

# Causation, Morality & Atypicality

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Are folk judgments of causation purely descriptive or is there a normative component to their judgments? Knobe (2006) and Knobe & Fraser (2008) provide data and argue from this basis that if we judge that an actor is morally responsible for a given outcome we are more likely to judge that actor to be the cause of the outcome even if there are other actors who, from a descriptive perspective, equally caused the result. In response, Driver (2008a, 2008b) provides an alternative reading of the data these authors have compiled pointing out that the immoral factors can also be construed as atypical, or more generally 'out of norm'. This more comprehensive account of causal judgments has been supported empirically by Roxborough & Cumby (2009) who collected evidence suggesting that atypicality has a direct role in how the folk attribute causation while continuing to support Knobe and Knobe & Fraser's commitment to the role of moral factors.

To further this debate, we offer an alternative explanation of the data collected by Roxborough and Cumby and the analysis that they provide. The plausibility of this alternative explanation threatens their support for Driver and the analogous criticism of Knobe and Knobe & Fraser. That is, perhaps the introduction of atypicality does not affect folk judgments of causation directly; rather, perhaps it has merely an indirect affect via the moral judgments that have been shown to affect causal judgments. In contrast to the plausibility of this alternative explanation, our investigation appears to show that the effect of atypicality is in fact direct, thus providing further support for a more holistic model of causal judgments.

## 1. Knobe versus Driver on Causation

Joshua Knobe (2006) claims that moral judgments play a direct role in folk attributions of causal responsibility. Knobe makes his case using data from a study in which he presented subjects with the following vignette:

Lauren and Jane work for the same company. They each need to use a computer for work sometimes.

Unfortunately, the computer isn't very powerful. If two people are logged on at the same time, it usually crashes. So the company decided to institute an official policy. It declared that Lauren would be the only one permitted to use the computer in the mornings and Jane would be the only one permitted to use the computer in the afternoons.

As expected, Lauren logged on the computer the next day at 9:00 am. But Jane decided to disobey the official policy. She also logged on at 9:00 am. The computer crashed immediately. (Knobe, 2006, p. 68)

Neither Jane nor Lauren logging on alone would have crashed the computer. Both Jane and Lauren had to be logged on for the computer to crash. Nevertheless, Knobe's subjects were significantly more willing to attribute causal responsibility for the computer crash to Jane than to Lauren. The only difference between Jane and Lauren seems to lie in the moral status of their actions: Jane broke a rule while Lauren did not. Knobe thus concluded that moral judgments influence folk attributions of causal responsibility.

Julia Driver (2008a, 2008b) offers an explanation for Knobe's data that does not accord moral judgment a central role. Driver notes that Jane's morally wrong action in Knobe's vignette is also an instance of unusual behavior: employees do not usually brazenly break company rules. Driver thus suggests it is unusualness or being "out of the norm" (Driver, 2008a, p. 430), not immorality *per se*, that influences folk attributions of causal responsibility. The folk, Driver thinks, "are more likely to make attributions of causation to events that do not conform to norms." (Driver, 2008b, p. 459)

To test Driver's suggestion, Knobe & Fraser (2008) presented subjects with the following vignette:

The receptionist in the philosophy department keeps her desk stocked with pens. The administrative assistants are allowed to take the pens, but faculty members are supposed to buy their own.

The administrative assistants typically do take the pens. Unfortunately, so do the faculty members. The receptionist has repeatedly emailed them reminders that only administrative assistants are allowed to take the pens.

On Monday morning, one of the administrative assistants encounters Professor Smith walking past the receptionist's desk. Both take pens. Later that day, the receptionist needs to take an important message... but she has a problem. There are no pens left on her desk. (Knobe & Fraser, 2008, p. 443)

Both Professor Smith and the administrative assistant had to take a pen in order for the receptionist to be left without one. Neither taking a pen alone would have left the receptionist bereft. Nevertheless, Knobe & Fraser's subjects were significantly more willing to attribute causal responsibility for the receptionist's problem to Professor Smith than to the administrative assistant. Both Professor Smith and the administrative assistant acted typically. Professor Smith was in the moral wrong. Knobe & Fraser thus concluded that moral judgments directly influence folk attributions of causal responsibility. *Contra* Driver, immorality does not influence folk causal attributions only insofar as immoral actions are unusual.

In reply to Knobe & Fraser, Driver (2008b, p.459) distinguishes two ways of being 'out of norm'. The first is to be statistically abnormal, which is a matter of being unusual or atypical. Warm days in Northern winters are statistically abnormal. The second is to be evaluatively abnormal, which is a matter of deviating from an ideal. Immoral actions are abnormal in this second sense. Driver admits that neither Professor Smith nor the

administrative assistant acted statistically out of norm in Knobe & Fraser's vignette.

