Rational model and justification model in 'outcome bias'

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Abstract

The authors of this study suggest that the harm-punishment link ('outcome bias') can be explained by the activation of different judgment processes depending on the outcome severity of an offense: (1) a rational model for mild outcomes in which punishment is necessarily linked to responsibility of the perpetrator; (2) a justification model for severe outcomes in which punishment and responsibility are linked only when assessment order allows the latter to rationalize the former. Participants (126 university students) considered an unintentional road accident with mild or severe outcomes and made judgments of responsibility, punishment, and perceived seriousness of the offense. The results support the authors' hypothesis. In the discussion, the authors suggest different motives of punishment (preventive or compensative justice) which explain why responsibility and punishment are not necessarily linked. Copyright © 2006 John Wiley & Sons, Ltd.

The aim of this article is to examine the links between responsibility and punishment in the case of reprehensible actions leading to objective outcomes of greater or lesser severity. It attempts to demonstrate that according to the severity of the consequences of an offense, two types of judgment models are activated: a rational model in cases of mild outcomes and a justification model in cases of severe outcomes.

In a *rational model*, the attribution of punishment to the perpetrator of an offense is the result of a series of decision stages (Fincham & Jaspars, 1980; Shaver, 1985; Weiner, 1995). In this model, the first stage is to verify the causal link between the offense and the noted effects. Second, the motive of the perpetrator is evaluated in order to establish his or her degree of responsibility. Finally, punishment is attributed according to the degree of responsibility. In this perspective, the *a priori* contributions of the perpetrator (causality and intentionality) should direct the judgment of responsibility and the attribution of punishment, and this evaluation should not be influenced by the *a posteriori* involuntary or unforeseen outcomes of the action.

Certain influential factors cannot be well integrated into this rational schema, notably the 'outcome bias effect.' This bias, which different studies have confirmed (Burger, 1981; Mazzocco, Alicke, & Davis, 2004;

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Tostain & Lebreuilly, 2005), increases judgments of responsibility, blame or punishment in accordance with outcome severity, even for offenses with unintentional consequences. For example, the punishment would be greater for a motorist who, as a result of an accident, inadvertently caused someone serious injuries, than for one who caused mild injuries only. Robbennolt (2000) found, in her meta-analysis on 'outcome bias,' that outcome severity is more correlated with punishment ($r=0.29$) than with blame ($r=0.17$) or responsibility ($r=0.08$). Previously, researchers have advanced cognitive (Baron & Hershey, 1988; Brewer, 1977) and motivational (Shaver, 1970; Walster, 1966) interpretations of this phenomenon. Recently, in an approach somewhat similar to Lerner's (1980, 1998), Alicke (Alicke, 2000; Alicke, Davis, & Pezzo, 1994) proposed a *justification model* to account for this bias. This author suggests that actions which cause serious harm to the victims are perceived as unjust, provoke affective reactions and bring about a desire to attribute blame or punishment in order to restore a sense of justice. In this framework, individuals rationalize the punishment by attributing greater responsibility to the perpetrator. The point that should be retained is that, in this analysis, the punishment may determine the degree of responsibility rather than vice versa. This interpretation is in accordance with Fauconnet's (1920) analyses which were situated in Durkheim's (1893) social paradigm. Fauconnet suggested that when reprehensible acts are not severe, individuals follow a rational approach in which punishment is a function of a prior psychological analysis of the incriminated person's degree of responsibility. On the other hand, when offenses are serious (because they carry grave objective consequences for the victims) and/or are the object of a strong social reprobation (because they are committed by socially stigmatized persons), the will to punish is central. In this case, the author specifies that punishment is quick and may be accomplished, initially, without taking into account the degree of responsibility. It is not until afterwards, and in order to legitimate the punishment, that individuals attribute to the perpetrator a degree of responsibility which has been adjusted to fit the punishment.

