion - it seems unlikely to people that 6 randomly selected students end up in two perfectly homogeneous groups.
- It could be argued that the typical design used in correspondence bias studies includes a control condition: the person is free to choose his/her position on the issue. In the present study, we did not include a "free" condition, but we focused on the "forced" condition. Indeed, the main goal of the experiment was to show the effect of entitativity on attribution, namely, that the "entity" condition would lead to a more polarized attitude than the "aggregate" condition. Thus, it did not seem to be necessary to replicate all the cells usually involved in correspondence bias studies.

true purpose of the experiment and any questions they had were answered. They were then thanked for their participation and dismissed.

Dependent Variables

In order to check for the presence of a fundamental attribution error, participants were first asked to evaluate each of the 3 participants' presumably real opinions about euthanasia, on seven-point rating scales (1 = completely in favor, 7 = completely against). This was our main dependent variable. Then, they were asked to what extent they were certain of each of these previous ratings.

Other questions followed: participants had to evaluate to what extent the department which the students belonged to had an impact on their opinions about euthanasia. They also had to estimate the percentage of students in the same department as person 1 that had the same opinion about euthanasia. They had to rate the similarity of the 3 students' arguments. They had to rate whether the arguments they heard were representative of arguments in favor of euthanasia. Except for the percentage question, all these questions were to be answered on 7-point rating scales ranging from 1 (= not at all) to 7 (= very much). Then, they had to answer an open-ended question aimed at investigating their attributions: their task was to explain what caused the opinion expressed by students about euthanasia.

Finally, similarity questions were asked about irrelevant topics (e.g., do the three people have the same taste for holidays, music, hobbies, movies, or friends).

Predictions

As in Yzerbyt's et al. (1998) study, we predicted that students belonging to an entitative group would be perceived as more favorable to euthanasia than an aggregate comprising students from several different departments. That is, participants confronted with the entitative group would make a stronger fundamental attribution error: they would infer an attitude from a forced behavior.

We also made predictions about the reasons for this stronger bias. In our opinion, participants confronted with an entitative group infer an essence to the group, and make a social attribution for what they see. In other words, they end up believing that these people's opinions on euthanasia are attributable to their group membership. Thus, we predicted that participants in our "entitative" condition would think that the department people belong to determines their opinion more than participants in the "aggregate" condition. We also expected the former participants to give higher estimates for: 1. percentage of people sharing the same opinion, 2. similarity, 3. as well as their rep-

resentativeness. We also predicted that participants in the "entity" condition would be more certain of their answers than participants in the "aggregate" condition. Indeed, participants confronted with an entity have a salient potential explanation for the behavior of group members, which would give them the feeling of knowing the true nature of the group, and thus, being more entitled to make (more extreme) judgments (see Schadron, Morchain & Yzerbyt, 1996), compared to the other participants.

Consistent with Cantor, Pittman and Jones (1982), however, we expected no impact of entitativity on any of the variables that were irrelevant to euthanasia. Indeed, these authors investigated the structure of inferences drawn in an attitude-attribution paradigm by examining attributions at different levels of generality and in several behavioral domains. They found that participants in the "forced" condition (similar to ours) committed the attribution error only at a concrete level closely tied to the content of the essay itself.

Results

We compared participants in the entitative and aggregate conditions using simple t-tests (see Table 1).

First, we examined the importance of the fundamental attribution error (The more "favorable" the answer, the stronger the fundamental attribution error). We computed the mean of ratings given for the 3 students' real opinions. There was an effect of group entitativity: Participants observing members of an entitative group believed them to be more favorable to euthanasia (M = 5.39) than participants in the "aggregate" condition (M = 4.82), t(1, 70) = 1.00

Table 1: Comparison of the "entity" and "aggregate" conditions for the main dependent variables; SD in brackets

	Entity	Aggregate
What are the 3 participants' real opinion about euthanasia?	5.39 (1.10)	4.82 (1.24)
(7 = in favor)	(1.10)	(1.2.1)
How certain are you? (7 = certain)	5.09 (1.42)	4.45 (1.21)
Does the department play a role in the opinion about euthanasia? (7 = very much)	4.17 (1.69)	2.81 (1.45)
Percent of students in the department sharing opinion of person 1	60% (17)	55% (17)
How representative of arguments pro-euthanasia? (7 = very much)	6.23 (0.88)	5.75 (1.02)
How similar to each other? (7 = very much)	5.63 (0.94)	5.28 (0.78)

2.03, $p < .03^7$. As to the certainty ratings, these were also averaged across the 3 students. Participants in the "entitative" condition were more certain of their answers (M =5.09) than participants in the "aggregate" condition (M =4.45), t(1, 70) = 2.02, p < .03. That is, when they saw people of the same department advocating the same position, they felt more certain that this was their real position than when the students came from different departments. Participants believed that the department to which students belong determines their opinions about euthanasia more when all students came from the same department (M =4.17) than when they did not (M = 2.81), t(1, 70) = 3.66, p < .01. Participants also had to evaluate the percentage of students from the same department having the same opinion as person 1. There was only a marginal effect of entitativity on this variable, but this tendency (t(1, 70))1.31, p < .10) was in the predicted direction. As we expected, they tended to overestimate the percentage of students sharing this opinion when facing a homogeneous (M = 59.91), rather than a mixed (M = 54.57), group.