However, the Professor did act evaluatively out of norm: his action was immoral. Driver thus claims that Knobe & Fraser's results are actually compatible with her view that the folk are more likely to attribute causal responsibility to agents acting 'out of norm'.

Moreover, Driver takes her explanation of Knobe's data, when properly understood, to be more general than Knobe's own and preferable for that reason.

## **2. Roxborough & Cumby on Atypicality**

At this point in the debate, Roxborough & Cumby (2009) weigh in on Driver's side with a vignette designed to reveal the importance of statistical atypicality in folk causal attributions. If statistical atypicality is important in folk causal attributions, then a complete account of folk causal attributions must allow for that importance. Roxborough & Cumby thus promise to support Driver's more general view over Knobe's narrower one. Their vignette runs as follows:

The receptionist in the philosophy department keeps her desk stocked with pens. The administrative assistants are allowed to take the pens, but faculty members are supposed to buy their own.

The administrative assistants typically do not take the pens. Unfortunately, the faculty members do. The receptionist has repeatedly emailed them reminders that only administrative assistants are allowed to take the pens.

On Monday morning, one of the administrative assistants encounters Professor Smith walking past the receptionist's desk. Both take pens. Later that day, the receptionist needs to take an important message... but she has a problem. There are no pens left on her desk. (Roxborough & Cumby, 2009, p. 209-10)

Professor Smith's behavior in this vignette was statistically normal but evaluatively abnormal, that is, typical but immoral. The administrative assistant's behavior was atypical but perfectly moral. As Knobe would predict, Roxborough & Cumby's subjects were

significantly more willing to attribute causal responsibility for the receptionist's problem to Professor Smith than to the administrative assistant. Interestingly, though, Roxborough & Cumby found that their subjects as compared with Knobe & Fraser's subjects were significantly less willing to agree that Professor Smith caused the problem. That is, subjects given the vignette above attributed significantly less causal responsibility to Professor Smith than did subjects given Knobe & Fraser's vignette.

The only difference between Knobe & Fraser's and Roxborough & Cumby's vignettes lies in whether or not the administrative assistant's action is statistically 'out of norm'. It thus appears that atypicality does affect folk attributions of causal responsibility. Strikingly, atypicality appears to affect subjects' judgments about the causal responsibility of an agent even when it is not that agent who has acted atypically. Making the administrative assistant's behavior atypical did not lead subjects to hold her more causally responsible for the receptionist's problem but, rather, to hold Professor Smith less causally responsible for that problem.

Roxborough & Cumby allow that their results are compatible with Knobe's view. However, they say, their results show the folk concept of causation is more complex than Knobe supposes. Atypicality as well as immorality importantly influences folk attributions of causal responsibility. Knobe's view is therefore incomplete and Driver's more general view is preferable.

### **3. The 'Mitigating Factor' Account of Atypicality**

Roxborough & Cumby take the effect of atypicality on subjects' attributions of causal responsibility in their study to be *direct*:

Since our study included only one modification of Knobe & Fraser's study, the introduction of atypicality, we can conclude that the decrease in the

folk's willingness to apply the concept of causation to Professor Smith's behavior is impacted directly by the atypicality of the competing behavior. (Roxborough & Cumby, 2009, p. 211)

Atypicality may indeed have a direct effect on folk causal attributions.

Alternatively, atypicality may affect folk causal attributions indirectly via an effect on moral judgment. To see how the effect of atypicality may be indirect in this way, consider the following speculative story, which we call the *mitigating factor* account.

In both Knobe & Fraser's and Roxborough & Cumby's vignettes, Professor Smith takes property to which he is not entitled. Both Knobe & Fraser's and Roxborough & Cumby's subjects, it is assumed, morally condemn Professor Smith's action. We can wonder here about the relative strength of subjects' moral condemnation of Professor Smith in response to the different vignettes. Of course, in neither case would we expect subjects' moral condemnation of Professor Smith to be particularly harsh, since taking a pen on the sly is a very minor transgression. Even so, we can wonder whether subjects judge Professor Smith's action equally harshly in both cases or whether subjects' moral evaluations of Professor Smith differ across the two cases.

