Levels of reasons why and answers to why-questions

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Abstract

According to Skow (2016, 2017), correct answers to why-questions only cite causes or grounds, but not non-accidental regularities. Accounts that cite non-accidental regularities typically confuse second-level reasons with first-level reasons. Only causes and grounds are first-level reasons why. Non-accidental regularities are second-level reasons why. I first show that Skow's arguments for the accusation of confusion depend on the independent thesis that only citations of first-level reasons why are (parts of) answers to why-questions. Then, I argue that this thesis is false. Consequently, the claim that correct answers to why-questions only cite causes or grounds is refuted as well.

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1

1 Introduction

Skow's theory of reasons why (2016, 2017) is framed in terms of a theory of answers to why-questions regarding the "[...] occurrence of a concrete event" (2016, 27). A central claim is that correct answers to such why-questions only cite causes or (partial) grounds of the event in question, but not non-accidental regularities (2016, 3, 2017, 907). This claim is based on a distinction between different levels of reasons why. Only causes and grounds are 'first-level reasons why.' Non-accidental regularities are 'second-level reasons why.' Skow argues that accounts that cite non-accidental regularities in answers to why-questions typically confuse second-level reasons with first-level reasons (2016, chapter 4, 2017). This accusation is crucial to Skow's rebuttals of (putative) non-causal explanations, such as mathematical explanations (*ibid.*).

The level distinction plays an important role in Skow's account. Unsurprisingly, it has been disputed (e.g., Baumgartner 2017; Pincock 2017; Lange 2018, 36). However, in what follows, I argue that even if the distinction were granted and only causes and grounds were first-level reasons why, Skow's accusation of confusion and his central claim that correct answers to why-questions only cite causes or grounds can be refuted. I first show that Skow's arguments for the accusation as well as his arguments for the central claim crucially depend on the independent thesis that only citations of first-level reasons why are (parts of) answers to why-questions. Then, I argue that this thesis is false. Skow's arguments against the claim that *some* answers to why-questions are conjunctions of citations of a first-level reason why and its second-level reason why can be rebutted, and there are plausible arguments in favor of that claim.

Like Skow, I am exclusively concerned with why-questions concerning particular events.

2 A putative confusion of levels of reasons why

According to several accounts, non-accidental regularities (such as laws) need or could be cited in correct answers to why-questions.[1] The deductive-nomological (D-N) account (1948), Friedman's account (1974), Railton's account (1978), and Kitcher's account (1989) include *law-like statements*. Salmon and Lewis allow for citing *causal regularities* (Salmon 1984, 262, 274; Lewis 1986). Woodward and Hitchcock include *invariant generalizations* (2003). According to Lange, some answers to why-questions appeal to *necessities* (2013). An explanation for someone's not being able to cross all of Königsberg's bridges exactly once cites both that the bridge arrangement has a particular property and that it is necessary that if a bridge arrangement has this property, one cannot cross all of the bridges exactly once (2013, 488-91).

According to Skow, all these accounts are mistaken. Correct answers to why-questions only cite causes or grounds, but not non-accidental regularities (2016, chapter 4.3, 2017).[2] He argues that the mistake is due to a *confusion* of different levels of reasons why (2017). For instance, Woodward's account "[...] rests on a confusion of levels of reasons why in much the same way the DN model did forty years earlier" (2016, 95). Before I turn to evaluating this accusation, I introduce the different levels of reasons why.

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[1]For the following discussion, it does not make a difference whether we consider to be decisive the regularities' non-accidentalness or the fact that they obtain. What does matter is whether *any* of them are citable in answers to why-questions regarding particular events.

[2]This claim is similar to remarks by Scriven (1959), as Skow points out (2016, 84-85).

2.1 Reasons why

Skow follows accounts that tie why-questions to *reasons why* (2016, 26-27; examples: Achinstein 1975, 29-30; Brogaard 2009, 461; Stanley 2011, 209). The basic form of answers to why-questions is 'One reason why p is that q.'

Reasons why are particular facts (2016, 35). For instance, that her diaphragm was stimulated is a reason why Juliana has the hiccups. Skow distinguishes between different levels of reasons why (2016, chapter 4.2, 2017, 907):

FIRST-LEVEL REASONS WHY: A fact F_1 is a first-level reason why event E occurred iff F_1 is a reason why E occurred.

SECOND-LEVEL REASONS WHY: A fact F_2 is a second-level reason why iff F_2 is a reason why F_1 is a reason why E occurred.

