

Folk Psychological Concepts: Causation¹

Craig Roxborough and Jill Cumby
roxboro@yorku.ca & jcumby@yorku.ca
York University

There is a decades old controversy over which factors influence our application of the concept causation. Hart & Honoré (1959), for example, have presented compelling thought experiments supporting the view 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) Recent empirical inquiry has taken up this issue suggesting that when an action is morally offensive, we are more likely to judge that action as the cause of the outcome (Alicke, 1992; Knobe 2006a; Knobe & Fraser, 2008). This observation suggests a reversal of the traditional view, that is, while it is generally accepted that causal judgments influence our moral judgments, these empirical findings appear to support the claim that moral judgments influence our causal judgments as well. In light of this evidence Joshua Knobe has argued that “causal attributions are not purely descriptive judgments. Rather, 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, 2006a, p.62) The result is that the folk application of the concept of causation functions under normative, as opposed to purely descriptive, considerations.

Knobe’s arguments have recently been the subject of criticism by Julia Driver, who provides an alternative explanation to account for Knobe’s empirical results. That is, perhaps the phenomena that Knobe observes in his studies can be explained not by an appeal to moral considerations, but rather, by utilizing the concept “out of norm.” (Driver, 2008a, p. 430) If this alternative explanation can be applied to Knobe’s results then this, as Knobe notes, “threaten[s] to dissolve the debate entirely...[since] we will be left with no real reason to suppose that moral judgments can have an impact on causal judgments.” (Knobe & Fraser, 2008, p.441)

Our aim in this paper is to investigate the nature of this alternative explanation and to begin to determine what role it has to play in the folk concept of causation. By sketching the progression of Knobe's research and by providing an analysis of this work in light of Driver's suggestion, we motivate the need for the study we present. While our results are consistent with the claim that causal judgments are influenced by moral judgments, they also reveal a level of complexity in how the folk use the concept causation which is more easily accounted for by Driver's view.

1. The Debate on Causation

Stemming from his work on intentional action (Knobe, 2006b), Knobe hypothesized that the folk concept of causation would be subject to the direct and significant influence of moral considerations. To test this hypothesis and show that, in contrast with the traditional view, moral judgments impact causal judgments he developed 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 that 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, 2006a, p. 68)

This vignette presents a scenario where an outcome has been caused by two statistically or descriptively identical behaviours. However, one behaviour, Jane's logging in, was immoral. If Knobe's hypothesis concerning the role of moral judgments in causal judgments is right, then we

should find that most people, when presented with this story, judge that Jane is the cause of the outcome. As it turns out, this is in fact, the case.

Knobe presented participants with the following two claims:

- Jane caused the computer to crash.
- Lauren caused the computer to crash.

It turns out that the folk are significantly more likely to say that Jane caused the computer to crash, rather than that Lauren did. This result is informative since the only difference between the two actions is that Jane's is immoral. In fact, if Lauren did not log in to the computer, the computer would not have crashed. With this result Knobe concludes that moral considerations play a direct role in our application of the folk concept of causation. While his argument is significantly more developed than we have just outlined and he provides a detailed analysis of the role of moral considerations in our judgments (Knobe, 2006a; Knobe & Fraser, 2008) this brief analysis is all we require for our purposes.

In response to these findings, Julia Driver has suggested that an alternative explanation is available for Knobe's findings. She rightfully observes that Jane's behaviour is immoral and "out of norm" (Driver, 2008a, p. 430). While this term is slightly ambiguous, Knobe interprets it to signify that Jane's behaviour is *atypical*. The suggestion continues as follows. Perhaps the folk are not sensitive to the moral valence of Jane's behaviour, but rather are sensitive to the atypicality or unusualness of her action, that is, Jane does not typically log in during the morning hours.

Driver's analysis is in agreement with Knobe's in so far as it maintains the general thesis that causal judgments proceed through invoking a strategy known as contrastivism. Both recognize that an outcome can be described as having many causes. As Driver notes, initially "we have a sea of causation" such that "we need to be able to make selections among the

respective causal factors” to identify something as being “the cause” (Driver, 2008a, p.425). We proceed by identifying a cause that “obtrudes” to use Knobe’s term. That is, we identify “the cause” by its contrast with other causes along some identifiable cognitive axis. Knobe’s suggestion is that the relevant cognitive axis is a normative one; the obtruding cause is the cause that stands in contrast to the others in so far as it is judged immoral or blameworthy. Knobe interprets Driver as proposing that the relative cognitive axis is a descriptive one, that is, the obtruding cause can be contrasted with the others in so far as it is judged to be statistically atypical or unusual.

