Perceptual Representations as Basic Reasons¹

One of the things epistemologists are especially interested in is the question what the structure of human justification is like. The classic alternatives are, of course, foundationalism and coherentism. There are different methodological approaches to answer this question. On the one hand, one might begin with analyzing the conditions of justification according to our ordinary understanding. As soon as they are established it is easy to find out what the structure of reasons must look like in order to satisfy these conditions. Here is the answer of classic foundationalism: The inferential justification has to terminate in cognitive states that are intrinsically justified. This requirement can only be satisfied either by experiences with a subjective content or by beliefs about one's own experiences. Classic coherentists disagree. According to them, justification has to move in a big circle where every justifier is justified by other cognitive states. So far, I don't want to opt for or against one of these alternatives. The important thing to notice is that both argue completely in the abstract, i. e., merely on the basis of normative considerations. For this reason I will call their approach "purely normative."

On the other hand, there is a *purely descriptive* approach to epistemology.² It begins with a description of the structure of our justification as it in fact is. Quine was completely content with this first step and did not even raise normative questions.³ However, there are others who try to establish normative conclusions on the same basis. They simply presuppose that the structure of our justification as it is corresponds or approximates to the structure of justification as it should be.⁴

There is no doubt that the normative approach has – at least until recently – been dominant within epistemology. Still there always have been some, mostly common-sense philosophers like Reid, Moore, Wittgenstein, Goodman and Chisholm who were interested in the descriptive approach. In my opinion both approaches, the normative as well as the descriptive, have severe shortcomings. The descriptive approach strikes me as dogmatic. Moreover, it cannot explain *why* the actual structure of our justification is supposed to be correct. The normative approach faces problems of a different kind. It soon turns out that the

¹ My work on this paper was stimulated by helpful discussions with Ansgar Beckermann and Richard Schantz. I owe much to both of them. For their comments and criticism I am also very grateful to Frank Hofmann and Joachim Horvath.

² My distinction between a normative and a descriptive account corresponds largely to BonJour's distinction between 'critical epistemology' and 'procedural epistemology.' See BonJour 2001b, p. 79f. ³ Cf. Quine 1969.

⁴ This is the strategy of either particularists or proponents of a reflective equilibrium. For the particularist's strategy see Chisholm 1982, p. 66. Goodman 1955, p. 63f, favors the reflective equilibrium.

structure of justification as it should be has nothing or, at least, very little to do with the structure of human justification as it really is – no matter whether we accept foundationalism or coherentism. In both cases the normative approach creates unrealistically high standards for justification.

This can be shown very easily. Classic foundationalism for example requires for any beliefs to be justified that there are intrinsically justified basic reasons supporting them. This requirement can only be satisfied, if it can be satisfied at all, either by experiences of subjective appearances (e. g. sense data) or by beliefs about one's own experiences. These are the only cognitive states that have at least a small chance of being intrinsically justified by virtue of there alleged infallibility. However, our beliefs about the external world are in fact neither based on experiences with a subjective content nor are they based on beliefs about our own experiences. The first claim is supported by contemporary theories of perception. Most of them take sense experience as intentionally directed at the objective world around us. With respect to the second claim I certainly admit that we are *able* to produce (introspective) beliefs about our own experiences. But these beliefs do not play any role in the actual generation of perceptual beliefs about the world. In the case of coherentism things look quite similar. We are not perfectly rational beings and, therefore, the coherence requirement will be hardly ever satisfied.

For proponents of the normative approach there are different options to react. First of all, they may try to minimize the gap between norms and facts. It is often claimed that norms are idealizations which can be satisfied only approximately. There is also the idea of accommodating the facts to the norms. For example you can insist on the subjective analysis of empirical content at any cost. Often the proponents of the normative approach also postulate *tacit* beliefs about one's own experiences. Yet none of these strategies will be strikingly successful. For these auxiliary assumptions are mostly implausible, and even if they were true, they could at most diminish the gap but never close it completely. In the end proponents of the normative approach cannot avoid admitting that we never or almost never satisfy the norms of justification. This is tantamount to saying that skepticism turns out to be true.

Since the descriptive approach, on the one hand, does not give the least explanation of why the actual structure of human justification is correct and since the normative approach, on the other hand, leads directly towards skepticism, we should better look out for a third way.

⁵ Within the analytic tradtion Armstrong 1961 and Anscombe 1962 were early proponents of this view.

⁶ Cf. Pollock 1986, p. 61ff.

⁷ For this view see BonJour 1985, p. 152.

My suggestion is the following: We should start by describing the actual structure of our justification. After that we should deal with the question of how it is possible for this structure to be the *correct* structure of justification. In other words: What are the conditions of the possibility to understand our structure of justification as the correct one?