Citing second-level reasons answers the 'follow-up' question 'What does F_1 have to do with E?' or 'Why is F_1 a reason why E occurred?' (2016, 75, 80). *Causal background conditions* are examples of second-level reasons. Take the question 'Why did the match light?' (2016, chapter 4.2, 2017, 907): That someone struck the match is a first-level reason why the match lit. That oxygen was present is a second-level reason why; it is a reason why that someone struck the match is a reason why the match lit. Other examples include non-accidental regularities, such as *laws* (2016, chapter 4.2, 2017, 908): Skow illustrates this with the question 'Why did the rock hit the ground at a speed of 4.4 m/s?' A first-level reason is that the rock was dropped from a height of one meter. A second-level reason is the law $s = \sqrt{2dg}$ (s = impact speed, d = drop height, g = gravitational acceleration near the earth's surface ≈ 9.8, $4.4 \approx \sqrt{2 * 1 * 9.8}$).

Second-level reasons why *can* be first-level reasons why. Take causal background conditions: That oxygen was present is also a reason why the match lit. However, according to Skow, non-accidental regularities *are not* first-level reasons why:

NON-ACCIDENTAL REGULARITIES: Non-accidental regularities are second-level reasons why, but not first-level reasons why.

For instance, that $s = \sqrt{2dg}$ is *not* a reason why the impact speed was 4.4 *m/s* (2017, 908). Skow does not argue for NON-ACCIDENTAL REGULARITIES. He likes "[...] to put the burden on the other side: why think [laws] are [first-level reasons why]?" (2017, 909). Skow further claims that only causes and grounds are first-level reasons why (2016, chapter 3, 2017, 907-909):

CAUSES AND GROUNDS: Only causes and (partial) grounds are first-level reasons why.

His argumentative strategy is to take CAUSES AND GROUNDS as initially plausible and to defend it against putative counterexamples. I do not discuss NON-ACCIDENTAL REGULARITIES and CAUSES AND GROUNDS, but take them for granted (for some discussion see, e.g., Baumgartner 2017; Pincock 2017; Lange 2018, 36). Instead, in what follows, I challenge Skow's claims about second-level reasons why and answers to why-questions.

2.2 *The accusation of confusion revisited*

Let us get back to the accusation of confusion. Skow accuses Hempel of "[...] inaugurat[ing] a long tradition of confusing the two levels of reasons" (2016, 81). The alleged confusion underlying the citing of non-accidental regularities in answers to why-questions is to take non-accidental regularities to be *first*-level reasons why. According to Skow, this confusion is due to particular *pragmatic* effects (2017, 909): We think that laws are first-level reasons

because they are often cited in *good responses* to an asked why-question. Skow illustrates his point as follows:

> [...] she asks me why [the rock] hit the ground at 4.4 *m/s*. I respond,
>
> Well, I dropped it from one meter up, and impact speed *s* is related to drop height by the
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> law $s = \sqrt{2dg}$ (and of course $\sqrt{2 * 1 * 9.8} \approx 4.4$). (Skow 2017, 909)

This is a fine response. However, this does not mean that the law is a first-level reason why:

> My response is a good one, but it does not follow that every part of my response is part of
> an answer to the question asked. In my view, the first part of my response – "I dropped it
> from one meter" – is an answer to the explicit question ("why did the rock hit the ground
> at 4.4 *m/s*?"), but the second part, the law, is not; it, instead, is an answer to an unasked
> follow-up why-question, a follow-up question I can anticipate would be asked
> immediately if I only answered the explicit question. The follow-up is: why is the fact
> that I dropped it from one meter up a reason why it hit the ground at 4.4 *m/s*? (Skow
> 2017, 910-911)

So, Skow's stance is that neither citing the law nor its application is part of the answer to the question 'Why did the rock hit the ground at 4.4 *m/s*?' They are just part of a good response to it. The law citation is an answer to an anticipated follow-up question. The confusion of different levels of reasons why is a confusion of good responses and proper answers. The same holds true in the case of the Königsberg bridges example. Skow suggests that Lange mistakenly takes a second-level reason (the necessity of not being able to cross all of the bridge exactly once) to be part of the answer to the relevant why-question (2016, chapter 5.3, 2017, 913-914).