It is at least *prima facie* plausible that subjects judge Professor Smith's transgression less harshly when the administrative assistants are not really using the pens anyway, compared to when the administrative assistants frequently make use of the pens. Subjects might think the pens are 'fair game' when those entitled to them do not use them. Subjects might think Professor Smith was, in Roxborough & Cumby's vignette, somewhat unlucky: how was he to know that this time an administrative assistant would actually take a pen? For either of these or for some other reason, subjects given Roxborough & Cumby's vignette may take the unusualness of the administrative assistant's behavior as a *mitigating*

*factor* when morally evaluating Professor Smith's action. If this speculative account is correct, then by changing the typicality of the administrative assistant's behavior in their version of the vignette, Roxborough & Cumby also changed, albeit less obviously, the moral status of Professor Smith's action.

The *mitigating factor* account is not idle speculation. That account, if true, would make sense of Roxborough & Cumby's surprising finding that their subjects as compared to Knobe & Fraser's were not more willing to say that the administrative assistant caused the receptionist's problem. If atypicality had a direct effect on folk causal attributions, it seems that effect ought to show up as an increase in the causal responsibility attributed to the administrative assistant in Roxborough & Cumby's study. What we see, however, is a decrease in the causal responsibility attributed to Professor Smith: Roxborough & Cumby's subjects were less willing than Knobe & Fraser's to say Professor Smith caused the receptionist's problem. Notice, though, this is just what we would expect to see if atypicality affected causal attributions indirectly, as a mitigating factor in subjects' moral evaluations of Professor Smith's behavior.

The *mitigating factor* account is thus motivated by some plausible speculation and by its explanatory value in making sense of Roxborough & Cumby's results. If the effect of atypicality on folk causal attributions is indirect in the way the mitigating factor account proposes, then Roxborough & Cumby's results are in fact compatible with Knobe's view. Atypicality has an effect, it turns out, but on moral judgments, which are what influence attributions of causal responsibility. Whether or not the *mitigating factor* account is correct is therefore important in the ongoing debate between Knobe and Driver over the nature of the folk concept of causation.

#### 4. Testing the ‘Mitigating Factor’ Account

According to the *mitigating factor* account, the unusualness of the administrative assistant’s taking a pen lessens (somehow) the perceived immorality of Professor Smith’s pen-taking, thus reducing his perceived causal responsibility for the receptionist’s lack of pens. We now test the *mitigating factor* account with a new experiment. In this experiment, subjects were presented with one of two vignettes. The first was Knobe & Fraser’s (2008) vignette:

The receptionist in the philosophy department keeps her desk stocked with pens. The administrative assistants are allowed to take the pens, but faculty members are supposed to buy their own.

The administrative assistants typically do take the pens. Unfortunately, so do the faculty members. The receptionist has repeatedly emailed them reminders that only administrative assistants are allowed to take the pens.

On Monday morning, one of the administrative assistants encounters Professor Smith walking past the receptionist’s desk. Both take pens. Later that day, the receptionist needs to take an important message... but she has a problem. There are no pens left on her desk.

The second was Roxborough & Cumby’s (2009) vignette:

The receptionist in the philosophy department keeps her desk stocked with pens. The administrative assistants are allowed to take the pens, but faculty members are supposed to buy their own.

The administrative assistants typically do not take the pens. Unfortunately, the faculty members do. The receptionist has repeatedly emailed them reminders that only administrative assistants are allowed to take the pens.

On Monday morning, one of the administrative assistants encounters Professor Smith walking past the receptionist’s desk. Both take pens. Later that day, the receptionist needs to take an important message... but she has a problem. There are no pens left on her desk.

Subjects were then asked whether they agree with the following claim:

“Professor Smith’s action was immoral”  
Not at all                      Somewhat                      Fully  
-3      -2      -1      0      1      2      3

The *mitigating factor* account predicts that subjects will agree less with the claim that Professor Smith acted immorally when given the second vignette than when given the first. In contrast, the *direct* account predicts that subjects will rate the Professor’s behaviour in both vignettes as being equally immoral.

## 5. Experimental Result and Discussion

We invited students in an undergraduate class at York University to participate in our study. Our results are summarized in the table below.

*Insert Table 1 Here*

Contrary to the speculative plausibility of the *mitigating factor* account, our results do not support this analysis<sup>1</sup>. In fact, given that there is no statistical significant difference between the two means we can conclude that Roxborough & Cumby were right to suggest that atypicality has a direct effect on the causal attributions of the folk. This is particularly relevant for the debate between Knobe and Driver since, as we saw above, if the *mitigating factor* account is right than Knobe’s hypothesis concerning causal attributions is consistent with Roxborough & Cumby’s findings. In particular, if this account were confirmed by our study we could explain away the effect that is observed in the Roxborough & Cumby study. However, it appears as though this is not the case. Instead, the evidence collected here gives credence to the *direct* account and its hypothesis that the folk are directly sensitive to considerations of atypicality.