Research supports this point of view. In the study of moral judgment, Haidt (Haidt, 2001; Haidt, Koller, & Dias, 1993) shows that when the facts presented to the participants provoke strong moral emotion and reprobation, the need for blame is predominant and the punishment process can be relatively automatic. This author suggests that, in such cases, individuals mobilize *post-hoc* reasoning in order to justify their initial will to punish. In the same way, Tetlock (Rucker, Polifroni, Tetlock, & Scott, 2004; Tetlock, 2002) indicates that when crimes are severe (with victims) and threaten the social order, the rational judgment process is altered by the activation of a prosecutorial mind-set and the need for blame becomes central. One may also cite the research of Oberlé and Gosling (2004). By manipulating the order of the punishment/responsibility evaluation tasks, these authors bring to light judgment processes which proceed as predicted by Fauconnet: initial independence between responsibility and punishment and subsequent links. In their research, they manipulated the social status of the perpetrator. They presented a reprehensible act committed either by individuals who were the object of strong social reprobation (Skinheads), or by individuals who were not negatively stereotyped. Half the participants estimated the degree of responsibility before attributing punishment (normal order), and half attributed punishment before estimating responsibility (reverse order). They found that, when the target was not negatively stereotyped, the order of evaluation had no effect: punishment and responsibility were always correlated no matter which was evaluated first. This fits with a rational model, which postulates a necessary link between responsibility and punishment. However, when Skinheads were the target of judgment, order played a role: (1) when responsibility was evaluated first, there was no significant correlation between it and punishment (thus, punishment was independent and not a function of responsibility); (2) when responsibility was evaluated second (permitting a rationalization of the punishment), punishment and responsibility were correlated. These results, in case of Skinheads, follow the orientation of a justification model. Besides, Oberlé and Gosling noted that, regardless of the social status of the targets, attributing punishment first (reverse order), in other words focusing on punishment, induces an increase in punishment and responsibility scores. However, as the authors were interested in the social status of the targets, the severity of the act

was not manipulated in their research. One might postulate that, as Alicke (2000) suggested for outcome bias, the harm caused by an offense could provoke this same will to punish and thus produce similar experimental results. Certain results from a very recent work by Oswald, Orth, Aeberhard, and Schneider (2005) follow this hypothesis. In their research, in which they varied the degree of objective consequences (rape or attempted rape), they showed through responsibility–punishment assessment (normal order), that punishment was very weakly correlated with responsibility. This leads them to suggest that the purported link between the degree of harm and punitive reaction is virtually not mediated by responsibility. On the other hand, their research reveals that punishment is strongly influenced by the perceived seriousness of the offense.

The research of Oswald et al. (2005) suggests that in case of severe outcomes, when responsibility is presented first (normal order), there is not necessarily a link between responsibility and punishment. This conforms with Fauconnet's (1920) analyses and the results obtained by Oberlé and Gosling (2004) for stigmatized targets, in normal order, when a justification model is activated (where punishment is initially independent and not function of responsibility). One should now examine what happens when responsibility is evaluated after punishment. In the reverse order condition, if, as indicated by Alicke (2000), a justification model is activated for severe outcomes, responsibility should be linked to punishment, because this situation provides participants the possibility to use responsibility to justify punishment, after the fact. We will try to test this hypothesis. In this framework, our research aims at showing two different judgment processes according to the severity of objective outcomes: a rational model in cases of mild outcomes and a justification model in cases of severe outcomes. To display these two judgment processes, we manipulated the order assessment: normal order (responsibility first–punishment last) or reverse order (punishment first–responsibility last). We want to demonstrate that, in cases of *mild outcomes*, individuals follow the usual rational model where responsibility is central and where punishment is a function of responsibility. In other words, responsibility and punishment are expected to be related no matter what the order of the tasks is. Next, we suggest, in cases of *severe outcomes*, the presence of a justification model. When severe consequences follow, the need to punish is activated directly and punishment is not based on perceived responsibility but rather on perceived severity of outcome. Thus, we predict a relative independence between responsibility and punishment when responsibility is assessed before punishment (normal order). Besides, according to the justification hypothesis, punishment may be used to assess responsibility when individuals already have arrived at a judgment of punishment, which is the case in the reverse order condition. This order is a way to rationalize punishment by attributing responsibility according to punishment. Therefore, for severe outcomes, punishment, and responsibility are expected to be linked in the reverse order condition.