6

2.3 Why there is probably no confusion of levels of reasons why

The accusation that so many of Skow's rival accounts make such an elementary confusion is puzzling. In fact, none of those accounts is committed to the claim that non-accidental regularities are first-level reasons why.[3] Here is why: Taking citations of second-level reasons to be parts of answers why *p* does not mean that one classifies second-level reasons as first-level reasons. How one classifies reasons is one thing and what one counts as part of an answer is another. These issues are *independent* of each other. Claiming that correct answers to why-questions (could) cite non-accidental regularities is compatible with agreeing that such regularities are not first-level reasons why.

Skow's accusation becomes less puzzling when one realizes that he assumes that (2017, 907):

WHY-QUESTIONS: Correct answers to why-questions only cite first-level reasons why.

Skow endorses WHY-QUESTIONS at the outset of his account. According to Skow, *complete* answers as to why *p* are conjunctions of elements of the form 'One reason why *p* is that *q*' (2016, 42, 51), i.e., they are conjunctions of citations of first-level reasons why.

Skow is so convinced of WHY-QUESTIONS that he interprets his opponents' accounts as *sharing* it. This leads to descriptions of their accounts as classifying *all* facts that are cited in answers to why-questions as first-level reasons. For instance, he claims that the D-N account "[...] take[s] certain second-level reasons, laws of nature, to also be first-level reasons," (2017, 908) and that "Salmon's view [...] is that all the other facts [...] are really part of the answer to

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[3]For a different rebuttal of the accusation see Pincock 2017. He argues that there could be a disagreement about the nature of first-level reasons why.

the question (in my preferred terms, they really are [first-level] reasons why [...]" (2016, 93). However, these descriptions are likely to be false. The defenders of rival accounts are *not* committed to accepting WHY-QUESTIONS. Skow neglects the vivid possibility that his opponents simply reject WHY-QUESTIONS.

Skow's accusation of confusion as well as his claim that correct answers to why-questions only cite causes or grounds essentially depend on WHY-QUESTIONS. If second-level reasons why could be cited in answers to why-questions, there would be no basis for accusing others of conflating different levels of reasons why, and the claim that answers to why-questions *only* cite causes or grounds would be refuted as well. So, let us turn to examining the plausibility of WHY-QUESTIONS.

3 Second-level reasons why and answers to why-questions

As we have seen, Skow assumes that answers to why-questions only cite first-level reasons why. He considers this assumption to be *uncontroversial* (2016, 51). According to him, the only thing that should be controversial is what first-level reasons why are (2016, 25). As I have argued, this is not the case. Instead, it seems to be controversial what kinds of facts are citable in answers to why-questions. Although Skow does not give explicit arguments for excluding citations of second-level reasons, his accusation of confusion reveals two arguments for it. In what follows, I first rebut these arguments. Then, I offer arguments *against* excluding citations of second-level reasons.

3.1 Arguments for excluding second-level reasons why

According to Skow, citations of second-level reasons are only parts of a *good response* to an asked why-question, but not proper parts of the *answer* to it. His reasoning reveals two

arguments for excluding second-level reasons: (i) Citing second-level reasons answers the closely related follow-up question 'What does F_1 have to do with E?' (2017, 907). (ii) Citations of second-level reasons why, taken by themselves, do not answer the question 'Why did E occur?' For instance, $s = \sqrt{2dg}$, taken by itself, does not answer why the impact speed was 4.4 m/s.

Yet, both arguments can be rebutted. The *first* argument is not compelling because an answer to a question can clearly have parts that are also answers to closely related questions. Take the question 'Where did you park your car?' and the reply 'I parked it next to the building which is Juliana's house and the only building in the street with a blue roof.' The second part of the which-clause also expresses an answer to 'How could one identify Juliana's house?' But this does not exclude it from being *part* of the answer to the initial question. The answer simply specifies the location where the car is parked in two complementary ways.

The *second* argument looks more promising. If we accept that non-accidental regularities are not first-level reasons why p, it seems difficult to argue that a citation of them, *taken by itself*, answers the why-question. However, even if so, the second argument can be rebutted. That a proposition, taken by itself, is not an answer to a question does not mean that it could not be a *part* of an answer. Take the question 'How did you rescue her?' and as a reply 'I jumped into the water, swam five meters, grabbed her, and brought her ashore.' 'I swam five meters', taken by itself, is not an answer to the question. But it is nonetheless a *part* of the conjunction, and the latter is an answer to the question.

