Empowering and legitimizing the fundamental attribution error: Power and legitimization exacerbate the translation of role-constrained behaviors into ability differences

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Received: 26 May 2015
Accepted: 11 February 2016
http://dx.doi.org/10.1002/ejsp.2191

Keywords: social roles, power, fundamental attribution error, social perception

Abstract

Our daily interactions are influenced by the social roles we endorse. People however underestimate these role constraints in their everyday explanation relying on individual dispositions to make sense of behaviors. Two studies investigated whether this bias is exacerbated when role structure is legitimated and when power matches the advantages conferred by the social roles of a quiz game. Legitimacy as well as power increased the tendency for both advantaged (questioner) and disadvantaged (answerer) actors (Study 1) as well as naïve observers of the quiz game (Study 2) to attribute to ability the behaviors elicited by social roles. These results extend previous findings. People are more prone to explain constrained behaviors by differences in ability when role structure is legitimated and when power asymmetry matches role structure. Legitimacy and power may then play an important role in the translation of role constraints into inferences about ability.

In a famous study, Ross, Amabile, and Steinmetz (1977) asked pairs of encounters to play a quiz game involving two roles: A questioner and an answerer. The questioner had to compose difficult general knowledge questions and to pose them to her counterpart, the answerer. The ascribed roles made it likely that the answerers would have trouble responding to the difficult questions and they did. However even though the two roles were explicitly randomly assigned, those who had to answer the questions could not avoid finding the questioners more knowledgeable than themselves after the game, an impression shared by naïve observers. People appear then prone to infer dispositions to make sense of behaviors even though these behaviors are explicitly elicited by social roles. The propensity to overestimate personal disposition and to underestimate role constraints in the explanation of behaviors defines the fundamental attribution error (Ross, 1977).

Ross et al. (1977) study has become a classic in social psychology. It is still discussed at length in most introductory handbooks (e.g., Meyers, 2009). This popularity is due to the clarity of the experimental demonstration but also to its implication for our understanding of society. Indeed roles are an important aspect of social life: We are students or teachers, children or parents, etc. Realizing that people tend to attribute to individuals’ dispositions the behaviors that actually are elicited by their role is therefore an important lesson from social psychology (see also Eagly & Steffen, 1984). Even though Ross et al. (1977) established a parallel between their findings and everyday social roles, their experimental settings did not include two key aspects of social reality: social roles are often legitimated, and they also vary in power. Indeed, people hold certain roles because they often have the credentials or experience that justify it. Roles also differ in the power they entail, some roles come with more control over the others that occupy lower positions in the social structure. The present article reports two studies that examine whether legitimization of role occupation and power affect the fundamental attribution error involved in the classical study by Ross et al. (1977).

In existing social hierarchies, role occupation, how roles are assigned (legitimation) and power are not easily dissociable (Fiske, 2010; Magee & Galinsky, 2008; Rucker & Galinsky, 2008). Indeed, roles come with some form of legitimation and confer more or less control over resources (Russell & Fiske, 2010). It is therefore important to examine whether they separately contribute to the fundamental attribution error involved in the interpretation of role-elicted behaviors.

Research on the impact of legitimation on social perception has mainly been restricted to intergroup relations (Bettencourt, Dorr, Charlton, & Hume, 2001; Tyler, 2006). This literature reveals that when respective group status are legitimate—i.e., by evoking differences in (real or bogus) ability, effort or performance—low status group members accept more the superiority of the outgroup (Bettencourt et al., 2001;
Schmader, Major, Eccleston, & McCoy, 2001), discriminate less in favor of their ingroup (Rubini, Moscatelli, Albarello, & Palmonari, 2007), are less dissatisfied with their social position and behave less competitively (Ellemers, Wilke, & van Knippenberg, 1993). Under the same conditions, high status groups devalue and discriminate more the low status groups and favor more the ingroup (Bettencourt et al., 2001; Rubini et al., 2007; Turner, 1999). Legitimizing group status asymmetry also shapes the motivation to explain social arrangements in terms of discrimination or unfair treatment (Major & Schmader, 2001) and enhances dispositional explanations (Haines & Jost, 2000). Legitimation therefore reinforces social perception that matches the status quo and reduces anxiety and uncertainty among the disadvantaged and the guilt experienced by the advantaged (Jost & Hunyady, 2002). However whether legitimating role occupation impacts the fundamental attribution error for behaviors constrained by social roles remains opened.

