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Being responsible versus acting responsibly: Effects of agency and risk taking on responsibility judgmentsGRO HEGE HARALDSEN NORDBYE¹ and KARL HALVOR TEIGEN^{1,2}¹*Department of Psychology, University of Oslo, Norway*²*Simula Research Laboratory, Oslo, Norway*

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In three experimental studies, with managers and students as participants, we explore in this paper the relation between two kinds of responsibility judgments, called Responsibility 1 (R1) and Responsibility 2 (R2). Decision makers can be viewed as being more or less responsible for their choice and its consequences (R1). Their actions can also be evaluated, from a normative point of view, as instances of more or less responsible behavior (R2). Experiment 1 showed that managers who depart from the default or “normal” course of action, by choosing a new (versus familiar) alternative, changing (versus sticking to) an initial decision, or going against (versus following) the advice of a management team, are rated as more responsible (R1) for the outcomes of their decision. At the same time, they are perceived to *act* in a less responsible way (R2). Experiment 2 compared decision makers choosing between more or less risky options. High risk takers were held more responsible (R1) for their choice and for its consequences, but were again viewed as behaving in a less responsible way (R2) than low risk takers. In Experiment 3, participants judged decision makers who followed or opposed others’ advice by choosing either a high or a low risk option. Opposing others’ advice led to higher R1 and lower R2 scores, especially when choosing the high risk option, moderated by outcome (successful decisions appearing more responsible than those that went wrong). Thus R1 and R2 judgments should be distinguished as having different and sometimes even opposite determinants.

Key words: Decision making, responsibility, risk, agency, outcome bias.

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INTRODUCTION

Responsibility is a concept with multiple meanings, which have been extensively explored and debated in several literatures, from psychology (e.g., Alicke, 2000; Shaver, 1985) to moral philosophy (e.g., Fischer & Ravizza, 1998) and law (e.g., Hart, 2008; Moore, 2009). Responsibility is also a term frequently used and discussed in daily language, mirroring some if not all of the distinctions identified in legal and philosophical discourse. The purpose of the present paper is to highlight lay people’s perceptions of one such distinction, namely judgments of an actor’s responsibility for the outcome of a decision, on the one hand, and evaluations of how “responsible” these decisions are, on the other. We argue that despite the terminological and conceptual similarity between (1) “being responsible” for something and (2) “acting responsibly,” these two concepts are not identical and are also intuitively discriminated by lay people, as manifested in divergent patterns of evaluation. We are not aware of any previous studies where people’s intuitions about these two concepts have been empirically compared.

Consider the statement “P is responsible.” This could mean that P has done or achieved something for which he is morally accountable, can be blamed or praised for, or at least has been causally involved in bringing about. However, “P is responsible” could also mean that P can be trusted to behave in a decent and reliable way. If P has committed a crime, he may be deemed responsible in the first, but not in the second of these two senses. A law-abiding citizen may be deemed more responsible in the second sense, but is perhaps less causally responsible if

simply following prescribed rules. A parallel distinction is found in Cane’s (2002) claim that responsibility can be judged either in *retrospect* for actions or outcomes that are past and done, or *prospectively* concerning duties and obligations for future events, where “responsible” people perform acts dictated by moral and social considerations. In legal discussions of liability, retrospective (“historic”) responsibility has played a primary role, but Cane argues that historic responsibility is not an end in itself, but only a means to the various ends that can be furthered by creating and imposing prospective responsibilities. To be responsible for an outcome and to act responsibly may still be linked in the sense that a responsible person is prepared to accept the consequences of his or her actions, and thus acts in accordance with *anticipated* judgments of responsibility, rather than just be blamed or praised after the fact.

The terminological and conceptual similarity of these two concepts can lead to apparently paradoxical findings. For instance, Kirkebøen and Nordbye (2013) showed that decision makers who made their choices based on intuitions and gut feelings were regarded as having more responsibility for their decisions than those that arrived at their decisions according to a more deliberate and analytical approach, presumably because intuitive choices appear to involve more personal agency than following a standard procedure.

On the other hand, when the concepts *analysis* and *intuition* were rated on bipolar scales running from “irresponsible” to “responsible,” *analysis* was placed close to the responsible pole, with *intuition* being viewed as much less responsible (unpublished data, Nordbye, 2012).

Ratings of the responsibility or irresponsibility of actions, that is, the degree to which a decision maker has acted responsibly, are more tied to expectations and duties associated with *role responsibility* (Hamilton & Hagiwara, 1992; Hart, 2008; Vincent, 2011). It appears that “responsible” decision makers are assumed to act in accordance with socially shared and approved standards for behavior, in line with the requirements associated with “accountable” actors (Lerner & Tetlock, 1999), rather than acting according to a personal whim, or on the spur of the moment. For instance, decision makers who act without due considerations of potential harmful consequences will not be regarded as behaving in a completely responsible way. But irresponsible actors can still be *held* responsible; in fact one might argue that a decision maker should be held (and also feel) especially responsible for making an irresponsible choice.

Disputes about the relationship between acting responsibly and outcome responsibility are frequent in public and legal debates in the wake of accidents. To take one example: a young man in Oslo was recently charged with manslaughter after a bicycle accident. He ran into another biker, a woman, who swerved into the roadway and was run over and killed by a bus. The trial ended with a sentence for reckless biking on the sidewalk, whereas he was acquitted for manslaughter since he had not directly caused the woman’s death. The police authorities felt that the biker’s irresponsible behavior made him in fact partly responsible for her death, whereas the court concluded that he was only responsible for his recklessness and not for its unintended consequences (Krokfjord, 2013).

A failure to distinguish the two concepts can be observed in responsibility ratings of ambiguous scenarios (Hagiwara, 1992), and also among researchers, even moral philosophers discussing responsibility. In a critical review of a book on freedom and reason, Anderson (1995) argues that its author (Wolf, 1990) has confused “being morally responsible for an action” with “acting responsibly or irresponsibly.” According to Anderson, the author claims to present a theory of the former concept, but has instead produced an analysis of the latter.

To avoid further confusion, responsibility ratings that are intended to show how responsible actors are supposed to be for a decision, and the outcome of this decision, will in the present paper be labeled judgments of Responsibility 1 (R1). This is in itself a multi-faceted concept, covering causal as well as moral responsibility, both of which can manifest itself as hypothetical judgments of feelings (“who will feel more responsible”), or as “objective,” external judgments (“who will be held more responsible”). In the present studies, we will not make any distinctions within this group of related interpretations, which in the present context lead to similar responsibility ratings.

In contrast, ratings of the responsibility or irresponsibility of actions, that is, the degree to which an actor has acted responsibly, or behaved in a responsible way, will in the present paper be labeled Responsibility 2 (R2). Such responsibility is inextricably connected to the decision-makers’ roles or duties, an aspect of responsibility that has often been neglected in social psychological research (Hamilton & Hagiwara, 1992). In principle, Responsibility 2 could be assessed independent of outcome, but may in practice be influenced by outcome knowledge, in parallel

fashion to other evaluations of decision quality (Baron & Hershey, 1988; Mazzocco, Alicke & Davis, 2004).

Responsibility judgments can be made both in a context of negative and positive events. In the case of unsuccessful outcomes (untoward events), responsibility assessments can be described as blame assignments for negative outcomes (Blame 1), or blameworthiness for the action itself (Blame 2). Similarly, actors can be awarded more or less credit for a positive outcome of their decisions (Credit 1), or receive more or less praise for having acted in a laudable or praiseworthy way (Credit 2).

Decision makers are judged to be responsible for the outcome of their decisions (R1), to the extent that they can be said to have *caused* it, could have *foreseen* the consequences and could have *acted otherwise* (Fischer & Ravizza, 1998; Heider, 1958; Shaver, 1985; Weiner, 1995). It follows that some decisions involve more responsibility than others, depending upon the magnitude of the actor’s causal contribution, the predictability of outcomes, and the existence of other action alternatives. In other words, responsibility depends on *agency* on the part of the decision maker.

