

## Causal deviance and the ascription of intent and blame

Ross Rogers, Mark D. Alicke, Sarah G. Taylor, David Rose, Teresa L. Davis & Dori Bloom

To cite this article: Ross Rogers, Mark D. Alicke, Sarah G. Taylor, David Rose, Teresa L. Davis & Dori Bloom (2019) Causal deviance and the ascription of intent and blame, *Philosophical Psychology*, 32:3, 404-427, DOI: [10.1080/09515089.2018.1564025](https://doi.org/10.1080/09515089.2018.1564025)

To link to this article: <https://doi.org/10.1080/09515089.2018.1564025>



Published online: 29 Jan 2019.



Submit your article to this journal [↗](#)



Article views: 475



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 5 View citing articles [↗](#)

ARTICLE



## Causal deviance and the ascription of intent and blame

Ross Rogers<sup>a</sup>, Mark D. Alicke<sup>a</sup>, Sarah G. Taylor<sup>a</sup>, David Rose<sup>b</sup>, Teresa L. Davis<sup>c</sup>  
and Dori Bloom<sup>a</sup>

<sup>a</sup>Department of Psychology, Ohio University, Athens, OH, USA; <sup>b</sup>Department of Philosophy, Rutgers University, New Brunswick, NJ, USA; <sup>c</sup>Department of Psychology, Middle Tennessee State University, Murfreesboro, TN, USA

### ABSTRACT

Research indicates that actors who intentionally bring about harmful consequences are blamed more for their actions than those who do so unintentionally. However, in many instances of harmful behavior, intentions are ambiguous. The Culpable Control Model of Blame (CCM) predicts that the degree to which an actor is blamed for causing a harmful outcome is strongly influenced by information about the actor's character, motives, or desires and that initial blame assessments impact important blame-related criteria such as judgements regarding the actor's intent. Deviant causal sequences, those in which negative outcomes occur in ways that the actor did not foresee, are highly unlikely, or are coerced, include circumstances that could mitigate assignment of blame. Such sequences provide a test of predictions derived from the CCM. Findings of three studies supported a model in which participants ascribed greater blame to an actor with opprobrious character, motives, or desires, which, in turn, affected judgments of a main criterion related to intent, and, in the last step, accounted for ascriptions of intent. These findings support the CCM's contention that blame-reactions to an actor and outcome influence judgments about criteria, such as intent, that are often considered to be determinants rather than consequences of blame.

### ARTICLE HISTORY

Received 28 October 2017  
Accepted 3 August 2018

### KEYWORDS

Blame; intent; Culpable Control Model of Blame; causal deviance

Intentional actions reign supreme in the pantheon of bad behaviors. People whose nefarious desires and plans harm others are blamed more than those who cause harm accidentally or uncontrollably (Ames & Fiske, 2013, 2015; Fincham & Shultz, 1981). Behind this simple summary statement, however, lurk numerous complexities. In a fully intentional action sequence, the actor implements a goal-directed behavior and achieves the desired consequences via the anticipated causal process. Suppose, for example, that Larry wants to poison his business partner, Moe. They go out to dinner, and when Moe goes to the restroom, Larry adds a deadly potion to Moe's Mai Tai. When Moe comes back, he drinks the substance,

**CONTACT** Ross Rogers  [ross.rogers@colby.edu](mailto:ross.rogers@colby.edu)  Department of Psychology, Ohio University, Porter Hall, Athens, Ohio 45701, USA

keels over, and expires. Larry's actions and their consequences satisfy all the conditions for intentional action.

However, as everyone who has ever set out to achieve anything knows, things do not always go as planned, or in the plain English of Robert Burns: "The best laid schemes o' mice an' men/Gang aft agley" (1786, p. 138). People can achieve their goals, or fail to achieve them, in unexpected ways due to glitches in the anticipated causal process. We refer to these glitches as deviant causal chains to represent their divergence from what the actor anticipated or from normative expectations (Alicke & Rose, 2012; Pizarro, Uhlmann, & Bloom, 2003).

Intentional actions comprise two main components: intention of action and intention of outcome (Alicke, 2000). Intention of action, or volitional behavior control, refers to whether the actor behaved knowingly, purposively, and without external constraint. This element of intent would be reduced, for example, if an actor failed to recognize that her behavior was insulting in a foreign culture, if it occurred while she was sleepwalking, or if she was compelled by a gun to her head. Intention of outcome indicates the actor's state of mind regarding the ultimate consequences, in particular, whether those consequences were desired or foreseen. Studies harking back to the early days of research on responsibility attribution (Fincham & Jaspers, 1980; Shaw & Sulzer, 1964), as well as more recent investigations (Guglielmo, Monroe, & Malle, 2009; Pizarro, Uhlmann, & Salovey, 2003), have clearly established that actors are blamed less for harmful consequences when one or both these elements of intentional action are missing.

The most interesting cases of causal deviance involve intention of outcome, in which an actor embarks on one course of action but brings about consequences that are unforeseen, or that occur in peculiar ways. Although blame is typically reduced for unforeseen or unexpected outcomes relative to expected ones, it is not necessarily eliminated. In fact, when the desire to effectuate harmful consequences is clearly present, people are arguably as morally blameworthy for their actions as if the outcomes had occurred as anticipated. If Moe, for example, shoots at Larry intending to kill him, but inadvertently kills an innocent bystander, Moe is likely to be seen as blameworthy for this incident as if things had gone as anticipated. In fact, the legal doctrine of "transferred intent" would allow charging Moe with first-degree murder (e.g. *Carnes vs. Thompson*, 1932, Supreme Court of Missouri).

### **Predictions from the Culpable Control Model of Blame (CCM)**

Behavioral observers are not only rational calculators but also evaluators whose sympathies and antipathies affect their calculations. The view that judgments of morally-relevant behavior are influenced by observers'

sympathies was first elaborated prominently by Hume (1748/2007) and is a mainstay of current views in moral psychology (Gray & Graham, 2018; Haidt, 2001) that emphasize the role of emotion or intuition in moral judgment. Regarding potentially blameworthy behavior, the Culpable Control Model of Blame (CCM) assumes that observers' evaluative or affective reactions to the actor's motives, character, actions, and the outcomes that ensue influence judgments about the mental (roughly "mens rea") and behavioral (roughly "actus reus") criteria that legal scholars prescribe for blame (Alicke, 1992, 2000; Alicke, Rogers, & Taylor, 2018; Alicke & Rose, 2012; Alicke, Rose, & Bloom, 2011). According to the CCM, spontaneous evaluative reactions evoke a blame validation mode of processing in which observers align the mental and behavioral criteria in a manner that supports their desire to blame the source of their reactions. So, for example, when a disliked character, or a person with opprobrious motives, behaves in a way that results in harmful outcomes, observers are more likely to judge that the actor caused or intended the harmful outcomes than if a liked character (or one with salutary motives) had engaged in the same behavior and effected the same outcomes.

Most of the research conducted from the CCM perspective has assessed the influence of character and motive on causal judgments. Studies have shown, for example, that with all other features of the event held constant, judgments about an actor's causal influence on an outcome are consistently influenced by information about the actor's positive or negative character, motives, or behavior (e.g. Alicke, 1992, Alicke & Zell, 2009), as well as by the character of the victim (e.g. Alicke & Davis, 1989; Alicke, Buckingham, Zell, & Davis, 2008) and the nature of the consequences (e.g. Alicke et al., 2011; Mazzocco & Alicke, 2004). In virtually all these experiments, the actor's intentions were clear: what was ambiguous was his or her causal impact on the outcome.