In the same vein, power, defined as control over other’s actions, outcomes and resources (Fiske, 1993), influences social perception. In intergroup settings and in interpersonal contexts, people in power perceive themselves and are perceived more positively while powerless perceive themselves and are perceived more negatively. Elevation in social power facilitates control, independence, reliance on accessible constructs such as dispositions (Guinote, Weick, & Cai, 2012) and powerful people are perceived as dispositionally motivated, whereas the same actions emitted by powerless individuals are perceived as situationally motivated (Overbeck, Tiedens, & Brion, 2006). Also descriptions of social targets increase in positivity with the social power they possess. In intergroup context (Fiske, 1993), members of powerful or high status groups (e.g., men, rich people, educated…) are viewed as more competent than the members of powerless or low status groups (e.g., women, poor people: e.g., Fiske, Cuddy, Glick, & Xu, 2002; Kay, Jost, & Young, 2005). In interpersonal situations, people in power attribute negative characteristics to their powerless counterparts (Kipnis, 1972), underestimate their performance and overestimate their own (Georgesen & Harris, 1998), dehumanize them (Gwinn, Judd, & Park, 2013) or project more their own negative characteristics than positive ones onto them (Overbeck & Droutman, 2013). Powerless individuals also suffer from the detrimental upward social comparison with powerful people and then experience a decrease in their self-evaluation (Johnson & Lammers, 2012). Although the impact of power on social perception has been well documented, it is not clear whether it contributes to the fundamental attribution error. In the classical quiz game experiment (Ross et al., 1977), answerers and observers fell prey to the fundamental attribution error when the questioners had control over the elaboration of the questions. Under this condition, answerers and observers derogated the questioner’s knowledgeability in comparison to the questioner’s. Yet controlling the domains of inquiry should not be assimilated to being afforded with power. The questioner did not actually control the answerer’s actions, outcomes or resources (Fiske, 1993). As mentioned by Ross et al. (1977, p. 493–494), this situation is biased in favor of the questioner because it provides her with self-presentational advantages (questions specific to her domains of inquiry), which allowed her to decide what esoteric knowledge to exhibit. But power cannot be equated with an advantage in self-presentation. Whether social power impacts people’s propensity to translate role-constrained behavior into ability differences remains therefore open.

To investigate whether role occupation legitimacy and an explicit power asymmetry influence how people make sense of behaviors heavily constrained by social roles, we replicated Ross et al. (1977)’s procedure. Members of a dyad had to play a quiz game that involved two roles. The questioner role implied elaborating difficult questions before asking them to a peer, whose role was to answer them correctly. At the end of the interaction, the participants had to evaluate the general knowledge of both actors on the same four measures of general knowledge used by Ross et al. (1977) in order to stay as close as close as possible to the original and subsequent replications (i.e., Gibbins & Walker, 1996). We independently manipulated the legitimization of the role occupation and the questioner’s power over the answerer. The questioner’s role was either legitimized or not by a bogus feedback of expertise (see Huang, Galinsky, Gruenfeld, & Guillory, 2011) pretested to be unrelated to the domain of general knowledge (i.e., writing speed). The questioner’s power was independently manipulated by either providing or not her control over the answerer’s outcome (i.e., a lottery gain, Anderson & Berdhal, 2002). Study 1 looked at the interpretation of behaviors by role players and study 2 at inferences drawn by observers of the scene (see Ross et al., 1977).

First, we expected a classical fundamental attribution error in the standard settings (i.e., no role legitimation and no power): Answerers (study 1) as well as observers (study 2), but not questioners (study 1), should evaluate the questioner as having more general knowledge than the answerer (i.e., the Ross et al.’s pattern). In other words people would neglect the advantages and disadvantages conferred by social roles in their interpretation of behavior. Second and more importantly, because legitimizing status asymmetry is known to reinforce social perception that matches the status quo, we also predicted that this fundamental attribution error would be more pronounced among answerers and observers, and will be observed among questioners, when social role assignment is legitimized that is when the advantaged role (i.e., the questioner) is justified—even by a bogus feedback—rather than randomly assigned (Ross et al., 1977). Third, because the powerful seek to contrast themselves from the powerless and are perceived positively and because the powerless are negatively affected by upward comparisons and are perceived
more negatively, we also hypothesized that the error would be stronger when power matches the role structure that is when the questioner is empowered rather than not. Finally when power matches a legitimated role structure, as in existing social hierarchies (Russell & Fiske, 2010), we predicted that the tendency to locate the cause of the behaviors elicited by the two roles in personal dispositions would be maximum among both the actors and the observers.

**Study 1: Role Players**

Replicating Ross et al., dyad members had to play two distinct roles of a questioner and an answerer. The questioner had to compose 10 difficult general knowledge questions, pose them, acknowledge correct responses and supply correct responses when incorrect answers were given.\(^1\) The answerer had to answer. The current experiment extended this classical paradigm by legitimizing the role occupation and superposing power on the role structure before role-playing.

