1 Preliminaries

This chapter lays the ground for the rest of the book by introducing some important notions and assumptions. The first section differentiates and clarifies at least some of the many meanings of 'explain' and 'explanation'. The second section introduces an important distinction between different constituents of explanations: They possess a tripartite structure of explanandum (that which is explained), an explanatory base constituted by explanatory sources (i.e. reasons why), and an explanatory link that connects the base to the explanandum. Together, the latter two components constitute what is often called the explanans. The third section takes a look at why-questions, their answers and the notion of a reason, as well as their intimate relation to explanation in our sense. The fourth section defends some of the assumptions from the preceding sections against criticisms from the recent literature.

1.1 Explanation

Let us start by clarifying some of the many meanings of 'explain' and 'explanation'. Following Benjamin Schnieder (2015, 137f.), we can differentiate a primary sense in which 'explain' and 'explanation' denote a communicative act of explaining, and secondary senses in which 'explanation' either denotes the linguistic vehicle of an act of explanation or the content expressed by such a vehicle. Let us call these senses the 'act sense', 'vehicle sense', and 'content sense', respectively. We say that the primary sense is *primary* to the secondary senses because the secondary senses can be characterized (as we just did) in terms of the primary sense. On the other hand, as we will see shortly, the reverse is not straightforwardly possible.

Next, following Sylvain Bromberger (1992, 20), we can observe that for different 'wh-'-interrogatives, there are different corresponding explanations. For example, it can be explained *what* something is, *how* something is done, or *why* something is the case:

– They explained to me what the four color theorem is.
– She will explain how the car can be repaired.
– I can explain why the window is broken.

In the following, I am exclusively concerned with explanation why. Accordingly, and in line with much of the literature on scientific explanation, I use 'explain' and 'explanation' as short forms for 'explain why' and 'explanation why', unless noted otherwise.

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With the distinction between different explanations wh- in place, we can apply the distinction between the act sense, vehicle sense, and content sense to explanation why. To give some more examples in addition to the third example above, the act sense is salient in the following cases:

– I explained why salt dissolves in water.
– Please explain to me why you did this!
– Their explanation why they arrived late took forever.

Concerning the vehicle and content senses, note that one linguistic vehicle of acts of explanations why are because-sentences: Explanations why are often performed by making because-claims. So I will assume that in the secondary senses, 'explanation' can refer to because-sentences or their contents.[12] Since at least part of giving an explanation why *P* consists in answering the question why *P*, and because-claims are one means of doing this, we can generalize this and assume that explanations in the vehicle and content senses are answers to why-questions and their contents. Of course, because-statements are but one means of answering why-questions, some others being statements of the form 'The reason why *P* is . . .' and 'A reason why *P* is . . .'.[13]

The distinction between the act sense of explanation and its vehicle and content senses is reminiscent of Bromberger's (1992, 50) distinction between the performance sense and text sense of 'explanation', as well as Ruben's (2004, 6) distinction between its process sense and product sense, which he also finds in terms like 'prediction', 'argument', and 'statement'. While it is not perfectly clear what Ruben means by 'product sense', it is plausible to assume that it refers to the information conveyed by an explanatory act. It is instructive to think about whether this information is the same as what is expressed by the corresponding answer to a why-question. In other words, do the content sense and Ruben's product sense of 'explanation' refer to the same thing?

Plausibly, they do not, because explanation why at least sometimes requires the communication of more than merely an answer to a why-question.[14] Following Skow (2016) I will argue in section 1.3 that correct and complete answers such as 'The reason why *P* is that *Q*' to a why-question 'Why *P*?' need not have as part of their content information about a law or explanatory relation connecting what

12 Cf. Schnieder (2015, 137f.).

13 Cf. Bradford Skow (2016, 13ff.), who also argues that there is a sense of 'explanation' under which it denotes answers to why-questions. We will discuss answers to why-questions and their relation to explanation in more detail in section 1.3.

14 Cf. Bromberger (1992, 41f.).

'*P*' and '*Q*' stand for. For example, plausibly, a correct and complete 'The reason why *P* is that *Q*'-answer need not have as part of its content something that determines whether the explanatory relation is one of causation or grounding, let alone anything more specific.[15] Nevertheless, it can be argued that such information needs to be conveyed by corresponding acts of explanation why because these acts aim at creating understanding why in the addressee.[16] Now arguably, understanding why requires grasping some sort of explanatory relation or law such as a causal or grounding relation.[17] But then an act of explaining why should communicate this explanatory relation or law. If Skow is right about answers to why-questions, this will involve more than providing the answer to the relevant why-question.

In any case, whether or not it is correct that information about laws or explanatory relations must be part of the content of answers to why-questions, merely *telling* people a correct and complete answer to a why-question does often not seem to amount to explaining it, even if information about the relevant laws or explanatory relations is also conveyed, as examples like the following suggest:

> A (bad) teacher distributes a list of sentences which their students have to learn for the next exam. The sentences concern various topics, and one of them reads 'The heavenly bodies $a_1, \ldots, a_n$ move as they do because their masses are $m_1, \ldots, m_n$ and their locations are $l_1, \ldots, l_n$'. Another of the sentences expresses a complex law of gravitation that relates masses and locations of heavenly bodies to their movement. We can imagine the students as either not quite possessing the concepts required for grasping the law of gravitation or otherwise possessing the concepts but lacking a proper grasp of the law because of its mathematical complexity. The teacher does nothing to address this.

It seems in this situation the teacher has *told* the students (correctly, let us assume) why the heavenly bodies move as they do, but the teacher has not *explained* why

15 Grounding is a notion of metaphysical productive priority involved in metaphysical explanations that has gained much attention in recent years and will play a pivotal role in what follows. I will make explicit what I assume about grounding along the way; for now, it is sufficient to know that it plays a role in metaphysical explanations that is roughly analogous to that of causation in causal explanations (although, as I will argue below, there is reason to assume that there are metaphysical explanations that involve other explanatory relations than grounding). For accounts of grounding see for example Rosen (2010), Fine (2012), the introduction by Correia and Schnieder (2012), and Bliss and Trogdon (2016). As for metaphysical explanations, we will encounter many examples over the course of this book, but examples include the idea that the mental can be metaphysically explained by (and hence grounded in) the physical, that the normative can be metaphysically explained by the non-normative, and that the existence of wholes (or sets) can be so explained by the existence of their parts (or members).

16 See for example Bromberger (1992) and Achinstein (1983).

17 See Hills (2016).

the heavenly bodies move as they do. The point is not that episodes of explaining can only be called such if they are successful. Rather, the point is that the communicative act of explaining why involves more than mere telling why: Perhaps for explaining why, the teacher would have to provide additional information, such as a visualization of the relationships captured by the law of gravitation. The teacher might also have to provide something else, such as an action that helps the addressee grasp the answer properly and gain understanding why; this could perhaps be a slow, emphatic reading or an instruction (on how) to properly reflect on the law of gravitation. If the former is true, the content sense and Ruben's product sense do not refer to the same thing.[18]

Note first that if the latter is true and it is not additional information but something else that is required for an explanation in the above cases, this would provide a reason to understand Ruben's 'product sense' differently, namely as referring to a sense of 'explanation' under which it refers to the information conveyed by an explanatory act plus whatever is further required, for example an action that helps the addressee grasp the answer and gain understanding why.[19] Note second that we can differentiate partial and full explanations: Often when we explain why *P*, we only provide part of a full explanation, for example if a full explanation would be needlessly complex and the missing parts are taken to be understood, or if we only know how to partially, but not fully explain why *P*.[20] Now, in the example, the teacher might have *told* the students a complete – full – answer as to why the heavenly bodies move as they do, but nevertheless the teacher would not have given an explanation why the heavenly bodies move as they do.