While this alternative analysis does not rule out the plausibility of Knobe’s normative analysis, it does present an equally plausible descriptive account of which factors influence the application of the concept causation. This underdetermination of analyses demands more argumentation from both philosophers if we are to choose between possibilities.

Recognizing that “the immoral behaviors in existing experiments were always atypical” (Knobe and Fraser, 2008, p.443) Knobe and Fraser attempt to respond to Driver’s concerns directly by developing a new vignette and conducting a new study. The new vignette is 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 take the pens. Unfortunately, so do the faculty members. The receptionist has repeatedly e-mailed 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)

This vignette is modified to ensure that the immoral behaviour of Professor Smith is not also atypical, that is, he always takes the pens. Thus, since both behaviours are typical and only one is immoral, if there is a significant difference in judgments of causation, then Knobe and Fraser can conclude that in this case and, arguably, in the previous vignette that moral considerations directly and significantly impact our judgments of causation. In order to test this hypothesis they presented subjects with the following two claims:

- Professor Smith caused the problem.
- The Administrative Assistant caused the problem.

Remarkably, Knobe and Fraser found that people were significantly more willing to judge the Professor as the cause of the problem.² This difference in judgments must be the result of the only difference in the behaviours, the moral component embodied in Professor Smith's outlawed taking of the pen.

With these results it seems that Knobe and Fraser have effectively addressed the alternative explanation that Driver has provided. It must be the case that moral considerations play a significant role in folk judgments of causation since this is the only difference we can observe and we can possibly extend this result to the previous study concerning Lauren and Jane's behaviour to argue that while Jane's behaviour is atypical, it is the moral valence that influences our judgment.

In response, Driver clarifies her definition of "out of norm". Knobe and Fraser, she suggests, interpret "out of norm" as "atypicality in the statistical sense of what is unusual" (Driver, 2008b, p.459) but points out that "out of norm" can be understood as a "more general hypothesis" (Driver, 2008b, p. 459) that covers Knobe and Fraser's results. She recognizes that "[n]orms can be understood in a variety of ways – as statistical, where what is abnormal is what is unusual, or as deviating from some idealization, which need not be statistical at all." (Driver,

2008b, p. 459) This clarification allows for “out of norm” to encompass the moral analysis Knobe and Fraser provide, since, as Driver explains what Knobe and Fraser take to be immoral behaviour can be understood as evaluatively atypical or as deviating from some idealization. Thus, in the original study Jane’s behaviour is out of norm in both the statistical and evaluative sense, whereas in the new study, Professor Smith’s behaviour is out of norm as well, but only in the evaluative sense. In effect, her analysis can successfully account for the results in both Knobe’s original study and in Knobe and Fraser’s improved study. .

Driver has made a significant contribution to the debate by distinguishing between two notions of atypicality and by recognizing the complexity of the folk concept of causation. We agree that the folk concept of causation is significantly more complex than Knobe and Fraser’s analysis suggests and thus, we think that statistical atypicality and its interaction with evaluative atypicality ought to be investigated further. We will, however, remain silent on whether Knobe and Fraser’s moral analysis or Driver’s evaluatively atypical analysis is correct and simply speak of the factors involved as Knobe and Fraser do. That is, we will focus our attention on statistical atypicality and the moral valence of behaviour since we believe that these factors each play a role in folk judgments of causation and have not yet been exhaustively investigated.

2. The New Problem

As just stated, Knobe and Fraser’s response to Driver assumes that by “out of norm” she means statistical atypicality (hereafter atypicality is meant to refer to statistical atypicality). That is, the first study conducted by Knobe leaves the choice between providing an analysis of causation in terms of atypicality or morality underdetermined. Admitting that his results can be analyzed in terms of this alternative explanation, Knobe and Fraser develop a new vignette that removes atypicality completely so that they can properly address the role of moral

considerations. Since the results they found pointed significantly in favour of their analysis, they conclude that moral considerations, not atypicality, explain the effect they have found.

However, we believe that a further vignette must be created and utilized in a study in order to rule out the effect of atypicality. That is, by leaving out atypicality completely, we believe that a complete analysis that rules out the explanatory role of atypicality in our understanding of the folk application of the concept of causation has not been provided. With this in mind we developed a variation on Knobe and Fraser's vignette that re-introduces atypicality as a property of the moral, not the immoral, behaviour. Thus, if atypicality has a role at all in folk judgments of causation we would expect to find a difference in the judgments of causation in a vignette of this sort.