**Participants and Design**

Giving that participants were nested within dyads and dyads served as the units for all analyses, we decided to collect valid data of 20 dyads per cell of our four-cell nested design. This is consistent with the minimal numbers of observations per cell recommended by Simmons, Nelson, and Simonsohn (2011). To reach this criterion, 172 undergraduate students (136 females, 36 males) were recruited in exchange of course credit and were run in 86 randomly constituted dyads. Data from six dyads were not collected because the questioner was not able to compose the 10 required difficult general knowledge questions by her own. Hence, one hundred sixty undergraduate students (131 females, 29 males, \(M_{\text{age}} = 19.37\) years, \(SD_{\text{age}} = 1.48\)) were run in 80 randomly constituted dyads equally assigned to one of four cells of a randomized hierarchically nested design 2 (legitimization of role occupation: no or yes) × 2 (power: no or yes) × 2 (role: questioner or answerer) × 2 (evaluation target: self or partner). These two last factors were within-dyad factors.

**Material and Procedure**

**Legitimization of role occupation.** Upon arrival, both dyad members completed in a separate room a bogus test used to manipulate expert power. The Trail Making Test B (Tombaugh, 2004) implies drawing lines sequentially connecting numbers and letters alternatively. This test was chosen because a pre-test showed that the speed with which a person completes the TMT B did not influence the evaluation of her general knowledge,\(^2\) allowing the manipulation of an expertise orthogonal to the dependent variable. For one half of the dyads \((N = 40)\), the TMT B was ostensibly not related to the experiment and participants picked one of two cards (“questioner”, “answerer”) to determine their respective roles (no legitimation condition). For the other half \((N = 40)\), roles were allocated according to a bogus feedback of expertise. Participants were led to believe that because the questioner had to write down 10 questions, this role was allocated to the participant who was the fastest at completing the TMT B presented as a diagnostic test of writing speed (legitimation condition). Roles were actually randomly assigned.\(^3\)

**Power manipulation.** For one half of the dyads \((N = 40)\), the questioner was given control over the answerer’s outcome (Anderson & Berdhal, 2002) by deciding allocation for both participants on a hypothetical lottery win (power condition). Ultimately the lottery did not occur. For the other half of the dyads \((N = 40)\), no lottery was mentioned (no power condition).

After the role play, participants evaluated on a 100-point scale (from 0 much lower than average to 100 much better than average) how they each compared with average students on general knowledge and how they each compared to other people in general on general knowledge, on ability to formulate general knowledge questions, and ability to answer general knowledge questions made up by others (self evaluation: \(\alpha = .88, \tau_{\text{inter-item}} = .66, N = 160\), \(p < .001\); partner evaluation: \(\alpha = .91, \tau_{\text{inter-item}} = .72, N = 160\), \(p < .001\)) (Gibbins & Walker, 1996; Ross et al., 1977). Participants were then fully debriefed and thanked for their participation.

**Results and Discussion**

We hypothesized that legitimizing role structure would lead both questioner and answerer to neglect even more the conferred advantages and disadvantages of their roles, revealing then their proneness to the fundamental attribution error. Consequently questioner should attribute more general knowledge to herself than to her partner and answerer should attribute more general knowledge to her partner than to herself. We also expected that empowering the questioner would also increase this attribution bias. Finally the fundamental attribution error should be more important for both

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\(^1\) A 2 (legitimization of role occupation: no or yes) × 2 (power: no or yes) ANOVA conducted on the average number of correct answers did not indicate any significant main or interactive effects, \(F(1, 76) < 1\).

\(^2\) Thirty-one undergraduate students were asked to evaluate two target persons on several dimensions based on various criteria. In comparison to a TMT B slow target \((55 s); students’ average mean time = 48.97 s, SD = 12.69; Tombaugh, 2004\), a TMT B fast target \((43 s)\) was judged as having no more general knowledge, \(t(30) = -1.29, n.s. \), \(\eta_2^2 < .06\); but as writing faster, \(t(30) = 2.25, p = .04, \eta_2^2 = .14, 95\% CI = [.00, .36], d = .82, 95\% CI = [.07, 1.56]\).

\(^3\) Mean time to complete the TMT B did not differ according to the assigned role. Questioner: \(M = 49.64, SD = 9.95\); Answerer: \(M = 51.75, SD = 11.99, t(158) = 1.21, n.s. \), \(\eta_2^2 < .01\).
Roles, power, legitimation and social perception

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answerer and questioner when role structured was legitimized and associated with differential power. To test these hypotheses, the index of general knowledge attributed to evaluation target was submitted to a 2 (legitimation of role occupation: no or yes) × 2 (power: no or yes) × 2 (role: questioner or answerer) × 2 (evaluation target: self or partner) ANOVA with the two last factors as within-dyad factors (see Table 1).

