

# Infection and Directness in the Interventionist Account of the Basing Relation

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In *Evidentialism and Epistemic Justification*, Kevin McCain puts forward a defense of an Evidentialist Explanationist theory of justification. In it, he presents a novel account of the basing relation. Drawing from the interventionist account of causation, he proposes a solution to the problem of deviant causation (widely viewed to be The Problem haunting causal accounts of the basing relation). In this paper, I will raise two problems for McCain's account: an Infection Problem (in a Global and Local form), and a Direct Cause Problem. The Infection Problem questions whether the account can capture features that undermine doxastic justification. The Direct Cause Problem queries the adequacy of McCain's account of basing by challenging how evidence could be a direct cause of belief.

## The Account

McCain proposes the following account of the basing relation.

IB-R: S's belief that  $p$  at  $t$  is based on her evidence, E, if and only if at  $t$ :

1. Each  $e_1$  included in E is a direct cause of S's believing that  $p$
2. Each  $e_1$  included in E is an actual cause of S's believing that  $p$
3. It is not the case that intervening to set the values of all direct causes of S's believing that  $p$ , other than the members of E, to 0 will result in S's not believing that  $p$  when every  $e_1$  included in E is held fixed at its actual value.<sup>1</sup>

When evaluating whether S's belief that  $p$  ( $B_p$ ) is well based, the interventionist model will examine all relevant causal influences on the formation of  $B_p$ . The set of causal factors can include evidence (non-factive mental states that propositionally justify  $B_p$ ), other mental states, mental mechanisms, and external influences. An entity, X, is a direct cause of an entity, Y, just in case intervening on X results in a change in value to Y. X is an actual cause of Y just in case varying the actual value of X would vary the actual value of Y, when all other causal factors are held fixed.

In sum, IB-R aims to overcome the traditional problems of deviance and overdetermination by providing a nuanced framework of causal relations. In what follows, I will challenge the adequacy of this account. But first, I'd like to praise its inventiveness. IB-R gives us a way to pull apart the complex web of causes that form our beliefs, and pinpoint exactly where belief formation can go wrong. While I think the interventionist model needs to be fleshed out more carefully, it is a highly promising and novel account of causal basing. The problems with it are, I think, problems with McCain's Evidentialism, not problems inherent to the interventionist framework.

## The Infection Problem

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<sup>1</sup> McCain (2014)

The Infection Problem is a challenge to the sufficiency of IB-R. Here, I will present cases that meet IB-R, but intuitively fail to be doxastically justified. The beliefs fail to be doxastically justified because they suffer from some kind of infection. Local infection occurs when doxastically unjustified beliefs are included in E. I pose a dilemma for McCain and argue he has no acceptable way out. Global infection occurs when cognitive biases (that can only be understood by looking at the agent's belief forming dispositions counterfactually) undermine doxastic justification. Since these global features are counterfactual and holistic, they cannot be captured by looking only at actual and direct causes.

### *Local Infection*

S's evidence, E, consists of non-factive mental states which propositionally justify S in believing  $p$ . But what if the beliefs in E are not themselves doxastically justified? Let  $p$  be "there is a lottery ticket at my feet," and  $q$  be "the lottery is rigged in my favor." Now consider the case of Ann.

ANN<sup>2</sup>

Suppose Ann is struck by lightning and the effect of the lightning is that a lottery ticket appears at her feet and she forms the belief that  $p$  and  $\text{if } p \text{ then } q$ . She reasons to the belief that  $q$ . She is propositionally justified in believing this, since her non-factive mental states imply it. But, intuitively, her belief that  $q$  isn't doxastically justified, and even if true, her belief that  $q$  isn't knowledge.

Since IB-R does not require that every member of E must itself be doxastically justified, it seems that it gets the wrong verdict in ANN.<sup>3</sup> McCain could give three responses: first, McCain could hold that Ann has a defeater, and so her belief is not propositionally justified. But suppose Ann is a bit stunned and not very reflective. She doesn't have any background beliefs that directly undermine her justification. She is just happy at her good fortune. Second, McCain could insist that Ann is in fact justified. I think this is implausible, for reasons that McCain himself raises against the doxastic view of the basing relation.<sup>4</sup> If Ann bases her belief on beliefs that are not themselves well-based, then it seems that her belief could not be doxastically justified.