The distinction between explaining why and telling why also serves to further explain in what sense the act sense is primary and the vehicle and content senses are secondary: As we have seen, the secondary senses can be derived from the act sense, but not vice versa, at least not straightforwardly, since the linguistic vehicles of acts of explanation and their contents can also serve as vehicles and contents of other communicative acts such as acts of telling why. I will further discuss answers to why-questions and their relation to explanation why in sections 1.3 and 1.4 below, but for now we have to attend to yet another sense of 'explain', in which it denotes a relation that holds between entities such as

18 The point concerns explaining and telling in general; for instance, explaining what something is or how something is done involves more than mere telling what something is or how something is done.

19 On the difference between telling why and explaining why see also Skow (2016, 8) and Bromberger (1992, 41f.), who develops an account of the act of explaining.

20 See Ruben (2004, 29f.).

propositions, facts or events. This relational sense of 'explain' is salient in the following examples:

- That Moriarty threw a ball at the window explains why it is broken.
- The law of gravity explains the motion of planets.
- My being in a certain brain state explains that I am in a certain mental state.
- My being in a certain brain state together with the relevant psycho-physical laws explains my being in a certain mental state.
- That the ball is red is partially explained by a metaphysical law stating that everything that is scarlet is red.[21]
- That Moriarty's throwing the ball caused the window to break explains why it is broken.

Note that formulations using 'explains why' can be reformulated without using the word 'why' and vice versa. Also, all of the above are naturally interpreted and intended as explanations why. I assume that there is a good sense of 'explain' according to which all of these are good candidates. To foreshadow a little, there is potential to be skeptical about the cases involving laws or causation on the left-hand side, but for now it is sufficient to assume that laws or instances of causation are *somehow* involved in the corresponding explanations; I will say more about how exactly in the next section. Whether the relational sense or the sense in which 'explain' denotes a communicative act is salient is normally obvious from the context as well as the involved relata, which will be discussed momentarily.

Some more conventions will be helpful: Let us use '[explain]' to refer to the relation denoted by the relational sense of 'explain' in the examples above; we use 'explanandum' in its ordinary sense to refer to that what is explained, viz. the second relatum of [explain] and we use 'explanans' in its ordinary sense to refer to that which 'does the explaining', viz. the first relatum of [explain]. Note that talk about [explain], i.e. the relation referred to by 'explain', should not be conflated with talk about what is sometimes called 'explanatory relations', such as causation or grounding. We will see in the next section how the two relate to each other. Using these conventions, we can differentiate two further senses in which 'explanation' is occasionally understood: First, it may refer to the explanans. Second, as we will see at the beginning of the next section, it may refer to explanandum and explanans taken together; in this respect it resembles 'argument' which standardly refers to a whole

21 Like the notion of grounding, the notion of a metaphysical law will be important in what follows. For present purposes it is sufficient to think of metaphysical laws in analogy to laws of nature: The latter play a certain role with respect to causal explanations, while the former play an analogous role with respect to metaphysical explanations. For an account of metaphysical laws see Kment (2014).

composed of premises and conclusion, but which outside of philosophical contexts appears sometimes to be used to refer only to the premises of an argument in the first sense.

Not least to be able to conveniently talk about the relata of [explain], I need to say a little bit about what kind of thing they are – what are the kind of things that (in the relational sense) explain what kind of things? Several answers are suggested in the literature, the main candidates being events, facts, and true propositions.[22] I would like to remain as neutral as possible here, but I will assume that the relata of [explain] at least usually are facts or true propositions. This assumption is widespread and it seems clear that, at least very often, [explain] does not relate events, because no candidate events exist, for example in purely mathematical explanations, or when the explaining entity is a law.[23] For what it is worth, most of this book will deal with various forms of non-causal or metaphysical explanation, in the literature on which it is widely assumed that the explanatory relata are facts or true propositions.[24]

In what follows, I will often use only one of the terms 'fact', 'true proposition' or 'truth' instead of using all of them. Unless noted otherwise, this is merely for style and convenience, and the reader may pick their favorite kind of explanatory relatum. Furthermore, I need a device to refer to the explanatory relata that are expressed by sentences or sentence letters. For this, I use square brackets: The expression obtained by flanking a sentence or sentence letter with square brackets refers to the proposition or fact expressed by the sentence or sentence letter within the brackets. For example, '[*P*]' refers to the proposition or fact expressed by '*P*' and '[The sun is shining]' refers to the proposition or fact expressed by 'The sun is shining'. The proposition-referring and fact-referring uses will be disambiguated when necessary.

Note that there are uses of 'explain' that seem to have completely different relata. For example, it is fine to say 'Moriarty's anger explains the broken window', given that Moriarty's anger caused him to smash the window. I assume that what is or should be meant by these variants are instances of [explain] relating truths or facts as well – in our case the more perspicuous reformulation is 'That Moriarty has been angry explains why the window is broken'. If there are cases in which

22 Cf. Ruben (2004, 160ff.).

23 For an argument that it is facts and true propositions but not events that explain and are explained, see Ruben (2004, 160ff.). It may be worth pointing out that Kim (1994, 68) holds that explanation involves events that are related by dependence relations, but Kim's events are fact-like structured, see Kim (1976).

24 See for example the papers in Correia and Schnieder (2012).

such a reformulation is not possible – perhaps in cases of agent-causation and the corresponding explanations, if such are possible – then I am not concerned with them.[25]

Some remarks are in order: First, Schnieder (2010) provides some evidence that the relata of [explain] have to be individuated more finely than facts and propositions normally are, namely to account for certain conceptual explanations. I will ignore this complication unless it becomes relevant. Second, commitment to relata of [explain] and the question of what kind of entity they are might possibly be avoided by adopting an operator view of 'explain', in analogy to what Fine (2012) proposes for the case of grounding: Instead of using a relational predicate 'explain' that connects singular terms that refer to facts or truths, an operator formulation involves a sentential operator that connects two sentences that correspond to the facts or truths referred to in the relational formulation. In that case, just as in the case of grounding, the relational predicate 'explain' will merely be a convenient means of expressing what could be more perspicuously expressed using the explanatory operator. Note that, indeed, 'because' *could* be considered to be such an operator, but in the following two sections I will argue that it has a related, yet different role. Third, some authors (cf. Lipton 1990) argue that explanation is irreducibly contrastive, which requires [explain] to have contrast classes as additional relata, which are classes of propositions or states of affairs. According to this view, rather than being expressed by a two-place predicate '. . . explains . . .', the relation [explain] is more perspicuously expressed by a four-place predicate '. . . rather than . . . explains . . . rather than . . .'. I will say a bit more about contrastivity in the following sections.