In the three studies we describe below, however, the main actor unambiguously causes the outcome, and our focus shifts to a primary mental component of blame, namely, perceptions of the actor's intentions regarding the outcome; that is, to intention of outcome. In virtually all philosophical and legal treatments, intention of both action and outcome are essential preconditions for blame (Shaver, 1985). Establishing a defendant's intentions is also a fundamental issue in criminal law (Samaha, 2017). Intention of action tends to be relatively straightforward: When behavior is completely accidental, or people have no idea what they are doing, we generally excuse their actions. Intention of outcome, however, is more complex. Observers rarely have direct access to what actors desired or foresaw, and in fact, actors themselves often behave without consciously thinking about their desires or forming clear pictures of the outcomes that might ensue. The problem of assessing intent and blame in such instances is

especially acute in deviant causal chains in which an actor's apparent desires and/or expectations are circumvented by unusual circumstances or interventions. In such cases, observers have wide latitude for inference, which makes such judgments especially susceptible to blame validation.

To assess the influence of blame validation on intent attributions, we conducted three studies that varied some aspect of the event that could influence observers' sympathies or antipathies for the main actor, including the actor's character (Studies 1 and 2) and attitude toward the outcome (Study 3). Consistent with previous CCM research, we expected that negative evaluations of the actor's character or attitudes would lead to increased blame and intention attributions.

More importantly, we assessed a model, derived from the basic assumptions of the CCM, of how people make their attributions about intent and its components. The CCM potentially provides a unified explanation for the many diverse phenomena that fall under the causal deviance rubric. However, with one exception (Alicke et al., 2011, Study 3), none of the studies published from the CCM perspective has yet tested the mediational model that its theoretical assumptions imply, and the one that did, pertained to causation rather than to intent. According to the blame validation assumption of the CCM, positive or negative reactions to the actor or the event lead observers to interpret the available evidence in a way that justifies blaming the actor if they feel unsympathetic toward him/her, or exonerating the actor if they feel sympathetic. Our first assumption, therefore, is that manipulations designed to portray the actor's character or attitudes negatively will lead to increased blame.

The second assumption is that to validate this blame reaction, participants skew their perceptions of the evidence to support attributions of intent. Previous research suggests that ordinary intent attributions are influenced strongly by moral disapproval, as exemplified in numerous iterations of the side effect problem originated by Knobe (2003). In these studies, a CEO who knowingly markets a product that harms the environment is seen to have done so intentionally more frequently than is one who markets a product that helps the environment, despite the fact that the CEO expresses no desire for the outcome in either case.

The Knobe studies demonstrate that intent attributions increase when actors are blameworthy for callously harming the environment. Although, many studies have investigated the knowledge aspect of intention of outcome within this context (e.g. Beebe & Buckwalter, 2010; Beebe & Jensen, 2012), the Knobe paradigm is one in which the actor knows with certainty that the outcome will occur (that is, that the environment will be helped or harmed), and in which the outcome does in fact occur as anticipated. Although the typical findings, namely, that knowledge attributions are

higher in the harm than in the help condition, are consistent with CCM assumptions, we were interested in testing the more specific CCM assumption that blame is a determinant of knowledge or intent. This mediational influence is more likely to be observed in causal deviance scenarios in which the relationship between mental states and outcomes is more ambiguous than in scenarios in which the causal sequence unfolds with no surprises. A crucial assumption of the CCM versus other models of moral judgment (e.g., Knobe, 2010; Malle, Guglielmo, & Monroe, 2014) is that the desire to blame wrongdoers affects judgments about the criteria (such as foresight, desire, causation, mitigation) that are, according to intuitive perceptions of justice, supposed to be considered independently in rendering blame. Accordingly, in each of the three studies described herein, we tested a model in which a legally-extraneous but emotionally-relevant factor (the actor's character or attitude toward the outcome) influences blame reactions, which then affects a main criterion for establishing intent (such as foreseeability), which in turn determines intention ratings. We describe specific variations of this model further within the context of each study.

### Study 1: Near hit

The first study assessed attributions for a type of causal deviance that, to our knowledge, has not previously been investigated, one in which achieving an intended goal nearly has more dire, unintended consequences. The story was one in which a woman named Melissa, who was home alone with her daughter, and who heard a noise in her kitchen, fired a gun at a window to scare a presumed intruder. The bullet missed the window, ricocheted off a beam, and just missed killing the man.

In one condition of the experiment, the presumed intruder was described as a quarrelsome and dislikable neighbor. On this occasion, he had come over to complain that Melissa's grass needed to be mowed, knocked on the front door, got no response, and entered through the back door, which was open. In the other condition, it was Melissa who was described as quarrelsome and dislikable, and the neighbor had come over with a package for her that had been mistakenly delivered to him. This manipulation varied the homeowner's versus the presumed intruder's character, which was in turn expected to influence ascriptions of blame, foreseeability, and intent.

In addition to attributions of blame, foreseeability, and intent, we were interested in participants' perceptions of how close Melissa came to killing the intruder. Outcome closeness manipulations are one of the most frequent independent variables in counterfactual reasoning research, particularly in the context of blameworthy behavior (Roese, 1997). In Study 1, we turned this around and made outcome closeness

a dependent variable in order to assess the CCM prediction that participants would, with all other facets of the event equated, judge that a bad person came closer to an accidental killing than a good one.

In this study, we assume that participants will blame Melissa for firing the warning shot that nearly killed her neighbor when she, rather than her neighbor, is described as dislikeable. To justify their blame attributions, we assume further that participants will skew their assessment of the component of the act that seems most irresponsible: Melissa's presumed ability to foresee the potentially harmful consequences of firing the gun. Previous research (e.g., Nadelhoffer, 2006) has clearly shown that greater foreseeability corresponds to greater blame. Here, we again turn things around from the CCM perspective and assess whether increased blame, due to the main character's dislikable personality, leads to increased foreseeability. When dislikeable Melissa fires her gun, participants are likely to agree more strongly that she should have foreseen that this act could have negative consequences (i.e. harming the intruder). Thus, we expect blame and foreseeability ratings to be precursors of judgments about Melissa's perceived intent. Put succinctly, the model we test in Study 1 is one in which condition (Dislikable target: Melissa vs. neighbor) differentially impacts ascriptions of blame, which influence ratings of foreseeability, which in turn influence ratings of intent.

## **Method**

### **Participants and procedure**

Participants were 93 undergraduate students who received course credit for completing the study. Participants were randomly assigned to read one of the following scenarios.

### **Materials**

Arnold P and Devon N had been neighbors for three years.

**Dislikable actor (Melissa).** Devon and his wife Melissa were both extremely quarrelsome and inconsiderate people who were disliked by virtually everyone who knew them. Devon and his wife Melissa had often started big quarrels with their neighbors over minor things.

One evening, Arnold walked over and knocked on Devon and Melissa's front door with a package for them that mistakenly had been delivered to his address, but nobody answered.

**Dislikable neighbor (Arnold).** Arnold was an extremely quarrelsome and inconsiderate person who was disliked by virtually everyone who knew him.

Arnold had often started big quarrels with his neighbors over minor things.

One evening, Arnold walked over and knocked on Devon and Melissa's front door to complain that their grass needed to be mowed.



**Common information.** As it turned out, Devon's wife, Melissa, and their 14-year-old daughter were home alone for the weekend.

Arnold walked around to the back of the house and saw that the door was open, and so he walked in and called out.

Melissa heard an intruder and took a licensed gun that she and her husband had purchased a few years previously after there had been a rash of burglaries in the neighborhood.

Melissa heard that there was a man in the kitchen walking toward where she was in the living room and fired the gun at the window to scare him away.

Melissa missed the window, and the bullet ricocheted off a beam and passed by Arnold's left ear just as he was walking into the room, missing him by less than an inch.

Participants made their ratings on 11-point scales that descended on one end from five to one and then ascended on the other end from one to five, with zero as the midpoint. Participants rated the extent to which Melissa was to blame for this incident (*not at all to blame to totally to blame*), the extent to which Melissa should have been able to foresee that something like this might happen when she fired the gun (*completely unforeseeable to completely foreseeable*), the extent to which Melissa intended to injure Arnold (*completely unintentional to completely intentional*), and how close Melissa came to killing Arnold (*not at all close to extremely close*).

