Reflective Equilibrium Without Intuitions?

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Abstract In moral epistemology, the method of reflective equilibrium is often characterized in terms of intuitions or understood as a method for justifying intuitions. An analysis of reflective equilibrium and current theories of moral intuitions reveals that this picture is problematic. Reflective equilibrium cannot be adequately characterized in terms of intuitions. Although the method presupposes that we have initially credible commitments, it does not presuppose that they are intuitions. Nonetheless, intuitions can enter the process of developing a reflective equilibrium and, if the process is successful, be justified. Since the method of reflective equilibrium does not essentially involve intuitions, it does not constitute a form of intuitionism in any substantial sense. It may be classified as intuitionist only in the minimal sense of not reducing justification to a matter of inference relations alone.

Keywords Reflective equilibrium · Intuition · Intuitionism · Justification · Foundationalism · Coherentism

1 Introduction

This paper investigates the relation between reflective equilibrium and intuitions. In moral epistemology, the view that intuitions and reflective equilibrium are inextricably connected is well-known, from both critics and advocates of reflective equilibrium. Right after Rawls's seminal exposition in *A Theory of Justice*, Hare (1973) and Singer (1974) criticized reflective equilibrium as an indefensible attempt to base the justification of moral principles on intuitions. Meanwhile, it has become routine to start discussions about methodology with statements such as: "Most contemporary moral theorists use something like the method of reflective equilibrium, which in effect systematizes moral intuitions, so they must admit that they rely on moral intuitions." (Sinnott-Armstrong et al. 2010:246). In *The Oxford Handbook of Ethical Theory*, the chapter titled "Intuitions in Moral Inquiry" predominantly

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discusses reflective equilibrium. Therein, DePaul, one of the leading proponents of reflective equilibrium, gives the following diagnosis: "Very many philosophers explicitly endorse the method known as reflective equilibrium, and even more end up conducting their moral inquiries in ways that can easily been seen to fall under the description of reflective equilibrium. Moreover, it is, I think, quite clear that reflective equilibrium grants intuitions a leading role in moral inquiry. The method is clearly the most sophisticated intuitionistic approach to moral inquiry described to date" (DePaul 2006:597). In short, reflective equilibrium is often seen as a or even *the* standard method of justification in moral philosophy, as relying on intuitions and as justifying intuitions. For this reason, it is often described as an "intuitionist" method.

A close association with intuitions may seem a fatal problem, because intuitions have recently been attacked from various sides.[1] Experimental philosophers claim to have shown that intuitions are unreliable and subject to all kinds of biases. Sinnott-Armstrong (2008), for example, used such results as a basis for his "master argument" against philosophers who grant moral intuitions justification without inferential backing. Others use empirical results about intuitions to argue directly against reflective equilibrium (e.g. Appiah 2008), some-times with polemical conclusions: "the most familiar examples of Intuition-Driven Romanticism are various versions of the reflective equilibrium strategy" (Weinberg et al. 2008:20). In the context of philosophical methodology, Williamson's (2007) landmark study concludes that "intuition" is merely another label for beliefs or dispositions to believe, and therefore at best a redundant epistemological concept. And Cappelen's (2012) detailed analysis of philosophical arguments relying on "cases" (Trolley cases, The Violinist etc.) purports to show that intuitions simply do not play any significant role in philosophical inquiry. Should any of these attacks prove successful in showing that appealing to intuitions is highly problematic, serious problems arise for the method of reflective equilibrium, if it is really wedded to intuitions as it is widely assumed.

In what follows, I argue that the recent critiques of intuitions do not amount to an argument against the method of reflective equilibrium. Such critiques are based on an oversimplified understanding of reflective equilibrium, which prevails in the literature. Closer analysis shows that reflective equilibrium is neither tied to intuitions nor a form of intuitionism, except in a minimal sense of "intuitionism" which does not grant intuitions any special role, but merely holds that justification is not exclusively a matter of inference relations. Hence, even if one thinks that the recent attacks have discredited intuitions completely, this in itself is not a serious problem for the method of reflective equilibrium. On the other hand, that reflective equilibrium is independent of intuitions does not entail that the method cannot be applied to intuitions. In this respect, I argue that proponents of intuitions can make use of reflective equilibrium and, if they accept it as a method of justification, thereby justify intuitions. Reflective equilibrium is indeed compatible with a wide range of positions on intuitions. Independent arguments are needed for deciding whether intuitions should be assigned a substantial role in moral philos-ophy. Thus, this paper does not aim at vindicating or undermining intuitionist positions.

Before these points can be argued, we need a sufficiently clear picture of reflective equilibrium and of intuitions. The brief remarks which usually introduce reflective equilib-rium in the literature are an insufficient basis for analysing its relation to intuitions. In Section 2, I therefore suggest a more detailed account, focusing on points which are crucial for the subsequent arguments. Section 3 then addresses the variety of theories of intuitions. I do not defend a specific notion of intuition, but introduce a classification of features of intuitions and a minimal necessary condition of non-inferentiality. On this basis, the variety

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[1] Many of these arguments are not new at all. See, e.g., the references in Huemer 2005:102–3.

of current theories of intuitions can be dealt with in a general way. Sections 2 and 3 pursue a limited aim. I will neither try to give a comprehensive description of the method of reflective equilibrium nor will I discuss the exact nature of justification that may be provided by reflective equilibrium. Consequently, I will also not attempt to defend reflective equilibrium or the justification of intuitions by reflective equilibrium. These issues merit further discussion, but lie outside the scope of this paper.