Recap of the main points of this section: There are different kinds of explanations wh-, and this book focuses on explanation *why*. There are a number of senses of 'explain' and 'explanation': The act sense, vehicle sense, and content sense. In its vehicle and content sense, 'explanation' denotes answers to why-questions, such as because- and 'reason why'-statements. *Explaining* why *P* requires *answering* why *P*, but perhaps more information needs to be conveyed and more than merely an answer why *P* needs to be given. Furthermore, there is a relational sense of 'explain' and corresponding notions of explanans and explanandum, as well as a sense of 'explanation' in which it refers to explanans and explanandum taken together. I assume that the relata of the relation expressed by 'explain' are true propositions or facts.

With these preliminaries in place, it is natural to ask for more information concerning how explanatory acts, answers to why-questions, and the relational

25 For an introduction of the notion of agent-causation see Clarke and Capes (2017).

sense of 'explain' relate to each other. I postpone discussion of this question until section 1.3 and first look at two different roles in which propositions or facts can occur in explanations.

1.2 Sources and links

With respect to the roles that facts can have within an explanation, I have already mentioned the traditional distinction between the explanandum – that which is explained – and the explanans – that which does the explaining. But finer, more informative distinctions can be made. Thus, according to Jonathan Schaffer, explanation has a tripartite structure:

> Explanation has a tripartite structure of sources, links, and result. With causal explanation, there is the structure of causes (such as the rock striking the window), laws (laws of nature), and effect (such as the shattering of the window). Metaphysical explanation has a parallel structure, involving grounds (the more fundamental sources), principles (metaphysical principles of grounding), and grounded (the less fundamental result). (Schaffer 2017, 3)

This tripartite view identifies two roles that facts that belong to the explanans may have: in Schaffer's terms, those of *sources* and *links*. To add a little terminology whose utility will become apparent later, let us call the sources of an explanation taken together its *base*. In the case of causal explanation, the distinction is particularly clear: Laws are not causes and vice versa; nevertheless, they are both – in different roles – involved in causal explanations.[26] The rough distinction supported by examples like Schaffer's seems intuitively clear, and, indeed, if not in Schaffer's terminology, something like the distinction between sources and links is widely recognized in the literature on explanation:

- The covering law model of explanation distinguishes laws and initial conditions which together constitute the explanans.[27]
- According to Lewis's (1986a) theory of causal explanation, the explanation of a particular event involves causes, effects, and relations of causal dependence holding between them.

26 I assume here for this case (and without loss of generality) following Schaffer that it is laws (rather than individual instances of, for example, causation) that play the role of link.

27 The *locus classicus* for covering law models is Hempel and Oppenheim (1948), but theories according to which explanation involves initial conditions and laws abound; for some examples see Woodward (2017).

- Kim (1994, 68) proposes that explanations track dependence relations that hold between the event that corresponds to the explanandum and another event that corresponds to an explaining fact. In the same vein, Ruben (2004, 210f.) holds that explanations work "only in virtue of underlying determinative or dependency structural relations" that relate the explanandum (or a corresponding event or objects involved therein) with explaining facts (or corresponding events or objects involved therein).
- According to Woodward's (2003, 203) causal-interventionalist theory of explanation, the explanans is constituted by initial conditions and a generalization that relates changes in a variable in the initial conditions to changes in a variable in the explanandum.
- Shortly, we will look at theories of answers to why-questions such as Schnieder's (2010, 2015) account of because-statements, and Skow's (2016) account of 'reason why'-statements, which will provide further support in favor of the distinction between sources and links.[28]

At least two forms of links are discussed in the literature: laws or general principles on the one hand, and instances of explanatory relations such as causation and grounding on the other.[29] I will assume that links may come in either the former, general form or the latter, individual form. While I will not address them, there are some interesting questions here: For instance, does a theory of explanation need both general principles and individual link, or is one enough? If there are both general principles and individual links, how do they relate to each other? Does one explain the other, perhaps?

In contrast to the case of causal explanation, there exists some discussion whether in a case of facts $f_1, \ldots, f_n$ grounding a fact g, the grounding fact that $f_1, \ldots, f_n$ ground g is perhaps always also one of the grounds of g. Nevertheless, however that discussion is settled, the distinction between the explanatory roles of sources and links is clear in the case of grounds and grounding fact too: Some grounds are *not also* grounding facts and thus only sources and not also links.[30]

28 For another take on the tripartite structure of explanation see Glazier (2016).

29 Relation talk is to be understood *cum grano salis* here, allowing for operator views according to which explanatory links are not expressed by sentences comprised of a relational predicate and names, but rather by sentences comprised of a sentential operator and sentences.

30 For a contribution to the discussion mentioned here see Litland (2018). A note on terminology: I call 'grounds' that which does the grounding, 'groundee' or 'grounded' that which is grounded, and 'grounding claim' or 'grounding proposition' a claim or proposition that expresses some propositions or facts grounding another proposition or fact. I use 'grounding fact' to refer to a corresponding fact.

While this section has established the distinction between sources and links, one question that the next two sections address is whether a link of an explanation why *P* normally also is a source of an explanation why *P* (that may or may not be identical to the first explanation).

Some remarks are in order before we can finally take a closer look at answers to why-questions and reasons. First, it may be natural to use talk of explanatory links somewhat differently, namely to refer to the explanatory notions, relations or operators, such as causation and grounding, that occur in what I am calling links. I will avoid this manner of talking. Second, I will sometimes call proposals for explanatory links or corresponding propositions, irrespective of their truth 'explanatory links' as well. Third, note that Schaffer seems to claim that result, base, and link are the only components of an explanation. I only need the assumption that explanations consist at least of these three components, leaving open the possibility of further roles. For example, perhaps the role of background conditions is distinct from those of sources, link, and result.[31] Similarly, if explanation is irreducibly contrastive, contrast classes might have to be added to our picture of explanation, presumably resulting in a picture of explanation comprised of base, a contrast class for the base, link, result, and a contrast class for the result. Presumably, explanatory links should then be redescribed as linking base, result, and the corresponding contrast classes. Finally, it is worth pointing out that the same fact can play the role of link in one explanation and the role of source in another. For example, consider an explanation that has a law of nature, [*L*], as its link. Then assume that some subject *S* knows that *L*. Now, *S*'s knowing that *L* is partially explained by the law of nature [*L*]. But here, [*L*] does not play the role of link as it does in the first explanation; instead in this second explanation it is a ground of the explanandum, viz. *S*'s knowing that *L*, and thus plays the role of a source.

With the distinction between sources and link in place, let us now take a closer look at answers to why-questions and how they relate to what I have said about explanation so far.

1.3 Answers to why-questions

In addition to looking at examples and trying to figure out the different roles that facts can play in explanations, we can find out more about explanation by looking at its connection to why-questions. As we have seen, in one sense, 'explanation'

31 Cf. Skow (2016, 77f.).

denotes answers to why-questions, whereas in other senses, it refers to facts that explain something, or to such facts together with the fact that is being explained. Part of what I will discuss in this section is how these senses of 'explanation' relate to each other and how all this relates to the distinction between sources and links. We start by observing that why-questions can be answered in different ways, out of which I will focus on these main two:

– *P* because *Q*.
– A/the reason why *P* is that *Q*.