From a statistical point of view, we expect an interaction effect between outcome severity and assessment order regarding the correlational pattern between responsibility and punishment. Moreover, in their research, Oberlé and Gosling (2004) noted that, regardless of the social status of the targets, the reverse order condition (attributing punishment first) induces an increase in responsibility and punishment scores. We will examine if we have a similar effect of assessment order with our specific manipulation: do responsibility and punishment increase in the reverse order condition, regardless of the outcome severity?

METHOD

Participants and Design

Participants were 126 undergraduate students in Law (61 female and 65 male) from a University situated in a mid-sized city in the west of France (200 000 inhabitants). The experiment was presented as

a study on social judgment. Participants were randomly assigned to one cell of a 2 (outcome severity: mild, severe) $\times$ 2 (assessment order: responsibility first, punishment first) between-subjects factorial design. Participants started by reading a story about what was supposed to have been an actual event. The scenario described an unintentional road accident.

Scenario and Independent Variables

'This incident involves a man in his 40s who, for the sake of anonymity, will be referred to as Mr. A. After a long, difficult day at the office (he had to work overtime), Mr. A started to drive home. He was tired and could not wait to get home. It was summer-time, and it was still broad daylight. On reaching the motorway, Mr. A started doing 100 mph. A little farther down the road, on the top of a hill just before the descent, a car B started to break down, its engine misfiring and its speed dropping to 45 mph. There were three occupants inside this car B, namely the driver and two men all on the way to a leisure center. Mr. A was bending forward in order to put a CD inside the player. When he reached the top of the hill, he looked up and saw the car B; but too late. He attempted to slam on the brakes but car B was too near. He crashed into it.'

Outcome Severity Following 'He crashed into it,' two possible outcomes were proposed: a *mild outcome version*: '... The two men and both drivers of cars A and B were slightly bruised' and a *severe outcome version*: '... The two men were killed instantly. Drivers A and B were slightly bruised.'

Assessment Order Participants had to estimate the responsibility of driver A and attribute punishment to him. Half the participants completed the punishment assessment first.

Dependent Variables

After reading the story, the participants were informed that they had to proceed with an evaluation. Participants made 7-point scale ratings (Likert's scale) of: (1) the responsibility of driver A ('To what extent is he responsible for the accident?') on a scale ranging from 1 (not at all responsible) to 7 (extremely responsible); (2) the punishment for driver A on a scale from 1 (not at all severe) to 7 (extremely severe). Finally, to check our manipulation of outcome severity, the participants had to evaluate the seriousness of the offense on a scale ranging from 1 (not at all serious) to 7 (extremely serious).

The assessments were completed on three separate sheets of paper. At the end of each evaluation, the form was removed and a new one distributed for the participants to use for the next evaluation. Participants' gender was not taken into consideration because no main effect or interaction effects in this variable were noticed.

RESULTS

Analysis of Variance

We conducted a two-way analysis of variance (ANOVA) for each dependent variable with outcome severity (2) and assessment order (2) as independent variables.

Manipulation Check for Outcome Severity: Perceived Seriousness of the Offense

In accordance with our manipulation, there was a significant main effect of outcome severity ($F(1, 122) = 154.48, p < 0.0001$): perceived seriousness scores were higher in the severe outcome condition ($M = 5.58$) than in the mild outcome condition ($M = 3.79$). There was also a significant main effect of assessment order ($F(1, 122) = 40.27, p < 0.001$): perceived seriousness scores were higher in punishment first ($M = 5.12$) than in responsibility first ($M = 4.22$). There was a significant two-way interaction effect ($F(1, 122) = 6.99, p < 0.009$): the difference in perceived seriousness scores between responsibility first and punishment first were greater in the severe outcome condition ($M_{resp. first} = 4.93$; $M_{punishment first} = 6.22$. Newman-Keuls test: *post-hoc* < 0.001) than in the mild outcome condition ($M_{resp. first} = 3.53$; $M_{punish. first} = 4.06$. *post-hoc* < 0.04).