How responsible are actors for decisions involving risk? Outcomes of a risky decision are, by definition, not completely controllable or foreseeable by the decision maker, apparently reducing agency and making the actor *less* responsible (Leonhardt, Keller & Pechmann, 2011). Similarly, people object to the use of a randomizer to decide between important alternatives (Keren & Teigen, 2010), partly because they feel that introducing chance takes away the decision maker’s responsibility. At the same time, the intentional choice of a risky option may in itself be regarded as requiring a higher degree of boldness and commitment than going along with a more conventional and “safe” option. In this sense, risk taking suggests a higher rather than a lower level of agency. Thus risky choices can make people appear more rather than less responsible in the R1 sense. A further subdivision of this concept into (a) decision responsibility and (b) outcome responsibility might show that risky choices involve especially high decision responsibility. This might influence overall responsibility judgments even in cases where outcomes are not strictly under the decision maker’s control.

Yet, even if decision makers are judged to be responsible for a risky or nonconventional choice (R1), these choices do not have to appear “responsible” (R2). We claim in this paper that people will consider actors to behave responsibly when their choices are designed to conform to moral and social concerns. This includes that decision makers should not expose others (or themselves) to potential adversities, whenever avoidable, and stay away from actions that could incur blame. Thus, the distinction between being responsible and acting responsibly is in some ways analogous to the distinction in social cognition between agency (competence) and communion (morality) (Abele & Wojciszke, 2007; Fiske, Cuddy & Glick, 2007), also known as “the big two” in trait theory (Digman, 1997). This distinction has mostly been applied to issues of person perception, but appears central for judgments of responsibility as well.

The object of the present study is to demonstrate that Responsibility 1 and Responsibility 2 are perceived to be two qualitatively different aspects of the concept of being responsible, and

to explore their relationship to agency and risk. We compare ratings of R1 and R2 directly by asking participants to evaluate how responsible a decision maker is (or is supposed to feel) for a particular decision or outcome (R1), and also whether he or she can be regarded as acting in a responsible way (R2) in the same situation. Specifically we examine in Experiment 1 the effects of choosing an active approach, where the decision makers in four different situations appear to take deliberate action, by going against their advisors, reversing their original decisions, choosing a novel approach, or intervening in a group conflict, rather than following the “default,” status quo alternative. As the active choice is often regarded as more risky, we compare in the next experiment R1 and R2 judgments of decision makers choosing between safer and more risky options. Observe that we do not assume that one of these decisions is more rational than the other, as their expected utility may be the same. We predict in both experiments that R1 and R2 judgments will differ and even show an opposite pattern, for instance an actor trying to minimize risk may be viewed as acting more responsibly (R2) than a risk taker, whereas the risk taker can be regarded as especially responsible (R1) for his or her choices. Finally, in Experiment 3, we investigate R1 and R2 judgments in a situation that both involve high and low risk and high and low agency (following versus going against an advisory group), to examine the combined effect of both factors.

EXPERIMENT 1

In personal as well as professional decision making is often possible to identify one “normal” or well-established course of action, which may be regarded as the default alternative. According to Kahneman and Miller’s (1986) norm theory, people tend to regard abnormal (exceptional) actions as more “mutable” than behaviors that are consistent with the norm. For instance, it is commonly regarded as more normative or usual to maintain the status quo (Samuelson & Zeckhauser, 1988); it is accordingly more natural to ask why people depart from their routine behaviors than why they behave as usual, and if the outcome is negative, actors will be judged more harshly (and are believed to regret their choice more strongly) in the first case than in the second (Inman & Zeelenberg, 2002; Miller & McFarland, 1986). The existence of an inaction bias (Kahneman & Tversky, 1982) further suggests that unsuccessful actions can inspire more blame and more regret than equally unsuccessful inactions. The omission bias literature (Baron & Ritov, 1995, 2004) has demonstrated a similar asymmetry between omissions and commissions, suggesting that harm resulting from active interventions is considered more serious than harm arising from taking a more passive stance. However, questions have been raised about the generality of this phenomenon, suggesting that the opposite bias sometimes exists, particularly in domains where active interventions appear to be the norm (Patt & Zeckhauser, 2000; Tanner & Medin, 2004). For instance, a football coach who fails to change a losing team will be blamed more severely than a coach who loses after introducing changes (Zeelenberg, van den Bos, van Dijk & Pieters, 2002). Thus the “norm” of preserving the status quo may be offset by role norms requiring decisiveness and active interventions.

The purpose of the present experiment was to examine responsibility judgments for decision makers who are facing a choice between the normal, “default” course of action and a more active and effortful alternative. In line with prior research (for a review, see Anderson, 2003) we predict that decision makers who abandon the “default” will be seen as more responsible, both for negative and positive outcomes, for several reasons. They will be regarded as independent causal agents, as their choices will stand out as more autonomous and purposeful, and cannot be attributed simply to a lack of agency or adherence to conventions. Their actions are also more readily “mentally mutated,” as it becomes obvious that they had freedom of choice and could have acted otherwise. Finally, by acting in a less conventional way, they may also appear to expose themselves more to risk, entering an uncharted territory with perhaps a higher potential both for losses and for gains.

In the introduction, we distinguished between being causally and morally responsible for an outcome (R1) and acting in a morally responsible way (R2). We predict that active decision makers will be held more responsible for the outcomes than those who take a more passive stance, as outlined above. Yet we suspect that their *behavior* may appear less responsible, to the extent that they are not playing by the (explicit or implicit) rules, and may be exposing not only themselves, but also others, to potential risks. Thus judgments of the degree to which they are acting responsibly, and the degree to which they are responsible for the outcomes of these acts, may turn out to follow different patterns.

To study the effects of agency, four qualitatively different situations were explored, all of them involving managers who face a choice between one option requiring active intervention and another more passive approach. The situations were of a kind familiar to the respondents (also managers) from their own work life. One of these involved a choice between a familiar and a new course of action. Another situation described a choice between sticking to an original decision and changing one’s mind. Both these situations involve changes that have previously been found to increase judgments of anticipated responsibility and regret (Anderson, 2003; Kruger, Wirtz & Miller, 2005). A third situation featured a choice between following or going against others’ advice. Advice following and responsibility is a largely unexplored topic, but it is reasonable to assume that following advice requires less effort and can be regarded as more “normal” than actively rejecting it. It comes easier, and is more natural, to accept a suggestion than to reject it, and it requires less effort to say yes than no (Gilbert, 1991). Besides, by taking advice one might share the responsibility with others (Harvey & Fischer, 1997). The final situation differed from the others by being a case of contrasting norms: Two managers are faced with a conflict among employees and have the choice between adopting a policy of non-interference and making an active attempt to solve the conflict. Although non-interference can, in general, be regarded as the “default” (Anderson, 2003), role expectations may require leaders to take action in this particular case. It is accordingly less obvious which choice will incur most responsibility (R1) and which one will be viewed as the most responsible thing to do (R2).

The questionnaire also included ratings of ethical and professional behavior, to investigate the assumption that acting

responsibly is closely related to behaving in accordance with norms for management.

Method

Participants. A total of 282 employees (mainly managers) at a large entrepreneurial company in Norway participated in this study (75% men, mean age 47.5 years).