In Sections 4–6, the relation between reflective equilibrium and intuitions will then be investigated by addressing the following questions: Does reflective equilibrium essentially involve intuitions? Can it be applied to intuitions? Is it an intuitionist method, and if yes, in what sense of "intuitionism"? In a nutshell, the answer will be: although the method can be applied to intuitions, reflective equilibrium is independent of intuitions and does not constitute a form of intuitionism in any ambitious sense. This result does not only make clear that framing the debate about reflective equilibrium in terms of intuitions and intuitionism involves a considerable distortion, it also suffices to show that critiques of intuitions do not straightforwardly translate into effective objections to the method of reflective equilibrium.

2 Reflective Equilibrium

Reflective equilibrium was first described in Goodman's discussion (1983) about the justification of logics, but Rawls's account (1999a; 1999b) and its subsequent development by Daniels (1996; 2011) are most influential in moral philosophy. Two key ideas characterize the method of (so-called "wide") reflective equilibrium: judgements and principles are justified if judgements, principles and background theories are in equilibrium; and this state is reached through a process that starts from judgements and background theories, proposes systematic principles and then mutually adjusts judgements, principles and possibly also background theories. On this basis, various accounts of reflective equilibrium have been proposed. Extensive defences in moral epistemology include DePaul's (1993; 2006; 2011) and Tersman's (1993). So far, the most elaborated account is Elgin's project (1996; 2005) of a reflective-equilibrium-based epistemology, which is also the basis for the account I propose here. In what follows, I focus on issues that are important for the purpose of this paper. They concern the contrast between judgements and principles, the process of mutual adjustments and the criteria for justification by reflective equilibrium.[2]

All standard accounts of reflective equilibrium refer to a contrast between judgements and principles which is understood in terms of particular vs. general (Goodman 1983:64). However, as Rawls pointed out (1999b:289), judgements can also be general. We may judge that helping the needy is always morally good or that moral considerations trump merely economic ones. There is no reason to exclude such judgements when we try to develop a moral theory. Generality therefore cannot be what makes the relevant difference. Unfortunately, the literature remains virtually silent on what else should distinguish judgements from principles.

Nevertheless, an examination of Goodman's use of "principle" and "judgement" reveals that he uses these terms to contrast the account of validity given in a logical system, such as *Principia Mathematica*, with the judgements of validity somebody actually forms or is ready to accept. Similarly, we can distinguish between moral principles as those propositions

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[2] To simplify matters, I will ignore background theories and considerations specific to *wide* reflective equilibrium when they play no role in my subsequent arguments.

which are part of some given moral theory and moral judgements as those propositions to which somebody is actually committed to a certain degree. The contrast between judgements and principles is then not a matter of their content; this can be the same. The crucial difference is rather that principles are systematic; they are part of a system of logic or a moral theory. Judgements, on the other hand, include a propositional attitude involving a certain degree of commitment, which need not be definite or unwavering, but can also be minimal or feeble. Commitments can be expressed in an explicit statement or become manifest in acts of, for example, accepting inferences as valid or rejecting actions as morally impermissible. If we adopt this view, we also have no longer reason to insist that what should count as principle must be general, although we may not want to call it a "principle" any longer. To avoid the association with particular vs. general as well as the identification of judgements with explicit statements, I will replace "judgement" and "principle" with the technical terms "commitment" and "systematic element". It is important to remember that commitments come in degrees, that they need not imply firm acceptance, and that "systematic" is not used in the sense of "orderly" or "methodological" but of "part of a system".[3] In the present context, the crucial question is how commitments are related to intuitions.[4] This point will be discussed in Sections 4–6.

Turning to the process of mutually adjusting systematic elements and commitments, two points are particularly relevant in the present context. Firstly, speaking of a process of *mutual* adjustment of commitments and systematic elements does not only emphasize the bidirectionality of adjustments but also underlines that neither the system nor the commitments have, *qua* system or *qua* commitments, a privilege not to be revised. Secondly, as Goodman (1983:65) insists, the process of mutual adjustment is not intended to record how we in fact arrive at the commitments and the system in question. It rather spells out what is required for a justification. We need to be able to describe how the system could have been developed from the commitments we started out with.

A consequence of the points discussed so far is that commitments are involved in two contrasts. On the one hand, commitments contrast with systematic elements at every stage in a process of developing a reflective equilibrium. On the other hand, the resulting account, i.e. the resulting commitments and systematic elements, contrast with the commitments the reflective-equilibrium process started out with. For the sake of clarity, I refer to the latter as "antecedent commitments" and use "current commitment" or simply "commitment" in the context of the first contrast.

Further explanations are needed to set out how justification by reflective equilibrium involves several criteria. It firstly requires an agreement between commitments and systematic elements. The metaphor of "equilibrium" is usually explained in terms of coherence, which includes (at least) that commitments and systematic elements are consistent, as well as that the commitments can be derived from the system. The relation of derivability is, in most instances, not an inference in the straightforward deductive sense. It often involves defeasible reasoning, and nearly always a transition from a more or less formal system to ordinary language expressions of commitments. This point is easily seen in the case of logical systems, which are framed in a formal language, not the language we use to express our commitments.

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[3] This technical use of "commitment" follows Elgin 1996:102–9 and Scheffler 1954. For a discussion of some other uses, see Shpall 2012.