This analysis yielded a marginal main effect of evaluation target, $F(1, 76) = 3.63, p = .026, \eta^2 = .05$, 95% CI = [0.00, 0.16], $d = 0.44$, 95% CI = [−0.02, 0.89]. Participants tended to evaluate their partner as more knowledgeable, $M = 50.47, SD = 7.52$, than themselves, $M = 49.04, SD = 6.91$. This evaluation target main effect was further qualified by a significant interaction with the role, $F(1, 76) = 460.40, p < .001, \eta^2 = .86$, 95% CI = [0.80, 0.89], $\omega^2 = .85$, 95% CI = [0.79, 0.89]. Questioners evaluated themselves as more knowledgeable, $M = 57.51$, $SD = 10.45$, than their partner, $M = 40.99$, $SD = 10.68$, $F(1, 76) = 215.48, p < .001, \eta^2 = .74$, 95% CI = [0.63, 0.80], $d = 3.37$, 95% CI = [2.66, 4.06]; whereas answerers judged themselves as less knowledgeable, $M = 40.58$, $SD = 10.87$, than their partner, $M = 59.96$, $SD = 10.28$, $F(1, 76) = 297.50, p < .001, \eta^2 = .80$, 95% CI = [0.71, 0.84], $d = 3.96$, 95% CI = [3.10, 4.60].

The expected interaction between evaluation target, role and legitimation of role occupation reached significance, $F(1, 76) = 113.54, p < .001, \eta^2 = .60$, 95% CI = [0.45, 0.69], $\omega^2 = .58$, 95% CI = [0.45, 0.69] (see Figure 1). For both questioners and answerers, legitimation of role occupation and evaluation target interacted significantly indicating then that legitimizing role occupation by a bogus feedback of expertise increased the fundamental attribution error, respectively $F(1, 78) = 31.50, p < .001, \eta^2 = .29$, 95% CI = [0.13, 0.43], $\omega^2 = .28$, 95% CI = [0.13, 0.43], and $F(1, 78) = 66.97, p < .001, \eta^2 = .46$, 95% CI = [0.30, 0.58], $\omega^2 = .45$, 95% CI = [0.30, 0.58]. Hence the difference score in knowledgeability favoring the questioner increased significantly when role occupation was legitimated rather than not: questioners perceived themselves as much more knowledgeable than their partner, $M = 24.73$, $SD = 13.20$, vs. $M = 8.30$, $SD = 12.99$, and answerers perceived their partner as much more knowledgeable than themselves, $M = 28.98$, $SD = 10.89$, vs. $M = 9.77$, $SD = 10.10$.

As expected, the interaction between evaluation target, role and power was also significant, $F(1, 76) = 46.39, p < .001, \eta^2 = .38$, 95% CI = [0.21, 0.51], $\omega^2 = .36$, 95% CI = [0.21, 0.50] (see Figure 2). Empowering the questioner led both actors to commit a greater fundamental attribution error as indicated by the significant interaction between power and evaluation target, $F(1, 78) = 30.90, p < .001, \eta^2 = .28$, 95% CI = [0.13, 0.42], $\omega^2 = .27$, 95% CI = [0.13, 0.42], and $F(1, 78) = 4.31, p < .05, \eta^2 = .05$, 95% CI = [0.00, 0.17], $\omega^2 = .04$, 95% CI = [0.00, 0.17], for questioners and answerers respectively. Indeed, the difference score in knowledgeability favoring the questioner increased significantly when the questioner was provided with power rather than not: questioners perceived themselves as much more knowledgeable

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**Table 1.** Mean general knowledge evaluation (standard deviation) according to evaluation target, role, legitimation of role attribution and power manipulation

<table>
<thead>
<tr>
<th>Evaluation Target</th>
<th>Role</th>
<th>Legitimation</th>
<th>Power</th>
<th>Questioner</th>
<th>Answerer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>No</td>
<td>Empowered</td>
<td>Yes</td>
<td>48.90 (8.30)</td>
<td>56.51 (9.08)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>43.60 (10.00)</td>
<td>55.52 (11.58)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td>No</td>
<td>57.51 (9.77)</td>
<td>57.51 (9.77)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53.75 (9.11)</td>
<td>53.75 (9.11)</td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td></td>
<td></td>
<td>8.61 (8.09)</td>
<td>−11.92 (11.59)</td>
</tr>
</tbody>
</table>

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than their partner, $M=24.67$, $SD=14.68$ vs. $M=8.35$, $SD=11.37$, and answerers perceived their partner as much more knowledgeable than themselves, $M=22.61$, $SD=14.47$ vs. $M=16.14$, $SD=13.39$.