Procedure and material. The questionnaire was web based. Participants were randomly assigned to one of four conditions, according to a 2×2 mixed experimental design, with responsibility ratings (R1 vs. R2) varied between and outcome valence (positive vs. negative) varied within participants. Participants in all conditions were presented with four different choice dilemmas, where decision makers (managers) are facing a choice between a passive, default option, and an action involving a more active, effortful initiative. The choices to be made were:

1. Adopting a familiar or a new solution to a problem.
Imagine two different road projects. Both projects face a problem that has different possible solutions. The leader for project A chooses a familiar solution that he has used before, while the leader for project B chooses a new solution.
2. Accepting or going against the advice of the management team.
Imagine two leaders, leader A and leader B, who both experience a big problem. Both of them present the problem to their leader groups. The problem is discussed and the two groups decide upon an advice for how their leader can solve the problem. Leader A chooses to follow the advice of his leader group, while leader B chooses not to follow the advice and to find his own solution.
3. Sticking to an original decision or changing one's mind.
Leaders often make decisions. Imagine a situation where two leaders, independent of each other, have to take an important decision. They both choose initially one of two possible solutions. After further considerations leader A chooses to hold on to the original decision, while leader B changes his mind and chooses the other option.
4. Wait and see or intervene in a conflict between employees.
Imagine a situation where two leaders, independent of each other, are starting to suspect that there is a problem among their employees. They have a choice between two possible ways of handling the situation. They can either take action and confront their employees with the issue and actively try to solve the problem, at the risk of creating a lot of trouble and unpleasant attention to a problem that might really just been minor. Or they can wait and see how it all develops, at the risk of the problem growing large and difficult to handle later on. Leader B chooses to actively solve the problem, while leader A awaits to see if blows over by itself.

All four situations described two managers, one of which had chosen the more passive option (select the known solution, follow the advice, stick to the decision, wait and see), while the other chose the more active option (try a new solution, go against the advice, change one's mind, conflict intervention).

All participants were first asked to indicate on a scale from 1 to 7 for each of the four situations how risky they perceived the two alternatives to be. They were then told about the outcome of the decisions. For half of the participants, decisions in Vignette 1 and 4 led to positive outcomes for both decision makers, whereas Vignette 2 and 3 led to negative outcomes. For the other half, Vignette 1 and 4 had negative outcomes, whereas Vignette 2 and 3 had positive outcomes.

Subsequently, participants were asked to rate the decision makers according to their responsibility. Participants in Condition 1 gave R1 ratings, by being asked how responsible they thought the two decision makers would feel about the outcome. Participants in Condition 2 gave R2 ratings by being asked how responsibly the two decision makers had acted.

Finally, participants were asked to evaluate the decision makers according to their degree of either professional or ethical behavior. These ratings were included to reflect the present company's avowed leadership values, which explicitly require all managers to act in a professional and ethical manner. These ratings allowed us to check whether R2 judgments were in line with managerial norms.

Results

An overall analysis showed that leader B was generally expected to feel more responsible for the outcomes (R1) than leader A ($M = 5.98$, $SD = 0.70$ vs. $M = 4.63$, $SD = 1.14$), but was judged to have acted in a less responsible way (R2) ($M = 4.75$, $SD = 1.05$ vs. $M = 5.07$, $SD = 0.77$). The interaction between decision and type of rating is highly significant, $F(1,257) = 122.94$, $p < 0.001$, $\eta^2 = 0.32$. In the following, results will be presented separately for each vignette because the vignettes were assumed to be qualitatively different from each other, for example following advice and non-intervention are quite different facets of the more passive choice alternative.

Vignette 1 – Choosing a familiar or a new solution. The first vignette described two managers who made a choice between a familiar and a new solution to an important task. Choosing the new solution were generally perceived to be far more risky ($M = 5.20$, $SD = 1.14$), than choosing a familiar one ($M = 2.22$, $SD = 0.95$), $F(1,281) = 1156.07$, $p < 0.001$, $\eta^2 = 0.80$. Decision makers choosing the new solution were further, as expected, assumed to feel more responsible (R1) for the outcome ($M = 5.90$, $SD = 1.11$) than those choosing a familiar solution ($M = 4.66$, $SD = 1.73$). A 2×2 mixed ANOVA for the mean ratings displayed in Fig. 1, upper left panel (solid lines) showed a highly significant main effect for familiar vs. new solution, $F(1,123) = 55.27$, $p < 0.001$, $\eta^2 = 0.31$. There was no effect of outcome valence (positive vs. negative), and no significant interaction.

For acting responsibly (R2), the converse pattern was obtained (Fig. 1, broken lines). Decision makers were generally perceived to act more responsibly (R2) if they choose the familiar solution ($M = 5.74$, $SD = 1.27$) than the new solution ($M = 4.93$, $SD = 1.50$), $F(1,146) = 49.62$, $p < 0.001$, $\eta^2 = 0.20$. These judgments were also significantly affected by outcome, as decision makers who achieved a positive outcome were perceived to

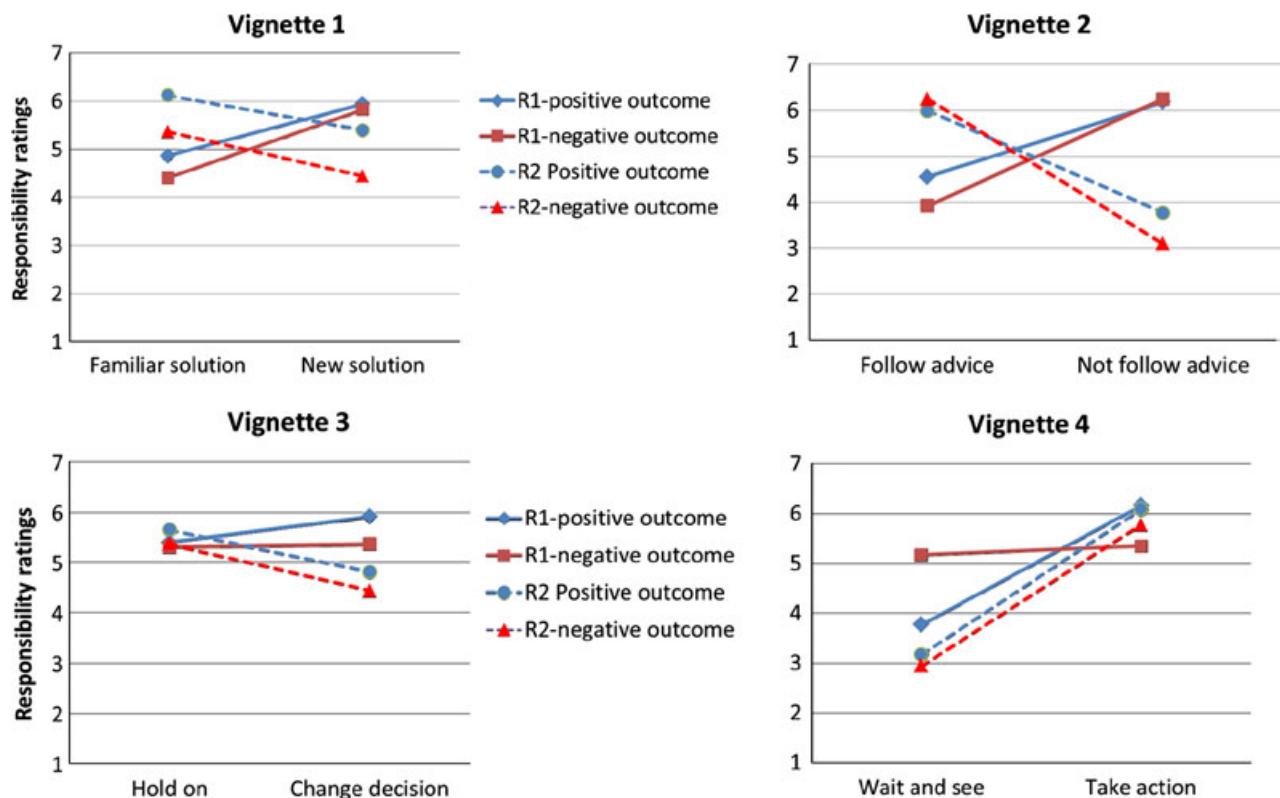


Fig. 1. Mean responsibility judgments (R1 and R2) for successful and unsuccessful familiar vs. new solutions (Vignette 1), following versus not following advice (Vignette 2), holding on to or reversing a decision (Vignette 3), and awaiting or intervening in a personnel conflict (Vignette 4), Experiment 1

act more responsibly than decision makers who obtained a negative outcome; $F(1,146) = 25.99$, $p < 0.001$, $\eta^2 = 0.15$ (no significant interaction).