A *third* argument Skow might want to offer is that including citations of second-level reasons why would amount to giving up his simple account of answers to why-questions. Arguably, the answer 'The drop height is one meter and $s = \sqrt{2dg}$' could not be stated in Skow's preferred form '*One* reason why p is that q.' A simple account of answers might have

some intrinsic value. But the alternative 'because'-form works fine when one cites both first-level and second-level reasons why, e.g., 'The impact speed was 4.4 m/s because the drop height is one meter and $s = \sqrt{2dg}$.' As Skow himself notes, "[...] 'reasons why' answers and corresponding 'because' answers are often equivalent, in some sense" (2016, 23). If so, there is room for an alternative simple account that features 'p because ...' propositions as the basic unit of answers to why-questions.

3.2   Arguments against excluding second-level reasons why

In order to argue against WHY-QUESTIONS, one might argue that *all* answers to why-questions need to cite non-accidental regularities, as Hempel would argue (cf. 1965, 349). One has to answer the follow-up question 'What does F_1 have to do with E?' in order to have an answer to the why-question. However, it suffices to argue for the weaker claim that *some* answers to a why-question are a conjunction of a citation of a first-level reason why and a citation of its second-level reason why. So, let us turn to arguments for such conjunctions.

My *first* argument is concerned with the nature of *complete* answers to why-questions. Questions are not understood as speech acts here, but as the *content* that is expressed by interrogative sentences (Skow 2016, 26-27; see also, e.g., van Fraassen 1980, 137-38). Answers are understood as propositions. An important issue discussed is whether answers have to be determined relative to some subject. Are answers always answers *for* some subject? If they were, one could rebut WHY-QUESTIONS as follows: In at least some cases, what Skow considers to be the *complete* answer is not a complete answer for *every* subject who lacks additional knowledge. Take the following example by Lange (2013): A mother has three children and twenty-three strawberries. According to Lange, the facts that jointly explain why she failed to distribute the strawberries equally among them are that she has three children,

twenty-three strawberries, and that three does not divide twenty-three. According to Skow, the only facts that explain are the first two (2016, 112-13; 2018, 15). So, the *complete* answer to the question 'Why did Jane fail to distribute the strawberries equally?' is 'There are exactly two reasons why she failed: She has three children and she has twenty-three strawberries.' As Skow notes himself, "[i]ncluding only the reasons why Jane failed is apt to leave one's audience unsatisfied" (2016, 114). This is understated: Arguably, the putative complete answer is unsatisfying for *everyone* who does not know know (or recognize the relevance of the fact) that three does not divide twenty-three. But if knowledge or recognition of the latter is *necessary* for considering an answer to the question satisfying, it seems plausible that the fact that three does not divide twenty-three is cited in the complete answer as to why Jane failed to distribute the strawberries equally. Something similar could be true in the impact speed example. Just stating that the drop height was one meter is not a complete answer for everyone who does not know how drop height and impact speed are related. A *complete* answer to this question cites the law or some other relevant non-accidental regularity. (Again, this does not mean that the law is a first-level reason why.) This argument is not a pragmatic argument; it is based on an assumption about the *semantics* of answers.

What if answers were *not* determined relative to some subject? In this case, one could rebut WHY-QUESTIONS as follows: Every question has a *subject matter*, i.e., a queried property or relation. For instance, the subject matter of 'Who robbed the bank?' is the property of being someone who robbed the bank in question. A *complete* answer to this question specifies all entities who fulfill this property. What is the subject matter of a why-question? One proposal that is general enough to capture the variety of why-questions is that the subject matter of a why-question is the property of being something the event in question (explanatorily) *depends* on (adopted from Kim 1994). First-level reasons why fulfill this property. However, this also

holds for true for *second*-level reasons why. That Jane failed to distribute the strawberries equally among her children also depends on the fact that three does not divide twenty-three (irrespective of whether the latter is a necessary or a contingent fact).[4] That the impact speed was 4.4 m/s also depends on the fact that $s = \sqrt{2dg}$, and so on. That is why *complete* answers can cite non-accidental regularities in addition to citing first-level reasons why.

My *second* argument is concerned with the relation between the answer to the follow-up question and the answer to the why-question. Skow argues only that the answer to the follow-up question, taken by itself, does not answer the why-question. However, one could argue that the answer to a follow-up question like 'Why does F_1 have to do with E?' *complements* an answer as to why p. The subject matter of follow-up questions is the property of being a *link* between the event occurrence in question and the cited fact. This link can be a further fact or a regularity, such as the gravitational law that connects drop height and impact speed. Importantly, the same could not be said regarding the cases that motivate Skow's pragmatic good-response argument. Take his example 'Is Connor coming to the party?' (2016, 72) and as a response 'No, he is sick.' Clearly, 'He is sick' is not part of an answer to the yes-or-no question. Instead, it is an answer to the expected follow-up question 'Why isn't he coming?' In this case, despite its relatedness, the answer to the follow-up question does *not* complement an answer to the first question. The first question is just a matter of yes or no. Follow-up questions that are concerned with reasons why are different. Their answers *can* complement answers as to why p. (This may not hold for *all* why-questions.)