The four-way interaction between evaluation target, role, legitimization of the role occupation and power manipulation failed to reach significance level, $F(1, 76) = 3.45, p = .067, \eta^2_p = .04, 95\% CI = [0.00, .16], \omega^2 = .03, 95\% CI = [0.00, .16]$ indicating that legitimation and power only had an additive effect on the fundamental attribution error (see Table 1). The perceived superiority of the questioner over the answerer in general knowledge was the greatest when power was legitimated in comparison to the condition where power was not legitimated, questioner: $F(1, 76) = 41.90, p < .001, \eta^2_p = .36, 95\% CI [.19, .49], \omega^2 = .34, 95\% CI [0.18, 0.48]$, answerer: $F(1, 76) = 45.24, p < .001, \eta^2_p = .37, 95\% CI [.20, .51], \omega^2 = .36, 95\% CI [0.20, 0.50]$. Similarly, this perceived superiority of the questioner over the answerer in general knowledge was the greatest when power was legitimated in comparison to the condition where no power differential was induced on a legitimated role structure, questioner: $F(1, 76) = 44.44, p < .001, \eta^2_p = .35, 95\% CI [.19, .49], \omega^2 = 0.34, 95\% CI [0.18, 0.48]$, answerer: $F(1, 76) = 7.37, p < .009, \eta^2_p = .09, 95\% CI [.01, .22], \omega^2 = 0.07, 95\% CI [0.01, 0.22]$. Finally, all participants perceived the questioner as more knowledgeable than her answerer, $t(19) > 4.60, ps < .001, \eta^2_p s > .53, ds > 2.11$, except those playing the role of questioner in the control condition: They did not evaluate themselves as significantly more knowledgeable than their partner, $t(19) = 0.93, n.s.$

Study 1 replicated Ross et al.’s (1977), Study 1; Gibbins & Walker, 1996) observations: in the classical condition where no control over resources was induced and where the role assignment was not legitimated, the fundamental attribution error was limited to the answerer. We extended these classical findings by showing that legitimizing advantaged and disadvantaged role occupations and/or conferring power to those occupying the advantaged role increase answerer’s tendency to infer individual dispositions from observing behaviors even if the latter are totally constraint by role prescriptions. Moreover, and in line with our expectations drew from literature, questioners fell prey to the fundamental attribution error when role occupation was legitimated or when power was superposed to the role structure. Indeed, both advantaged actors (questioner) and disadvantaged actors (answerer) perceived the answerer as much less knowledgeable than the questioner when the role occupation was legitimated or when the questioner had power over her answerer. The neglect of role...
constraint was the most important when power and legitimacy were combined as in existing social hierarchies (Russell & Fiske, 2010). As expected, empowering the legitimated advantaged actor leads both advantaged and disadvantaged actors to derogate even more the disadvantaged in comparison to the advantaged.

These findings suggest that in social interactions, individuals, who hold asymmetrical power roles and/or legitimated social roles, are prone to infer differential ability to interpret their own as well as other’s behaviors even though these behaviors are explicitly determined by social roles. First the question remains as to whether this tendency is limited to the participants involved in social interactions or is generalizable to naïve observers of the interaction. Second, power was shown to influence behaviors during interactions. Hall, Coats, and LeBeau (2005) concluded from their meta-analysis that first elevation in power or status is associated with postural openness, facial expressiveness, reduced interpersonal distance, loud voice, and interruptions, and second that people rely on these non-verbal and verbal behaviors to infer target’s power or status. Yet, power and/or role status could have led participants to exhibit dominant / submissive behaviors (Tiedens & Fragale, 2003), these behaviors influencing in turn actors’ judgments on performance and abilities. The second study was designed to address these issues.

Study 2: Naïve Observers

Replicating Ross et al.’s method, in experiment 2, participants read a transcript of a quiz game played by two protagonists that reproduced as closely as possible the different steps of the interaction observed in study one. This transcript explained the course of actions protagonists participated in but did not describe verbal or non-verbal behaviors exhibited during the interaction. Participants were later asked to evaluate the questioner’s and the answerer’s respective general knowledge. Hypotheses were identical to those tested in study 1.

Participants and Design

Following the Simmons et al.’s (2011) recommendations dealing with the minimal number of 20 observations per cell, eighty undergraduate students (47 females, 33 males, M age = 19.52 years, SD = 1.58) were randomly and equally assigned to one of only four cells of a 2 × 2 (power: no or yes) × 2 (evaluation target: questioner or answerer) design, the last variable being within-subjects.

Material and Procedure

Four transcripts replicated the design of study 1. They contained the instructions given by the experimenter to the questioner and the answerer, the difficult general knowledge questions composed by the questioner and the corresponding answers given by the answerer (see Davies, 1985; Gawronski, 2003). These four transcripts only differed according to the legitimization of the role occupation and the power conferred to the questioner.

Four sets of questions were randomly chosen among the eighty sets constructed by the eighty questioners from study 1, the inclusion criteria being that the answerer answered three or four questions correctly each time. These four sets of 10 questions were then distributed in the four conditions of study 2.