In what follows I will apply this method to the structure of empirical justification. In the *first part* I will show that, from a purely descriptive point of view, our beliefs about the external world are based on perceptual representations of this world. These representations are in fact our basic reasons. In the *second part* I will argue that it seems impossible to understand why perceptual representations should be basic reasons of our beliefs about the world, if we take a normative stance. As it turns out, similar problems result from the perspectives of epistemic internalism and externalism. In the *third part* I will present a solution to this dilemma. Finally, I will outline some of the consequences of my solution.

I

The actual structure of justification of our beliefs about the external world appears to be foundationalist. Our theoretical beliefs are based on our beliefs about the observational world by means of inductive or explanatory inferences. Beliefs about the observational world are based on our sense experience. At the level of sense experiences, however, our demand for further reasons runs dry. So it looks as if sense experiences are really our basic reasons for our alleged knowledge about the external world. This structure of justification is also mirrored in our practice of giving reasons. If you were to ask a competent scientist why he is committed to a certain scientific theory, he probably would mention experimental evidence that can be better accounted for by his theory than by any other alternative being around. Now if you went on asking him, why he believes that the relevant data are correct, he would refer at least in some cases to his own readings of scientific instruments. He would assert that he himself has seen the instruments indicating what is written down in the protocol of the relevant experiments. Suppose you still went on asking him for further reason. You might ask him for what reason he did see what he saw. In that case he certainly would shake his head and mumble that this question makes no sense. Sense experiences are not among those things for which one needs or even can give reasons. One simply has them or one doesn't have them.

This primary sketch of the actual justificational structure of our beliefs about the external world needs some fine-tuning. If one reads the real structure of justification out off

⁸ BonJour 2001b, p. 80.

our practice of *giving reasons*, one might be tempted to think that our chains of inferential justification do not terminate in experience itself but in linguistically articulated *sentences about sense experience*. For any articulation of a reason is bound to linguistic means. However, this is a fallacy. Ido not deny that any articulation of a reason is linguistic. But from this it does not follow that the *thing* which is articulated, namely the reason, has a linguistic nature. Especially in the case of perceptual reasons we are describing reasons by means of our language which themselves are non-linguistic entities.

What is the true nature of those sense experiences which serve us as basic reasons? Recent theories of perception suggest the following ontology. First, sense experience has intentional content directed at objective facts in the external world. Second, sense experience is not a kind of belief or judgement. Third, the intentional (or representational) content of sense experience is non-conceptual. Let me briefly rehearse the main arguments for this account of sense experience. I begin with the issue of intentionality. 10 For a long time empiricism has been captured by the idea that the immediate content of experience is something like a subjective appearance. One main reason for this view has been the argument from deception of the senses (often called "argument from illusion" or "argument from hallucination"). From an ordinary point of view sensory illusions or hallucinations seem to have the same content as veridical sense experiences. At least introspectively we cannot distinguish between veridical and deceptive cases. But obviously in the case of hallucination there is no corresponding object in the external world. Therefore, the argument concludes, the experiential content can never be objective, i. e. be directed at facts in the external world. It now seems to be a common place that this argument is not valid. Even if we admit that the content of deceptive and veridical experiences is the same and in the case of hallucinations there is no corresponding object, it does not follow that the content of sense experience is not objective. The content may be objective, even if a corresponding object does not exist. We just have to understand the content as intentional instead of relational. Sense experiences can be directed at correctness conditions in the external world, even if these conditions are not satisfied. For this reason the argument from deception cannot be accepted as a good argument against the objectivity of experiential content. There are, however, also arguments for the objectivity of experiential content. I here just want to mention the so called 'transparency

⁹ McDowell is guilty of the same kind of fallacy in his articulation argument (McDowell 1994, p. 165f). He claims that reasons in principle must be capable of being articulated in sentences when they are asked for by an interlocutor. However, even if one agrees so far, it does not follow that reasons must be conceptual, as McDowell maintains. It would do, if they were *accessible* to conceptualization. For this criticism see Peacocke 1998, p. 383f; Schantz 2001, p. 176.

¹⁰ See also Armstrong 1961.

intuition.'¹¹ The core of it can be put in the following nutshell. If we describe the content of our introspectively accessible sense experiences, we realize that in those descriptions we exclusively use sentences which normally are used to describe facts in the external world. We use this objective vocabulary no matter whether the sense experience being described is veridical or deceptive. The best explanation of this fact is that experiential content is both, intentional and objective.