Vignette 2 – Following or disregarding advice. The second vignette described two managers who had the choice of following or acting against the advice of their management teams. Choosing not to follow advice was generally perceived to be far more risky ($M = 5.76$, $SD = 1.27$), than following advice ($M = 2.48$, $SD = 1.23$), $F(1,268) = 752.25$, $p < 0.001$, $\eta^2 = 0.74$.

Decision makers choosing not to follow advice were further, as expected, assumed to *feel more responsible* ($M = 6.22$, $SD = 1.17$) than those who followed the advice ($M = 4.18$, $SD = 1.88$). A 2×2 mixed ANOVA for the mean ratings displayed in the second panel of Fig. 1 (solid lines) showed a highly significant main effect for following vs. not following advice, $F(1,120) = 85.66$, $p < 0.001$, $\eta^2 = 0.42$. There was no effect of outcome valence (positive vs. negative), and no significant interaction.

For *acting responsibly*, the converse pattern was again obtained (broken lines). Decision makers who choose to follow advice were generally perceived to act much more responsibly ($M = 5.98$, $SD = 1.00$) than those who did not follow advice ($M = 3.43$, $SD = 1.74$), $F(1,141) = 212.48$, $p < 0.001$, $\eta^2 = 0.60$. These judgments were significantly affected by outcome similarly as in Vignette 1; decision makers who achieved a positive outcome were perceived to act somewhat more responsibly ($M = 4.88$) than decision makers who obtained a negative outcome ($M = 4.53$), $F(1,141) = 4.84$, $p = 0.029$, $\eta^2 = 0.033$.

Vignette 3 – Sticking to or reversing a decision. The third vignette described two managers who had the choice between holding on to their initial decision and changing it. Reversing a decision was generally perceived to be more risky ($M = 4.81$, $SD = 1.37$), than sticking to the initial one ($M = 3.60$, $SD = 1.44$), $F(1,261) = 108.11$, $p < 0.001$, $\eta^2 = 0.29$.

Decision makers choosing to change their decision were further, as expected, assumed to *feel more responsible* ($M = 5.87$, $SD = 1.25$) than those who held on to their initial decision ($M = 5.36$, $SD = 1.56$). A 2×2 mixed ANOVA for the mean ratings displayed in the third panel of Fig. 1 (solid lines) showed a significant main effect for holding on to a decision vs. changing one's mind, $F(1,116) = 10.98$, $p = 0.001$, $\eta^2 = 0.086$. There was no effect of outcome valence (positive vs. negative), and no significant interaction.

For *acting responsibly*, the converse pattern was again obtained (broken lines). Decision makers were generally perceived to act more responsibly if they choose to hold on to their initial decision ($M = 5.51$, $SD = 1.19$) than when reversing it ($M = 4.65$, $SD = 1.65$), $F(1,140) = 33.81$, $p < 0.001$, $\eta^2 = 0.20$.

These judgments were not significantly affected by outcome, but there was a tendency for the same pattern to emerge as in Vignette 1 and 2, as decision makers who achieved a positive outcome were perceived to act more responsibly ($M = 5.23$) than decision makers who obtained a negative outcome ($M = 4.93$), $F(1,140) = 2.48$, $p = 0.117$, $\eta^2 = 0.017$ (no significant interaction).

Vignette 4 – Waiting or intervening in a personnel conflict. The final vignette described two managers who had observed a

conflict among their employees, and had a choice between no intervention (awaiting a positive development) and immediate intervention. In this conflict situation taking action and intervening ($M = 4.15$, $SD = 1.69$) was not perceived riskier than awaiting ($M = 4.44$, $SD = 1.71$), the difference is not significant, $F(1,258) = 2.50$, $p = 0.115$, $\eta^2 = 0.01$.

Decision makers choosing to take action were still assumed to feel more responsible ($M = 5.83$, $SD = 1.18$) than those choosing to wait and see ($M = 4.34$, $SD = 1.74$). A 2×2 mixed ANOVA for the mean ratings displayed in Panel 4 of Fig. 1 (solid lines) showed a highly significant main effect for waiting vs. taking action, $F(1,115) = 45.36$, $p < 0.001$, $\eta^2 = 0.28$. There was no effect of active/passive choice for negative outcomes while for positive outcomes, R1 ratings were higher for active than for passive choices, leading to a significant interaction, $F(1,115) = 33.09$, $p < 0.001$, $\eta^2 = 0.22$.

For *acting responsibly*, decision makers who chose to take action and intervene were generally rated to behave in a more responsible way ($M = 5.93$, $SD = 1.13$) than those who chose the wait and see option ($M = 3.06$, $SD = 1.62$); $F(1,140) = 221.81$, $p < 0.001$, $\eta^2 = 0.61$. This response pattern differs from the preceding vignettes where the active decision makers appeared less responsible than the passive ones, presumably because role requirements expect managers to take action in a conflict situation. These judgments were also significantly affected by outcome, as decision makers who achieve a positive outcome were perceived to act more responsibly than decision makers who obtain a negative outcome; $F(1,146) = 25.99$, $p < 0.001$, $\eta^2 = 0.15$ (no significant interaction).

In each condition participants rated the decision makers for either *professional* or *ethical* behavior. These ratings appeared to be quite similar to each other, reflecting related standards of managerial conduct. They were also, on the whole, in agreement with the "act responsibly" (R2) judgments. In the first three situations, the decision maker who chose a familiar solution, followed advice, and did not change his mind, was considered most professional or ethical, while in the fourth situation intervening in the conflict was perceived to be more professional/ethical than waiting for the conflict to subside.

DISCUSSION

The results of Experiment 1 indicate that decision makers who deliberately choose to depart from the default alternative by trying something new, opposing advice, and reversing a decision, are assumed to feel more responsible both for positive and negative outcomes of their decision, compared to those who conform to the more conventional default options. They are also believed to take more risks. It is accordingly difficult to conclude whether their greater responsibility is attached to their more conspicuous causal role, the perceived riskiness of their decisions, or the closer availability of an alternative course of action (Petrocelli, Percy, Sherman & Tormala, 2011).

The results highlight the difference between being responsible for an outcome (R1) and acting in a responsible way (R2). Acting responsibly appears to be associated with professional and ethical behavior, which in the present domain means choosing a familiar alternative, following advice, and sticking to one's

original decisions, in other words *not* behaving in such a way that would maximize one's individual responsibility. We observe for these ratings an outcome bias (Baron & Hershey, 1988), suggesting that positive outcomes make actions appear more "responsible."

Violations of norms are found to heighten causal judgment (Hitchcock & Knobe, 2009). Actors violating norms are also considered to be more blameworthy. In line with our results from the advice situation, Alicke, Rose, and Bloom (2011) found doctors who violated hospital policy to be more causal and more blameworthy, and even more causal and blameworthy when the patient died than when the patient survived.

Inactions are not always the most responsible choice. Managers who refrained from intervention in the final, conflict scenario, were not supposed to feel strongly responsible for the outcome, nor did they act in a very responsible way. Thus, acting responsibly and being responsible do not have to be polar opposites, but are dependent upon the kind of norms that are activated. A similar phenomenon has been demonstrated in the domain of vaccination. Baron and Ritov (1995) originally demonstrated that parents think that they would blame themselves (and the medical authorities) more strongly, and suffer more regret, if their child got sick as a consequence of the vaccine than from failing to vaccinate. However, when risk of vaccination and disease was balanced, Connolly and Reb (2003) found a bias in favor of vaccination. Whether an action bias or an omission bias is activated might be influenced by the risk associated with the action or inaction alternative. The next experiment was designed to study the effects of risk on responsibility judgments.

EXPERIMENT 2

In Experiment 1 we explored managers' judgments of responsibility, risk, and professional/ethical behavior in situations where decision makers had a choice between one alternative requiring deliberate effort and another, less effortful, "default," or "status quo" alternative. We found that the latter alternatives implied less responsibility, but they were also judged to be less risky, which could mean that they were (1) more predictable, or (2) less likely to fail. In the latter case, responsibility judgments could simply reflect a perceived inferiority of the risky alternative (even if this alternative was preferred by one of the decision makers). In Experiment 2 riskiness was experimentally manipulated by introducing options where the variability of outcomes differed, with the high-risk alternatives offering the possibility of both better and worse outcomes than the low-risk alternatives. Thus their average attractiveness was intended to be similar. Based on the results from Experiment 1, we predicted that high-risk alternatives would lead to higher ratings of responsibility for outcomes than low-risk alternatives. At the same time, decision makers who select the high risk alternatives might be regarded as acting in a less responsible way.