These and variants of these appear to be the only ways to answer why-questions: While why-questions can be answered simply by stating the explanandum ('Why is the road slippery?' – 'It rained'), this seems to be elliptic for answers of the two forms above. Also, why-questions may have answers of forms such as 'That *P* is due to . . .' and '*P* in virtue of . . .', but these are plausibly also variants of the two kinds of answer above.[32] Indeed, it *seems* evident that why-*P*-questions have to be answered by providing reason why *P*.[33]

Combining this with the fact that why-questions can be answered using because-claims, we get the intuitively appropriate result that the right-hand clause of a because-sentence expresses a reason for its left-hand clause. Note that this does not entail that the reasons-formulation and the because-formulation are equivalent in every respect; indeed, there may be reasons to believe that in interesting respects they are not equivalent: First, the reasons-variant involves both an element of nominalization and potentially reference to propositions or facts, as well as the concept of a reason, which at least is not obvious for because-claims. Second, the reasons-formulation, moreover, seems to license an inference to the existence of reasons, which the because-formulation does not, again at least not obviously so. But both points are compatible with the assumption that the right-hand clause of a because-sentence expresses a reason for what the left-hand clause expresses.[34]

It is time to deal with some complications surrounding 'because' and talk of reasons: 'because' has an epistemic use in which its right-hand clause expresses an epistemic reason for what the left-hand clause expresses. An epistemic reason for [*P*] is not necessarily a reason why *P* and does not necessarily bring it about that *P*, rather it is a reason *for believing that P*. Reasons why *P* and reasons for

32 Cf. Skow (2016, 24, n. 2).

33 See for example Achinstein (1983, 30), Stanley (2011, 45), and Brogaard (2009, 461). Starting with chapter 2 below, I will argue that we should relax this assumption.

34 Perhaps Skow (2016, 23f.) means nothing more than this when he argues that the two formulations are equivalent.

believing that *P* are distinct, but facts can be both at the same time. This point can be made with a classic example: That the shadow of a flagpole has a certain length can be a (partial) reason for believing that the flagpole has a certain height, but is not a reason (causal or other) why the flagpole has that height. On the other hand, that the flagpole has a certain length is a (partial) reason why the shadow is as long as it is, but it can also be a (partial) reason for believing that it has that length. Since the epistemic use of 'because', epistemic reasons, as well as the corresponding epistemic use of 'why' are not relevant for my purposes here, I will set them aside. Furthermore, I will set aside issues surrounding practical and normative reasons. Reasons why *P* in the sense that I am concerned with are the kind of reasons that, figuratively speaking, *bring it about* or *make it the case* that *P*.

With this clarification out of the way, we can now address our question of how answers to why-questions, the relational sense of 'explain', and the two roles of link and sources are related. According to what I propose to call 'the simplistic theory', answers to why-questions and 'explain' in the relational sense stand in the following relationship:

– If [*P*] explains [*Q*], then *Q* because *P*.
– If [*P*] explains [*Q*], then a reason why *Q* is that *P*.

Recall from the previous section that an explaining fact can play the role of either link or source in the relevant explanation. So, according to the simplistic theory, not only every source, but also every link [*L*] of an explanation why *Q* is a reason why *Q* and occurs in a true because-statement of the form '*Q* because *L*'. For sources, which can, for example, be causes or grounds, this is evident: Causes and grounds for [*P*] *are* reasons why *P*. Whether the same holds for explanatory links is a question that I will turn to now. I will reject the simplistic theory in favor of two accounts that do not conflate the role of explanatory source and explanatory link vis-à-vis answers to why-questions like the simplistic theory does: Schnieder's (2010, 2015) account of because-statements and Skow's (2016) theory of reasons why.

1.3.1 Schnieder's proposal

According to Schnieder's (2010, 10; 2015, 142ff.) proposal, the semantics of because-sentences should be given in terms of what he calls objective productive priority relations that hold between the contents of the clauses of the because-

claim.[35] Objective productive priority relations that fit the bill can, for example, be causal, concern what things consist of, concern the essences of things, or be some mixture of some pure priority relations (these are required to account for because-claims that correspond to mixed explanations, for example explanations that involve both causation and grounding).[36] More precisely, Schnieder's proposal has the following form:

> $\forall S \forall S^*$: ⌜S because S^*⌝ is true iff $\exists R(R$ is a priority relation $\wedge$ R holds between the content of S and the content of $S^*)$.

Moreover, Schnieder (2010, 10) suggests that because-claims are *grounded* in the existence and instantiation of suitable priority relations. This account suggests a picture on which because-claims have a tripartite character: The left-hand clause of a because-sentence expresses an explanandum (in Schaffer's terms the result), and the right-hand clause expresses a source, for example a cause or ground. Instances of Schnieder's objective priority relations correspond to explanatory links. On his picture, because-claims neatly mirror the three roles of sources, link, and result identified in the previous section.

There are several options to reconcile an account like this with explanatory links like laws that are of a different form than instances of priority relations. For example, one might argue that all links are of priority-relation form and that laws and others (if they exist) do not play an immediate role in because-claims, but may well be importantly related to priority relations.[37] Another option would be to revise the account to allow for laws connecting the contents of the two

35 As mentioned above, the *locus classicus* for the thesis that explanation in some sense tracks dependence (or priority) relations is Kim (1994, 66ff.).

36 Like the notion of grounding, the notion of essence will play a pivotal role in what follows. While there are a number of notions of essence – some of which I will say more about and apply later – the most familiar notion is that of an essential property or an individual essence: Sometimes also glossed as the nature of a thing, a thing's essence concerns a subset of its necessary properties – those properties which make it the thing that it is or those properties the thing possesses in virtue of what it is. To give a classic example, it is an essential property of Socrates that he is human (or that if he exists, then he is human), but a merely accidental, i.e. non-essential, property of Socrates that he is a philosopher (after all, he could have taken up another occupation instead). Furthermore, while it is a necessary property of Socrates that he exists in a reality in which 2+2=4 (or that if he exists, then 2+2=4), this is not an essential property, for it does not concern his nature, it does not make Socrates the thing he is, and he does not possess this property in virtue of what h his. We will learn more about the different notions of essence along the way. For some accounts see the *locus classicus* Fine (1994), Fine (1995), and Correia (2006).

37 For example, by partially grounding or unifying them.

clauses of because-statements, but for our purposes we need not make a choice here.

So how does Schnieder's proposal relate to the simplistic theory? As it stands, they need not be inconsistent: Perhaps there are objective productive priority relations such that whenever [*P*] explains [*Q*] by being a link in an explanation of [*Q*], such a relation holds between [*P*] and [*Q*] that underwrites the corresponding because-claim. Nevertheless, the objective priority relations such as causation or grounding that Schnieder actually proposes as grounds for because-statements correspond to the kind of links that have been suggested in the literature and above.