The most promising route, then, seems to be the third option: augment IB-R to require that S's beliefs must be well-based on well-based based beliefs in order to count as doxastically justified. This seems to be McCain's approach. After the official formulation, he suggests an extra condition: a

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<sup>2</sup> This example is modified from Flowerree (2016).

<sup>3</sup> I draw this conclusion from the official formulation of IB-R given on McCain, 90. There is a wrinkle to this interpretation which I will discuss in a moment.

<sup>4</sup> Indeed, the problem McCain raises for the doxastic view of basing seems to be a problem that will arise for any theory of doxastic justification (except perhaps coherentism). Justification is intuitively understood as chainlike. Either it will terminate in an unjustified belief, or it will result in an infinite regress.

belief can only be well based if it is well based on non-factive mental states that are themselves well based.<sup>5</sup>

However, Modified IB-R generates two regresses. The first regress is conceptual. IB-R is an account of the basing relation. Modified IB-R ends up explaining doxastic justification in terms of a relation between a belief and other doxastically justified beliefs. We cannot understand what it is to be doxastically justified without making use of the concept of doxastic justification. This regress might not be vicious: we could reduce any particular relation to a causal relation, though we cannot explain the concept of doxastic justification without making use of the concept in both the explanandum and the explanans. If our aim was to give an account of the nature of basing, then this would be a problem. But if our aim is just to judge whether a particular belief is properly based, then modified IB-R may be sufficient.

The conceptual regress illuminates an additional problem: Modified IB-R is not an instance of the Orthodox View.<sup>6</sup> It does not explain doxastic justification purely in terms of propositional justification. It does not give an account of what it is for a belief to be doxastically justified. Instead, it only explains how doxastic justification is *transmitted*.

The second regress is a causal one, and it does seem vicious. Modified IB-R requires that for any belief to be well-based, it must stand in a causal relation to E, which includes other beliefs that are themselves well-based. S could not have a doxastically justified belief without having an infinite chain of doxastically justified beliefs. A belief stands in a particular causal relation to a set of evidence, which in turn stands in a particular causal relation to a set of evidence, so on *ad infinitum*. Modified IB-R seems to rule out foundationalism, since to be well-based, a belief must be based on evidence that is itself well-based. A solution to the causal regress might be coherentism (the preferred view of old school evidentialists). But coherentism does not seem obviously compatible with the interventionist model of basing.

### *Global Infection*

Local infection is not the only way that doxastic justification can be undermined. Doxastic Justification can also be undermined by features of the agent that are not present in E. Turri's argument against the Orthodox View highlights this point. He presents cases in which the agent is propositionally justified, the evidence causes the belief, but the mechanism that brings about the belief is compromised. The mechanism can be compromised in two ways: (a) the mechanism does not embody formally valid reasoning (PONENS and LACY), or (b) it treats something as evidence when it should not (PROPER and IMPROPER). Turri's cases rely on this assumption: there is a single mechanism at work in both cases (namely, the mechanism that forms beliefs) and it can function well or function poorly.

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<sup>5</sup> McCain, 96. "Shirley's belief that *r* can be well-founded only if it is based on her evidence for *r*, which includes her beliefs that *q* and that *q* entails *r*, and those beliefs are themselves well-founded" (emphasis mine).

<sup>6</sup> See Turri (2011) for an explanation of the Orthodox view and an argument against it.

McCain avoids Turri's counterexamples by reifying our belief forming mechanisms into Good Belief Forming Mechanisms and Bad Belief Forming Mechanisms.<sup>7</sup> He posits a rational belief formation mechanism (the one that uses modus ponens, and believing on the evidence) and an irrational belief formation mechanism (the one that engages in wishful thinking, or uses inference rule X). Once we reify belief forming mechanisms in this way, we achieve the intuitive results. We can distinguish PONENS and LACY because they are using different belief forming mechanisms. Believing on the evidence is one belief formation mechanism; wishful thinking is another.