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[4]Note that my argument does not endorse Lange's claim that the mathematical impossibility of dividing twenty-three by three is essential to the explanation (for this issue see Skow 2018, 13-16).

Altogether, it seems plausible that in some cases (at least complete) answers to why-questions cite second-level reasons why.

4 Concluding remarks

Skow attaches great weight to the different levels of reasons why. However, I have shown that the distinction does not bear decisive weight for two claims that are at the heart of Skow's account. Even if one granted the distinction, his claim that correct answers to why-questions only cite causes or grounds, and his claim that accounts that include citations of non-accidental regularities in answers to why-questions typically confuse second-level reasons with first-level reasons can be refuted. The question whether non-accidental regularities and causes are reasons of the same level is independent of the question what kinds of reasons are citable in answers to why-questions. I have argued that Skow's accusation of confusion is unwarranted. The true object of disagreement is what kinds of reasons why are citable in answers to why-questions. I have further rebutted Skow's argument for excluding citations of second-level reasons why in answers to why-questions, and I have argued that such citations can be included. At the very least, some complete answers to why-questions cite non-accidental regularities in addition to citing first-level reasons why. Thus, Skow's central claim that correct answers to why-questions *only* cite causes or (partial) grounds is refuted as well.

References

Achinstein, P. (1975). The Object of Explanation. In S. Körner (Ed.), *Explanation*, pp. 1–45. Oxford, UK: Basil Blackwell.

Baumgartner, M. (2017). Reasons without Argument. *Metascience 26*(3), 511–514.

Brogaard, B. (2009). What Mary Did Yesterday: Reflections on Knowledge-wh. *Philosophy & Phenomenological Research 78*(2), 439–467.

Friedman, M. (1974). Explanation and Scientific Understanding. *The Journal of Philosophy 71*(1), 5–19.

Hempel, C. (1965). *Aspects of Scientific Explanation, and Other Essays in the Philosophy of Science*. New York: Free Press.

Hempel, C. and P. Oppenheim (1948). Studies in the Logic of Explanation. *Philosophy of Science 15*(2), 135–175.

Kim, J. (1994). Explanatory Knowledge and Metaphysical Dependence. *Philosophical Issues 5*, 51–69.

Kitcher, P. (1989). Explanatory Unification and the Causal Structure of the World. In P. Kitcher and W. Salmon (Eds.), *Scientific Explanation*, pp. 410–505. University of Minnesota Press.

Lange, M. (2013). What Makes a Scientific Explanation Distinctively Mathematical? *British Journal for the Philosophy of Science 64*, 485–511.

Lange, M. (2018). Reply to My Critics: On Explanations by Constraint. *Metascience 27*(1), 27–36.

Lewis, D. (1986). Causal Explanation. In D. Lewis (Ed.), *Philosophical Papers. Volume II*, pp. 214–240. Oxford University Press.

Pincock, C. (2017). Review of Bradford Skow's *Reasons Why*. *Notre Dame Philosophical Reviews*, https://ndpr.nd.edu/news/reasons--why/.

Railton, P. (1978). A Deductive-Nomological Model of Probabilistic Explanation. *Philosophy of Science 45*(2), 206–226.

Salmon, W. (1984). *Scientific Explanation and the Causal Structure of the World*. Princeton University Press.

Scriven, M. (1959). Truisms as the grounds for historical explanation. In H. Gardiner (Ed.), *Theories of History*, pp. 443–475. The Free Press.

Skow, B. (2016). *Reasons Why*. Oxford University Press.

Skow, B. (2017). Levels of Reasons and Causal Explanation. *Philosophy of Science 84 (Proceedings)*, 905–915.

Skow, B. (2018). Of Strawberries and Energy Conservation. *Metascience 27*(1), 11–18.

Stanley, J. (2011). Knowing (how). *Noûs 45*(2), 207–238.

van Fraassen, B. (1980). *The Scientific Image*. Oxford University Press.

Woodward, J. and C. Hitchcock (2003). Explanatory Generalizations, Part I: A Counterfactual Account. *Noûs 37*(1), 1–24.