Indeed, it is unclear whether the kind of priority relation required to reconcile the simplistic theory with Schnieder's proposal has ever been proposed: In the case of causal explanation, it plausibly is not causation and, arguably, neither grounding, and it is unclear what else it should be. To unpack this thought, take, for example, the explanation why the window breaks in terms of Moriarty throwing a ball (at it), with its link being the fact that Moriarty's throwing the ball causes the window to break. According to the simplistic theory, the following because-claim is true: 'The window broke because Moriarty's throwing the ball causes the window to break'. But plausibly, causation facts like the fact that Moriarty's throwing the ball causes the window to break are not themselves causes. Nor does this fact seem to ground the breaking of the window – intuitively the breaking of the window just seems to consist in something else (some fact concerning the behavior of the molecules making up the window perhaps) and furthermore, it is plausible that whenever [*P*] grounds [*Q*], [*P*] somehow figures in the essence of [*Q*] or one of its constituents (or something along these lines).[38] In our case this is implausible. So the objective priority relation that underwrites 'The window broke because Moriarty's throwing the ball causes the window to break' is plausibly neither causation nor grounding, and it is unclear what else it should be. We will come back to this discussion in the following section.

1.3.2 Skow's theory

Let us now look at Skow's (2016) theory of 'reason why'-answers to why-questions. Skow restricts his theory to why-questions that are directed at particular events. Let 'Why *P*?' be such a question. Then Skow holds first that it can only be answered

38 See for example Fine (2012), Correia (2013b), and Correia and Skiles (2019). We will return to the connection between essence and grounding in chapter 4.

by citing a reason why P and second that only causes or grounds of [P] can be reasons why P.[39] So an explanatory link like a law of nature in a causal explanation of [P] can only serve as an answer to a why-question if it is a reason why [P], but since it is neither a cause nor a ground and hence not a reason for [P], according to Skow, it cannot serve as an answer to that question.

But then what is the place of explanatory links in Skow's picture? Indeed, while he does not use the terminology of links and sources, a good part of Skow's book is devoted to answering this question and overcoming what he believes to be a confusion of the different 'levels of reasons'. His answer is that explanatory links like laws (as well as background conditions and potentially further elements such as certain explanatorily relevant mathematical facts) are second- or even higher-order reasons, that is, reasons why the relevant first-order reason is a reason why P, or even (in the case of third-order reasons) reasons why certain second-order reasons are reasons why the relevant first-order reason is a reason why P.[40] As one example for an explanatory episode in which the second-level reason character of a law becomes apparent, Skow (2016, 75) offers the following dialogue:

A: Why did that rock hit the ground at a speed of $4.4\frac{m}{s}$?
B: The reason why it hit the ground at that speed is that it was dropped from a height of one meter.
A: Whoa! I don't understand. Why is it that its being dropped from that particular height is a reason why it hit the ground with that particular speed?
B: Because it is a law that the speed of impact, s, is related to the distance fallen d by the equation $s = \sqrt{2dg}$ (where g is the gravitational acceleration near the surface of the earth); and $\sqrt{2 \cdot 1 \cdot 9.8} \approx 4.4$.

To give a further example, consider an explanation of why a window is broken. Let the (causal) reason be that Moriarty threw a stone at it and let the explanatory link be some suitable law of nature [L]. According to Skow, [L] is not a reason why the window is broken, rather, it is a second-order reason, a reason why Moriarty's throwing a stone at the window is a reason why the window is broken.

Aside: Skow (2016, ch. 2) indeed goes further and argues that answers to why-questions are what so-called theories of explanation should be interpreted to be about and philosophers of science interested in explanation why should focus on. Skow thinks that if anything, philosophers of science should be interested in explanations in the product sense, if what is meant by this is answers to why-

39 Skow (2016, 29).
40 Skow (2016, secs. 4.2 and 4.3).

questions. His argument here mainly seems to be that only the practice of answering why-questions properly belongs to science and that scientists would remain equally good scientists if they continued to answer why-questions, but stopped explaining why. Suffice to say I am skeptical, one reason being that one goal or aim of science seems to be to create understanding why, but merely creating knowledge of answers of why-questions arguably is not sufficient to create understanding why.[41] To create understanding why, something else is needed, namely explaining why.

Back to reasons and higher-order reasons: I am skeptical whether causes and grounds are the only kinds of reasons and will discuss candidates for reasons that are not causes and perhaps neither grounds in chapters 3 and 4; indeed, even Skow (2016, 109) tentatively suggests that what Yablo (2004) calls 'enablers' and 'enoblers' are further kinds of reasons. But what I take to be the core insight of Skow's account remains: In a given explanation (e.g. a causal explanation), the sources or reasons are what *bring about* the result, in the sense of bringing about that is relevant to reasons why. The link (say, a law of nature) normally does not *bring about* the result, at least not in the sense relevant to being a reason: Links of explanations why P are normally not also reasons why P. For example, consider Moriarty's destroying the window once more: In the relevant sense, only his throwing the ball brings about (together with other causes and background conditions, perhaps) the breaking of the window. The causal link or corresponding law do not have this role: Rather, they can be thought of as what the 'throwing's bringing about the breaking' (at least partially) consists in. In the next section, we will encounter exceptions to the rule: There are some sporadic cases of explanations why Q whose link [L] is also a reason why Q.

Note that there is an interesting connection between Schnieder's account of 'because' and Skow's hierarchy of reasons: Schnieder suggests that because-claims are grounded in instances of priority relations, which I suggested to generalize to explanatory links of all forms.[42] Skow suggests that explanatory links such as laws are second-order reasons. Now consider an explanation why P with [Q] as a reason and [L] as the corresponding link. According to the Schnieder-picture, we have [L] grounds [P because Q]. According to the Skow picture, [L] is a (partial) reason why [Q] is a reason why P, which we can take to mean that [L] (partially) grounds [[Q] is a reason why P]. Thus on each picture, [L] is a reason for the corresponding answer to the question why P.

41 See Hills (2016) for an argument that knowledge why is not sufficient for understanding why. For more discussion, see Sliwa (2015) and Lawler (2016).

42 Schnieder (2010, 10).

1.4 Discussion

While I tend to endorse Schnieder's and Skow's views because they provide plausible and elegant accounts of answers to why-questions, reasons why, and their connection to the roles of the constituents of explanations, there is some intuitive evidence against them (and in favor of something like the simplistic theory) available that needs to be addressed. I take it to be uncontroversial that sources and links can be distinguished in explanations why, but the connections to because-statements and reasons why are somewhat more controversial. The main problem is that there seem to be admissible answers to why-questions such as certain (at least somewhat acceptably sounding) because- and reasons-claims that do not fit well with the Schnieder-Skow picture:

- The window is broken because Moriarty's throwing a ball at it caused it to break.
- *S* is in pain because *S* is in brain state *p* and it is a metaphysical law that if something is in brain state *p*, then it is in pain.
- One reason why the ball fell is that the law of gravitation holds.
- One reason why it is true that snow is white is that for every *P*, [*P*] grounds its being true that *P*.