### Results and discussion

Independent-samples t-tests assessed differences between conditions (Dislikable target: Melissa vs. neighbor) on the extent to which Melissa was to blame for the incident, could have foreseen the outcome, intended the outcome, and how close she came to killing Arnold. Descriptive and inferential statistics are presented in Table 1. When Melissa was described as dislikable (vs. not), participants indicated that she was more blameworthy for nearly killing the intruder. Furthermore, participants indicated that dislikable Melissa should have had more foresight and acted with more intent to injure the intruder. Finally, dislikable Melissa was perceived as coming closer to killing Arnold.

We tested whether Melissa's dislikable (vs. not) character indirectly predicted ratings of her intent to harm the intruder through the serial mediators of her perceived blameworthiness and ability to foresee the

**Table 1.** Study 1 Judgments of Melissa (Scenario: Melissa nearly kills her neighbor).

Judgment	Dislikeable Melissa	Dislikeable Neighbor	t(df)	95% C.I.	g
Intentionality	4.69(3.27)	3.20(2.62)	2.41(91)*	.260, 2.72	.500
Foreseeability	6.98(3.15)	5.60(3.45)	2.03(91)*	.030, 2.75	.419
Closeness to Killing Neighbor	9.53(1.61)	8.00(2.66)	3.39(91)**	.634, 2.43	.705
Blameworthiness	6.81(2.71)	5.00(2.84)	3.20(91)**	.673, 2.97	.653

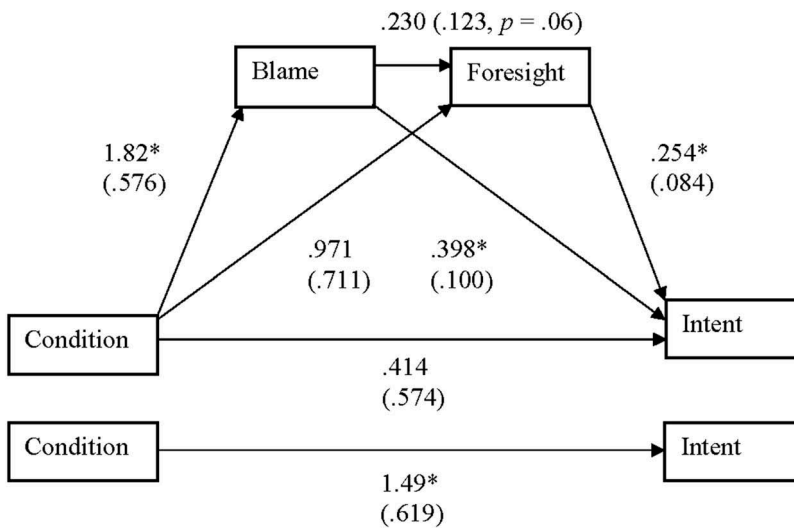
Note. \* =  $p < .05$ . \*\* =  $p < .01$ . Standard deviations appear in parentheses beside means.



outcome. We conducted an ordinary least squares serial mediation analysis on the target characterization → blame → foresight → intent sequence using the SPSS PROCESS macro (Hayes, 2013; see Figure 1). A bias-corrected bootstrap (5, 000 bootstraps) 95% confidence interval for the indirect effect (point estimate = .106) of Melissa’s disliked character on perceptions of her intent to injure the intruder through both blame and foresight ratings did not include zero (.005 to .366). There was no evidence that Melissa’s character influenced ratings of her intent independent of perceptions of her blameworthiness and foresight. Thus, Melissa, when described as disliked (vs. not), was judged as more blameworthy for nearly injuring her neighbor, leading to increased perceptions that she should have foreseen the outcome, which in turn, produced higher ratings that she intended to cause harm.

The results of the first study, therefore, strongly support CCM predictions. In addition to the usual finding that bad people, with all other things held constant, are blamed more than good people for harmful outcomes (Alicke, 2000; Alicke et al., 2011), this study showed that an actor who is characterized negatively is also seen to have been better able to foresee a negative outcome and to have brought that outcome about more intentionally.

The effect of characterizing Melissa negatively or not on blame mediated perceptions of Melissa’s ability to foresee the outcome which, in turn, affected ratings of her intent. These findings demonstrate that reactions to Melissa’s disliked character augmented participants’ judgments of blame, which they supported by amplifying their beliefs that she should



**Figure 1.** A serial mediation model with blameworthiness and foresight ratings as mediators of target characterization (dislikable vs. not) effects on perceptions of intent. \* $p < .05$ .

have foreseen the outcome, which buttressed the judgment that she intentionally acted to cause harm. This is the first study to our knowledge to test and support a mediational model based on the CCM of how intention judgments are derived in causally deviant action sequences. The findings suggest that the criteria commonly thought of as the precursors of blame assessment are also *influenced* by blame attributions. These findings indicate further that CCM predictions are by no means limited to causal judgment; in fact, they suggest that most blame criteria, including foreseeability and intent, when sufficiently ambiguous, are altered to justify blaming a disliked actor.

Additionally, participants indicated that, compared to her counterpart, dislikable Melissa came closer to killing the intruder. Although the closeness of an outcome is typically an independent variable in counterfactual reasoning studies, these findings show that, from the perspective of the CCM, such judgments can be influenced by evaluations of the “goodness” or “badness” of the actors and events involved, in this case, by the main character’s dislikable personality.

### Study 2: Wing and a prayer; (Un)lucky strike

In Study 2, we assessed another unique facet of causal deviance, one in which a person behaves with a sincere desire to effect a harmful outcome, but in circumstances in which the objective probability of obtaining the outcome are extremely low. Suppose that Larry, who has never handled a gun before, sees Moe (whom he despises) in the distance, sticks the gun out of his car window, fires without taking aim, and hits Moe squarely in the forehead. Larry certainly desired to kill Moe and achieved his goal as anticipated, but his *a priori* chances of success were extremely slim. In this example, the causal process by which Larry’s wing and a prayer attempt succeeded was deviant by the standards of objective reality. Intention theories assume, quite logically, that if a goal is achieved, then the actor had the ability to produce it (Malle & Knobe, 1997). Observers, however, are likely to consider not only the actor’s capability of achieving the outcome, but also its *plausibility*.

Previous studies by Nadelhoffer (2004, 2005), based on Mele’s (2001) analysis of intentionality, and initial attempts by Knobe (2003), clearly showed that negative motives lead to relatively high rates of perceived intentionality for chance events (by, for example, correctly guessing a ten-digit code, winning a lottery, throwing the winning number on a die), whereas positive motives lead to much lower rates. Nadelhoffer’s findings (and Knobe’s previous ones) are consistent with CCM assumptions, and we sought to extend these findings in two primary ways. First, whereas Nadelhoffer examined situations involving sheer luck, we assessed an arguably more realistic circumstance in which the outcome, while highly improbable, was not merely a matter of chance. Second,

and most importantly, we were interested, as in the previous study, in testing a mediational model derived from CCM assumptions.

According to the CCM, judgments of blame for the harmful consequences of low probability outcomes should vary with the goodness or badness of the actor's character. To test this assumption, participants in Study 2 read one of two versions of a story in which a woman named Melissa shot and killed her husband. Melissa, who had never fired a gun before, found the gun in the glove compartment of their car. Without checking to see if the gun was loaded, she fired out the car window from a considerable distance without taking aim when she saw her husband walking out of the house. Fortuitously for her, but not for him, the bullet struck and killed him instantly.

To test CCM assumptions, participants in one version of the story learned that Melissa's husband had a history of alcoholism and abuse and that she left the house after he physically assaulted her. In the other version, Melissa was the abusive one and left the house after throwing a glass vase in her husband's face. The CCM predicts that participants will ascribe more blame and impute greater belief on Melissa's part in the likelihood that her shot would be successful, when Melissa is an abuser rather than a victim. Parallel to Study 1, we expected blame to mediate the effect of the character manipulation on perceptions of Melissa's belief about the likelihood of her shot finding its mark, and for likelihood ratings to predict attributions of intent.