[4] For the sake of simplicity I will (as it is usually done) assume that we deal with the commitments of an individual epistemic subject and with commitments that have propositional content. Furthermore, I will not discuss whether we should follow Rawls (1999a:42) in requiring that commitments be considered; that is, not formed under the influence of emotion, inattention and the like. The arguments in Sect. 4–6 will, if anything, become stronger, not weaker if commitments need to be considered.

Principles of logic therefore do not directly entail ordinary language expressions of commitments, but only formalizations thereof (see Brun 2004). Although moral theories are typically presented in English, their relation to commitments is usually not trivial either because the systematic elements employ ordinary words in a technical sense (examples abound; a particularly clear instance is Scanlon's (2008:123–60) use of "blame"). This issue must wait for a more detailed discussion elsewhere; the crucial point for the arguments in Sections 4–6 is that some form of inference is involved in deriving commitments from systematic elements.

However, reflective equilibrium cannot be reduced to coherence. An analysis of Goodman's and Elgin's writings reveals three additional criteria, the first two of which will be further discussed in Section 6.

Reflective equilibrium, secondly, requires that at least some current commitments have a minimal epistemic standing of "initial credibility" or "initial tenability", which is independent of the current equilibrium, particularly, independent of their coherence with other commitments and with systematic elements (Goodman 1972:62–3; Scheffler 1954; Rawls 1999b; cf. Elgin 1996:101–7; 2005:166).[5] Otherwise, the method of reflective equilibrium would fall prey to the standard objection that coherence cannot generate justification *ex nihilo*. Recent work in formal epistemology has addressed the question of what features initial credible commitments must have if they are to be instrumental in meeting this objection. The results indicate that the initial credibility of a commitment that p need not ensure that the probability of p is high as long as the probability of p given the initially credible commitment that p is higher than p's antecedent probability.[6]

Criterion three demands that the resulting account must respect antecedent commitments adequately. This prevents the process of developing an equilibrium from implementing revisions so drastic that it "changes the subject"; that is, that we end up with a system that does not count as a theory of what we set out to develop a theory of. Should a course of reflection lead to a theory which merely underwrites the law of the jungle, it will not count as providing a *moral* theory. Antecedent commitments can have a variety of sources, ranging from merely plausible assumptions to commitments that are be based on a previous system which is now to be revised. In any case, they must have some initial credibility. *Qua* commitments, they must have at least some credibility, and *qua* antecedent, their credibility can only be initial. "Respecting" antecedent commitments means that if an antecedent commitment is discarded, replaced or changed, we must be ready to explain why this has been done. Often we will then refer to the relative weight of commitments and systematic elements. Another possibility is to point out a significant difference between commitments which explains why we want to save some of them but give up others. Or we may give a diagnostic story which explains why we were committed to something we no longer are. If a supporter of gay marriage who appeals to a "between consenting adults" principle finds that he cannot uphold his commitment that polygamy is morally wrong, he can argue that the latter was feeble anyway in comparison to the principle which covers many commitments he firmly holds or that his views on polygamy were merely a cultural prejudice.

Finally, the resulting moral theory must do justice to relevant "desiderata", which include desirable qualities of general relevance, such as simplicity, conceptual clarity, unification

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[5] My use of "initial" is not related to "antecedent" as used in "antecedent commitments" (in contrast to Elgin's use of "initial"; Elgin 1996:107, 110).

[6] See van Cleve 2011 and Roche 2012, as well as the references given there. Several questions remain to be addressed, for example: How is initial credibility (as analysed in the formal research just mentioned) related to "permissive justification" which figures prominently in well-known coherentist positions (Sayre-McCord 1996; Sinnott-Armstrong 2006:ch. 10.6.4)? How strongly (if at all) is the initial credibility of a belief determined by its source (in the sense discussed in Sect. 3)?

and scope of application, as well as "virtues" which are more specific to moral theories, such as being an effective guide to action or suitable as a basis for a legal regulation. Which desiderata are relevant, how much weight they should be given, and how the necessary trade-offs should be made will depend on the specific pragmatic-epistemic goals which guide the construction of a system. In any case, this criterion ensures that the process of theory development provides a systematization, not merely a list of our commitments. It also blocks the "conservative" strategy of avoiding revisions of commitments whenever possible; that is, the strategy of searching for the minimal revisions which eliminate the inconsistencies among commitments.

In summary, the method of reflective equilibrium justifies moral commitments and a moral system by a process which starts out with antecedent commitments, is guided by pragmatic-epistemic goals and develops a moral system by mutually adjusting commitments and systematic elements. Reflective equilibrium requires that the current commitments and systematic elements are consistent, that the commitments can be derived from the systematic elements, that some of them have initial credibility and that they respect the antecedent commitments adequately.

Before we can investigate which role intuitions may or may not play according to this account of reflective equilibrium, we need more clarity about how intuitions are characterized in contemporary theories of intuitions.

3 Key Features of Intuitions

A diversity of theories of intuitions are defended in moral epistemology, even if we focus on recent debates and ignore traditional accounts involving a faculty of intuition.[7] Here are some examples: Sinnott-Armstrong (2008:47) defines "moral intuition" as "a strong immediate moral belief"; DePaul (2006:595) and Huemer (2005:102) characterize intuitions as beliefs or intellectual seemings respectively which are neither explicitly inferred nor based on perception, introspection, memory or testimony, but adopted because they seem to be true upon due consideration; according to Audi (2004:33–6), intuitions are firmly held beliefs which are not based on inference or theory, but involve an appropriate understanding of the proposition believed.