Since this is also one of the characteristics of belief content, one is easily tempted to understand sense experience as a special kind of belief or judgement. 12 However, there are two strong objections against this view. First, sense experiences (as, e. g., the Müller-Lyer illusion) are resistent against contradictory beliefs. 13 Even in case we learn that both lines in the figure are equally long, they still continue to appear as having different lenght. This could hardly be the case, if experience were a kind of belief. Second, we are able to rember details of a perceptual scenario which we never thought about.¹⁴ Take the following example as an illustration of this point. You may see a small crowd of people without having any thoughts or beliefs about the exact number of people you observe. If anybody asked you for the number, you could not avoid counting the people before answering his question. This proves that you actually have no belief about the number of people. Now it may be that after your visual experience has vanished for some time you are going to ask yourself how many people you really did see. In order to answer this question you cannot rely on any of your beliefs. For you do not have beliefs about the number of people. But you can do something else. You can recall your former experience. With the help of remembering this experience you can find out the number. This shows that sense experience contains a representation of the number of people in the crowd, although no corresponding belief is available.

Moreover, the intentional content of sense experience is non-conceptual, since the content of experience is more fine-grained as any of our available concepts. This is especially true with respect to our ability of distinguishing different shades of color. Experiential content is also not as selective as conceptual content is. We may, for example, have the concept of a *colored object* without thinking of any determinate color. The case of sense experience is completely different. We cannot have the experience of a colored object without experiencing the object as having a determinate color. Both observations support the claim that sense experiential content is non-conceptual.

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¹¹ Cf. Tye 1995; Harman 1990.

¹² Cf. Armstrong 1961, 1968; Pitcher 1971.

¹³ This has been noticed even by Armstrong 1961, p. 85.

¹⁴ Cf. Martin 1992.

¹⁵ Cf. Evans 1982, p. 229; Peacocke 1998.

This description of the actual structure of our beliefs' justification supports a foundationalist account. Non-doxastic perceptual representations of the external world serve as basic reasons for our beliefs about this world. But this kind of foundationalism differs significantly from old-fashioned versions of foundationalism. Firstly, the intentionality of sense experience makes deception possible. So sense experiences are both, fallible as well as defeasible reasons. They are called "basic reasons" only in so far as they do not require any further reasoning. Secondly, the fact that the content of sense experience is objective makes sure that the problem of our beliefs' being underdetermined by evidence dissolves. If experiential content is objective, it has got the power of supporting beliefs about the external world in a rational manner. Thirdly, since sense experiences are non-doxastic mental states, they provide an independent basis for justifying beliefs and theories. For suppose the contrary were true as analytic empiricism for a long time claimed. In that case basic beliefs (presumably perceptual beliefs) would be our basic reasons. Perceptual beliefs are defined in terms of their being spontaneously and non-inferentially produced by perceptual processes. To a certain extent such beliefs are always dependent on our background theories. So it would be a mistake to call them "theory-neutral." Let me illustrate this point by an example. Usually it takes only a momentary glance at the gauge to figure out how much gas is left in the tank. The corresponding belief occurs spontaneously and, therefore, can be correctly classified as an "perceptual belief." However, this belief certainly will also depend on our knowledge about gauges and their capacity to indicate the quantity of gas left in the tank. Here is another example. Scientists "learn" to figure out how microphysical particle behave just by looking at their instruments. These cases illustrate the plasticity of perceptual beliefs – their sensitivity to our background theories. ¹⁶ On the contrary, non-doxastic sense experiences lack this property. This qualifies them as the real basis for justifying our beliefs and theories about the external world.

To sum up: from a descriptive point of view sense experience appears to be a theoryneutral and strong, though fallible basis of justification.

II

Now it is time to face the crucial question: what kind of feature *entitles* our perceptual representations to play the role of basic reasons for our beliefs about the material world

¹⁶ Cf. Churchland 1988; Goldman 1986, p. 187, 198.

around us - a role they indeed play? In other words: we have to ask whether the actual structure of justification is normatively adequate.

In order to answer this question, the conditions of adequacy for justification must be clarified by an analysis of our concept of justification. Here we have two options – internalism and externalism in epistemology. The *epistemic internalist* maintains that a belief is justified if and only if (i) the believer possesses reasons that make the truth of his belief at least probable and (ii) these reasons are cognitively accessible to him. The question is, whether this internalist understanding of justification is somehow compatible with the status of sense experiences as basic reasons. Undoubtedly, there are different internalist claims of explaining how sense experiences can be reasons. Firstly, there are internalists maintaining that perceptual representations can justify beliefs about the material world without being justified themselves. Secondly, there is the internalist view that intentional sense experience can justify beliefs only in so far as it is justified by other beliefs. Thirdly, other internalists admit that there are justifiers which do not require independent justification, but they restrict this class of cognitive states to consciousness of experience.