Responsibility

There were significant main effects of outcome severity ($F(1, 122) = 32.33, p < 0.001$) and assessment order ($F(1, 122) = 7.53, p < 0.006$). The driver was judged more responsible: (1) for the severe outcome ($M = 5.94$) than for the mild outcome condition ($M = 4.93$); (2) in punishment first ($M = 5.67$) than in responsibility first ($M = 5.19$). There was a significant two-way interaction effect ($F(1, 122) = 4.10, p < 0.044$). Post-hoc analysis revealed that, in the mild outcome condition, the degree of responsibility was the same whether responsibility was evaluated first or second ($M_{responsibility first} = 4.87$; $M_{resp. second} = 5.00$. *post-hoc* $< 0.61.ns$). On the other hand, in the severe outcome condition, the degree of responsibility was greater when punishment was evaluated first ($M = 6.35$) than when it was evaluated second ($M = 5.51$. *post-hoc* < 0.007).

Punishment

There were significant main effects of outcome severity ($F(1, 122) = 79.78, p < 0.0001$) and assessment order ($F(1, 122) = 17.18, p < 0.001$). The driver was punished more: (1) for the severe outcome ($M = 3.95$) than for the mild outcome ($M = 2.64$); (2) in punishment first ($M = 3.58$) than in responsibility first ($M = 2.98$). There was a significant two-way interaction effect ($F(1, 122) = 4.96, p < 0.027$): in the mild outcome condition, there was no order effect ($M_{resp. first} = 2.5$; $M_{resp. second} = 2.78$. *post-hoc* $< 0.17.ns$). However, in the severe outcome condition, punishment was more severe when punishment was assessed first ($M = 4.41$) than when it was assessed last ($M = 3.48$. *post-hoc* < 0.001).

Multiple Regression Analysis

Following our hypothesis, a rational model is activated for mild outcomes in which responsibility is necessarily linked to punishment, no matter what the order of the tasks is; a justification model is activated for severe outcomes in which responsibility and punishment are linked only in the reverse order, when assessment order allows the former to rationalize the latter. From a statistical point of view, we expect an interaction effect between outcome severity and assessment order regarding the correlational pattern between responsibility and punishment. To test this hypothesis, we conducted a three-way regression analysis with, as predictors, two independent categorical variables, outcome severity and assessment order (dummy coded), and the continuous variable responsibility

(mean-centered), and, as the dependent variable, punishment (Aiken & West, 1991). If our hypothesis is correct, the three-way interaction effect between outcome severity, assessment order, and responsibility attribution on punishment should be significant.

The multiple regression analysis revealed that outcome severity ($\beta = +0.40$, $p < 0.00002$), assessment order ($\beta = +0.19$, $p < 0.01$), and responsibility ($\beta = +0.24$, $p < 0.0002$) significantly contributed to the prediction of punishment. There were no significant two-way interaction effects (outcome severity $\times$ assessment order: $\beta = +0.03$, $p < 0.66.ns$; outcome severity $\times$ responsibility: $\beta = +0.07$, $p < 0.34.ns$; assessment order $\times$ responsibility: $\beta = +0.13$, $p < 0.07.ns$). In accordance with our hypothesis, there was a significant three-way interaction effect between outcome severity, assessment order, and responsibility attribution on punishment: $\beta = +0.18$, $p < 0.03$. The amount of variance explained was 53%.

To examine this three-way interaction effect, we calculated the two-way interaction between assessment order and responsibility attribution on punishment for each outcome severity condition separately (Brauer, 2002). The first regression equation, in the mild outcome condition, was not significant ($\beta = +0.11$, $p < 0.28.ns$). As predicted, it suggests that, in the mild outcome condition, assessment order had no effect on the link between responsibility and punishment. However, in the severe outcome condition, the second regression equation was significant ($\beta = +0.31$, $p < 0.01$). Accordingly, as expected, it suggests that, in the severe outcome condition, the link between responsibility and punishment varies with assessment order.

To verify that these different interactions conform to our predictions, we calculated four regression equations (with responsibility as predictor and punishment as dependent variable), which correspond to the four experimental conditions (2×2 design between outcome severity and assessment order). The results conform to our hypothesis. For mild outcomes, responsibility and punishment are clearly linked, regardless of assessment order: responsibility contributed to the prediction of punishment when assessed first ($\beta = +0.38$, $p < 0.03$) or last ($\beta = +0.39$, $p < 0.02$). However, for severe outcomes, the link varies with assessment order: (1) there was no significant link between responsibility and punishment when responsibility was asked first: in this normal order, punishment did not depend on responsibility ($\beta = +0.17$, $p < 0.17.ns$); (2) the two factors were linked when responsibility was evaluated last (reverse order), that is when responsibility could justify punishment ($\beta = +0.43$, $p < 0.01$).