## **Method**

### **Participants and procedure**

Participants were 234 undergraduate students who received course credit for completing the study. Participants completed materials in a large classroom setting and were instructed that they would read a story adapted from a real legal case that had been tried in the United States within the past five years. They were asked to read the story twice before making their responses and were randomly assigned to read one of the following scenarios.

### **Materials**

Joe and Melissa C had been married for six years.

**Abuser Melissa.** Although Joe and Melissa were happy for the first few years, Melissa became both physically and verbally abusive and began having numerous affairs.

Melissa and Joe separated for three months after Melissa struck and injured their young child, Julia.

After this incident, Melissa got her abusive behavior under control for a while and things got better.

However, one evening Melissa came home and while having a petty argument with Joe she threw a glass vase in his face.

Joe told Melissa that he was leaving and would seek custody of his daughter.

**Victim Melissa.** Although Joe and Melissa were happy for the first few years, Joe developed a drinking problem and became physically and verbally abusive.

Melissa and Joe separated for three months after Joe struck and injured their young child, Julia.

After this incident, Joe stopped drinking for a while and things got better.

However, one evening Joe came home drunk and beat Melissa severely when she expressed disapproval for his drinking.

Melissa was bleeding and went to the bathroom to clean and bandage the wounds on her face.

**Common information.** Melissa walked out of the house in a rage and sat in her car, shaking with anger.

She remembered that Joe had been driving this car and that he sometimes carried a licensed gun with him.

Melissa found the gun in the glove compartment.

She was so angry that she wished she could kill Joe.

Melissa had never fired a gun before, and she didn't check to see if the gun was loaded.

Melissa was so blinded with rage that when she saw Joe walking out of the house, without even aiming, she fired the gun out the car window.

The bullet struck Joe in the heart, killing him instantly.

Participants responded to the following using 11-point scales: what is your general impression of Melissa (0 = *extremely negative*; 10 = *extremely positive*, reverse scored), to what extent do you think that Melissa desired to kill Joe (0 = *no desire*; 10 = *extreme desire*), how blameworthy, if at all, was Melissa for killing Joe (0 = *not at all blameworthy*; 10 = *completely blameworthy*), at the time that she pulled the trigger, how likely did Melissa think that it was that she would actually kill Joe (0 = *extremely unlikely*; 10 = *extremely likely*), how would you characterize Melissa's killing of Joe (0 = *completely accidental*; 10 = *completely intentional*).

### **Results and discussion**

Independent-samples t-tests assessed differences between conditions (Melissa: abuser vs. victim) on impression of Melissa, her desire to kill her husband, her blameworthiness, how likely she thought the outcome was, and her intentionality. Descriptive and inferential statistics are presented in [Table 2](#). Relative to when Melissa was described as the victim, when she was described as the abuser, participants had a more negative impression of her, perceived her as more blameworthy for Joe's death, viewed her as thinking it much more likely that she would kill Joe, and that her killing of Joe was more intentional.

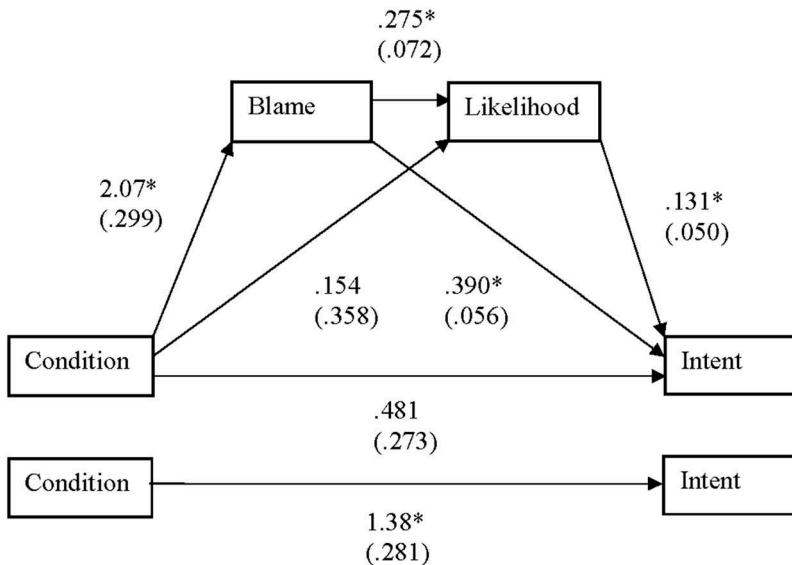
We tested whether characterizing Melissa as abuser (vs. victim) indirectly affected ratings of her intentionality in killing her husband through the serial mediators of her perceived blameworthiness and her perceived

**Table 2.** Study 2 Judgments of Melissa (Scenario: Melissa kills her husband in a highly improbable fashion).

Judgment	Abuser Melissa	Victim Melissa	t(df)	95% C.I.	g
Impression	5.74(2.10)	8.40(2.33)	9.16(232)**	2.08, 3.23	1.20
Intentionality	7.69(2.09)	6.31(2.20)	4.92(232)**	.830, 1.94	.644
Desire	6.96(2.44)	6.54(2.29)	1.38(232)	-.182, 1.04	.177
Likelihood of Outcome	5.07(2.49)	4.35(2.63)	2.16(232)*	.062, 1.39	.182
Blameworthiness	8.96(1.61)	6.88(2.78)	6.89(232)**	1.48, 2.66	.924

Note. \* =  $p < .05$ . \*\* =  $p < .001$ . Standard deviations appear in parentheses beside means.

beliefs about the likelihood that she would kill Joe with her wild gunshot. As above, we conducted a serial mediation analysis with bias-corrected bootstrap methods using PROCESS (Hayes, 2013) on the target characterization  $\rightarrow$  blame  $\rightarrow$  likelihood  $\rightarrow$  intentionality sequence (see Figure 2). The 95% confidence interval (5,000 bootstraps) for the indirect effect (point estimate = .075) of describing Melissa as abuser on perceptions of her intentionality in killing Joe through both blame and likelihood ratings did not include zero (.018 to .186). There was no evidence that Melissa's characterization influenced ratings of her intentionality independent of her perceived blameworthiness and her beliefs about the likelihood of the outcome. Thus, describing Melissa as an abuser (vs. victim), amplified judgments of her blameworthiness for killing her husband, subsequently increasing beliefs that Melissa thought it more likely that she would kill Joe with her wild gunshot, which in turn, produced higher ratings that she intentionally killed him.



**Figure 2.** A serial mediation model with blameworthiness and likelihood ratings as mediators of target characterization (abuser vs. victim) effects on perceptions of intentionality. \* $p < .05$ .

Study 2 supported CCM predictions with a different type of causal deviance problem, one in which the actor achieved goals that were highly improbable. Consistent with the results of Study 1 and other research derived from the CCM (e.g. Alicke et al., 2011), abuser Melissa was blamed more harshly for killing her husband than victim Melissa. The findings from Study 2 also replicate previous studies (Knobe, 2003; Nadelhoffer, 2004, 2005) demonstrating that an actor who is characterized negatively is perceived to believe it more likely that she could effect a negative outcome with an objectively low probability of occurring and to have acted more intentionally to bring it about. These discrepancies between abuser and victim Melissa were not obtained on every response measure. Participants who learned that Melissa was the perpetrator of abuse thought she estimated that her chances of actually killing her husband were higher and viewed her action as more intentional, than did those who learned Melissa was the victim of abuse. Participants in these two conditions did not, however, vary in their ratings of her desire to kill her husband at the time that she shot the gun, which was perceived as relatively high regardless of whether the actor was the abuser or the abused party.

As in Study 1, criteria that are typically considered to be the precursors to blame assessment were impacted by blame reactions. The mediational analysis further supported a model in which characterizing Melissa as an abuser (vs. victim) increased perceptions of her blameworthiness, which subsequently elevated attitudes that Melissa thought it more likely that she could kill her husband with her wing and a prayer shot, which, in turn, increased opinions that she acted intentionally.