Now, what reason can an internalist give for taking sense experiences with intentional content as justifiers which do not require any justification themselves? Steup argues as follows:

Suppose you ask me: What justifies you in believing that your coffee is sweet? This is a sensible question, and it has a sensible answer. The answer would be: 'It tasts sweet.' But now suppose we were to ask 'But what justifies you in experiencing the coffee as tasting sweet, i. e., in having a sense experience that has as its content the proposition that the coffee is sweet?' Well, this is not a sensible question. If you were to ask me that kind of question, I would have to reply that I don't know what you mean. Now, what this consideration supports is this: the sort of mental states that are epistemically justified or unjustified are not sense experiences, but rather the doxastic attitudes we form in response to sense experiences. So I conclude (...) that sense experiences with propositional content do not admit of epistemic justification, and thus can justify without being justified themselves. ¹⁸

This argument can be construed in the following way:

- (1) Sense experiences with an intentional content are not among those things which are either justified or unjustified.
- (2) By virtue of their content sense experiences entertain inferential relations to beliefs about the external world.

Therefore,

(3) Sense experiences are able to justify beliefs about the external world without requiring justification themselves.

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¹⁷ Here I rely on BonJour's account of internalism. See BonJour 1999, p. 118.

¹⁸ Steup forthcoming.

Although this argument has been proposed in one version or another by many internalists, ¹⁹ I am not at all convinced by it. To begin with: premise (1) does not look very plausible. In defense of it, internalists argue that a cognitive state can be called either justified or unjustified only if it is liable to certain obligations. Experiences, however, are not liable to any obligations, since they are not under our voluntary control.²⁰ The proponents of this argument take for granted that in contrast to experiences our beliefs are under voluntary control. They are, thereby, committed to doxastic voluntarism – a doctrine that currently has not many advocats, to say the least. 21 So I do not see any reason why one should deny that experiences can be justified or unjustified.

Nevertheless, there is a certain respect in which I am inclined to agree with Steup. We cannot sensibly say that someone is justified or unjustified in having a certain experience. The reason may be this: If we are to assess persons epistemically, we should consider only those of their mental states which are rationally, though not voluntarily, controlled by them. Now beliefs obviously satisfy this condition, since they are rationally constrained by the mental life of the person. But the same is not true of our experiences. Now, by giving in this much I am only committed to withhold the talk of persons being justified or unjustified in having a certain experience. From this it does not at all follow that experience itself is neither justified nor unjustified. Hence, the internalist's defense of premise (1) is not acceptable.

What is more: Even if both premises of Steup's argument were correct, the conclusion would not follow. He is guilty of a simple non-sequitur! This can be easily demonstrated. How on earth should mental states as our sense experiences acquire any epistemic authority by the fact that they entail certain beliefs about the world?²² Any inferential justification is merely conditional. It transfers justification from premises to conclusion, only if the premises are justified themselves.²³ So from the perspective of internalism the belief-supporting experience first would have to be justified as being probably correct in order to become capable of providing adequate reasons for our beliefs about the world. Without this further reasoning the position turns out to be a version of dogmatism that is incompatible with internalism.²⁴

See e. g. Huemer 2001, p. 97.
Huemer 2001, p. 97.
For criticism see Alston 1989b.

²² Huemer 2001, p. 98.

²³ See Grundmann 2001, p. 229f.

²⁴ This is also the way BonJour argues. See BonJour 2001c and BonJour forthcoming.

The first internalist attempt to understand sense experience as basic reason of our beliefs about the world has been proved a failure. Thorough-going internalists must not consider perceptual representations as reasons which do not demand any kind of justification.

Let us now turn to the second internalist position. Lawrence BonJour once argued that sense experience can only serve as an adequate ground, if it is justified by other grounds. This argument against basic reasons originally goes back to some remarks of Willfried Sellars'. If it were sound, it would establish that internalism and foundationalism are incompatible in principle. BonJour attempts to establish this point by presenting the following dilemma: Either sense experience is intentional or it is not. If it has intentional content, it is capable of rendering the truth of our beliefs about the world probable, and that from the internal perspective of the epistemic subject. But this is not sufficient to justify these beliefs in a way that is acceptable for the internalist. In order to achieve this aim sense experience itself has to be justified as probably correct from the internal perspective. In other words: Sense experience cannot be a basic reason. According to the second horn, sense experience is analyzed as non-intentional. In this case it cannot render the truth of our beliefs probable, at least not from the internal perspective. It is true that it does not require any further justification, but at the cost of dropping out of the space of reasons. In short: Internalism does not allow for basic reasons.^{25, 26}

But isn't there still a possibility of reconciling internalism with foundationalism? To achieve that aim there would have to be mental states whose truth appears probable merely from within themselves – without being based on further grounds which are known to the subject. Something along these lines has always attracted epistemologists. Recently, even BonJour has become convinced that an internalist foundationalism is possible.²⁷ Those mental states which are supposed to serve as basic reasons in the internalist sense must belong to a class of privileged states – the awareness of sense experience. Here there are again two options: On the one hand, basic reasons may be understood as beliefs, namely beliefs about one's own current sense experience. On the other hand, one may think of consious experiences considered as non-doxastic states.