In what follows, I first suggest an overview which distinguishes five classes of features ascribed to intuitions. I then introduce a minimal necessary condition for a belief to count as an intuition. The goal is to isolate the factors determining the relation between intuitions and reflective equilibrium. Prominent theories of intuitions will be mentioned to illustrate the proposed classification, but they will not be discussed further, and I do not aim at defending a specific notion of intuition. Rather, this section develops the basis for investigating the role of intuitions without having to address the theories of intuitions individually.

A first characteristic of intuitions concerns their content. It is usually taken to be propositional,[8] and there are basically three views about the propositional attitude involved. Most straightforwardly, intuitions are understood as a species of belief (e.g. Audi 2004; DePaul 2006; Sinnott-Armstrong 2008). Others argue that intuitions are better understood as

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[7] Discussions about intuitions do not invariably use the term "intuition"; relevant contributions are also found under labels such as "self-evident belief" (e.g. Shafer-Landau 2003) or "emotion" (see Brun and Kuenzle 2008).

[8] I use "propositional" in a loose sense, without an implicit link to a specific understanding of propositions. I only assume that intuitions involve some attitude such as belief or inclination to belief, and that their content can stand in inference relations.

inclinations to believe since an intuition that p may be present in absence of a belief that p or may even persist in face of belief or knowledge that p is false (e.g. Huemer 2007). A utilitarian, for example, might have the intuition that it is wrong to throw the fat man from the bridge even though she considers the belief that it is wrong to be unjustified. Finally, there is the view that intuition is a sui generis attitude, an intellectual seeming or appearance (e.g. Bealer 1998; Huemer 2005). To simplify, I will discuss intuitions as a species of beliefs; the arguments in Sections 4–6 can straightforwardly be reframed in terms of other attitudes.

Secondly, the source of intuitions merits a more extensive discussion since it will play a key role in subsequent sections. Virtually all theories hold that intuitions are non-inferential (cf. the references at the beginning of this sect.).[9] Occasionally, additional negative characteristics are given, such as that memory, perception, testimony and introspection are not the source of intuitions (e.g. DePaul 2006; Huemer 2005). On the positive side, intuitions are often claimed to be based on conceptual competence or on understanding of concepts (e.g. Sosa 2007; Audi comes close to such a view in 2004, but see also 2008:479). Unfortunately, it often remains unclear how exactly we should understand claims about non-inferentiality or about what beliefs are "based on", "arrived at" or "resulting from". By interpreting such claims as claims about the source of a belief, I interpret them in an internalist sense, as referring to the way in which, in her own understanding, an epistemic subject has been led to maintain a belief: a belief b that p of a subject s is inferential at time t iff s holds b at time t because s inferred p at or before t[10]; alternatives include that s holds b because she has certain perceptions or learned about it from an informant. Of course, non-inferentiality is not a definition of "intuition", but a partial characterization, which intuitions share with, for example, beliefs based on perception. Furthermore, the source of a belief must be distinguished from the way in which a subject got acquainted with the belief's content, from the psychological mechanism that effected the believing, and from the belief's justification, even if one holds that questions about the justification of beliefs can or should be answered by reference to their source. Suppose Alf now believes that all creatures have dignity. This belief has a non-inferential source if Alf now believes that all creatures have dignity not because he inferred it from other beliefs; maybe it just seems true to him or he read it in the Swiss Constitution. This leaves open how he first learned about the view that all creatures have dignity, what psychological mechanisms are involved in his holding his belief and whether he used to believe it (but no longer does) because he thought that it could be inferred from some moral principle and facts about animals and plants. Furthermore, having a non-inferential source does not mean that Alf has a non-inferential justification; maybe he has no justification for his belief.

Thirdly, all theories of intuition assign a specific epistemic status to intuitions. A traditional view was that intuitions are certain or infallible and hence immune from revision (cf. Descartes 1996; Locke 1979). Recent debates focus on weaker claims. Sosa (2007) defends the view that intuitions are reliable. Audi (2004), Hooker (2002), Huemer (2005; 2008) and Shafer-Landau (2003) hold that intuitive beliefs are non-inferentially justified, but their justification is defeasible and they admit for additional justification, which may involve inference. In two respects, current theories of intuition diverge. Firstly, how much non-inferential justification do intuitions have? Audi (2004) holds that some intuitions are justified to the degree required for knowledge, Hooker (2002) characterizes them as

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[9] "Non-discursive", "immediate", "spontaneous" and "direct" are sometimes used in the same sense.
[10] My interpretation of (non-)inferentiality is based on Sinnott-Armstrong's (2006:ch. 9.1; 2008; 2011). Others, e.g. Cappelen (2012:9), discuss inferentiality as a kind of justification. I will address questions about justification in Sect. 6.