DISCUSSION

If we refer to the main results, we first note that the reverse order condition (punishment first) induces an increase in responsibility scores, the perceived seriousness of the offense, and the severity of the punishment (especially in case of severe outcomes). These results replicate those of Oberlé and Gosling (2004). We cannot really account for this phenomenon. It may be due to the fact that, by focusing on sanction, the reverse order condition draws attention to the seriousness of the offense, responsibility, and punishment. One can also notice the classical outcome bias effect: the punishment is related to the severity of the objective consequences. This indicates that will to punish is greater in case of severe outcomes. In addition, we remark an interaction effect between outcome severity and assessment order regarding the correlational pattern between responsibility and punishment. Conforming to our hypothesis, in the case of mild outcomes, the data are in accord with *the rational model*, the relation between responsibility and sanction always being present no matter what the order of the evaluations. In the case of severe outcomes, order does play a role: (1) when the responsibility is asked first (normal order), there is no significant relation between responsibility and punishment, which is similar to the

results of Oswald et al. (2005); (2) when punishment is asked first (reverse order), there is a relation between the two: thus, it seems, in cases of severe outcomes, that responsibility serves as a rationalization of punishment. This conforms to Alicke's (2000) *justification model*.

Our results show that participants were sensitive to objective outcomes bias and that no link between responsibility and punishment attribution necessarily appear in case of severe outcomes. This does not indicate that individuals necessarily adopt a non-rational approach. On the one hand, regarding outcome bias, we should mention here that the legal system is sensitive to this objective dimension of acts as well. Indeed, for the same intentionality, acts are punished more in case of more harmful outcomes. A voluntary manslaughter is punished more harshly than an attempted murder. Therefore, coming from the idea that law constitutes an extension of individual's sense of justice, this example shows that it does not seem abnormal to vary responsibility and punishment levels according to objective outcomes. On the other hand, discovering the absence of significant links between responsibility and punishment can appear non-rational in the frame of modern subjective law, the latter taking into consideration responsibility to determine sanction (Villey, 2003). It would be the case indeed, if sanction were only guided by assessment of the perpetrator's motives. Yet, we really must note that if sanction is aimed at the perpetrator and is in keeping with a retributive or just desert perspective (punishing the one who did harm, according to his responsibility and the seriousness of the harm done), it also comes up to other purposes, which are beyond the harmdoer (Garapon, Gros, & Pech, 2001). Sanction also serves utilitarian or preventive purposes (Vidmar & Miller, 1980), by discouraging recidivism (specific deterrence) or by dissuading others from committing the same offense (general deterrence). Moreover, sanction takes the victims into account (Oswald et al., 2005), namely, sanction may be a way to acknowledge their suffering (compensative justice). As Fincham and Roberts (1985) note, although sanction is aimed at the harmdoer and is past oriented (the analysis of responsibility thus holding a central position), it concerns the victim equally and has a future-oriented dimension (its function being to help the victims or their families to get beyond their hurt). Thus, it is little wonder that links between judgments of responsibility and punishment attribution are low, especially in case of severe outcomes for the victims.

To conclude, it is important to confirm these results, notably with other populations than that considered in this study (French law students). In addition, it would be informative to study to what degree motives for punishment (retributive, preventive, rehabilitative or compensative) affect the links between responsibility and punishment (Carlsmith, Darley, & Robinson, 2002; Darley, Carlsmith, & Robinson, 2000; Darley & Pitman, 2003; De Keijser, Van Der Leeden, & Jackson, 2002; Weiner, Graham, & Reyna, 1997). Finally, as certain research indicate, it would be useful to clarify the impact of the moral emotions experienced (Golberg, Lerner, & Tetlock, 1999; Lerner, Golberg, & Tetlock, 1998) on the responsibility–punishment relation.

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