²⁵ For the most distinguished explication of this dilemma see BonJour 1985, p. 69: "if his (the empirical foundationalist's) intuitions or direct awarenesses or immediate apprehensions are constructed as cognitive, at least quasi-judgemental (...), then they will be both capable of providing justification for other cognitive states and in need of it themselves; but if they are construed as noncognitive, nonjudgemental, then while they will not themselves need justification, they will also be incapable of giving it." See also BonJour 1999, p. 131; BonJour 2001a, p. 23f. Cf. Sellars 1963, p. 131f.

²⁶ In Grundmann 1999 I demonstrate that BonJour's internalism is incompatible with coherentism too.

²⁷ See BonJour 1999.

Doxastic foundationalism basically creates two problems. In the first place, this account prevents sense experience from becoming a basic reason. It is not experience itself but beliefs about experience that provide a basis for justification.²⁸ In the second place, it remains to be shown whether and how beliefs about one's own current experience can be considered as basic reasons. Quite often these beliefs are said to be self-justifying. But if nothing more can be said, this account reduces justification to trivial circularity. Of course, any belief logically implies itself. But there is no way in which this fact can establish justification in the internalist sense. Neither is the conception of self-evidence of any help here. For beliefs about one's own mental states are contingent propositions whose content does not support the probability of their own truth. ²⁹ Traditionally, foundationalists referred to the alleged infallibility of beliefs about one's own mind in support of their claim that these beliefs do not need any independent justification. But there is every reason to be skeptical about this claim of infallibility. Evidence from psychology shows that there are many sources of error in the production of introspective beliefs, e. g. inattention, to pick just one of them.³⁰ Even more important is the fact that the actual immunity to error would not suffice for giving up the requirement of an independent justification of these beliefs. Nothing less than a necessary infallibility would do this job. However, introspective beliefs about one's own experiences cannot be necessarily infallible since in their case the representing and the represented state are definitely distinct entities. The representing state has a doxastic nature, whereas the represented state is obviously of a non-doxastic character.

Having learnt from these problems of doxastic foundationalism BonJour favors conscious experiences as basic reasons.³¹ He explicitly admits that the conceptual apprehension of sense experiences is susceptible to error.³² He also may concede that one's own experiences and one's introspective beliefs about them are not identical. However, the relation between experiences and one's consciousness of them is, according to him, of a completely different kind. In BonJour's view the consciousness of experiences is not an ontologically independent representation of them but *constitutive* to experience.³³ A certain experiential state would not be the same, if it were not conscious to the subject. This is the reason why consciousness of experiences is, according to him, infallible in the required sense whereas introspective beliefs are not. On the basis of this assumption BonJour argues that

²⁸ For criticism along these lines see Pollock 1986, p. 187ff.

²⁹ See BonJour 1999, p. 121.

³⁰ Criticism of the infallibility-claim can be found in Ayer 1956, p. 15, 69; Pollock 1986, pp. 32-35; Lehrer 1990, Ch. 3.

³¹ Cf. BonJour 1999.

³² BonJour 2001a, p. 25.

³³ BonJour 1999, p. 133.

conscious experiences are apt to function as basic reasons for our beliefs about them – reasons that do not need any justification by further reasons.

At first glance BonJour's new foundationalism may look quite attractive. But it faces a fundamental objection.³⁴ From an internalist point of view the awareness of experience is qualified to serve as a basic reason, only if the subject can grasp the probable truth of it without relying on any background information. This condition, however, is not satisfied by BonJour's ontological account of experience. Granted that his account is correct, experience and its awareness are one and the same thing. So the awareness can never be misleading. But this fact is not *entailed* by the awareness of the experience. Hence, the subject might have such an awareness of his experience without being able to grasp that it is constitutive to experience and, for this reason, infallible. The subject will need the justified background assumption that the awareness is constitutive to experience in order to become entitled to use this awareness as a reason. This sufficiently shows that the awareness of our experiences cannot be a basic reason.

But even if it were, the aim of defending perceptual representations of the world as basic reasons would not be achieved. One must not miss the fundamental difference between, on the one hand, awarenesses of experiences which have a purely subjective content and, on the other hand, perceptual representations of the objective world around us. Notice also that BonJour's foundationalism, if it worked, would revive the old problem from underdetermination, since a subjective foundation cannot justify beliefs about the objective world.

To sum up: Internalism turns out not being able to explain how perceptual representations can be basic reasons for or beliefs about the world. According to it, any reason needs to be justified by another one.