R1 and R2 ratings were in Experiment 1 rated by different participants in a between-subjects design. In Experiment 2 these judgments were collected in a within-subjects design, where the same participants first were asked to judge decision makers' feelings of outcome responsibility, and subsequently to which extent they had made a responsible decision.

Method

Participants. A total of 144 undergraduate students at the University of Oslo (71.5% women, mean age 21.6 years) were randomly allocated to two groups by receiving two different versions of a questionnaire.

Material and procedure. Participants completed pen and paper questionnaires containing three hypothetical scenarios. For each scenario two alternatives were presented, one high risk and one low risk. Participants were told that one actor had chosen the high risk and the other the low risk alternative.

Scenario 1 involved an investment in stocks that had a history of either high or low fluctuations in stock value, described as follows:

Imagine two equity portfolio managers of two different pension funds, who are facing a choice between two alternatives: 1. Investing in a stable share A, with a history of moderate ups and downs. 2. Investing in a more variable share B, with a history of large fluctuations from considerable gains to considerable losses. One of the portfolio managers chooses A and the other B.

Scenario 2 described a choice facing two wine traders:

Two wine merchants consider ordering a quantity of red wine from Abruzzia. They can choose between a producer from the lowlands, Domena, which most of the time produces wine of general good quality, and a producer from the highlands, Demona, which some years produces fantastic quality wine while other years produces very poor quality. The prices are similar. This year the merchant A chooses to import Domena, while B chooses Demona.

Scenario 3 described a decision made by two fashion designers between designing a mainstream collection or an extraordinary collection:

Imagine that two fashion designers with their own companies are planning to launch a new line of clothes, to be presented in a prestigious fashion show. All the fashion stores make their main purchases for the season based on this show, success at this show is accordingly crucial for participants. The designers realize they have a choice between presenting their collection of mainstream clothes, which usually sell OK, or alternatively presenting a collection that stands out as something special and different, which can either be a hit with great sales or a complete flop with no sales. Designer A chooses to make a collection of

mainstream clothes, while designer B chooses to make something special and extraordinary.

As a manipulation check, participants were first asked to rate for each scenario the degree of risk associated with both alternatives. Participants in both conditions were further asked to rate how responsible each of the two actors would feel for their decision (R1), their degree of personal involvement, and how responsibly they had acted (R2). All ratings were made on seven-point (1–7) rating scales.

They were then informed about the outcomes, which were in Condition 1 positive in Scenarios 1 and 3 and negative in Scenario 2 (for both decision makers). Participants in Condition 2 received negative outcomes of Scenarios 1 and 3 and positive in Scenario 2, making outcome valence for each scenario a between-subjects factor. In the high-risk options, positive outcomes were described as extremely good, while negative outcomes were disastrous. For the low-risk options, positive and negative outcomes were described as only moderately better or worse than expected.

Finally, participants were asked to rate (1–7) how responsible the actors are for the positive or negative outcome (R1), and how responsibly the decision maker had acted (R2). Thus, participants made both R1 and R2 ratings twice, the first time without outcome knowledge and the second time after the outcome had been disclosed.

RESULTS

The manipulation check confirmed that the “high risk” alternatives were viewed as much more risky than the “low risk” alternatives in all scenarios, as shown by mean ratings in Table 1. A 2×3 repeated ANOVA of risk ratings with risk (high vs. low) and situation (Scenarios 1, 2, and 3) as the two factors yields a large main effect for risk $F(1,142) = 785.50$, $p < 0.001$, $\eta^2 = 0.85$. There was also a main effect of scenario, $F(2,141) = 11.00$, $p < 0.001$, $\eta^2 = 0.13$, and an interaction effect $F(2,141) = 10.47$, $p < 0.001$, $\eta^2 = 0.13$, indicating that the design situation differed from the others by being somewhat more risky even in the “low risk” alternative (designing the mainstream collection).

Responsibility without outcome knowledge

R1 ratings from the first part of the experiment show that responsibility was perceived to be consistently higher for decision makers who chose the high risk options (Table 1, second row). A 2×3 repeated ANOVA with risk (high vs. low) and

Table 1. Mean ratings (1–7) of risk, responsibility, and personal involvement for the decision in three high and low risk decision scenarios, Experiment 2, first part. (Standard deviations in parentheses.)

Ratings	Stock		Wine		Design	
	Low	High	Low	High	Low	High
Risk	2.75 (0.91)	5.85 (0.84)	2.54 (1.33)	5.44 (1.10)	3.06 (1.38)	5.46 (1.05)
R1 Feel responsible	5.04 (1.65)	6.06 (1.01)	5.03 (1.69)	5.97 (1.12)	5.28 (1.59)	6.06 (0.96)
R2 Act responsibly	5.28 (1.09)	3.69 (1.26)	5.42 (0.99)	4.02 (1.50)	5.19 (1.07)	4.67 (1.40)
Involvement	3.45 (1.38)	5.72 (1.21)	3.92 (1.29)	5.64 (1.17)	3.97 (1.54)	6.24 (0.74)

situation (Scenarios 1, 2, and 3) as the two factors shows a significant main effect for risk; $F(2,143) = 106.78$, $p < 0.001$, $\eta^2 = 0.43$. The scenarios were not significantly different from each other, and there was no significant interaction.

R2 ratings of the degree each decision maker *acted responsibly*, revealed, as expected, the converse pattern. A 2×3 repeated ANOVA showed again a significant main effect of risk, $F(1,141) = 126.58$, $p < 0.001$, $\eta^2 = 0.47$, with the high risk options being perceived as the *least* responsible course of action. There was also a (smaller) significant main effect of scenario, $F(1,141) = 15.93$, $p < 0.001$, $\eta^2 = 0.10$, and a significant interaction, $F(1,141) = 27.05$, $p < 0.001$, $\eta^2 = 0.16$, due to the design scenario, where the high and low risk options were more equal than in the other scenarios, perhaps reflecting the fact that in the world of fashion, there is no completely safe option.

Ratings of personal involvement followed the same pattern as R1 ratings. Decision makers taking high risks are expected to feel much more personally involved ($M = 5.87$, $SD = 0.81$) than those taking low risks ($M = 3.76$, $SD = 1.07$), $F(1,142) = 371.10$, $p < 0.001$, $\eta^2 = 0.72$. We find here also a main effect of situations, $F(2,141) = 15.79$, $p < 0.001$, $\eta^2 = 0.18$, and an interaction effect, $F(2,141) = 7.22$, $p < 0.001$, $\eta^2 = 0.09$, indicating that high risk fashion designers are supposed to be even more personally involved than the risky stock and wine traders.

Responsibility with outcome knowledge

The means reported in Table 1 were based on ratings from the first part of the experiment, before the outcomes were disclosed. R1 ratings pertained at this point to how responsible the different actors ought to feel for the *decision*. In the second part of the experiment, R1 and R2 ratings were again obtained, this time with outcome knowledge. The R1 ratings asked this time how responsible the actors ought to feel about the *outcomes*, whereas the R2 ratings pertained to the actions, as before. Mean responsibility ratings from the second part of the questionnaire are shown in the upper panel of Fig. 2. These ratings were generally lower than the R1 ratings in Table 1. This could be expected, as outcomes, especially of risky events, are influenced by factors beyond the decision maker's control.

Mixed 2×2 ANOVAs with outcome valence as a between-subjects variable and risky choice (high vs. low) as a within-subjects variable were computed for each scenario. R1 ratings showed as expected a highly significant main effect of risk for all three situations, both for positive and negative outcomes. Outcome valence seemed not to affect these responsibility ratings, as the analysis revealed no significant difference in responsibility for decisions with positive or negative outcomes.