"independently credible" or "attractive in their own light", and Huemer (2005) first spoke of *prima facie* justification, later only of "at least some degree of justification" (2007:30). Secondly, to what extent can intuitions be revised? Huemer, for example, once adopted a pronounced conservatism which aims at minimizing revisions of intuitions overall (2005); later, he advocated a revisionist methodology that allows for overthrowing some or even most intuitively held beliefs (2008).[11]

A fourth, widely acknowledged property of intuitions is their "strength" (e.g. Sinnott-Armstrong 2008; Shafer-Landau 2003). It means that intuitions are often not easily given up and some may even prove impossible to abandon in face of evidence that they are wrong. There are many examples of such "recalcitrant" intuitions.[12] Just as *ex falso quodlibet* may remain counter-intuitive for somebody committed to classical logic, the intuition that allocating medical services according to age is morally wrong may withstand the "moral surprise" that it might be acceptable (cf. Daniels 2011), and instances of the gambler's fallacy can persist even after one has become competent in probability theory. As mentioned above, recalcitrant intuitions are a core argument in favour of understanding intuition as an inclination to believe or a sui generis attitude. No difficulties are then involved in acknowledging that a subject *s* may have an intuition that *p*, even though *s* does not believe that *p* (e.g. Sosa 1998:258–9; Huemer 2007:30–1; cf. Nimtz 2010).

Finally, current debates refer to further characteristics of intuitions which are not important in the present context. A notable example is the phenomenology of intuitions, for example, what characterizes them as seemings, or a feeling of confidence (Sinnott-Armstrong 2008) or a "seeing" (Sosa 2007:62) that accompanies intuitive beliefs.

Of all these features, non-inferentiality is the best candidate for a common denominator of the various accounts of intuitions. As explained above, this means that inference is not the source of intuitions. Since "inferred" is usually not specified further, it is best interpreted broadly, as covering any conscious adducing of premises which is taken to sufficiently support a conclusion. This includes not only deductive but also inductive inference, analogy, inference to the best explanation and so on (e.g. Sinnott-Armstrong 2006:186–7).[13] However, the above condition simplifies too much in several respects. It speaks of *the* source of a belief, although a subject may simultaneously have several kinds of reasons for holding a belief. Should such an "overdetermined" (Audi 2008:477) belief count as an intuition? Furthermore, sources of beliefs can change or become forgotten over time. If, for example, a subject believes something (say, that prime factorization is unique) now only because she had inferred it at some earlier time, but meanwhile has forgotten all the details of the inference, should this belief now count as an intuition? (Cf. Sinnott-Armstrong 2011:201n3.) Whereas theories of intuition must deal with such problems, they can be sidestepped here because the following minimal condition of non-inferentiality suffices for addressing the questions raised in the following sections:

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[11] Some of these positions are incompatible with reflective equilibrium as presented in Section 2, e.g. the view that intuitions need no justification. Huemer's conservatism is another case in point. Conservatism is not the hallmark of reflective equilibrium (as suggested in Huemer 2005:117) but can only be found in some accounts of narrow reflective equilibrium (e.g. Cohen 1981). It is certainly not part of wide reflective equilibrium as defended by Daniels (1996), DePaul (2011) and Elgin (1996), which, ironically, closely resemble Huemer's (2008) revisionist "alternative" to reflective equilibrium.

[12] "Recalcitrant" is borrowed from Cappelen (2012). "Incorrigible" is also often used, but it is ambiguous, meaning either impossible to give up or having an epistemic privilege of being immune from revision.

[13] Some prefer an even wider notion which includes unconscious and implicit reasoning that is in principle accessible to consciousness (Huemer 2005:267n4). The condition (NI) I suggest below covers such positions as well.

(NI) If at time t a subject s holds a belief b that p because and only because s consciously drew an inference with conclusion p at or before t, then b is not an intuition of s at t.

To my knowledge, all intuition-theorists accept not being inferential in this sense as a necessary but not sufficient condition for a belief to be an intuition. Hence, a variant of (NI) with a bi-conditional would certainly not be a viable definition of intuition. Beliefs based on, say, perception are non-inferential in the same sense, but undisputedly not intuitions.

With the help of (NI) and the classification of intuition-characteristics, we are now in a position to analyse the connection between reflective equilibrium, intuitions and intuitionism.

4 Does Reflective Equilibrium Essentially Involve Intuitions?

One may wonder why, in Section 2, the method of reflective equilibrium has not been characterized in terms of intuitions rather than in terms of commitments or judgements. After all, intuitions are standardly referred to when reflective equilibrium is described in moral theory (cf. the quotes in the Introduction). In what follows, I first argue that the method of reflective equilibrium should not be tied to intuitions as they are understood in current theories of intuitions; I then briefly discuss another use of "intuitive" which is not particularly linked to moral intuitions.

According to all accounts of intuitions, there are commitments which are not intuitions. Therefore, an indefensibly narrow conception of reflective equilibrium results if it is characterized in terms of intuition. Perception, memory and testimony, for example, may be sources of commitments, but not of intuitions.[14] The core problem, however, is that commitments need not satisfy the minimal condition of non-inferentiality which results from (NI) if "intuition" is substituted by "commitment". If a state of reflective equilibrium has been reached, all current commitments can be derived from the systematic elements. It is to be expected that some of these commitments will be held solely because they were so derived. Hence, such commitments are not intuitions. As an example we may think of a utilitarian who is committed to a certain controversial claim just because it is a consequence of utilitarian principles. Furthermore, current commitments will become antecedent commitments when the process of developing a reflective equilibrium is carried on or started anew. We can then expect that some of these antecedent commitments will be entertained solely because they were derived from the preceding system and hence also not be intuitions.[15]