This suggests that epistemic externalism might be better of. Here I will put aside the issue of what is the correct definition of externalism. I take it for granted that reliabilism is the paradigm case of externalism. Reliabilism claims that beliefs are justified, if and only if they are produced by reliable mechanisms, e. g. mechanisms who tend to produce more true than false beliefs.³⁵ On this view justification exclusively depends on the reliability of the relevant causes. If we take a closer look, two kinds of belief-producing mechanisms must be distinguished.³⁶ Beliefs are either justified by being product of reliable generational mechanisms which map non-doxastic inputs on to doxastic outputs, e. g. belief states. Or they

A more detailed version of this objection can be found in Grundmann 2003, Ch. 3.2.3.
See Goldmann 1979.
For this distinction see Alston 1993, p. 6; Goldman 1979.

are justified by being product of *transformational mechanisms* which (i) map *true* input beliefs on to *mostly true* output beliefs, i. e. which are conditionally reliable, and (ii) are supplied with reliably produced input. Generational mechanism can be understood as *sources of justification*, whereas transformational mechanisms only *transfer justification* which is already established.

On the externalist view perception is a generational mechanism of belief-production. Beliefs produced by this mechanism are considered as justified since perception is reliable. Now where exactly does the externalist localize the perceptual reasons for our beliefs about the world? The most intuitive answer is this: These beliefs are justified by the reliable perceptual mechanism. This answer, however, cannot be the whole story. For the mechanism is in the end nothing more than the psychologically realized disposition to map certain inputs on to certain outputs. But this disposition is not the complete cause of the occurring beliefs. Its manifestation also depends on there being an actual input-state. From an externalist point of view it is most reasonable to consider this input either in isolation or in combination with the belief-producing mechanism as the justifying reason. Since in the case of perception the relevant mechanism is generational, this reason would be a basic reason – a reason which does not depend on other reasons as in the case of being justified by transformational mechanisms. So in contrast to internalism externalism leaves room for basic reasons. However, it seems to localize basic reasons at the wrong place! According to our ordinary understanding, it is perceptual representations of the world which are our basic reasons for perceptual beliefs. But this view is not in accordance with the externalist view. According to the latter, the input to our perceptual mechanisms of belief-production consists of proximal stimuli of the retina or other sense organs.³⁷ This input has nothing in common with the intentional experience of the material world – the latter being at most a causal intermediary on the way from sensual input to perceptual belief and, hence, epistemically irrelevant.³⁸ It turns

³⁷ At least this is the view of Goldman 1979, p. 12f; Goldman 1986, Ch. 9.

³⁸ For a divergent view see Alston 1989a. He takes conscious sense impressions (subjective ways of being-appeared-to, not intentional states) to be the perceptual input, thereby relying on a *restricted* version of accessibilty internalism. I call his internalism restricted since he demands internalism only with respect to reasons, but rejects internalism with respect to the adequacy of reasons and the basing relation. On my view such a mixed theory (an 'internalist externalism') cannot be adequately justified. Alston argues that our concept of justification was developed on the background of our practice of answering challenges to our claims (p. 236). According to him, one can only answer these challenges by *giving* reasons. However, one can only give reasons which are, in one way or another, accessible to us (p. 237). If this argument were sound, it would prove much more than Alston could appreciate. For in order to answer challenges to our claims we need not only be able to give reasons, but we must also defend that these reasons are adequate and serve as the actual basis of our beliefs. In short: Alston's argument, if it is sound, demonstrates that an unrestricted internalism is correct. It is, however, not suitable to support a restricted version of internalism. I moreover believe that his argument is not sound. But this has to be shown on another occasion.

out that even externalism cannot explain why perceptual representations *correctly* play the role of basic reasons.

Hence, we get the following dilemma: Epistemic justification has to be analyzed in either internalist's or externalist's terms. The internalist understanding rules out basic reasons. Internalism is in principle incompatible with foundationalism. In contrast, the externalist understanding admits of basic reasons, but perceptual representations of the external world are not among them. So it seems as if the structure of our justification as it is ordinarily understood cannot be rationalized either way. We are unable to understand our actual reasons as good reasons.

III

What is the moral from all this? The internalist can hardly avoid some kind of skepticism since there is an unbridgeable gap between his anti-foundationalist understanding of justification and the actual structure of our justification. From an externalist point of view the upshot looks quite different. If our perceptual mechanism is indeed reliable, there is no doubt that beliefs produced by this mechanism are justified. But the externalist has to give up our folk-theory of justification. On his view the scientific investigation of our cognitive processes leave us with a picture that deviates radically from our ordinary conception of the structure of justification. According to this scientific picture, the basic reasons are proximal stimuli of the sense organs instead of perceptual representations which we ordinarily take to be basic. So the externalist will opt for a scientific revision of our ordinary understanding of the structure of justification. In contrast I will argue that there is no reason for becoming either a skeptic or a revisionist. On my view our ordinary picture of the structure of human justification can be defended within the framework of externalism. In order to achieve this aim we must not continue to think of perception as a homogeneous process. Instead we have to acknowledge that the process of perceptual belief-production has two distinct stages. As it will turn out this account is psychologically much more realistic than the single-stage view. Beforehand I will clarify some preliminary issues.