### **Study 3: Being forced to do what you intended to do**

Anglo-American law recognizes an important distinction between intentional acts that occur freely versus those that are coerced (e.g. Fincham & Shultz, 1981; Shaver, 1985; Shultz, Schleifer, & Altman, 1981). A person who acts in self-defense, for example, behaves in concert with his desires but is justified by self-preservation concerns. Observers who evaluate such actions are likely to consider both the situational pressures that operated on the actor and the actor's desires and beliefs in the situation (Alicke, Mandel, Hilton, Gerstenberg, & Lagnado, 2015; Kelley, 1971). Blame should be mitigated to the extent that the actor was seen to have been compelled or coerced by situational pressures, or in psychological terms, by negative reinforcement contingencies.

A particularly interesting type of causal deviance problem is introduced when the individual's behavior is controlled by positive rather than negative reinforcement contingencies; that is, when external forces compel a person to do what she would have done anyway. Previous research has

shown that people are still blamed when they lack the ability to alter an outcome, such as in cases discussed by Frankfurt (1969) in which a person's brain is controlled completely by external forces (Miller & Feltz, 2011), or when one's actions are perfectly predetermined far in advance (Nahmias, Morris, Nadelhoffer, and Turner, 2005). These examples were purposely extreme to demonstrate ways in which people might still be deemed culpable in a completely deterministic world. Ordinary compulsions of the type that might constitute mitigating circumstances in the law are typically less completely determinative, such as threats of physical violence. Here, a person possesses the physical ability to do otherwise, but the cost could be as high as losing her life.

In Study 3, we explored whether an actor's attitude toward the consequences of his behavior would matter in the presence of a strong physical threat. Woolfolk, Doris, and Darley (2006) explored a somewhat similar circumstance by examining how the intent to commit a criminal act influences responsibility attribution when the act is coerced. In one study, an actor planned to kill a man after learning the man had been having an affair with his wife. He changed his mind, but later, was forced, at gunpoint, to shoot the man. Results indicated that, despite having been given virtually no choice if he valued his life, the actor was seen as more responsible for the shooting when he had previously planned to kill the man versus when he had no such intention.

We sought to extend these findings by exploring whether people ascribe more blame to a target who, in contrast to the situation in Woolfolk et al. (2006), did not previously plan to commit an opprobrious act, but who merely possessed a positive attitude toward it. Suppose, for example, that a live-in maid, who hates the people she works for, is forced at gunpoint to reveal to a burglar where the homeowners' jewelry is hidden. Assume further that she had no previous intention to commit or aid a theft, but happily disclosed the information. Would the fact that she was forced to achieve consequences that she approved of lead observers to see her behavior as less coerced than if she had disapproved of the consequences even though she had little choice either way?

To answer this question, we created a story in Study 3 in which a pilot, Robert, was hired to fly a small group of business people to Miami, Florida in a private plane. As they neared their destination, Robert was threatened at gunpoint to divert the plane to Cuba, and, in each of three scenarios, he complied. In one experimental condition, participants learned that even if Robert had not been coerced, he had been planning to divert the flight to Cuba in order to reunite with a mistress. In a second experimental condition, participants learned that Robert was secretly delighted to comply with the gunman because he could reunite with his mistress, but that he had not previously planned to divert the flight. In a third, control condition,



participants received no additional information about Robert other than that he complied and diverted the plane to Cuba.

We asked participants to indicate the extent to which they believed that Robert was to blame for diverting the flight, played a causal role in the scenario, and acted intentionally. We predicted that, despite his being coerced, participants' perceptions of Robert's attitude toward the act of diverting the flight would impact ratings of Robert's blameworthiness, causal role, and intentionality: all would be highest when Robert previously intended to divert the flight to Cuba, next highest when he was described as delighted to do so, and lowest when no other information was provided.

Furthermore, we tested a model similar to those outlined in the previous two studies. We expected Robert's attitude toward diverting the flight to differentially impact perceptions that he acted intentionally and that this effect would be mediated first through ratings of Robert's blameworthiness and then through beliefs about the extent to which Robert played a causal role in the outcome.

## Method

### Participants and procedure

Participants were 299 undergraduate students who received course credit for completing the study. Participants completed materials in a large classroom setting and were randomly assigned to read one of the following scenarios.

### Materials

Robert Z is a pilot who has been hired by a small group of businessmen to fly a private plane that their company owns to Miami, Florida.

As they are nearing their destination, one of the members of the group, whom the other businessmen don't know, points a gun at Robert and tells him to fly the plane to Cuba.

**Prior intent.** Although nobody realizes it, Robert has a mistress who lives in Cuba who he has been unable to see for two years. If the hijacker had not forced him, Robert was planning to divert the flight anyway.

**Secretly delighted.** Although nobody realizes it, Robert has a mistress who lives in Cuba who he has been unable to see for two years. He is secretly delighted to have this chance to reunite with her.

**Common information and control.** Robert flies the plane to Cuba.

Participants rated the extent to which they thought Robert was to blame for flying the plane to Cuba (0 = *not at all to blame*; 10 = *completely to blame*). In addition, participants responded to the following statements using 11-point (0 = *completely disagree*; 10 = *completely agree*) scales: Robert was the cause of the plane being diverted to Cuba, and Robert flew the plane to Cuba intentionally.<sup>1</sup>

## Results and discussion

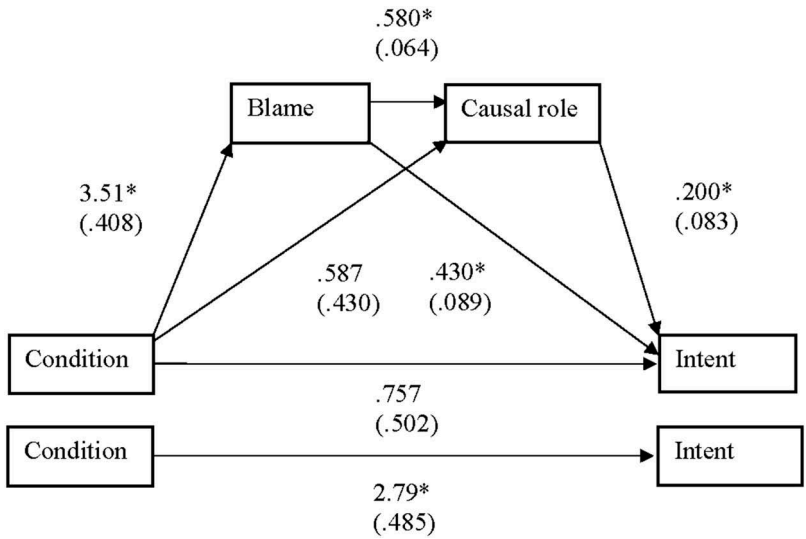
One-way between-participants ANOVAs were conducted to assess effects of the actor's state of mind/attitude toward that outcome (Robert: prior intent vs. secret delight vs. control) on perceptions of blameworthiness, causal role, and intent. Descriptive and inferential statistics are presented in Table 3. Omnibus F-tests were highly significant for all dependent measures,  $p$ 's < .001. We conducted planned comparisons to explore these effects. Significant differences were obtained when comparing the prior intent condition to both secretly delighted and control conditions on all dependent measures. Compared to participants in the secretly delighted and control conditions, those who learned that Robert intended to divert the flight prior to being coerced judged him as being more blameworthy, playing a greater causal role, and intentionally diverting the flight to Cuba. Significant differences were obtained between the delighted and control conditions on all dependent measures except causal role. Relative to participants who read the control scenario, participants who learned Robert was secretly delighted to divert the flight provided higher ratings of blameworthiness and intent.