Participants evaluated on 100-point scales (from 0 much lower than average to 100 much better than average) the questioner’s and the answerer’s general knowledge relative to the average undergraduate student, how they each compared to other people in general regarding general knowledge, the ability to formulate general knowledge questions, and the ability to answer such questions made up by others (index of general knowledge attributed to the questioner: α = 0.87, r_inter-item = 0.63, N = 80, p < .001; index of general knowledge attributed to the answerer: α = 0.86, r_inter-item = .62, N = 80, p < .001). Participants were then fully debriefed and thanked for their participation.

Results and Discussion

We hypothesized that legitimizing role structure would lead observers to commit a greater fundamental attribution error: They should attribute much more general knowledge to the questioner than to the answerer. Empowering the questioner should also increase this attribution bias. Finally observers are expected to draw the most important superiority of the questioner over her answerer in general knowledge when role structured was legitimized and associated with differential power. To test our hypotheses, the index of general knowledge attributed to the target by the observers was submitted to a 2 (legitimization of role occupation: no or yes) × 2 (power: no or yes) × 2 (evaluation target: answerer or questioner) ANOVA with the last factor as within-participants factor (see Table 2).

Table 2. Mean general knowledge evaluation (standard deviation) according to evaluation target, legitimization of role occupation and power manipulation

<table>
<thead>
<tr>
<th>Legitimated role attribution: No</th>
<th>Legitimated role attribution: Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowered questioner: No</td>
<td>Empowered questioner: Yes</td>
</tr>
<tr>
<td>Empowered questioner: Yes</td>
<td>Empowered questioner: Yes</td>
</tr>
<tr>
<td>Questioner</td>
<td></td>
</tr>
<tr>
<td>Empowered questioner: No</td>
<td>61.35 (8.75)</td>
</tr>
<tr>
<td>Empowered questioner: Yes</td>
<td>61.82 (7.97)</td>
</tr>
<tr>
<td>Answerer</td>
<td>42.60 (7.37)</td>
</tr>
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<td>Empowered questioner: Yes</td>
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<td>Questioner</td>
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<td>21.41 (13.19)</td>
</tr>
<tr>
<td>Answerer</td>
<td>27.53 (15.32)</td>
</tr>
<tr>
<td>Empowered questioner: Yes</td>
<td>39.36 (14.75)</td>
</tr>
<tr>
<td>Questioner</td>
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</tr>
<tr>
<td>Empowered questioner: Yes</td>
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<tr>
<td>Answerer</td>
<td>42.07 (8.87)</td>
</tr>
<tr>
<td>Empowered questioner: Yes</td>
<td>33.71 (8.47)</td>
</tr>
</tbody>
</table>

European Journal of Social Psychology 00 (2016) 00–00 Copyright © 2016 John Wiley & Sons, Ltd.
This analysis yielded a significant main effect of evaluation target, questioner being evaluated as more knowledgeable, \( M = 66.50, SD = 9.90 \), than answerer, \( M = 39.71, SD = 8.81 \). \( F(1, 76) = 304.76, p < .001, \eta^2_p = .80, 95\% CI = [.72, .85], d = .01, 95\% CI = [3.22, 4.78] \). This general knowledge difference was qualified by a significant interaction between evaluation target and legitimation of the role occupation, \( F(1, 76) = 19.05, p < .001, \eta^2_p = .20, 95\% CI = [.06, .35], \omega^2 = .18, 95\% CI = [.06, .34] \) (see Figure 3). The difference in general knowledge favoring the questioner was more important when role occupation was legitimated, \( M = 33.50, SD = 16.10 \), rather than not, \( M = 20.10, SD = 12.12 \). The expected interaction between evaluation target and power was also significant, \( F(1, 76) = 5.71, p < .02, \eta^2_p = .07, 95\% CI = [.00, .20], \omega^2 = .06, 95\% CI = [.00, .19] \) (see Figure 4). Hence, the difference in general knowledge favoring the questioner increased when questioner was empowered, \( M = 30.47, SD = 16.59 \), rather than not, \( M = 23.13, SD = 13.96 \).

As in study 1, the three-way interaction between evaluation target, power and legitimation, was not significant, \( F(1, 76) = 2.28, n.s., \eta^2_p < .03 \), suggesting that legitimation and power additively increased the fundamental attribution error among observers (see Table 2). Hence, the perceived superiority of the questioner over the answerer in general knowledge was greatest when power was legitimated in comparison to condition where power was not legitimated, \( F(1, 76) = 17.26, p = .001, \eta^2_p = .19, 95\% CI = [.05, .33], \omega^2 = .17, 95\% CI = [0.05, 0.33] \), and in comparison to condition where no power differential was induced on a legitimated role structure, \( F(1, 76) = 7.60, p = .008, \eta^2_p = .09, 95\% CI = [.01, .22], \omega^2 = .08, 95\% CI = [0.01, 0.22] \). Finally, the questioner was perceived as significantly more knowledgeable than her answerer in the four conditions, \( t(19) > 7.28, ps < .001, \eta^2_p s > .74, ds > 3.34 \).