First: In the beginning I argued that the content of experience is intentional or, what is the same, representational, i. e. that sense experience possesses truth conditions which are, in so far as they are objective, localized in the external world. This is possible, even if sense experiences are neither doxastic nor conceptual states. Sense experience does not have

propositional content³⁹, that is to say that the representational content is not coded in a linguistic manner. Propositional content is digital, i. e. highly specific, compositional, i. e. composed of concepts and structure, and its conceptual components are determined by their inferential role. All of this is not true for the coding of our sense experience's representational content. Its code is analog, i. e. rich and determinate, non-compositional, and it is not determined by the inferential role. The upshot is this: Although the content of our beliefs, on the one hand, and our sense experiences, on the other hand, is certainly differently coded (or formated), it may perfectly correspond. The fundamental difference between beliefs and experiences is a matter of *how* something is represented (the format), but not a matter of *what* is represented (the representational content).

Second: The inferential relation between mental states depends exclusively on their content but not on the format or code of this content. Such a relation holds between two token, if both are causally related and their causal relation is sensitive to the logical relationship between the contents of these tokens. An example may illustrate this point: Suppose that a belief state causes another belief state such that (i) the content of the former logically implies the content of the latter and (ii) the caused belief state would not have the content, it actually has, if the causing belief state had a different content. In that case I take it that both belief states are inferentially related.

Third: a terminological point. I reserve the label "reason" for mental states which justify beliefs *inferentially*, i. e. in a deductive, inductive or abductive manner. Externalism does not restrict justifying facts to reasons in this sense. So reasons make up only a sub set of all justifying facts. Basic reasons are mental states which provide for an inferential justification but do not require any inferential justification themselves. Notice that this is compatible with the view that basic reasons need non-inferential justification and, therefore, are not basic *justifiers*. So basic reasons build the basis of all our inferential (or rational) justification, nothing less and nothing more.

Now I will turn to my own externalist solution of the above dilemma. On my view perceptual representations of the external world are basic *inferential* reasons for our beliefs about this world. At least in simple cases the experiences support beliefs by implying them deductively. This is possible since the perceptual representations of facts in the observer's

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³⁹ Sometimes the controversy about whether or not sense experience has a propositional content is merely verbal since the term 'propositional' is used ambiguously. Mostly it is used to characterize a certain format of representation (e. g. Dretske 1981, p. 183; Burge forthcoming), but sometimes it is also used to characterize the content of representation. For example Huemer 2001, p. 74, classifies the experiential content as 'propositional' since he takes it to be truth-conditional or representational. I go with the prevailing use, i. e., I will use 'propositional' exclusively to characterize the format of content.

surrounding possess a content that is richer and more determinate than his specific beliefs about these facts. Although the coding of perceptual representations differs significantly from that of beliefs, the content of the former can entail that of the latter. However, this logical relation is not sufficient to account for justification. Inferential reasons have to be understood as inputs to transformational belief-producing mechanisms. They can justify beliefs based on them, only if (i) the transformational mechanism is conditionally reliable and (ii) the input to this mechanism is itself produced reliably. Condition (i) is satisfied by perception since, as we saw above, at least in the simple cases beliefs are deductively based on perceptual representations. Condition (ii) is satisfied since perceptual representations are produced reliably. We can assign a certain tracking-record (the ratio of true and false outputs) to the generational mechanism of producing perceptual representations, since perceptual representations possess truth values in virtue of their representational contents. And this tracking-record is in the case of perception, as far as we know, positive, i. e., the mechanism of producing perceptual representations is reliable. My two-stage account of the perceptual generation of beliefs is, therefore, suitable to explain how perceptual representations of the external world can be basic reasons for our beliefs about the world. These representations imply those beliefs deductively and they are themselves products of reliable representationproducing mechanisms.⁴⁰

So it has been demonstrated that my two-stage account of the production of perceptual beliefs can solve the above mentioned dilemma. It moreover has the advantage of providing an adequate description of the psychological reality. Cognitive psychologists nowadays mostly agree in distinguishing the modular mechanism of producing perceptual representations from the non-modular mechanism of producing perceptual beliefs. According to them, the production of perceptual beliefs is partly determined by background theories and background information. What is more, these beliefs are sensitive to rational constraints of the overall belief system and revisable by defeaters. In contrast perceptual representations are produced informationally encapsulated and rigidly. So psychological evidence supports the view that there are two independent mechanisms which cooperate in producing perceptual beliefs.