We tested whether Robert's state of mind/attitude toward the outcome (prior intent vs. secret delight vs. control) indirectly affected ratings of his intentionality while being coerced to divert the flight through the serial mediators of his perceived blameworthiness and causal role in the outcome. We conducted three serial mediation analyses with bias-corrected bootstrap methods using PROCESS (Hayes, 2013) on the state of mind/attitude → blame → causal role → intentionality sequence (see Figures 3, 4, and 5). The

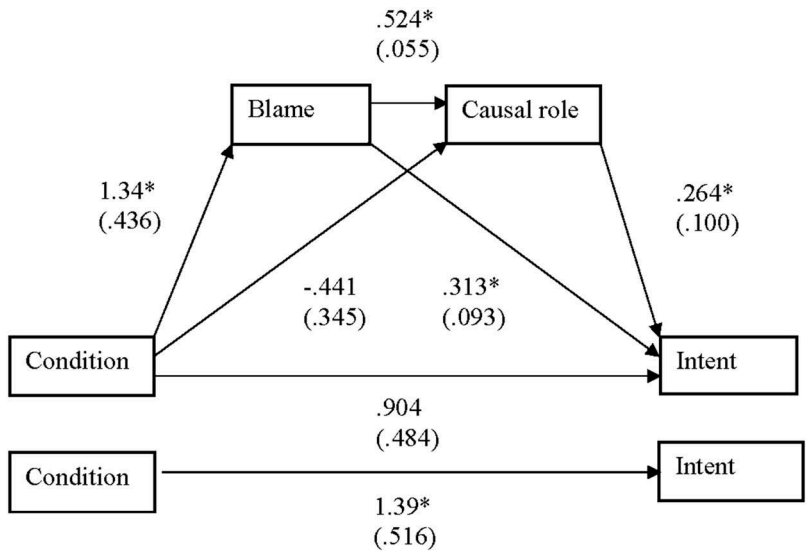
**Table 3.** Study 3 Judgments of Robert (Scenario: Robert is coerced at gunpoint to divert his flight).

Judgment	Intended <sub>1</sub>	Delighted <sub>2</sub>	Control <sub>3</sub>	$F(df)$	$\eta_p^2$	95% CIs
Intentionality	6.70 <sub>a</sub> (2.95)	5.30 <sub>b</sub> (3.43)	3.91 <sub>c</sub> (3.84)	16.6(2, 296)*	.10	(.240, 2.56) <sub>1,2</sub> (1.62, 3.96) <sub>1,3</sub> (.220, 2.56) <sub>2,3</sub>
Prior desire	8.35 <sub>a</sub> (2.54)	3.25 <sub>b</sub> (2.89)	1.25 <sub>c</sub> (2.70)	181(2, 296)*	.55	(4.18, 6.02) <sub>1,2</sub> (6.17, 8.02) <sub>1,3</sub> (1.07, 2.92) <sub>2,3</sub>
Momentary desire	8.26 <sub>a</sub> (2.42)	7.35 <sub>a</sub> (3.03)	2.01 <sub>b</sub> (3.08)	139(2, 296)*	.48	(-.060, 1.88) <sub>1,2</sub> (5.27, 7.23) <sub>1,3</sub> (4.36, 6.32) <sub>2,3</sub>
Free choice	5.22 <sub>a</sub> (2.90)	2.90 <sub>b</sub> (2.88)	1.76 <sub>c</sub> (2.98)	36.3(2, 296)*	.20	(1.33, 3.31) <sub>1,2</sub> (2.47, 4.46) <sub>1,3</sub> (.150, 2.14) <sub>2,3</sub>
Causal role	4.72 <sub>a</sub> (3.20)	2.36 <sub>b</sub> (2.80)	2.10 <sub>b</sub> (2.93)	23.4(2, 296)*	.14	(1.35, 3.37) <sub>1,2</sub> (1.60, 3.64) <sub>1,3</sub> (-.760, 1.28) <sub>2,3</sub>
Blameworthiness	5.89 <sub>a</sub> (2.90)	3.72 <sub>b</sub> (3.29)	2.38 <sub>c</sub> (2.84)	34.2(2, 296)*	.19	(1.14, 3.20) <sub>1,2</sub> (2.47, 4.54) <sub>1,3</sub> (.300, 2.37) <sub>2,3</sub>

Note. \* =  $p$  < .001. Standard deviations appear in parentheses beside means. Means with differing subscripts within rows are significantly different at  $p$  < .05.

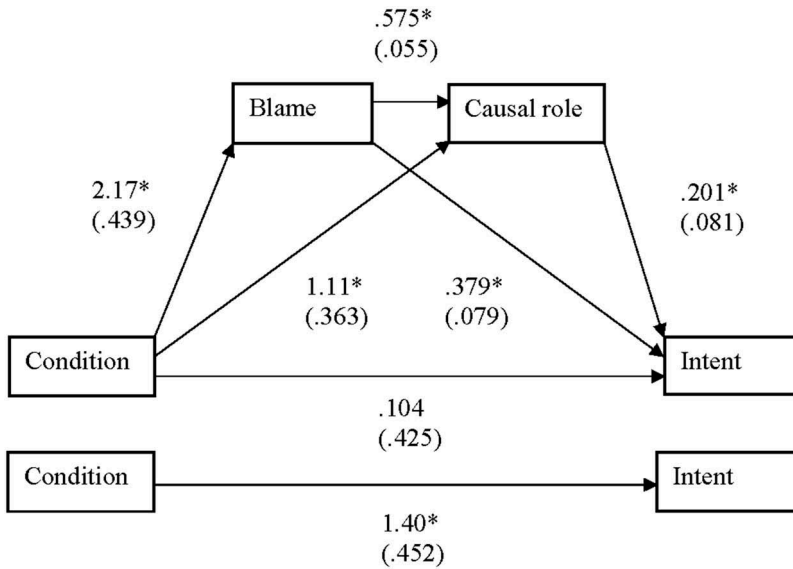


**Figure 3.** A serial mediation model with blameworthiness and causal role ratings as mediators of state of mind/attitude (prior intent vs. control) effects on perceptions of intentionality. \* $p < .05$ .



**Figure 4.** A serial mediation model with blameworthiness and causal role ratings as mediators of state of mind/attitude (secretly delighted vs. control) effects on perceptions of intentionality. \* $p < .05$ .

95% confidence intervals (5,000 bootstraps) for the indirect effect of Robert’s state of mind/attitude on ratings of the intentionality of his actions through both perceptions of his blameworthiness and causal role did not contain zero in each model (prior intent vs. control: point estimate = .407, 95% CI, .123 to .829; secretly delighted vs. control: point estimate = .185, 95% CI,



**Figure 5.** A serial mediation model with blameworthiness and causal role ratings as mediators of state of mind/attitude (prior intent vs. secretly delighted) effects on perceptions of intentionality. \* $p < .05$ .

.057 to .439; prior intent vs. secretly delighted: point estimate = .251, 95% CI, .073 to .543). For each model, there was no evidence that Robert's state of mind/attitude influenced ratings of his intentionality independent of his perceived blameworthiness and causal role in the outcome.

In all conditions, Robert was coerced at gunpoint to divert the flight. Comparing just the two experimental conditions (prior intent vs. secret delight) indicates that Robert's prior intent inflated blame attributions, which increased perceptions of his causal role, in turn, producing stronger agreement that he diverted the flight intentionally. Furthermore, compared to a control description, Robert's descriptions of having *either* prior intent *or* being secretly delighted to act as he did elevated judgments of his blameworthiness for diverting the flight, leading to perceptions that he played a more substantial causal role, which in turn, produced higher ratings that he acted intentionally, despite extreme coercion.

### General discussion

Evaluating intentions and intentionality is perhaps the most important task in moral judgment. It makes all the difference in the world whether I think that a friend was offering constructive criticism when she commented on my poetry or meant to disparage it as junk. And yet, as important as intentionality judgments are to our perceptions and treatment of our friends, families, and acquaintances, they can be notoriously difficult to assess.