But this is implausible. For psychological and philosophical reasons, wishful thinking and bad inferences are best understood as malfunctions of the same mechanism. It is psychologically implausible to posit that we operate with distinct, non-overlapping belief forming mechanisms, one set of which is "good" and the other set of which is "bad." The belief forming mechanisms imagined here are causal mechanisms. Even if a mechanism is highly reliable, it is empirically unlikely that it will function perfectly all the time. So even if we can reify the "good" processes and the "bad" processes, it is still implausible to think the good processes will function perfectly. In those cases where the good processes malfunction, Turri's counterexamples will reemerge. Secondly, we have a disposition to form beliefs. Sometimes that disposition embodies good reasoning. Sometimes it embodies bad reasoning. If we accepted the idea that there are "wishful thinking" mechanisms and "rational" mechanisms, it would be hard to see the output of both mechanisms as beliefs. Consider wishful thinking. We don't straightforwardly, clear-eyedly, believe something because we want it to be true.<sup>8</sup> Wishful thinking is subtle. It can involve a manipulation of S's assessment of the exact evidential support that E lends to  $p$ . And if this is the case, then it is not clear how IB-R can distinguish wishful basing from well-basing.

To illustrate, consider the Racist Employer, Chet.<sup>9</sup>

#### CHET

Chet is reviewing applicants for a job, and he forms the belief that Trayvon has a poor file. In fact, the Trayvon does have a poor file. Trayvon did not attend a prestigious school, and he has minimal experience. However, had the applicant's name been Caucasian, Chet would have evaluated the resume differently.<sup>10</sup> Chet is also deeply unaware of his racism. He has no beliefs that he could call to mind that are overtly racist. He is just slogging through a stack of a hundred applicants, trying to find the best candidate.

In this scenario, Chet correctly believes that the Trayvon's resume is subpar. Considerations of race are playing a role in his belief formation, but not as a premise. His racism is not in the set of beliefs

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<sup>7</sup> I discuss belief formation in this section, but the same could be said of sustaining belief.

<sup>8</sup> Many philosophers accept that no mental state meeting this profile could count as a belief. See Bennett (1990), Hieronymi (2009), Street (2011), Shah (2003), Shah and Velleman (2005), Velleman (2009), Williams (1970), and Wedgwood (2002).

<sup>9</sup> This example is modified from Flowerree (2016). There, I argue against a doxastic conception of the basing relation. I have modified the example to draw out problems with IB-R. I consider implicit bias to be a cousin to wishful thinking.

<sup>10</sup> Numerous psychology studies have shown that this happens routinely. E.g. Steinpreis, Anders and Ritzke (1999).

that he has. Rather, his racism is a function of how he interprets his evidence, and which conclusions he draws from that evidence. Even though the racist employer believes  $p$  because of evidence that *in fact* supports his conclusions, he is not reasoning well. It is only when we look at the way his belief forming mechanisms behave in total that we can see the pernicious racism that drives his belief formation. It is only when we examine (counterfactually) how he would reason with Caucasian applicants that we can see his poor reasoning. Chet has a bias that makes him go wrong, and he makes a mistake that corrects the problem. But multiplying mishaps shouldn't give Chet doxastic justification.

### The Direct Problem

One final concern about IB-R. Evidentialism and the interventionist model are not intuitive partners. In what follows, I argue that  $E$  could not be a direct cause of  $S$ 's belief that  $p$ . If IB-R is true and the argument is sound, this argument shows that no belief is or could be well-based. Let  $E$  be the set of non-factive mental states that propositionally supports  $p$ , and  $B_p$  be the belief that  $p$ . Let  $t$  be the time at which  $S$  forms  $B_p$ . Let  $M$  be the seeming to  $S$  that  $p$ , and let  $D$  be the disposition to form the belief that  $p$  when  $S$  has  $M$ . In order to be a direct cause, a change in the first variable must result in a change in the final variable, when other variables are fixed.<sup>11</sup> Now I will show that fixing  $D$  results in  $E$  having no causal influence on  $B_p$ .