Study 2 replicated the classical findings by Ross et al. (1977), study 2; Gawronski, 2003). Naive observers of social interactions attributed to actors’ ability behaviors elicited by their social roles. Hence, they attributed more general knowledge to individuals holding the advantaged role of questioner than to individuals holding the disadvantaged role of answerer. Importantly, replicating the findings of study 1, our results indicated that simply legitimizing role occupation or conferring power to the questioner exacerbated this distorted perception. As in study 1, superposing power to a legitimated role structure led observers to perceive the highest difference in general knowledge between the actors (i.e., an additive effect). Because observers read transcripts of the interaction between questioner and answerer.

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**Fig. 3**: Mean general knowledge evaluation according to evaluation target and legitimization of role occupation. Error bars represent 95\% confidence intervals of the mean

**Fig. 4**: Mean general knowledge evaluation according to evaluation target and power manipulation. Error bars represent 95\% confidence intervals of the mean
without mention of their verbal or non-verbal behaviors (posture, eye contact, voice pitch or loudness...), the effects of power on fundamental attribution error could not be explained here by the mediating role of communication style.

**General Discussion**

Our daily interactions are influenced by the social roles we have to endorse, as a mother, a faculty member or as a student. These social roles can provide self-presentational advantages (elaborating tricky questions with plenty of time), or disadvantages (answering difficult questions). Yet, people are prone to locate the source of behavior in the actors’ ability and traits rather than in role constraints. We hypothesized that this fundamental attribution error (Ross et al., 1977) is accentuated by the legitimation of the role structure and by power asymmetry between role holders. Participants took part in (study 1) or observed (study 2) a quiz game involving questioner and an answerer roles. Results replicated Ross et al.’s (1977); Gawronski, 2003; Gibbins & Walker, 1996). Answerers and observers fell prey to the attribution error: They perceived the advantaged actor (questioner) as more knowledgeable than the disadvantaged actor (answerer).

In line with our expectations, when the role structure was legitimated rather than not answerers and observers committed a stronger fundamental attribution error and questioners expressed one (Bettencourt et al., 2001; Rubini et al., 2007; Schmader et al., 2001). Legitimizing the role structure by a bogus feedback of expertise (writing speed) unrelated to the judgment of interest was enough to lead both role players and observers to underestimate the answerer’s general knowledge in comparison to the questioner. Hence, when roles are perceived as socially valid because attributed on the basis of expertise, social arrangement is perceived as just (Jost, Banaji, & Nosek, 2004; Lerner, 1980). People, actors as well as observers, are then motivated to see positions as deserved, which leads them to perceive actors in accordance (Jost & Hunyady, 2002), even if the judgment dimension is not related to the expertise legitimating the role attribution, as is the case here.

As predicted, answerers and observers were more prone to, and the questioners fell prey to, the fundamental attribution error when power asymmetry was superposed to the role structure, that is when power was conferred to the questioner. Power led participants to neglect even more the role constraints resulting in the questioner being perceived as much more knowledgeable than the answerer. This finding is consistent with previous literature indicating that power influences social perception (Goodwin, Gubin, Fiske, & Yzerbyt, 2000; Gwinn et al., 2013). Power-holders tend to attribute to the powerless negative characteristics in work-interpersonal contexts (Kipnis, 1972) and negative stereotypes in intergroup settings (Fiske, 1993). Our work extends this research by demonstrating that power by itself can impact social perception even when no a priori knowledge (e.g., occupational status or stereotype) about the actors is available. Indeed by increasing social distance between members of a dyad (Magee & Smith, 2013), differences in levels of power lead people to draw higher dissimilarities in ability to account for differences in performances actually ascribable to social roles. Empowered questioners are motivated to positively distance themselves from contestants and then overestimate the difference in general knowledge between them. Whereas this overestimation in general knowledge difference could be ascribable among low-power contestants to a detrimental upward comparison (Johnson & Lammers, 2012) with their questioners.

Finally, the current studies indicate that conditions corresponding to existing social hierarchies, where power matches a legitimated role structure (Russell & Fiske, 2010), lead people to draw the higher correspondence between ability and role-constrained behavior. In society, roles are usually legitimated by expertise and come with power differentials. Actually, power and legitimation are rarely dissociated. High status roles (e.g., parent, teacher, manager) are mostly legitimated by a greater expertise in the domain of interest and confer power over low status roles. Our research reveals that under these conditions people are more likely to locate in actors’ ability the cause of their role-elicited behaviors. These results support the socio-structural approach (Fiske, 2010; Fiske et al., 2002) arguing that social role-elicited behaviors in intergroup contexts are explained in terms of personality traits of the group members (Yzerbyt, Rogier, & Fiske, 1998). The behavior differences between subordinates and superiors (Kipnis, 1972), women and men (Bosak, Scesny, & Eagly, 2011; Eagly & Steffen, 1984; Eagly & Wood, 1999), which mainly lie in the differing placement of individuals in the social structure, are perceived as reflecting deep ability differences. Hence, individuals are seen as the root cause of role-differentiated behavior. By interpreting behaviors elicited by social roles in terms of abilities, instead of unequal social opportunities, people hence rationalize the distribution of social roles and positions (Haines & Jost, 2000; Jost & Hunyady, 2002).