The CCM was developed as a general model of blame attribution, one that would explain blame judgments that were made in accordance with the criteria advocated in Anglo-American jurisprudence, and that would also account for deviations from this model (Alicke, 2000). When action sequences are relatively unambiguous, and when they are unlikely to evoke strong positive or negative evaluative reactions, we expect that observers will adhere fairly closely to the legal model in assessing an individual's intentions, motives, causal influence, as well as any mitigating or extenuating circumstances, in rendering a blame assessment. However, everyday harms, as well as more serious ones that set the legal apparatus in motion, often contain high levels of ambiguity, as well as evoke strong positive or negative reactions. Blame judgments in these circumstances sometimes lack any clear, logical criteria or guidance. This is especially true given people's divergent values. Gun control advocates, for example, tend to distribute blame differently after a mass shooting than do National Rifle Association members. In this example and many others, legal criteria fail to provide unequivocal solutions about where blame should be placed.

Value-laden judgments are one example of what in the CCM are referred to as spontaneous evaluative reactions – a strong positive or negative attitudinal reaction that occurs in response to information about the characters involved, their motives or behaviors, or to the consequences of these behaviors. Whether emotions are necessarily involved in evaluative reactions, or in attitudinal reactions more generally, is a topic that remains to be resolved using other methodologies, although we assume that strong emotions can exacerbate attitudinal reactions. When strong evaluative reactions occur, they evoke a “blame validation” judgment mode, which can be construed as confirmatory hypothesis testing applied to the realm of blame judgment (Alicke et al., 2011). Empirically, the noteworthy aspect of blame validation is that the desire to blame the culpable source of harm influences observers' judgments about the blame criteria, such as intent, that are presumed to be the precursors of blame rather than the consequences of it.

One of the most pervasive sources of spontaneous evaluations is the observer's sympathies or antipathies with the actor's character or motives. In the first study, a woman who was described as a terrible neighbor or the victim of one fired a warning shot at a presumed intruder and wound up nearly killing a man who turned out to be her neighbor. Participants blamed the woman more when she was the bad neighbor and viewed her as having come closer to killing the man. The perception that she came closer to killing him supports the CCM contention that people will assess ambiguous criteria in a way that supports their desire to blame. In this study, and each of the subsequent ones, information about the actor's character or motives influenced blame, which in turn affected perceptions of a precursor of intent (such as foreseeability), which ultimately influenced attributions of intent, a main blame criterion.

The second study introduced a situation in which the objective state of reality made the achievement of the actor's desires highly unlikely. In this story, a woman who was described as an abuser or a victim in her marriage, and who had never before handled a gun, took a wild shot out of her car door at her husband which, luckily for her, and unlikely for him, killed him. Although the woman clearly desired to kill her husband, the a priori probability that she would achieve her goal was miniscule. We were interested in whether participants would be more likely to describe the killing as intentional when she was described as abusive rather than victimized, and the results confirmed this hypothesis. These findings add to previous research by Nadelhoffer (2004, 2005) which assessed attributions for completely chance events. Most importantly, mediational analyses supported the interpretation that describing the woman as an abuser (vs. victim) amplified judgments of her blameworthiness for killing her husband, which increased perceptions that she thought it likely that she would kill her husband with her wild gunshot, which in turn, led to higher ratings of intentionality. This is one of the few studies that we are aware of to show that the objective chances of attaining some goal influence intentionality judgments over and above information about the actor's desires and beliefs (Lagnado & Channon, 2008).

In the final study, a pilot was forced at gunpoint to divert his plane from Miami, Florida to Cuba under one of three conditions. In the first condition, he was actually planning to divert the plane himself before he was hijacked, and so the same outcome would have occurred even if he had not been coerced. In the second condition, he was pleased to be diverted so that he could be reunited with his mistress, although he had not planned to divert the plane of his own accord. In the third, control, condition, participants simply learned that he was forced at gunpoint to fly the plane to Cuba. Although, assuming that he valued his life, he was forced in each condition to divert the plane, results showed that his actions were perceived as most intentional when he was planning to divert the plane, next when he was happy to do so, and least when there was no indication of his desire to go to Cuba. In contrast to previous research (Woolfolk et al., 2006), which obtained similar findings for an actor who had previously expressed the intention to commit the act that was later coerced, the present findings show that subjective attitudes suffice for ascribing intention even without a previous commitment to the act. They also show that subjective attitudes suffice for ascribing intentional action even when the person behaves under compulsion. More specifically, despite extreme coercion, descriptions that the pilot intended to divert the plane or that he was happy to do so (vs. a control description) increased judgments of his blameworthiness, which led to perceptions that he played a more substantial causal role, which in turn, produced higher ratings that he acted intentionally.

We used different measures of intent in each of these studies to accommodate the different causal deviance problems. In the first study, the focus was on

the main actor's intentions when she fired a warning shot at an intruder. We asked participants to make scale ratings of the extent to which she intended to kill the intruder, ranging from completely unintentional to completely intentional. In retrospect, it might have been better to label these completely unintended to completely intended since the outcome never occurred and intent, therefore, refers to the actor's pre-outcome mental state rather than to whether she effected a certain outcome intentionally (Alicke, 2008). Because no outcome occurred, however, we assume that participants were judging the actor's pre-outcome state since there was no other way to interpret the question. In the second and third studies, outcomes did occur. In the second study, we asked participants to characterize a woman's "lucky" shot ranging from completely accidental to completely intentional, and in the third, to indicate their agreement or disagreement with the statement that a man flew his hijacked plane to Cuba intentionally. We believe that these different measures demonstrate the generalizability of CCM predictions across different response measures, but a great deal of further research is needed to assess possible differences among different construals of intent and intentionality.

When strong sympathies or antipathies are aroused by features of the event and the people involved, we view the effects of evaluative reactions on judgments of blame, intentionality, and related decisions as endemic to the attribution process. The question of whether judgments of this sort represent "biased" attributions requires a separate paper, but a few final points about this issue are worth making in closing this one. It is important to note that even when observers base their attributions on "extra-legal" factors such as the actor's character or the favorableness of the outcome, they may be following a perfectly reasonable path to blame. For example, except in a few special circumstances (Saks & Spellman, 2016), the law prohibits using general character or personality information to determine motive or intent. In fact, the law even prohibits, again with some notable exceptions, the use of information about prior offenses to establish involvement in a current one. If diverging from Anglo-American legal theory is the standard for bias in ordinary blame judgments, then using character or prior behavior information (i.e., extra-legal information) in this context can be considered biased. And yet, knowledge of past behavior is perhaps the most diagnostic cue for understanding an actor's current intentions and motives. When such information is probative, it would be irrational *not* to use it in ordinary social judgment. For example, it is certainly not irrational to question the current motives of a psychopath who has preyed upon people for years, or to use other highly consistent behavior patterns, to understand an individual's present actions.

On the other hand, character information that influences blame by providing a basis for liking or disliking, without further resolving criteria such as intent or causation, is more concerning for those who wish to promote fair and reasonable evaluations of social conduct. Each of the three studies in this paper falls



into this category. The fact that a woman was a bad neighbor, that a woman was abusive toward her husband, or that a pilot was glad to be hijacked, all influenced perceptions of blame and intentionality. In each instance, knowledge of a person's character or attitude impacted assessments of blame which then influenced attributions of criteria that are supposed to provide an independent basis for blame (specifically intent, foreseeability, perceptions of the actor's likelihood estimates that the outcome would be achieved, and causal role in the outcome). These findings extend CCM predictions to virtually all of the criteria that are important for ascribing blame but do so across a wide variety of previously unexplored causal deviance problems.

We did not, in this series of studies, include independent manipulations to demonstrate that people were actively motivated to skew their intentionality and blame attributions. Such evidence has been provided previously in studies by Ames and Fiske (2013). Nevertheless, in future research it will be valuable to experimentally alter observers' motivational orientations by, for example, priming concerns for fairness or inducing negative emotional states such as anger, to assess whether these manipulations influence ascriptions of blame criteria as well as of blame itself. Finally, individual differences in moral beliefs, political orientations, and cognitive processing styles have yet to be investigated within the CCM framework, and studies along these lines would help to provide evidence that some individuals are more prone to spontaneous evaluation influences in making moral judgments than others, as well as to establish boundary conditions for such effects.