R2 ratings were, however, affected by outcomes. Decision makers were consistently judged to act more responsibly when they succeed than when they fail, as shown in the lower panel of Fig. 2. Separate mixed 2×2 ANOVAs reveal main effects for risk (high versus low), and for outcome (positive versus negative) with $F(1,141) = 3.94$, $p = 0.049$, $\eta^2 = 0.03$ for the stock trader scenario, $F(1,140) = 7.410$, $p = 0.007$, $\eta^2 = 0.05$, for the wine import scenario, and $F(1,140) = 9.55$, $p = 0.002$, $\eta^2 = 0.064$ for the fashion designer scenarios, respectively (no significant interactions).

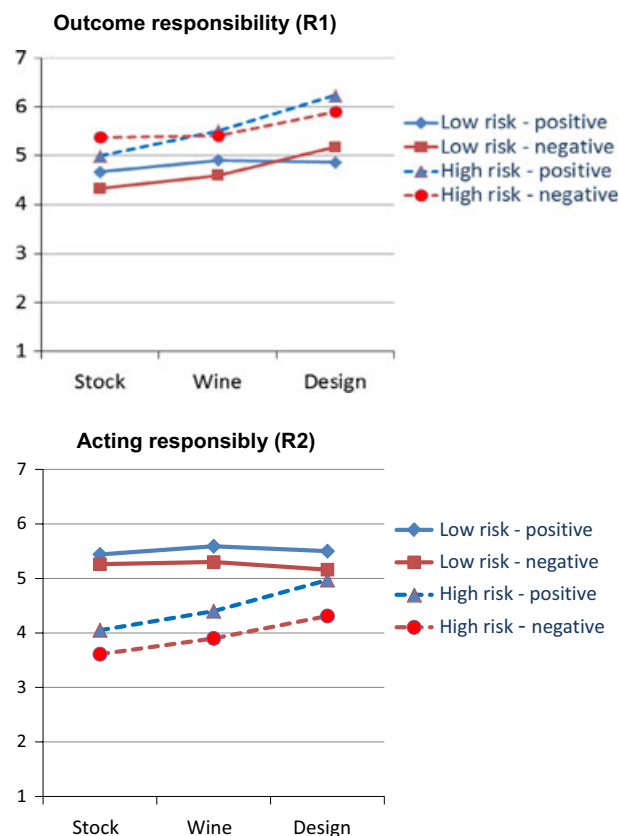


Fig. 2. Mean ratings of outcome responsibility (R1) for high and low risk scenarios, with outcome knowledge (upper panel), and of responsible behavior (R2) in the same scenarios (lower panel) (Experiment 2, second part)

Discussion

This experiment differed from Experiment 1 by introducing high vs. low risk options as an independent variable, and letting the same participants produce both R1 and R2 ratings, with and without outcome knowledge. Despite this change in methodology (including the possibility of mixing up the verbally similar responsibility ratings), we found again that R1 and R2 ratings were inversely related to risk. Decision makers choosing the high risk alternative were considered more responsible for their choices, while at the same time acting less responsibly, in comparison to the low risk actors. This does not mean that R1 and R2 ratings are complementary or inversely related measures of the same underlying evaluation. Correlations between R1 and R2 ratings of each vignette within each condition were close to zero (median of 16 correlations = 0.10), indicating that they reflect two independent concepts. High risk actors were also supposed to feel more personally involved in their choices, confirming the association between risk taking and agency suggested by Experiment 1.

As in Experiment 1, outcome knowledge did not seem to have any effect on the ratings of R1 (personal responsibility), whereas R2 ratings (acting responsibly) were again higher for positive than for negative outcomes. Thus R2 judgments appear to be more sensitive to outcome knowledge than R1 judgments. It should, however, be noted that R1 judgments were made twice, the first time as judgments of responsibility for the decision (before outcomes were known), as reported in Table 1, and the

second time after the results were revealed (Fig. 2). This procedure may have prevented participants' second ratings from being swayed by outcome knowledge; although, as we have seen, this did not stop them from showing an outcome bias on the R2 ratings.

Both previous experiments made use of within-subjects designs, where decision makers following advice (Experiment 1), or choosing a low risk option (Experiment 2), were directly compared to decision makers who did not follow advice or chose the high risk option. The next experiment was set up to study the combined effect of these factors in a between-subjects design.

EXPERIMENT 3

Overall results from the two preceding experiments demonstrate that decision makers are expected to feel more responsible for a high risk choice than a low risk choice, regardless of outcome. On the other hand, decision makers choosing a high risk option were perceived to act less responsibly. Thus R1 and R2 ratings appear to be opposite for decisions differing in perceived risk, but not complementary.

Experiment 1 also showed (in Scenario 2) that managers incur more responsibility (higher R1 ratings) by going against others' advice. They stand in this case alone as sole agents; moreover, following the advice of the team might be regarded as the normal thing to do (cf. Alicke *et al.*, 2011). In line with this, following advice was also rated to be the more responsible option (higher R2 ratings) and was perceived as more professional and more ethical than acting on one's own.

In the present experiment we investigated the combined effect of choosing a high versus low risk option, and following versus not following the suggestions of a team of advisors. No outcomes were presented. We predict that decision makers who go against the team's advice by choosing the high risk option will be held especially responsible (high R1 ratings) and perceived as acting in a not very responsible way (low R2 ratings). Conversely, following others' advice and choosing the low risk option means acting responsibly (high R2) while at the same time to some extent excusing the decision maker for personal responsibility (low R1). The other two possibilities were expected to yield responsibility ratings between these extremes. Results from Experiment 1 suggest that following advice are associated with less risk, less R1 and more R2. At the same time Experiment 2 suggests that high risk alternatives are associated with higher R1 and lower R2 ratings, leaving more open predictions about the combined effect of following or going against advice.

Measures of overall risk and personal involvement were also included. Both these ratings were expected to follow the same overall pattern as R1 ratings, with high ratings when choices are made in favor of the risky alternative against the team's advice, and low ratings when the low risk advice is being followed.

Method

Participants. Participants were recruited by e-mail distributed to students and staff at the Department of Psychology at the

University of Oslo, resulting in 178 completed responses (74% women). They could win a gift card of 500 NOK (€ 63).

Procedure and material. Participants completed one of four versions of a web-based questionnaire (Qualtrics) involving hypothetical choices between high risk and low risk options, following or not following advice, according to a 2×2 between-subjects design, with 44–45 participants in each group. Two scenarios based on the stock investment and the wine purchase scenarios used in Experiment 2 were included as a within-subject factor, but this time the decision makers had received specific advice to choose the high risk or the low risk alternative, which they decided either to follow or to set aside. For instance, the advice situation was described as follows in the stock investment scenario:

The consequences can be significant, the equity portfolio manager therefore presents the question to his/her leader group. The leader group advises the portfolio manager to invest the money in the stable stock A (the unstable stock B). The portfolio manager chooses to invest in A (B), as advised [invest in B (A), despite the advice].

After rating both options for perceived risk, participants rated the decision makers according to how responsible they should feel for the decision (R1 ratings), their perceived degree of personal involvement, and how responsibly they had acted (R2 ratings). All ratings were performed on 1–7 scales, as in the previous experiments.

In the previous two experiments both high and low risk options were judged by the same participants, allowing them to directly compare the alternatives. In the present experiment risk (high vs. low) and advice (follow vs. not follow) were judged by different participants in four conditions in a between-subjects design. Thus, participants could not benchmark high and low risk, follow or not follow advice.

Results

Risk ratings confirmed that the high risk alternatives were indeed perceived as more risky ($M = 5.70$, $SD = 0.65$) than the low risk alternatives ($M = 2.55$, $SD = 0.92$). A 2×2 mixed ANOVA with risk (high vs. low) and situations (stock and wine) as the two factors, demonstrated a highly significant main effect of risk, $F(1,176) = 1335.19$, $p < 0.001$, $\eta^2 = 0.88$, and in addition a main effect of situation, $F(1,176) = 59.75$, $p < 0.001$, $\eta^2 = 0.25$, as both stock investment options were judged to be somewhat more risky than the wine purchase options.