**Limitations**

The present research has several limitations. First, Ross et al. (1977) found that female questioners asked harder questions than male questioners, leading female answerers to be more prey than males to the attribution error. In Study 1, the small number of male participants (N = 29, 18.12%) precluded the possibility of taking gender into account in analyses. Future research should then clarify whether legitimization and power have similar effects on the fundamental attribution error among women and men.

Second, power was manipulated by allowing the questioner to control answerer’s monetary outcome (see Berdahl & Martorana, 2006; Kunstman & Maner, 2010; Rucker & Galinsky, 2009). This should be perceived as less natural and less akin to the questioner – answerer
paradigm than strong control over the task (see Dépret & Fiske, 1999). Hence, future research should manipulate power as control over the answerer’s task, for example by having her decide how many questions should be asked or how much time is available to the answerer to respond. Such an operational choice would test the generality of the effects observed here with another operationalization of power. In addition, because choosing the questions by itself could be assimilated to power, one could argue that some form of power is already embedded in the roles afforded in the present research. Yet previous research has already shown that choosing the questions is not sufficient to lead the questioner to draw correspondence between role-elicited behavior and ability (Ross et al., 1977). In addition being in the position to decide how to allocate monetary reward (i.e., our power manipulation) was enough to elicit the fundamental attribution error (see Study 1). Therefore, although we cannot preclude that some power is already embedded in the questioner role, we believe that it is unlikely that such eventuality accounts for the effects reported in the present paper.

Third, future research should investigate variables that could mediate the effect of social power on the fundamental attribution error. As stressed above, social power facilitates verbal and non-verbal behaviors (Hall et al., 2005) that could be interpreted as higher self-confidence. This inference of higher self-confidence could in turn influence the general knowledge judgment. Study 2 conducted with observers reading a transcript indicated that information about powerful and powerless agents’ verbal and non-verbal behaviors is not necessary to observe an increase in the fundamental attribution error. It is nevertheless important to assess whether these behavioral effects of power could influence actors’ judgments. Similarly, it should also be interesting to consider transient mood as a potential mediator of the effect of power on the fundamental attribution error. Indeed, induced or invoked positive rather than negative mood leads observers to infer more corresponding attitudes when explaining an actor’s coerced essay (Forgas, 1998). Because elevation in power orients people toward a more positive mood (Berdahl & Martorana, 2006; Langner & Keltner, 2008), it could be responsible for the proneness of the empowered questioners to translate role-constrained behavior in ability differences observed in Study 1. By contrast, empowering questions should have induced negative mood among answerers who should have been less prone to fundamental attribution error. That was not the case. To tap more precisely whether mood mediates the effect of power on fundamental attribution error, future research is needed.

Finally, we contrasted here a legitimated condition, where roles were assigned according to a test allegedly linked to writing speed, to a non-legitimated condition, where roles were explicitly randomly assigned, as it was the case in Ross et al.’s study. An interesting venue for future research will be to examine the impact of an illegitimately attributed power, for example when power is conferred to the actor with the worst performance. Previous research suggests that holding an illegitimate power position reinforces stereotyping in impression formation (Rodríguez-Bailón, Moya, & Yzerbyt, 2000). Whether illegitimately (Hays & Goldstein, 2015) in role assignment could be a boundary condition to the moderation of the fundamental attribution error by power therefore deserves attention.

**Concluding Comments**

In 1977 Ross et al. demonstrated that disadvantaged actors and observers neglect the advantages and disadvantages provided by social roles in their explanation of behavior. These authors speculated that power asymmetry, which is an important aspect of the role structure, could increase this distorted perception in social judgment. More than 30 years later, our results derived from extended replications of this classical paradigm prove their intuitions right! Both advantaged and disadvantaged actors, as well as observers, draw the highest correspondence between role-constrained behaviors and ability when power matched a legitimated role structure.

**Acknowledgements**

The authors would like to thank Lee D. Ross for his comments and remarks on an earlier version of this manuscript.

**Supporting Information**

Additional supporting information may be found in the online version of this article at the publisher’s web-site.

**References**


Social Psychology, 36, 479–496. [10.1002/ejsp.353]