On the other hand, if there are recalcitrant intuitions that withstand conflicting evidence, the class of intuitions is also too wide to serve as a basis for characterizing reflective equilibrium. If a subject believes that p is false but nonetheless does not manage to give up the intuition that p, he is not committed to p and consequently must ignore his intuition that p in striving for reflective equilibrium. If a hardboiled Kantian has come to the conclusion that lying is always impermissible but finds himself in a situation in which he

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[14] Understanding intuitions as beliefs (rather than inclinations to believe or seemings) raises the additional problem that many commitments are not intuitions because they are not strong enough to count as beliefs.
[15] Rawls incidentally characterizes (1999a:17) considered judgements as intuitive. An explanation for this might be that he does not think of antecedent commitments in general, but of commitments we would hold in the hypothetical initial situation, in which we started moral theorizing from scratch. However, already the first steps towards a reflective equilibrium can yield commitments which are held just because they are derived from the first attempt at coming up with a moral system.

has the intuition that lying is permissible, he can decide that this intuition is simply misguided and avoid the corresponding commitment; his intuition then does not count against his moral system since it lacks commitment.

In fact, a stronger point can be argued for. As far as the method of reflective equilibrium is concerned, intuitions need not even exist. Their existence is neither implied nor presupposed by the account sketched in Section 2. Proponents of reflective equilibrium can certainly admit that there are beliefs the source of which is not inferential in the sense of (NI). However, according to all theories of intuitions this is not enough to qualify these beliefs as intuitions. They could still lack the epistemic status, the recalcitrance or the phenomenology characteristic of intuitions. So far, nothing rules out that all non-inferential beliefs have their source in, say, memory and perception. This is neither to say that there are no moral intuitions nor a critique of moral intuitions. But defending the position that intuitions play an important role in moral theorizing requires independent arguments; it is not merely a consequence of accepting reflective equilibrium as a method of justification.

In this light, the usual practice of characterizing reflective equilibrium in terms of intuitions seems downright inadequate. However, I think the practice can be explained if we assume that it has to be understood not on the basis of any current account of intuitions but as drawing on another use of the term "intuition". Support for this view can be found in Cappelen's recent book. He relentlessly argues that what philosophers call "intuitions" in arguments about cases such as Thomson's Violinist is in fact characterized by its dialectical role rather than by non-inferentiality, a specific epistemic status or any other intuition-specific features. In such contexts, "intuition" refers to pre-theoretic commitments or claims belonging to the common ground, not to intuitions in the sense of any recent account of intuition (see, e.g., Cappelen 2012:11, 62, 68–70, 81). This is a well-established use of "intuition" and it may seem to be just another label for antecedent commitments. However, referring to all antecedent commitments as "intuitions" is in fact quite a stretch since it means that beliefs based on, for example, prior theorizing, perception or testimony will be called "intuitions". Apart from that, describing the method of reflective equilibrium using "intuition" in place of "antecedent commitment" is particularly ill-advised in moral epistemology. It will constantly promote misleading associations stemming from traditional or current theories of intuition; for instance that commitments must be non-inferential, or that commitments have a privilege not to be revised just because they are commitments, either in the sense of individual commitments being immune from revision, or in the sense of minimizing revisions of commitments overall. Furthermore, talking of "intuitions" also invites the view that reflective equilibrium is a form of intuitionism, which is not unproblematic either, as we shall see in Section 6. To avoid confusion, I will not use "intuitive" in the sense of "pre-theoretic" or "belonging to the common ground", but as discussed in Section 3.

5 Can Reflective Equilibrium be Applied to Intuitions?

That the method of reflective equilibrium is not characterized in terms of intuitions does not imply that it never involves intuitions, nor that it cannot justify intuitions. Current theories of intuitions also do not raise the problem of granting intuitions an epistemic privilege which makes them immune from revision and thereby incompatible with reflective equilibrium. Under this precondition, applying the method of reflective equilibrium to intuitions seems to be straightforward. As antecedent commitments, intuitions can enter the process of mutual adjustments. Specifically, we can expect to find intuitions among the pre-systematic commitments; that is, among those antecedent commitments which are not the product of some

previous development of a system. If a reflective equilibrium is reached, intuitions in agreement with the system will be justified (provided that reflective equilibrium is accepted as a method of justification in the first place).[16]

However, complications related to beliefs with multiple and changing sources (as mentioned towards the end of Sect. 3) arise again. If a subject s has an intuition i that p, the following is likely to happen: i enters the process of developing a reflective equilibrium as an antecedent commitment; the resulting reflective equilibrium includes a current commitment c that p; s verifies that this is the case by inferring p from the systematic elements; that c is justified in this way gives s an additional reason to belief that p. It is unclear how we should interpret this situation as long as for a given account of intuitions it has not been determined whether the non-inferential character of intuitions rules out that intuitions can be justified by explicit inference and then be believed on this basis. Should we say that s's intuition is now justified in the described situation? Or that s has an intuition as well as a justified commitment with the same content? Or that s's intuition has been replaced by a corresponding commitment?

It is not necessary to take a stand on these issues here because we can adopt the following definition instead: an intuition that p is justified by the method of reflective equilibrium iff an account in reflective equilibrium includes a current commitment that p. This definition gives intuition-theorists various options for dealing with the problem just mentioned. One is to argue that intuitions are justified only in hindsight because in the process of justification they are replaced by an explicitly inferred commitment with the same content. Alternatively, one could hold that a subject can simultaneously have an intuition that p and an explicitly inferred commitment that p which both are justified; or one could go further and claim that the two are identical. Independent of which option one chooses, the method of reflective equilibrium can be applied to intuitions and, if a reflective equilibrium is reached, justify intuitions.