First,  $E$  does not immediately cause  $B_p$ . If it does cause  $B_p$  it does so meditately, through what McCain calls a *directed path*. This is obvious because one could have evidence that propositionally justifies  $B_p$  and yet fail to believe  $p$ . This is true for beliefs I haven't considered. It is true for cases where I am deliberating about whether to form the belief (but haven't yet formed it). It is true for all inferential beliefs.  $E$  is not sufficient to cause  $B_p$ .<sup>12</sup> Something else must also be at play. This could be many different things. It could be my attention, it could be my judgment that  $E$  supports  $p$ , it could be some kind of psychological compulsion within me. But something else is required in order for the belief to come about.

On the interventionist model, this need not be a problem.  $E$  could directly cause  $B_p$  by directly causing something that directly causes  $B_p$ . The result would be a *directed path*. But  $E$  doesn't directly cause something that directly causes  $B_p$ . We can see this because  $E$  can support an infinite number of beliefs, but rather than continuously forming infinite sets of beliefs, I am able to deliberate about one matter, and then set it aside.  $E$  does not cause me to open deliberation; something else is responsible. I will use the variable  $X$  to denote that thing, whatever it is, that causes me to open deliberation. Then,  $X$  and  $E$  together give rise to  $M$ , it seeming to me that  $p$ . And  $M$  activates  $D$ , which causes  $B_p$ .

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<sup>11</sup> "There must be a possible intervention on the first variable that will result in a change in the value of the second when all other variables in the set are held fixed at some value." McCain, 90.

<sup>12</sup> And it's a good thing, otherwise we would have infinite causal chains manufacturing trivial beliefs slowing down our cognitive processing.

Now that we have this framework in mind, let's perform interventions. Let  $V = \{E, X, S, D\}$ . Fix  $X$ ,  $M$  and  $D$  at 0. Given what we said above, intervening on  $E$  will have no effect on  $B_p$ . So  $E$  is not a direct cause of  $B_p$ . Now suppose we fix  $D$  and  $S$  at 1. Then it doesn't matter how we intervene on  $E$ ,  $B_p$  will obtain. Why? Because  $D$  and  $M$  are necessary and sufficient for causing  $B_p$ . It is directly analogous to McCain's spark example:

[The faulty wiring] is not a direct cause of [the fire] because we cannot hold [the other variables] fixed at some values and manipulate the value of [the fire] by changing the value of [the faulty wiring]...The only way that the short-circuiting of the electrical wiring can affect whether or not there is a fire in this case is by affecting whether there is a spark in the room. Once the presence or absence of the spark is held fixed, manipulating whether the electrical wiring short circuits cannot change whether the fire occurs. So the short circuiting of the electrical wiring is not a direct cause of the fire.<sup>13</sup>

Similarly, once we hold fixed that it seems to  $S$  that  $p$ , and that  $S$  has the disposition to form  $B_p$  on the basis of this seeming, the result ( $B_p$ ) is determined. So  $E$  is not a direct cause of  $B_p$ .

I can see a way around the Direct Problem, but not if we hold on to McCain's evidentialism. A reliabilist could say that a belief is well-based if it is caused by a reliable belief forming mechanism. It would effectively remove the extra step of what supplied by  $X$  above. Once we remove  $X$  from our intervention, we can show that the belief forming mechanisms are the direct cause of the belief. The interventionist model seems to be a very promising strategy to tackle deviant causation. But I'm not sure that IB-R is the best version of it.

### Conclusion

McCain presents a thorough, interesting, and rich discussion of the evidentialism and the basing relation. Despite his interesting proposal, the basing relation is a stubborn problem. Infection and Directness problems prevent it from being a satisfying account.

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<sup>13</sup> McCain, 90.

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