We also looked at the factors participants spontaneously mentioned as accounting for the opinion expressed about euthanasia. When asked about these factors in an open-ended question, a larger number of participants explicitly stated that the department had an effect in the entity condition (N = 5) than in the aggregate condition (N = 0), X2(1) = 5.53, p < .02 (X2 = 3.57, p < .06) with Yates' correction).

It is important to remember that every participant was confronted with the same set of arguments whether they were confronted with an entitative group or with an aggregate. As expected, however, the very same arguments were seen as closer to one another when they were stated by a member of an entitative group (M = 5.63) than when expressed an aggregate (M = 5.28), t(1, 70) = 1.71, p < 0.05. Moreover, the same arguments were judged to be more representative of arguments relevant to the issue when they originated from an entity (M = 6.23), than from an aggregate (M = 5.75), t(1, 70) = 2.11, p < .02.

In line with predictions, the entitativity variable did not have any significant impact on the other, unrelated, dependent variables. Indeed, participants from an entitative group did not differ from participants from aggregates as far as hobbies (t(1, 70) = 1.24, p > .11), holiday (t(1, 70)= 0.66, p > .26), music (t(1, 70) = 0.10, p > .46), movies (t(1, 70) = 0.17, p > .43), or friends (t(1, 70) = 0.62, p > .43).27), were concerned.

All reported tests are one-tailed.

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Discussion

The results of the present experiment show that people forced to express opinions favorable to euthanasia and belonging to an entitative group are seen as more favorable to euthanasia than people forming an aggregate. This pattern of findings strongly suggests that confrontation with an entitative group causes participants to neglect situational factors more. As a result, the overattribution bias was stronger in the entitative than in the aggregate group condition. It is interesting to note that participants confronted with an entitative group are also more certain of their answers than participants observing an aggregate. It seems that participants facing an entity are more positive about their answers because they are provided with a meaningful explanation for people's behavior. The fact that participants in the "entity" condition make a social attribution is confirmed by another dependent variable: these participants think that the department which students belong to has an impact on their opinions about euthanasia. Clearly, these effects support and extend Yzerbyt et al's (1998) results showing the impact of group entitativity on social attribution. Importantly, our findings provide additional and even more convincing evidence that social attribution is the process by which the effects were obtained: Participants make a link between behavior and group membership. The most decisive piece of evidence for the social attribution process is the finding that our participants believed that the department accounted for the group members' position on the issue more when the group was entitative than when the group was an aggregate. Along the same lines, when confronted with an entitative group supporting euthanasia, our participants tended to overestimate the percentage of group members who would agree with this perspective. These findings clearly show that participants linked the department with the opinions about euthanasia. Within the context of Self-categorization (Turner, Hogg, Oakes, Reicher & Wetherell, 1987), Oakes, Turner and Haslam (1991) also demonstrated that category membership can be seen to provide an explanation for people's behavior. In their study, however, participants obviously relied on pre-existing stereotypic expectations to make sense of the students' behaviors (the targets' attitude was stereotypic or counter-stereotypic of their major). Our study goes one step further by showing that shared group membership stands as a meaningful causal factor independently of prior knowledge about the specific groups. Indeed, a pretest had shown that there was no link at the start between attitudes towards euthanasia and the department students belong to. Our findings thus point to an impact specific to entitativity and independent of normative considerations.

The idea that social attribution may play a role in stereo-

type formation is consistent with recent evidence presented by Levy, Stroessner and Dweck (in press). These authors examined people's implicit theories about the fixedness vs. malleability of human attributes (entity vs. incremental theories). Their perspective has much in common with the present essentialist perspective. Levy et al. (in press) showed that "entity theorists" agreed more strongly with social stereotypes and believed more strongly that these stereotypes reflected innate or inherent group differences. In the same vein, Miller and Prentice (in press) recently showed that a difference between members of different groups is readily attributed to a group difference, a conclusion which makes the difference less mutable. The reason for this would also be that people tend to see groups as having underlying essences (Yzerbyt, Rogier & Rocher, in press).

In conclusion, the present study is a replication as well as an extension of Yzerbyt, Rogier and Fiske's (1998) results. Consistent with the previous study, our findings demonstrate the impact of entitativity on social attribution, and more precisely upon the emergence of the correspondence bias. Besides, it also indicates how social attribution may be responsible for this effect. Social attribution created a new stereotype that did not exist before, namely, the stereotype that law students seem likely to be in favor of euthanasia. It would be interesting to see whether this stereotype lasts. This presumably depends on many factors. One of them would be the confrontation with relevant information about the target group. What would have happened if the participants in this study had been confronted with information that allowed them to confirm or disconfirm the new stereotype: How would they have interpreted new information? Another crucial factor for the persistence of stereotypes seems to be the relevance of the stereotype for the ingroup in general and the nature of intergroup relationships. These represent a series of lines that will need to be addressed by future research.

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