While not all of these may sound perfectly fine, examples like these do enjoy some intuitive support. In these examples, explanatory links such as [Moriarty's throwing a ball at the window caused it to break] are presented as reasons why the corresponding explananda, e.g. the fact that the window is broken, obtain. But as we have seen, according to Skow, the propositions or facts that are presented as reasons of the explananda here are no such reasons. Rather, they are only second-order reasons. For example, [Moriarty's throwing a ball at the window caused it to break] is a reason why Moriarty's throwing a ball at the window is a reason why the window is broken. As we have seen and will revisit in a bit, Schnieder's account does in principle allow for the because-claims in question, but only if dubious instances of explanatory priority relations are countenanced. Skow's main defensive strategy against cases like these is to maintain that the example sentences are false and do not answer the corresponding why-questions; rather, he suggests, they are ill-formulated attempts at communicating something that constitutes at least a good (partial) *response* to the why-question, but not a proper answer to it:

> The distinction between an answer and a good response applies to why-questions as much as to any other kind. From the fact that providing a body of fact *F* is a good response (in

> context) to the question why *Q*, it does not follow that '*Q* because *F* obtains' is true. It does not follow that '*Q* because *F* obtains' expresses an answer to the question why *Q*. (Skow 2016, 73)

It is possible to strengthen this strategy as follows: Normally, when asking why-questions, we do not (only) ask for an answer, but also to be given an explanation why. Thus, the appropriate response consists in an explanation why. But assuming first that only sources are reasons and only sources are expressed by the right-hand clause of true because-claims, and second that explanations why also involve links that need to be communicated, it becomes understandable why cases like the ones above can appear to be good responses to why-questions, even though they are not: They are attempts at communicating the explanatory link that needs to be communicated in an explanation why.[43]

Having looked at the defensive strategy, let us now turn to the criticisms being raised on the basis of the cases above. There are two: the merely linguistic criticism and the metaphysical criticism. According to the linguistic point, why-*P*-questions can be answered by providing reasons why *P* (be it via because-claims or otherwise), but they can also be answered by (merely or additionally) providing higher-order reasons why *P* or relevant explanatory links. One way to spell this point out is to claim that because-claims do not mirror the tripartite view well and allow for right-hand clauses that express links (or higher-order reasons). According to the metaphysical point, links of explanations why *P* are also always (or alternatively: *normally* or *in the standard cases*) reasons why *P*.

1.4.1 On the merely linguistic point

Criticism of the linguistic kind has recently been brought forward by Insa Lawler (2019). First, she rejects the thesis that only citations of first-level reasons why *P* are answers to why-*P*-questions. Second, she outright accepts the problematic because-claims. Before we look at her supporting argument, recall from the page above that in the literature, it is widely claimed that why-*P*-questions are answered exclusively by citing reasons why *P*. These accounts seem to close the gap that Lawler's proposal tries to occupy: According to them, why-questions only cite reasons why, so assuming, as Lawler wants to allow, that higher-order reasons why *P* normally are not (first-order) reasons why *P*, higher-order reasons why *P* cannot normally answer why-*P*-questions. Presumably, Lawler denies these proposals,

43 Compare the point from understanding why from section 1.3.2. I will further discuss and use this strategy in chapter 3.

and perhaps not without reason, since the literature seems to neglect the relevant evidence concerning because-claims like those offered at the beginning of this section.

Lawler's main defense of the claim that higher-order reasons can answer corresponding why-questions takes the form of a dilemma.[44] On the first horn, she assumes that what counts as a correct answer to why-questions is partially determined by the interests of the investigator. Furthermore, she relies on the assumption that there are why-*P*-questions for which answers that merely express a reason why *P* are unsatisfactory for everyone who does not know certain higher-order reasons why *P*. The case Lawler discusses is somewhat complex, so let us simply grant that there are such cases and note this as a potential point for objection.[45] Lawler takes the assumption to make it plausible that the higher-order reasons should be cited in any complete answer why *P*.

On the second horn of her argument, Lawler discards the assumption of interest-relativity. Taking inspiration from Kim (1994), she suggests that "the subject matter of a why-question is the property of being something the event in question (explanatorily) depends on" (Lawler 2019, 175). She continues to claim that propositions or facts depend in the relevant sense on their second-level reasons and that why-*P*-questions can therefore be answered by citing [*P*]'s second-level reasons.

Let us address the horns of the dilemma in turn. In response to the first horn, it can be argued that knowledge or recognition of certain truths can be necessary for considering answers to questions satisfactory without those truths being part of answers to those questions, and without them following from such answers. Consider:

A: Who made that sound?
B: *a* made that sound.

Even though B's answer is true and complete (let us assume), it is only satisfactory for recipients who recognize that *a* is an agent. Nevertheless, the proposition that *a* is an agent is not part of a full answer to the question.[46] Furthermore, as

44 She offers a further argument using a notion of a complement of an answer, but since that notion is not explained, the argument is hard to assess.

45 It seems we can imagine the student analogue to the bad teacher from above, namely a student who has no interest in getting an explanation why *P* or obtaining understanding why *P* and whose only interest is producing true answers to the question why *P*. It seems such a person will be satisfied by a true answer to the question why *P* that cites only reasons why *P*.

46 Here, it could be objected that it *is* part of a complete answer to a who-φs-question to state that it is an agent that φs; a complete answer to A's question would then have this form: 'The agent *a* made that sound'. This is not implausible, for in the case of answers to why-*P*-questions, a complete answer not only consists in a sentence that expresses a reason why *P*, but in a

pointed out already, there is a source for systematic error here: Very often, when asking why-questions, we are asking for an explanation why. But as we have seen in section 1.1, explaining why and telling why have different success conditions. So when thinking about whether certain answers to why-questions are satisfactory, we may confuse what constitutes a good answer with what constitutes a good explanation.

In any case, the second horn can be resisted because it is questionable for the following reasons: First, recall that Lawler wants to allow that second-order reasons are normally not first-order reasons; so the dubious result would follow that something can explanatorily depend on something that is not a (first-order) reason for it. Second, it is unclear what kind of dependence could fit the bill: While both causal and metaphysical dependence have been studied extensively, as I have suggested above, they normally do not seem to hold between link and result of an explanation. More importantly, [*P*] causally or metaphysically depending on [*Q*] in the relevant sense seems to be sufficient for [*Q*] to be a (first-order) reason why *P*, but this is exactly what Lawler wants to avoid. Allowing for the problematic because-sentences to be true (instead of only being a slightly confused means of communicating something true) does not seem worth incurring these problems.

Finally, here are two tentative further reasons to accept the linguistic part of the account developed in the previous section: First, we already have the more lenient concept of explaining. Second, theses like reference magnetism suggest that meanings are partially determined by how well they fit objectively important distinctions. The difference between sources and links, or reasons and higher-order reasons, seems to be objectively important. A 'because' that only connects sources or first-order reasons with an explanandum seems to fit this distinction better than the alternative. In the end though, I am more interested in explanation, reasons, and why things are some way or other, than in linguistics. While I favor the Schnieder-Skow picture, we should concede that there are intuitions concerning because- and reasons-claims that do not fit the picture. Luckily, it often seems easier to assess whether a fact involved in an explanation plays the role of source or link.

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sentence that also states that the reason is a reason why *P*: 'A/the reason why *P* is that *Q*' (or a sentence that accomplishes something similar by using 'because'). Be that as it may, I am confident that the following considerations are sufficient to resist Lawler's proposal.