6 Is Reflective Equilibrium a Form of Intuitionism?

We can now address the question of whether reflective equilibrium is an intuitionist method, as it has often been claimed since Hare (1973) and Singer (1974) raised this issue. I will distinguish three uses of "intuitionism" and explore in what sense endorsing reflective equilibrium might be or presuppose an intuitionist position.[17] In contrast to Sections 3–5, the focus is now on non-inferential justification, not on the non-inferential source of intuitions.

For present purposes, we may distinguish between *substantial* and *structural* intuitionism, and within the latter between a *minimal* and an *ambitious* version. Substantial intuitionism holds that a certain relation to intuitions is necessary and/or sufficient for the justification of at least some beliefs. Structural intuitionism is the view that justification can be non-inferential or has a non-inferential aspect. Most positions called "intuitionism" embrace ambitious structural and substantial intuitionism (see, e.g., Audi 2008:476), but structural intuitionism by itself does not include the claim that intuitions (and not, say, perception and memory) provide the non-inferential component of justification. In general epistemology, structural intuitionism is usually called "foundationalism" (cf. Sinnott-Armstrong 2006:188).

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[16] Of course, intuitionist epistemologies need not accept reflective equilibrium or may rely on another account of reflective equilibrium such as Huemer's (2005:117) conservative strategy of minimizing revisions of intuitions (for a discussion of prominent intuitionist theories see Burkard 2012).

[17] I will not take the converse perspective and discuss which of the positions labelled "intuitionism" are compatible with reflective equilibrium. Neither will I address specific metaethical views traditionally associated with intuitionism, such as pluralism (cf. Rawls 1999a:ch7–8).

The arguments in Section 4 have already shown that one can adopt reflective equilibrium without subscribing to substantial intuitionism. While intuitions can contribute to justification, this is not required—reflective equilibrium does not even presuppose that intuitions exist. This does not imply that reflective equilibrium excludes substantial intuitionism, which can perhaps be defended on independent grounds in a way compatible with reflective equilibrium. Discussing this issue is outside the scope of this paper, and I focus on structural intuitionism (simply called "intuitionism") for the rest of this section.

At the very minimum, intuitionism in this sense is the view that there are beliefs whose justification does not exclusively consist in inference relations to other beliefs. I will call such a justification "not purely inferential" and reserve "non-inferential" for intuitionism in the ambitious sense, which holds that there are beliefs the justification of which is independent of inference relations to other beliefs. Ambitious intuitionism is not the uncontroversial claim that a belief that p can be justified for a subject s without s having actually inferred p from other beliefs. Following Sinnott-Armstrong, ambitious intuitionism may rather be analysed as the view that a subject s can be justified in believing that p at time t while s's justification does not depend on inference. Sinnott-Armstrong first understood "does not depend on inference" psychologically as being independent of s's ability to infer p, where "ability" refers to information encoded in the subject's brain (2006:187). More recently, he has proposed interpreting the required independence as referring to the subject's commitments. Ambitious intuitionism is then the claim that a subject s can be justified in believing that p at time t while s is not at time t committed to "propositions that are, entail, or support any propositions that provide epistemic support for" p (2011:13).

With reference to this distinction, justification of current commitments by reflective equilibrium is minimally but not ambitiously intuitionist. It is minimally intuitionist because justification by reflective equilibrium does not boil down to an agreement between current commitments and systematic elements. Three additional criteria were mentioned in Section 2—initial credibility, respecting antecedent commitments and doing justice to desiderata for theories—and they all cannot be reduced to inference relations. Hence, justification by reflective equilibrium is not purely inferential. On the other hand, justification by reflective equilibrium is not ambitiously intuitionist because it is not independent from inference; the current commitments must be derivable from the systematic elements.

These results relate to justification by reflective equilibrium; they generalize to justification in general only if one accepts that reflective equilibrium is necessary for justification. Audi's "moderate foundationalism" (2004) can illustrate this point. He argues that reflective equilibrium is not necessary for the justification of intuitions of what he calls "self-evident" propositions. Such intuitions may be justified non-inferentially (to the degree required for knowledge),[18] but reflective equilibrium can further contribute to their justification. This means that Audi defends an ambitious intuitionism with respect to justification, which is compatible with the view that reflective equilibrium's contribution to justification is not ambitiously but only minimally intuitionist.

Nevertheless, one might think that the initial credibility of antecedent or current commitments turns reflective equilibrium into an ambitiously intuitionist method. After all, it seems that initial credibility cannot be generated by inference alone and therefore presupposes that some beliefs are non-inferentially justified. A first step in addressing this objection is to clarify what role inference relations may play for initial credibility. On the one hand, initial credibility

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[18] Audi (2004:45–8) holds that intuitions can be justified as "conclusions of reflection", but it is debated whether he succeeded in explaining how such justification can be non-inferential (see Streumer 2005; Audi 2008:483–6).

is not always independent of inferential backing. Some antecedent commitments may have initial credibility because they can be derived from a system we are now trying to improve upon (cf. Sect. 4). And some current commitments may be initially credible because they can be derived from a background theory. On the other hand, initially credible commitments can have many other sources which do not involve inference, such as, memory, introspection, perception, testimony and intuitions. So at least some commitments have their initial credibility non-inferentially. However, this does not show that there are non-inferentially justified beliefs because having initial credibility must be distinguished from being justified. Initial credibility of an *antecedent* commitment is independent of the *current* reflective equilibrium, and therefore not sufficient for justification if reflective equilibrium is necessary. Hence, even if an antecedent commitment has non-inferential initial credibility, it is not justified non-inferentially. The same results for the initial credibility of *current* commitments. As *initial*, it is independent of the current reflective equilibrium and therefore does not suffice to justify the commitment in question if reflective equilibrium is necessary. A fortiori, the initial credibility of a current commitment does not amount to a non-inferential justification of this commitment. In short, since initial credibility does not constitute a non-inferential justification, involvement of initial credibility does not show that reflective equilibrium is ambitiously intuitionist.