We constructed 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 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.

Unlike Knobe and Fraser's version of this scenario, we have re-introduced atypicality as a property of the moral action. By doing so, we have designed a case that examines another possible, though neglected, permutation regarding the interaction between typicality and moral valence, as seen in the table below.

Study	Actor 1	Actor 2
Knobe (Lauren/Jane)	Typical	Atypical
	Moral	Immoral
Knobe and Fraser (Admin/Prof)	Typical	Typical
	Moral	Immoral
Our Study (Admin/Prof)	Atypical	Typical
	Moral	Immoral

By making the Administrative Assistant's behaviour atypical we have presented the opportunity for a study to highlight the role of this descriptive consideration. If atypicality has any impact on our judgments of causation, we will be able to determine through this study whether this exists. Clearly, Knobe and Fraser have shown that a difference in moral valence alone is sufficient to yield significant differences in the willingness to attribute causation to an actor, but we suggest that our study will allow us to compare that impact with the impact of atypicality.

Our hypothesis was simple: statistical atypicality directly effects the application of the folk concept of causation; therefore, the participants in our study should be more likely than those in Knobe and Fraser's, to say that the Administrative Assistant caused the problem. While our hypothesis would be satisfied by a change in the willingness of participants to attribute causation to either actor, we hypothesized that the change would be associated with the alteration of the Administrative Assistant's behaviour recognizing that Professor Smiths' behaviour remained constant between the two studies. Thus, we hypothesized that a comparison of Knobe and Fraser's results with ours would show a higher degree of agreement with the statement: The Administrative Assistant caused the problem.

3. Results and Discussion

We invited students in an undergraduate class at York University to participate in our study.³ We presented the vignette detailed above and gave participants the opportunity, in a manner that is identical to Knobe's methodology, to agree or disagree with the following two claims:

- Professor Smith caused the problem.
- The Administrative Assistant caused the problem.

Our results are summarized and compared with Knobe's in the chart below:

	Prof (mean)	Admin (mean)
Knobe and Fraser	2.2	-1.2
Ours	0.90	-0.98

Prima facie, our hypothesis was not satisfied since a comparison of the means of agreement with the claim that the Administrative Assistant caused the problem, did not yield a statistically significant difference. This result was surprising, but perhaps can be explained by the suggestion that the Administrative Assistant's behaviour was not atypical enough. That is, if her behaviour was radically atypical perhaps we would have found a statistically significant result in the mean of agreement with the claim that she caused the problem. Furthermore, Professor Smith's behaviour was reinforced as immoral throughout the story, whereas the Administrative Assistant's behaviour was only discussed in brief and so perhaps this influenced the result. Notwithstanding these suggestions, analyzed from this perspective our results appeared consistent Knobe and Fraser's hypothesis that the application of the concept causation is primarily influenced by moral judgments. However, further reflection on our findings suggested that perhaps the atypicality did have an effect, just not as we had predicted.

As it turns out, participants in our study were significantly less willing to agree with the claim that Professor Smith caused the problem.⁴ When asked whether Professor Smith caused the

problem, Knobe and Fraser's mean response approached agreement with the claim that Professor Smith 'fully' caused the problem, while our mean response was closer to the less enthusiastic claim that Professor Smith caused the problem 'somewhat'. This disagreement is significant and permits us to conclude that atypicality does impact folk judgments of causation. Since our study included only one modification of Knobe and 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 behaviour is impacted directly by the atypicality of the competing behaviour. Furthermore, we wish to emphasize that it is particularly surprising that in changing the Administrative Assistant's behaviour, but keeping Professor Smith's behaviour constant, that we found a change in the level of agreement with the claim that Professor Smith caused the problem. This suggests that the introduction of atypicality can affect causal judgments about an agent's action even when it is not the agent being judged who has acted atypically.

While the majority of the participants were still more willing to attribute causality to Professor Smith's behaviour, and thus, Knobe and Fraser must be right to suggest that moral considerations play a role in our application of causation, we have shown both that atypicality also plays a role and that the folk concept of causation is significantly more complex than Knobe and Fraser's analysis suggests, a conclusion that is favourable to Driver's analysis.