1.4.2 On the metaphysical point

Let us address the metaphysical point now: Are links of explanations why *P* perhaps also *always* reasons why *P*? Note first that it is plausible that links of explanations why *P sometimes* also are reasons why *P*:

- Assume that God exists and is omniscient and let it be true that *P*, then [*P*] is a (partial) reason why God is omniscient. Let [*L*] be the explanatory link holding between [*P*] and God's being omniscient, then [*L*] is also a (partial) reason why God is omniscient.
- For an atheistic example, observe that true disjuncts are reasons of their disjunction. But then consider $[P \vee L]$, where [*P*] obtains and [*L*] is the (law-like) explanatory link between $[P \vee L]$ and [*P*].[47]
- Consider why $\exists p(p)$. According to the idea that existential quantifications are grounded by their true instances, we get that $[\exists p(p)]$ is grounded in $[2+2=4]$. Hence, the latter is a reason why $\exists p(p)$. But $[[\exists p(p)]$ is grounded in $[2+2=4]]$ also provides a true instance of $[\exists p(p)]$, therefore is a ground and reason for it.[48]
- Rosen (2017) argues for cases in which, roughly, a normative fact [*Q*] is (metaphysically) grounded in a non-normative fact [*P*] together with a normative law that connects [*P*] and [*Q*], and which we can write as '$[\Box_{norm}(P \rightarrow Q)]$'. According to Rosen, considerations concerning the nature of normative facts motivate that sometimes the two elements of a (normative) covering law explanation involving initial condition (e.g. [*P*]) and normative law (e.g. $[\Box_{norm}(P \rightarrow Q)]$) together ground the explanandum (e.g. [*Q*]) of said covering law explanation. We will come back to Rosen's argument in chapter 3, where I discuss a phenomenon called 'explanation by status', of which explanation by law-status is one kind. For now, note that Rosen's argument does not amount to the thesis that *in general* or *by default*, links of explanations why *P* are also reasons why *P*.

Now I want to discuss whether we should accept the stronger thesis that links of explanations why *P* are *always* (or at least *normally*) also reasons why *P*. Note first that we can use the cases above as an intuitive contrast class in which a link of an explanation why *P* is also a reason why *P*. While the cases are plausible, intuitively, not every explanation (not even every grounding explanation) is like these (somewhat recherché) cases in the relevant respect. Let us further look at some criticisms of Skow's proposal aimed at the distinction between levels of

47 Compare also Litland (2018).

48 For a critical discussion of the pertinent grounding rule see Krämer (2013).

reasons why and the thesis that links in an explanation why *P* normally are not also reasons why *P*.[49] We start with Pincock (2017), who writes:

> [There] is a substantial and interesting disagreement on reasons why for events. Skow maintains that all reasons why an event occurs are either causes or grounds, and this somehow flows from the natures of causes, grounds, and events. Woodward [in his (2003)] insists that causes are not metaphysically autonomous in this sense: for *C* to be a cause of *E*, some other fact must obtain beyond the occurrence of *C*. Furthermore, it is this other fact that is an essential ingredient in a reason why *E* occurs. [. . .] If what it is for *C* to be a cause of *E* includes not only the occurrence of *C*, but also some general regularity, then it is perfectly appropriate to make that general regularity part of one of the reasons why *E*.

I will ignore the question whether Pincock's reading of Woodward is correct here. While I agree that it is a substantial question whether higher-order reasons always also are first-order reasons, Pincock's point remains doubtful to me. Let us assume that it is indeed correct that what it is for *C* to be a cause of *E* includes some general regularity and that that regularity must obtain for *C* to be a reason for *E*. Skow can simply accept this and, plausibly, hold that this just means that the general regularity is an (essential) reason why *C* causes *E*, or why *C* is a (causal) reason for *E*. To support the point, note that not everything that is part of what it is for *C* to be a cause of *E* also plausibly is a reason why *E*: For example, presumably part of what it is for *C* to be a cause of *E* is for *C* to be an event. But it is not particularly plausible that *C* being an event is a reason why *E*.

Pincock's second criticism concerns the compatibility of Skow's proposal with contrastivism; he presents Skow's proposal to deal with contrastivism and finds it lacking:

> 'If contrastivism about causation turns out to be correct, then I will advocate contrastivism about reasons why as well' [Skow 2016, 36]. With this shift, Skow's proposal would be that when *C* rather than C' is a reason why *E* rather than E', then *C* rather than C' is a cause (or a ground) of *E* rather than E'. Woodward's position would mandate that the fact that *C* rather than C' is not itself a reason in isolation. Instead, only the fact that involved some regularity along with the contrastive fact would count as a reason why. (Pincock 2017)

Here, Pincock seems confused. According to non-contrastivism concerning the 'reason why'-relation, it is a two-place relation: '. . . is a reason why . . .'. Skow (2016, 36, n. 24) suggests that the corresponding relation according to contrastivism should be a four-place relation: '. . . rather than . . . is a reason why . . . rather than . . .'. Note that nothing here requires that there is a fact 'that *C* rather

49 I will ignore Baumgartner (2017) who also criticizes Skow's account, for I have found no real argument there.

than *C*′' which is somehow itself a reason (or cause or ground) in isolation. Indeed, nothing in Skow's formulation requires that according to contrastivism, the 'reason why'-relation is a two-place relation relating facts of the form '*P* rather than *P*′'. Furthermore, the contrastivity implicit in Woodward's regularities neatly maps onto the contrastive 'reason why'-relation or contrastive because-claims; indeed, it may seem to underlie them. Pincock and his Woodward are thus confronted with two awkward questions that Skow avoids: First, why demand that the regularity is also a reason why *E* obtains? Second, what further kind of regularity underlies the reasons-why facts that involve regularities?

Lange's (2018, 36) criticism of Skow's point begins as follows:

> [Skow] does not examine any explanations of laws or even of regularities. Skow would presumably have to regard laws in those explanations as first-level rather than only second-level reasons.

Skow can and should simply accept this. Unfortunately, at points, he mistakenly asserts that only facts that correspond to events can be first-order reasons for facts corresponding to events. This does not follow from his thesis that only grounds and causes are first-order reasons for event-corresponding facts, as can be shown by the following example that is inconsistent with the first, but consistent with the second thesis: Consider the event of an agent *S* coming to know that *L*, where [*L*] law of nature. Then, one (partial) reason why *S* comes to know that *L* is that *L*. Here, the law of nature [*L*] is a (partial) ground and hence a (partial) reason for *S*'s coming to know that *L*. The point is an instance of the above observation that the same fact can play the role of source in one explanation and the role of link in another. Lange (2018, 36) continues:

> I am reminded of the inference-ticket conception of natural laws – as Skow (2016, 85–87) apparently was, too – according to which laws do not explain, but merely mediate the inference from the explanans to the explanandum. Nothing in scientific practice makes that conception plausible.