Actors not following advice were considered more responsible for the decision than those who agreed with their advisory teams, as shown in the upper panel of Fig. 3. The highest responsibility ratings were observed, as predicted, for actors who did not follow advice and chose the most risky option. A $2 \times 2 \times 2$ mixed ANOVA of R1 ratings with advice (following vs. not following) and risk (high vs. low) as between-subjects factors and the two scenarios as a within-subjects factor, showed a main effect of advice, $F(1,173) = 30.40$, $p < 0.001$, $\eta^2 = 0.15$, but no main effects of risk or of scenario. There were no significant interactions. Thus it seems that choosing the risky

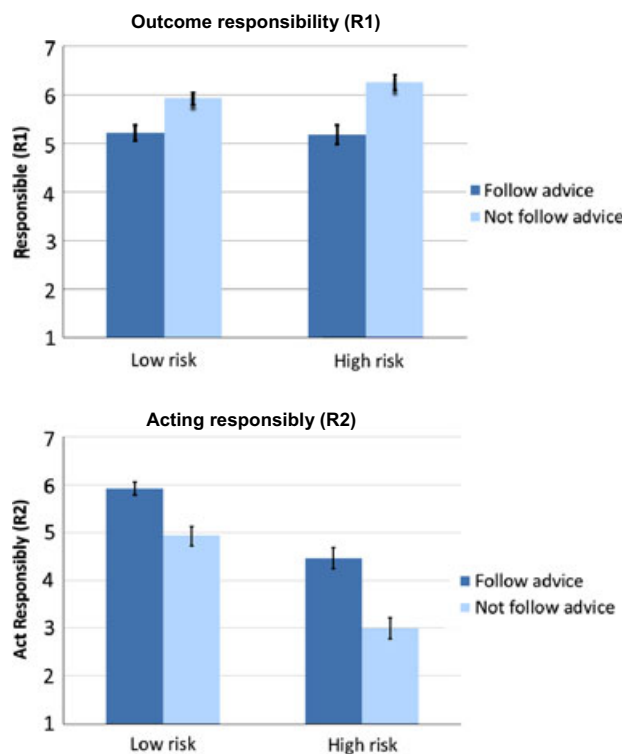


Fig. 3. Mean ratings of responsibility for decision (R1) (upper panel), and of acting responsibly (R2) (lower panel) in four conditions, Experiment 3 (averaged over two situations)

option was, in these situations, a less important determinant of responsibility than following or going against advice.

Ratings of personal involvement showed a similar pattern of results as for feeling responsible, with mean scores of 4.52 for those who followed the advice and 5.43 for those who opposed it. A $2 \times 2 \times 2$ mixed ANOVA showed a main effect of advice, $F(1,173) = 27.37$, $p < 0.001$, $\eta^2 = 0.14$, no main effect of risk or of scenario, and no interaction.

Mean ratings for acting responsibly (R2) are displayed in the lower panel of Fig. 3. A $2 \times 2 \times 2$ mixed ANOVA of these ratings shows main effects of advice, $F(1,173) = 40.14$, $p < 0.001$, $\eta^2 = 0.19$, as well as of risk, $F(1,173) = 77.77$, $p < 0.001$, $\eta^2 = 0.31$. There were no effect of scenario and no significant interactions.

Discussion

The present results confirm the findings from Experiment 1 that not following advice is regarded as a less responsible thing to do, while at the same time making the actors more responsible for the decision. Also choosing the risky alternative appears less responsible (R2), as was the case in the previous experiment, however it did not in this study lead to higher ratings of decision responsibility (R1), perhaps because this was in one condition actually the recommended alternative, allowing the responsibility to be shared with the advisors, as suggested by Harvey and Fischer (1997). For R2 judgments, risk and advice appear to be combined in an additive fashion.

In the previous two experiments responsibility ratings for both high and low risks were judged by the same participants,

allowing for a direct comparison between the two, while in the present experiments the ratings were performed by different groups of subjects. This might have contributed to the apparent absence of a high/low risk effect for R1 ratings in Fig. 3. Besides, the presence of an explicit recommendation (which in two conditions actually went in favor of the risky alternative) may have served to neutralize the effects of a high versus low risk option. Results from Experiment 1 demonstrate that following advice was associated with reduced risk and reduced responsibility (R1). But in the present experiment, decision makers were in two conditions advised to choose the most risky alternative, creating a potential conflict between choosing a low risk option and following advice. Yet R1 judgments were correlated with risk ratings within both "follow advice" conditions, with $r = 0.48$, $p < 0.001$ and $r = 0.38$, $p < 0.01$ in the low risk and high risk conditions, respectively, indicating that those who perceived the alternatives as more risky also felt that the decision maker should feel more outcome responsibility. As in the previous experiment, R1 and R2 ratings were generally uncorrelated, with a median of eight correlations (2 scenarios in 4 conditions) = -0.09 .

GENERAL DISCUSSION

Results from all three experiments show that participants distinguish consistently between R1 judgments: decision makers' degree of personal responsibility for a decision or its consequences, and R2 judgments: the degree to which they are acting responsibly. This distinction is observed both for separate judgments in between-subjects designs, and in within-subjects designs, which allow participants to compare R1 and R2 judgments. The results further suggest that both forms of responsibility are related to normative expectations (default options) and perceived risks. In the following, the two aspects of responsibility will be discussed in turn.

Responsibility for decisions and outcomes (R1)

To be judged responsible, actors must be seen as the causes of their behavior (Heider, 1958; Shaver, 1985). Responsibility has in social psychology often been studied in a context of perceived causal responsibility, for instance in connection with so-called egocentric or self-centered biases (Ross & Sicoly, 1979), where people are asked to judge the magnitude of their own versus others' contribution to a joint project. Studies of accident causation indicate that actors are rated more responsible for accidents that turn out to have severe consequences than when the consequences are less severe (Robbennolt, 2000; Walster, 1966), indicating the existence of an outcome bias in this area as well.

Research on moral responsibility, or culpability, has demonstrated a number of additional factors that are essential for determining how much an actor should be blamed for wrongdoings and afflicting harm, including intentions, negligence, control, role prescriptions, foreseeability, and the presence of extenuating circumstances (Alicke, 1992, 2000; Schlenker, Britt, Pennington, Murphy & Doherty, 1994).

The present vignettes described managers having a free choice between two alternatives, presumably with good intentions, but

with incomplete knowledge of whether the outcome of their choice would be as successful as intended. R1 was measured in two ways: the degree to which the person would, or should, feel responsible for the decision itself (Experiments 2 and 3), or for its consequences (Experiments 1 and 2). One might argue that these are two quite different issues, at least in respect to causality and control, as the managers in our vignettes were free to make their own decisions, whereas the consequences, especially in the risky scenarios, were partly determined by factors beyond their control. However, both ratings appeared to follow a parallel pattern. Managers who made decisions in accordance with how they were advised were viewed as less responsible (R1), both for their decision (Experiment 3) and for its outcomes (Experiment 1), in comparison with managers who opposed their advisors. The latter were also seen as more personally involved. Experiment 1 showed that deciding upon a new course of action or reversing an original decision, also made decision makers more personally responsible than those who did not challenge the status quo. Only the existence of role expectations, dictating managers to act rather than to remain passive during conflicts, made the decision makers equally responsible for inactions as for actions.

Perhaps surprisingly, responsibility for decisions and responsibility for outcomes appeared to be nearly of the same magnitude. Participants in Experiment 2, who performed both judgments, gave consistently higher ratings for decision than for outcome responsibility (higher R1 ratings in Table 1 than in Fig. 2), but the differences were of a moderate magnitude (about 0.4 scale points apart). Other studies (Kirkebøen & Nordbye, 2013) have indicated a high degree of similarity between judgments of responsibility for decisions and responsibility for outcomes.