The results we have found demand further research to determine the precise relationship between these factors. As our study has shown, the tendency to attribute causation to Professor Smith is significantly reduced by the introduction of atypicality to the Administrative Assistant and it would be interesting to determine whether a flip in the mean of agreement could be achieved. In future research we would like to present participants with the choice between slightly immoral and radically atypical behaviours, as we suspect that this would be most likely

to achieve the flip which our results suggest might be possible. In addition, the vignettes utilized thus far are subject to a legitimate concern, that is, 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. Thus, in a future investigation we can provide a study that determines whether and to what extent this and other behaviours are considered immoral by the lay person.

Furthermore, perhaps one could argue that while the behaviours utilized here are not properly moral, they can be accurately analyzed using Driver's evaluative atypicality. While we think this suggestion is reasonable, it is beyond the scope of this current project and wish to note that even if true, the complexity that we have highlighted in the folk application of causation is still present and that statistical atypicality is an essential component of this application. Both of these suggestions would help to further understand the role of these two considerations and must be investigated before we make any complete claims on how the folk concept of causation is applied.

In response to Knobe and Fraser's study Driver has clarified her conception of "out of norm" to be a more general notion that can be parsed into two different interpretations, one of which is consistent with Knobe's data and provides an alternative explanation to Knobe's moral analysis.. We, however, have argued that we can continue to wonder what role the descriptive factor of statistical atypicality has in the folk application of causation. By developing Knobe and Fraser's vignette to include an atypical and moral behaviour along with a typical and immoral behaviour we have begun to isolate the explanatory role of atypicality in understanding how the folk attribute causation. While more research is necessary to determine the precise role of atypicality, as well as how it interacts with moral considerations we have re-opened the possibility of this factor as a complementary explanation to the factors that Knobe has eloquently

highlighted. Moreover, the account of causation that our results support is more complex than Knobe's analysis since it not only recognizes the role of an alternative factor, statistical atypicality, but also requires a more holistic account of how the lay person attributes causation.

Notes

An earlier version of this paper was presented at the Southern Society for Philosophy and Psychology, March 2008. We would like to thank Henry Jackman, Kristin Andrews, James Bradley and two anonymous reviewers for their valuable and constructive input.

1. This paper is wholly co-authored.
2. Knobe and Fraser found a statistically significant result between the mean rating of the statement that the professor caused the problem (2.2) and the mean rating of the statement that the administrative assistant caused the problem (-1.2).
3. Subjects were 118 students in an introductory philosophy class at York University. We counterbalanced the questions but found no significant order effects. Each subject rated their agreement with each statement on a scale of -3 ("not at all") to +3 ("fully"), with 0 marking "somewhat". We obtained a mean rating for the statement that the Professor caused the problem of 0.90; the mean for the statement that the Administrative Assistant caused the problem was -0.98. This difference is statistically significant, $t(117) = 21.05$, $p < .001$.
4. Recall, Knobe and Fraser obtained a mean of 2.2 for the statement that the professor caused the problem whereas we obtained a mean of 0.90. The difference between these means was statistically significant $t(117) = -7.47$, $p < .001$.

References

- Alicke, M.A. (1992) Culpable causation. *Journal of Personality and Social Psychology*. 63: 368-378.

- Driver, Julia (2008a). Attributions of causation and moral responsibility. in W. Sinnott-Armstrong (Ed.) *Moral psychology (Vol: 2); The cognitive science of morality: Intuition and diversity* (pp.423-439). Cambridge, MA: MIT Press.
- Driver, Julia (2008b). Kinds of norms and legal causation: Reply to Knobe and Fraser and Deigh, in W. Sinnott-Armstrong (Ed.) *Moral psychology (Vol: 2): The cognitive science of morality: Intuition and diversity* (pp. 459-461). Cambridge, MA: MIT Press.
- Hart, H.L.A & Honoré, A.M. (1959) *Causation in the Law*. Oxford: Clarendon Press.
- Knobe, Joshua (2006a). *Folk psychology, folk morality*. Unpublished doctoral dissertation. Princeton, University. Retrieved October 26, 2007, from:
<https://webpace.utexas.edu/deverj/personal/test/folkpsychology.pdf>
- Knobe, J. (2006b). The concept of intentional action: A case study in the uses of folk psychology”, *Philosophical Studies*. 130: 203-231.
- Knobe, J. & Fraser, B. (2008), Causal judgment and moral judgment: Two experiments. in W. Sinnott-Armstrong (Ed.) *Moral psychology (Vol: 2): The cognitive science of morality: Intuition and diversity* (pp. 441-447). Cambridge, MA: MIT Press.