Nothing that Lange says in the cited passage seems to address Skow's theory: We, and Skow, can assume that explanatory links (such as laws) do explain, but that they do so by being an explanatory link (or, following Skow, a second-order reason why) rather than a reason why the explanandum obtains. Finally, Lange (2018, 36) writes:

> Critics of the inference-ticket conception objected that in an inference, one inference rule can be replaced by an additional premise, with another inference rule stepping in to mediate the new inference (Nagel 1954). Likewise, it seems to me a matter of context and convenience whether, in offering or reconstructing a given explanation, we portray the fact that

> three fails to divide 23 as [a reason] why the fact about the numbers of strawberries and children [is a reason] why Mother failed or whether we portray both facts as [reasons for] Mother's failure.[50]

Opposing Pincock, Lange here assumes that the question whether links of explanations why *P* are also always reasons why *P* is insubstantial. Pro Pincock and contra Lange, we will see in the following chapters that whether second-order reasons are also first-order reasons can have substantial consequences: As the next chapter shows, answering the question negatively opens up the possibility that chains of reasons why can terminate without leaving any reason within the chain unexplained. Furthermore, the relation between reasons and what they are reasons of is widely assumed to have certain structural features such as transitivity, asymmetry, and irreflexivity.[51] If links of explanations why *P* are not automatically reasons why *P*, then there is some room – to be further investigated in chapter 6 – for the assumption that the relation between links and results does not have the same structural features as the relation of reasonhood.[52]

Some appeal of the thesis that links of explanations why *P* are always also reasons why *P* may come from overstretching a certain metaphorical view of explanation. According to the metaphor in question we can think of explanatory links as explanatory machines that take sources as input and deliver results as outputs.[53] Now, in a causal explanation, the sources are the causes, and real situations involving machines with inputs and outputs, facts about the machine are part of the causes of facts about the outputs of the machine. But to take this to suggest that links are always also reasons would take the metaphor too far. We have already assumed that links of causal explanations are not themselves causes

50 Here, Lange discusses a case of mathematical explanation concerning which Skow (2016, ch. 5) claims that the fact that three fails to divide 23 is a second-order reason rather than a first-order reason. It seems that if what Lange says is true, it applies equally to the question whether explanatory links of an explanation why P are also always reasons why P.

51 For the case of grounding see for example the contributions in Correia and Schnieder (2012).

52 A similar move can be suggested concerning the discussion of the grounds of grounding: A number of authors assume that grounding is well-founded (for an explanation of notions of well-foundedness see Rabin and Rabern 2016). If grounding claims of form 'Γ $< P$' would always be grounds of what their groundee-clause expresses, then the thesis that every grounding claim is grounded would threaten to violate the well-foundedness of grounding in at least one important sense: Suppose f is a grounding fact. Then by the assumptions and given that grounding-circles are forbidden, f is at least partially grounded in another grounding fact g and a regress of grounding facts is started. As Bennett (2011) argues, well-foundedness can be secured by demanding that all the grounding facts of the regress are grounded in a non-grounding fact h. But if we deny that grounding claims of form 'Γ $< P$' are always grounds of what their groundee-clause expresses, the regress does not even get off the ground. For more on this topic see Litland (2017).

53 We will revisit the metaphor in the next chapter.

of the relevant explanandum – but it is exactly this that taking the metaphor too far seems to suggest. Even if we allow for metaphors to provide evidence like this, in this case, without taking it too far, the metaphor of the machine does not support links being reasons of the relevant explanandum.

In the absence of more decisive arguments, my suggestion is to let theoretical fruit- and usefulness decide whether links of explanations why *P* are also reasons why *P*. Alas, there seems to be little theoretical motivation for considering links of explanations why *P* per default to be reasons why *P* besides wanting to capture the intuitions, which proponents of the hierarchy of reasons can account for differently – at least, I have found no motivation in the literature. As we have seen in the previous section, the assumption that links of explanations why *P* are also (normally) reasons why *P* plausibly requires explanatory links featuring other explanatory relations than causation and grounding, making the resulting theories less parsimonious and more complicated, without apparent advantage. For instance, contrary to what Pincock may say, Woodward's theory of causation does not involve such further explanatory links. Evidently, it can do without them.

In response to this point, it might be suggested that links of explanations why *P* can be reasons why *P* that need not be linked to [*P*] by explanatory links themselves. But this would be to give up on the attractive theory of explanation, reasons, and links presented above – in particular, this would mean giving up on the Schnieder-Skow picture according to which reasonhood consists in the existence of – or can be grounded in – corresponding explanatory links. Of course, there may well be a concept of a reason why *P* that is essentially my concept of a proposition or fact that explains [*P*], either in the capacity of an explanatory source/reason why in my sense or as an explanatory link; such a concept would have none of the metaphysical ramifications just discussed. But it is important to note that the corresponding notion of a reason will not necessarily inherit the properties of the original notion of a reason why: For example, the corresponding relations of reasonhood may have different structural properties.[54]

Another respect in which the resulting theories are more complicated without apparent advantage is that the assumption that links why *P* are also by default reasons why *P* seems to generate an infinity of reasons why *P*: Assuming that a given link [*L*] is also a reason why *P*, there needs to be a link [*L*′] connecting [*L*] and [*P*]. But arguably, these links are not identical (otherwise, people would be widely mistaken about the explanatory links that are proposed). Then, since [*L*′] is also a reason why, there needs to be yet another link connecting it and [*P*], and thus a

54 Again, see chapter 6.

plenitude of reasons without apparent theoretical advantage is generated.[55] This argument is related to an argument by Bolzano to the effect that complete grounds need not contain corresponding grounding facts, on pain of generating infinite and unnecessarily complex full grounds.[56] In our case, the problem may seem less pressing, because the infinity of links are not necessarily required for a *full* ground of [*P*], but note that reliance on the intuitive motivation that the links are somehow *required* as reasons to explanatorily account for [*P*] makes it hard to argue this difference.

For now, let us take stock: For me, the attractiveness of the Schnieder-Skow picture consists first in the fact that according to it, the behavior of answers to why-questions, reasons-claims, and because-claims mirrors the intuitively and theoretically different roles that links and sources have in explanations. Together, these theses form a neat and coherent package that I am inclined to subscribe to. But we should keep in mind that if this is right about answers to why-questions, we have seen that our intuitions about what is a true answer to such a question can be quite misleading – confusion between what facts are reasons why *P* and what facts constitute (part of) a good response to a why-*P*-questions in a different capacity such as being a link is widespread. Another point that we will come back to is that if we have intuitions concerning what explains what, whether or not these are (correct or incorrect) intuitions concerning because-claims and reasons-claims, these intuitions may be cashed out in a number of different ways. Second, the Schnieder-Skow picture is attractive to me because, as mentioned above, distinguishing the reason-explanandum relation from the link-explanandum relation opens up a number of theoretical options. In the following, I will make apparent where I rely on which assumptions introduced in this chapter. Two notable instances concern the discussion of explanation by status in chapter 3 and the discussion of self-explanation in chapter 6, where I suggest that separating the formal features of 'explain' in the relational sense and 'because' may lead to fruitful theorizing.

55 Perhaps it might be suggested that the regress can be avoided if the true form of explanatory links is something like '$Q, L \Rightarrow P$', where [*Q*] is a reason why *P* and [*L*] is the link itself. But, to my knowledge, according to no theory of explanation available in the literature do explanatory links have this form.

56 See Bolzano (1837, §199, 344f.).