Managers taking risky decisions were viewed as more responsible, both for the decision and outcomes than those choosing a less risky alternative. This can be construed as a paradoxical finding, as the outcomes of a risky option are, by definition, not to be controlled by the decision maker. It has accordingly been claimed that the decision makers cannot be blamed for failures that are partly, or largely, due to chance factors, and similarly, should not be given credit for successes that can be attributed to luck (Weiner *et al.*, 1971). Thus decision makers might occasionally bring in an element of chance in difficult situations where they do not want to be held personally responsible for the outcome. For instance, researchers will allocate patients to a treatment or a control condition by drawing lots to avoid allegations of personal biases. Using a randomizer under such circumstances will reduce personal responsibility (R1) for undesirable consequences, and will also be regarded as the responsible thing to do (R2) by ensuring fairness and avoid selection biases. A recent study by Leonhardt *et al.* (2011) showed that decisions involving uncertainty attenuate the actors' responsibility. For instance, participants who were presented with the loss framed version of the Asian disease problem (Tversky & Kahneman, 1981) claimed they would feel less responsibility for the outcome when choosing the "uncertain program" than if they had chosen the "riskless" option. Tykocinski and Ayala (2012) have similarly argued that decision makers strategically might prefer the risky option partly to reduce their responsibility for negative outcomes.

From this line of reasoning it seems to follow that high risk decisions imply less responsibility than low risk decisions,

because of the causal role played by chance factors, and perhaps also because the lack of foreseeability inherent in risky prospects. In the present studies, these considerations might be reflected in the fact that positive or negative outcomes did not have an effect on responsibility judgments (R1 ratings in Experiments 1 and 2), even after the outcomes were known. However, a strong positive association between risk judgments and responsibility ratings emerged in all three experiments, in apparent contrast to the findings of Leonhardt *et al.* (2011) and the claims of Tykocinski and Ayala (2012).

It appears that decision makers who choose a risky option are in an ambiguous situation as far as responsibility is concerned. They make a deliberate choice between two options, so their decisions are controllable even if the consequences are not. They also know that the options differ in variability, so even if they cannot know the actual consequences, they are able to foresee the range (best case-worst case) of consequences. Such actors might be viewed as particularly responsible when we focus on their choice, but less so if we take the choice for granted and instead reflect on the more or less fortunate circumstances that led to eventual success or failure.

It may also be noted that in our experiments at the time of choice, the outcome could go either way, positive or negative, and one option was associated with more extreme outcomes (for good or for bad) than the other. Magnitude of outcome can in itself affect the judgments of causal strength (Leboeuf & Norton, 2012), making the risk takers in our experiments appear more causally responsible than they would have been if the outcomes were more similar. In the situations studied by Leonhardt *et al.* (2011), outcomes would be negative no matter which choice was made, thus the decision makers did not really put people more at risk (of gaining or losing) by choosing one option over the other; their choice was either to make the negative decision themselves (certain option) or let someone else make it (uncertain option). Their results indicate that people prefer not to be the direct cause of inflicting harm to other people, by choosing to have less control over the outcome. When forced to take a stand in such a dilemma, people seek to share the responsibility with other people or with chance, by choosing the "uncertain" option, which was supposed to make them less accountable, guilty, and less to blame. However, they were not asked what would be regarded as the most responsible action (R2).

Acting responsibly (R2)

Actors who deliberately choose a risky option, exposing themselves and other people to potentially undesirable consequences, can be accused of behaving in a not very responsible manner, partly because of the potential harm involved, and partly because their attempt to "evade responsibility" by relinquishing control and leaving the final outcome to chance.

We defined in the introduction, responsible behavior (R2) as actions that are performed intentionally in agreement with prevailing norms. In line with this, we found in Experiment 1 that decision makers departing from such norms were judged to be less responsible than those that agreed with the normative, or default, alternative. Anderson (1995) claims that "acting responsibly" means something like doing the (generally thought to be)

right action for the right reason(s). Responsible actions are accordingly *justifiable*. In their decision justification theory of regret, Connolly and Zeelenberg (2002) conclude that experienced regret has two components, one associated with outcome evaluation and the other with the feeling of self-blame for having made a poor (unjustified) choice. The second of these components can be described as reflecting the actor's own R2 judgments. To act responsibly can also be used to describe actors that act with awareness of the consequences of their actions, and even as "acting as required by one's role" (Anderson, 1995, note 3). Thus the manager who decided to intervene in a conflict among his subordinates may be seen as acting in a responsible way, because this behavior fits with the role of a concerned and decisive manager.

Common to all these usages is a focus on the appropriateness of the *action*: what is done and why it is done. This could in principle be assessed independent of outcome; however, results from both Experiment 1 (Fig. 1) and Experiment 2 (Fig. 2) indicate the existence of an *outcome bias* (Baron & Hershey, 1988), where risky decisions are considered more responsible when they happen to be successful than when they happen to fail. This agrees with studies showing that successful managers are valued equally highly for successes obtained by luck as for successes due to their skills (Dillon & Tinsley, 2008). It is also in line with studies on causation and culpability showing that when breaking a norm decision makers are blamed less when outcome is positive than when negative or even without outcome knowledge (Alicke *et al.*, 2011).

Being responsible and/or acting responsibly

Responsibility is an overused term with multiple meanings that can be difficult to tease apart, leading occasionally to confusion and misunderstandings, and representing a constant challenge to empirical research. For instance, we are not at all sure that all attempts of measuring "blame" are addressing the same topic. Leonhardt *et al.* (2011) asked participants "how blameworthy do you feel for the outcome," apparently addressing their feelings of outcome responsibility, whereas Alicke *et al.* (2011) asked for ratings about the blameworthiness of an action. We suggest that the first blame is similar to *being* responsible (R1), whereas the latter blame is more similar to *acting* responsibly (R2). Being responsible (R1) highlights the causal role of the *agent*, as a target of blame or praise, whereas acting responsibly (R2) highlights the moral qualities of the *action*.

The ambiguity of responsibility and blame can be observed not only in English and Norwegian, but also in other languages. Hagiwara (1992) noted that the Japanese word for responsibility, *sekinin*, also has multiple usages, including the assignment blame or sanction to someone when an untoward occurrence is observed. Such responsibility judgments were largely determined by two factors: the causal relationship of the agent's act to the harm that ensued, and the morality of the act itself without regard to consequences. These two factors resemble the present distinction between R1 and R2.

Responsibility assignments form a central theme in media debates about current events, both on the local and global scene. Who is responsible for civilians being killed in a civil war, and

how responsible is it to launch a military attack against terrorists to free hostages? In January 2013 the world was shocked by the news of a terrorist attack on a gas plant in the Algerian desert. Workers from several countries including UK, US, Norway, France, and Japan were held hostage by Islamist militants for several days. The immediate, rather surprising counterattack by the Algerian special forces was questioned, because it seemed to conflict with "normal" negotiations and delaying tactics in the hope of avoiding further bloodshed, which was seen by many commentators as the most responsible approach (R2). Intervention by force was feared to provoke kidnappers to kill, thus holding Algerian government and the Special Forces partly responsible (R1) for their deaths.

However, judgments about responsibility appeared to change over time, according to perceived situational demands. As the situation escalated and the terrorists appeared to be executing hostages, the responsible thing to do (in the R2 sense) for the Algerian Special Forces was now to intervene as quickly and forcefully as possible to minimize the number of casualties, and politicians were now particular in stressing the importance of holding the terrorists responsible for the killings (in the R1 sense of the term) and not the Algerian government and the Special Forces.

The situation offered a number of speculations in media worldwide on the different parties' "responsibility" in both senses of the word, which seemed often to be confused or inadequately distinguished, but with a tendency to hold the *least* responsible (R2) party *most* responsible (R1) for an adverse outcome. Moreover, the debates suggested a shift both in evaluation of outcome responsibility and what is a responsible action, as the situation developed, perhaps dependent on whether the target of concern was framed in terms of lives lost or lives to be saved. Whether such changes in responsibility judgments can be reproduced experimentally according to how the outcomes are framed, should be addressed in further studies.

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