## Note

1. We also measured the extent to which participants agreed that Robert wanted to fly the plane to Cuba before it was hijacked; at the moment that Robert was flying the plane to Cuba, he had the desire to go to Cuba, and; that Robert flew the plane to Cuba by his own free choice using 11-point (0 = *completely disagree*; 10 = *completely agree*) scales. See Table 3 for descriptive and inferential statistics. Omnibus F-tests were highly significant for all dependent measures,  $p$ 's < .001. We conducted planned comparisons to explore these effects. Compared to participants in the control condition, participants who learned that Robert intended to divert the flight prior to being coerced judged him as having more prior desire, momentary desire, and free choice to act. Participants who learned Robert was secretly delighted to divert the flight provided higher ratings of prior desire, momentary desire, and free choice compared to control participants. Those who read that Robert had prior intent to divert the flight to Cuba provided higher ratings of prior desire and free choice relative to those who learned Robert was secretly delighted to divert the flight.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## References

- Alicke, M. D. (1992). Culpable causation. *Journal of Personality and Social Psychology*, 63, 368–378.
- Alicke, M. D. (2000). Culpable control and the psychology of blame. *Psychological Bulletin*, 126, 556–574.
- Alicke, M. D. (2008). Blaming badly. *Journal of Cognition and Culture*, 8, 179–186. Special Issue—*On Folk Conceptions of Mind, Agency, and Morality*.
- Alicke, M. D., Rogers, R., & Taylor, S. (2018). What is Blame and why do we love it? In K. Gray & J. Graham (Eds.), *Atlas of moral psychology* (pp. 382–390). New York, NY: Guilford Press.
- Alicke, M. D., & Davis, T. L. (1989). The role of a posteriori victim information in judgments of blame and sanction. *Journal of Experimental Social Psychology*, 25, 362–377.
- Alicke, M. D., Buckingham, J. T., Zell, E., & Davis, T. L. (2008). Culpable control and counterfactual reasoning in the psychology of blame. *Personality and Social Psychology Bulletin*, 34, 1371–1381.
- Alicke, M. D., Mandel, D. R., Hilton, D. J., Gerstenberg, T., & Lagnado, D. A. (2015). Causal conceptions in social explanation and moral evaluation: A historical tour. *Perspectives on Psychological Science*, 10(6), 790–812. doi:10.1177/1745691615601888
- Alicke, M. D., & Rose, D. (2012). Culpable control and causal deviance. *Social and Personality Psychology Compass*, 6(10), 723–735.
- Alicke, M. D., Rose, D., & Bloom, D. (2011). Causation, norm violation, and culpable control. *The Journal of Philosophy*, 108(12), 670–696.
- Alicke, M. D., & Zell, E. (2009). Social attractiveness and blame. *Journal of Applied Social Psychology*, 39(9), 2089–2105.
- Ames, D. L., & Fiske, S. T. (2013). Intentional harms are worse, even when they're not. *Psychological Science*, 24(9), 1755–1762.
- Ames, D. L., & Fiske, S. T. (2015). Perceived intent motivates people to magnify observed harms. *Proceedings of the National Academy of Sciences*, 112(12), 3599–3605.
- Beebe, J. R., & Buckwalter, W. (2010). The epistemic side-effect effect. *Mind & Language*, 25(4), 474–498.
- Beebe, J. R., & Jensen, M. (2012). Surprising connections between knowledge and actions: The robustness of the epistemic side-effect effect. *Philosophical Psychology*, 25(5), 689–715.
- Burns, R. (1786). *Poems, chiefly in the Scottish dialect*. Kilmarnock: John Wilson.
- Carnes vs. Thompson (1932). Supreme Court of Missouri.
- Fincham, F. D., & Jaspers, J. M. (1980). Attribution of responsibility: From man the scientist to man as lawyer. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13, pp. 81–138). New York, NY: Academic Press.
- Fincham, F. D., & Shultz, T. R. (1981). Intervening causation and the mitigation of responsibility for harm. *British Journal of Social Psychology*, 20(2), 113–120.
- Frankfurt, H. G. (1969). Alternate possibilities and moral responsibility. *Journal of Philosophy*, 66(23), 829–839.
- Gray, K., & Graham, J. (Eds.). (2018). *Atlas of moral psychology*. New York, NY: Guilford Press.
- Guglielmo, S., Monroe, A. E., & Malle, B. F. (2009). At the heart of morality lies folk psychology. *Inquiry*, 52(5), 449–466.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814–834.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hume, D. (1748/2007). *An enquiry concerning human understanding*. Oxford, UK: Oxford University Press.

- Kelley, H. H. (1971). *Attribution in social interaction*. New York, NY: General Learning Press.
- Knobe, J. (2003). Intentional action and side effects in ordinary language. *Analysis*, 63, 190–193.
- Knobe, J. (2010). Person as scientist, person as moralist. *Behavioral and Brain Sciences*, 33 (04), 315–329.
- Lagnado, D. A., & Channon, S. (2008). Judgments of cause and blame: The effects of intentionality and foreseeability. *Cognition*, 108, 754–770.
- Malle, B. F., Guglielmo, S., & Monroe, A. E. (2014). A theory of blame. *Psychological Inquiry*, 25(2), 147–186.
- Malle, B. F., & Knobe, J. (1997). The folk concept of intentionality. *Journal of Experimental Social Psychology*, 33, 101–121.
- Mazzocco, P. J., & Alicke, M. D. (2004). On the robustness of outcome bias: No constraint by prior culpability. *Basic and Applied Social Psychology*, 26, 131–146.
- Mele, A. (2001). Acting intentionally: Probing folk intuitions. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality* (pp. 27–43). Cambridge, MA: MIT Press.
- Miller, J. S., & Feltz, A. (2011). Frankfurt and the folk: An experimental investigation of Frankfurt-style cases. *Consciousness and Cognition*, 20, 401–414.
- Nadelhoffer, T. (2004). The Butler problem revisited. *Analysis*, 64(3), 277–284.
- Nadelhoffer, T. (2005). Skill, luck, control, and intentional action. *Philosophical Psychology*, 18(3), 341–352.
- Nadelhoffer, T. (2006). Desire, foresight, intentions, and intentional actions: Probing folk intuitions. *Journal of Cognition and Culture*, 6(1), 133–157.
- Nahmias, E., Morris, S., Nadelhoffer, T., & Turner 1, J. (2005). Surveying freedom: Folk intuitions about free will and moral responsibility. *Philosophical Psychology*, 18(5), 561–584.
- Pizarro, D., Uhlmann, E., & Salovey, P. (2003). Asymmetry in judgments of moral blame and praise: The role of perceived metadesires. *Psychological Science*, 14(3), 267–272.
- Pizarro, D. A., Uhlmann, E., & Bloom, P. (2003). Causal deviance and the attribution of moral responsibility. *Journal of Experimental Social Psychology*, 39(6), 653–660.
- Roese, N. J. (1997). Counterfactual thinking. *Psychological Bulletin*, 121(1), 133–148.
- Saks, M. J., & Spellman, B. A. (2016). *The psychological foundations of evidence law*. NY: NYU Press.
- Samaha, J. (2017). *Criminal Law* (12th ed.). Boston, MA: Cengage Learning.
- Shaver, K. G. (1985). *The attribution of blame: Causality, responsibility, and blameworthiness*. New York: Springer-Verlag.
- Shaw, M. E., & Sulzer, J. L. (1964). An empirical test of Heider's levels in attribution of responsibility. *The Journal of Abnormal and Social Psychology*, 69(1), 39–47.
- Shultz, T. R., Schleifer, M., & Altman, I. (1981). Judgments of causation, responsibility, and punishment in cases of harm-doing. *Canadian Journal of Behavioural Science*, 13(3), 238.
- Woolfolk, R. L., Doris, J. M., & Darley, J. M. (2006). Identification, situational constraint, and social cognition: Studies in the attribution of moral responsibility. *Cognition*, 100 (2), 283–301.