Since these results support the *direct* account, we can assume that Roxborough & Cumby's claim that Knobe's analysis is inadequate is correct. In other words, this evidence further supports Driver's claim that folk attributions of causation are more complex than Knobe's analysis would permit. In particular, it appears as though Roxborough & Cumby's intriguing finding that "atypicality can affect causal judgments about an agent's action even when it is not the agent being judged who has acted atypically" (Roxborough & Cumby, 2009, p. 211) must be accounted for.

The evidence collected here also permits us to address an objection that has been raised against the entire project that Knobe, Knobe & Fraser and Roxborough & Cumby have tried to support. Recall Hart & Honoré's initial intuition that "the notions of what is unusual and what is reprehensible by accepted standards both influence the use of causal language." (Hart & Honoré, 1959, p.56) Here we find a clear commitment to the claim that moral judgments influence folk attributions of causation and in response, Knobe and then later Knobe & Fraser have utilized surveys where a rather simple corporate or office rule has been violated. Further, even in an attempt to question some elements of Knobe & Fraser's conclusion, Roxborough & Cumby maintained this standard. In each analysis of the data collected using these surveys all authors professed a commitment to the claim that moral factors have a direct role in the attributions of causation that the folk make. However, as Roxborough & Cumby note, "perhaps we are not testing whether moral valence plays a role at all since there is a real question whether breaking a company policy is a moral violation." (Roxborough & Cumby, 2009, p. 212) This is a significant and legitimate challenge to the claims of all the authors above, since in each case they assume that the breaking of an office or corporate rule and the effect it has on judgments of

causation as evidence that moral factors play a primary factor in how the folk attribution causation.

Our results, however, permit us to answer this objection. That is, our results indicate that the folk do, at least somewhat, recognize the transgression in the Knobe & Fraser and Roxborough & Cumby vignettes as a moral violation. Indeed the mean responses in our study were slightly greater than the moderate claim that Professor Smith's action was "somewhat" immoral. In other words, our subjects did view his breaking of the rule as something worth at least some moral condemnation. This, we think, suggests that the above authors are right in their analysis of this transgression and are thus right to interpret this as evidence for the claim that "people's willingness to say that a given behaviour caused a given outcome depends in part on whether they regard the behaviour as morally wrong" (Knobe, 2006, p.62).

We might still wonder what future research would yield if it involved evaluating a behaviour that was considered "fully" immoral by the folk. In this setting we might expect to find an even greater effect in how causal responsibility is assigned and it would be interesting to see how evaluations of atypicality and morality interact in these more dramatically immoral cases.

Finally, experimental work that could tease apart the effects of morality and typicality on folk attributions of causal responsibility would be particularly valuable.<sup>2</sup> For example, in light of our findings here, it seems worth conducting an experiment in which subjects are randomly assigned to receive either the Knobe & Fraser or the Roxborough & Cumby vignette and are then asked about the morality of Professor Smith's action, the typicality of Professor Smith's action, and about Professor Smith's causal responsibility.

The “holistic” account we support would predict (1) a difference across the two conditions in subjects’ answers to the third question (2) mediated by differing judgments of typicality rather than by differing moral judgments. Were these predictions borne out, our claim that atypicality can affect folk causal attributions directly, not merely indirectly via an effect on moral judgment, would be cemented.

## **6. Conclusion**

In response to Roxborough & Cumby’s study we raised a plausible alternative explanation to account for the data they collected. If this alternative account, the *mitigating factor* account, were correct, then Knobe’s analysis of the role of moral factors in assessing causal responsibility would avoid much of the problems Roxborough & Cumby raise. In particular, it would discount the *direct* account suggested by Roxborough & Cumby and weaken their claim to complexity and their support of Driver’s position. We have, however, argued that Roxborough & Cumby were right to provide this analysis. By developing a study that compares the immoral nature of the causally responsible agent in both Knobe & Fraser’s and Roxborough & Cumby’s prior studies we have collected evidence that shows the folk judge the causally responsible agent as being equally morally responsible even though judgments of atypicality have changed in the scenario. Thus, we can conclude that in these cases atypicality has a direct effect on the judgments of causal responsibility. Finally, we have further refined the explanatory role of atypicality in understanding how the folk attribute causation. We thus take the current study to support Roxborough & Cumby’s claim that “a more holistic account of how the lay person attributes causation” (Roxborough & Cumby, 2009, p. 212) is required if we are to successfully capture the nature of the folk concept of causation.

## Notes

1. A comparison of our means did not yield a significant result  $t(46) = 0.736$ ,  $p > 0.4$
2. We wish to thank Joshua Knobe for the following suggestion.

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