The same is true for the view that sense experience has representational content and the view that there is an inferential relation between sense experience and perceptual beliefs. I have already presented some phenomenological evidence for the representational analysis of

⁴⁰ Burge forthcoming seems to hold a similar view. However, he denies that perceptual representations can figure in inferential justifications. According to him, experiences are only warrants but not reasons.

experience. I here will leave it at that. But even some of those who accept this representational analysis as well as the existence of a deductive relation between experience and perceptual beliefs do not appreciate the claim that there is an inferential relation between these both. Their reason is this: Inferences are understood as actions of the subject. 42 According to the standard account of action explanation, actions are the causal results of beliefs and desires. Therefore, they are thought to be under voluntary control. Exactly this, however, is not true for the production of perceptual beliefs which can be said to occur spontaneously. In case I see a car running down the street, I cannot avoid believing that a car is running down the street, no matter how much this is what I wish. Since, so the argument runs, perceptual beliefs are not under voluntary control, they cannot be understood as results of inferential actions.

Now I do not find any psychological plausibility in the view that inferences are a kind of action.⁴³ It seems clear to me that beliefs are hardly ever caused or controlled by desires. As soon as we grasp that a claim follows from what we believe, we cannot any longer avoid accepting it. This is certainly not a matter of decision. We may better describe the situation as that of rational force. For this reason I cannot agree with the opponents to an inferential view of perceptual beliefs. It is true, we do not have voluntary control over these states, but we do not have voluntary control over any other beliefs either.

Finally, I would like to draw the reader's attention to some interesting consequences of my two-stage account of perceptual beliefs. If this account is correct, the basic reasons for our theories about the world are non-conceptual sense experiences. This guarantees that there is a theory-independent basis for the justification of our theories. We can call this basis "theoryindependent" for two reasons. First, in contrast to beliefs it does not consist of conceptual constituents. Concepts, however, are always (at least partly) determined by their inferential roles within our theories of the world. Second, processes which result in non-conceptual perceptual representations are not sensitive to background theories. Cognitive scientists are used to call basic perceptual processes "cognitively impenetrable". 44 This view is supported by the familiar fact that sensory illusions are resistant to recalcitrant knowledge. For example, the Müller-Lyer illusion does not vanish when I have learned that both of its lines are equally long. Although basic perceptual processes often look "intelligent," they cannot be understood as rational inferences controlled by the content of the involved states. They should better be

See Peacocke 1999, p. 20; Burge forthcoming.
See also Alston 1989b.
Fodor 1984.

seen as transformational processes which are acquired (by evolution or learning history) because of their reliability within the actual environment. In contrast perceptual *beliefs* are cognitively penetrable and hence theory-dependent. Now, there is an obvious advantage of a theory-neutral basis of justification. Such a basis, if it is reliable, is reliable in general, no matter what the cultural or theoretical context is like. So we have got an independent and non-relativistic standard for assessing theories, cultures and traditions. In short: Experience is the basic standard of our epistemic evaluation of theories.

By the two-stage account of perceptual beliefs we are, moreover, committed to the view that mental states underneath the level of beliefs can and even must have epistemic properties. Perceptual representations, in so far as they are reliably produced, should be taken as justified. If they happen to be true, one even might see them as instances of knowledge. This clearly runs counter to our ordinary discourse in which we attribute "justification" only to beliefs. But this need not be a decisive counterargument. Admittedly, some of the characteristic features of human justification are indeed restricted to beliefs. It is only beliefs whose justification can be defeated and rationally revised, whereas sense experiences are relatively inflexible. Moreover, nothing but beliefs can be justified inferentially, whereas perceptual representations are never inferentially produced, though they may serve us as inferential reasons. These differences may explain why we usually do not say that experiences are justified. However, I do not see any reason to deny their being justified (at least in an elementary sense), if perceptual representations are reliably produced. Perhaps one should even speak of "proto-knowledge", in case these states happen to be true (in the right, non-Gettier-type of way). This would have the advantage of making possible the attribution of justification and knowledge to animals and small children who are not equipped with beliefs.

My account of empirical justification is, of course, foundationalist. But it significantly differs from classic accounts of foundationalism in so far as it takes basic reasons *not* to be infallible or incorrigible, as the latter would have it. Foundationalism, according to me, provides us with basic but not ultimate reasons.

Last, but not least basic experiential reasons are, according to my account, directed at the external world without any intermediary. Therefore, the empirical foundation has the capacity of carrying our knowledge about the world. On this basis we also can overcome the old threat to empiricism, namely the problem from underdetermination of knowledge by evidence. So we might trust empiricism after all.⁴⁶

⁴⁵ Goldman 1986, p. 198.

⁴⁶ For a comprehensive defense of epistemic externalism on the basis of conceptual analysis see Grundmann 2002 and Grundmann 2003.

My conclusion is this: Our intuitive, pre-theoretical, one even might say naive picture of our beliefs' being justified by sense experience not only can be defended from the perspective of externalism, it also turns out to be a quite attractive position in so far as epistemological questions are concerned.

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