The result that reflective equilibrium is not ambitiously, but only minimally, intuitionist crucially depends on the view that initial credibility suffices to defend justification by reflective equilibrium against the charge of attempting to generate justification *ex nihilo* by coherence. The defence of this view cannot be undertaken here,[19] but making the role of initial credibility explicit highlights an important contrast between different understandings of reflective equilibrium. DePaul has recently argued (2011:96–7) that reflective equilibrium is an ambitious intuitionism because an epistemic subject must hold that some of the current commitments of an account in reflective equilibrium are justified non-inferentially. He presumably holds this position because he thinks that justification by inference ultimately needs to rely on non-inferential justification, and hence coherence must rely on non-inferentially justified commitments.[20] If this interpretation is correct, the contrast between DePaul's account of reflective equilibrium and the one I suggested following Goodman and Elgin is well known from the debate about the epistemology of empirical knowledge. Here, the distinction between weak and moderate foundationalism parallels the distinction between minimal and ambitious intuitionism.[21] As I characterized the method in Section 2, reflective equilibrium is not moderately but weakly foundationalist, in so far as it does not reduce justification completely to inference relations. If it should be classified as "intuitionist", then only for this reason. Reflective equilibrium neither ties justification to intuitions, nor does it permit justification independent of inference relations.

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[19] See the remarks and references given in Section 2, esp. note 6.

[20] DePaul does not directly deal with the justification of commitments but frames his discussion in terms of beliefs that seem sufficiently likely to be true. He argues that "in the final analysis, what determines revisions, and hence the shape of the position one holds in RE, will have to be what seems true on its own. Inference can serve to 'transfer' the appearance of truth […] from one or more beliefs to one or more other beliefs, but it does not seem to have the power to manufacture the appearance of truth ex nihilo" (DePaul 2011:81).

[21] Cf. BonJour 1985:26–9. *Weak* foundationalism holds that some beliefs have a minimal degree of non-inferential justification ("initial credibility"), well below the degree required for knowledge. *Moderate* foundationalism holds that some beliefs are non-inferentially justified to the degree required for knowledge. *Strong* foundationalism would hold that some such beliefs are infallible.

Strictly speaking, BonJour's refers to further aspects of foundationalism, which are not included in my distinction between minimal and ambitious intuitionism. Specifically, BonJour's weak foundationalism is conservative because it aims at preserving a maximum of antecedent commitments. This conservatism is incompatible with the method of reflective equilibrium (see also Elgin 1996:110; 2005:166.)

7 Conclusion and Outlook

It may seem that the recent attacks on intuitions—if successful—would also bear heavily on reflective equilibrium. After all, the method is regularly characterized as starting out with intuitive judgements and aiming at working out a coherent system that incorporates and justifies those intuitions. According to the analysis I presented, this line of argument does not seriously threaten reflective equilibrium.

The relation between intuitions and reflective equilibrium is chiefly determined by a minimal necessary but not sufficient condition for a belief (or inclination to believe or other propositional attitude) to count as an intuition: it must not be maintained solely because it has been consciously inferred. This suffices to show that characterizing reflective equilibrium in terms of intuitions instead of commitments or judgements is inadequate. If a reflective equilibrium is reached, commitments can be, and probably many are, entertained solely because they have been derived from the resulting system; they are as such not intuitions. Moreover, the method of reflective equilibrium does not even presuppose that there exist beliefs which have the characteristics described by theories of moral intuition.

Since, according to current theories, intuitions are revisable, the method of reflective equilibrium has nonetheless room for dealing with intuitions. They can enter the process of developing a reflective equilibrium as antecedent commitments and in this way contribute to justification by reflective equilibrium. Furthermore, intuitions can be justified by reflective equilibrium if we count an intuition as justified iff a commitment with the same content is included in the commitments resulting from the reflective-equilibrium process.

Whether reflective equilibrium is a form of intuitionism depends on which use of "intuitionism" is at stake. Whereas reflective equilibrium by itself does not underwrite any distinctive role of intuitions, the question remains whether it provides non-inferential justification. The crucial point is that reaching reflective equilibrium requires meeting several criteria. The agreement of commitments and systematic elements involves inference relations; the other aspects of reflective equilibrium—having initial credibility, respecting antecedent commitments and doing justice to epistemic desiderata—cannot be reduced to inference relations. Consequently, reflective equilibrium does not allow beliefs to be justified independent of inference relations to other beliefs, but it is minimally intuitionist in the sense of acknowledging that justification is not exclusively a matter of inference. This, however, is too small a basis for attacking reflective equilibrium by discrediting intuitions or by reference to its supposedly intuitionist character.

Although such attacks fail, it is clear that more work is needed to vindicate reflective equilibrium in moral philosophy. This would require further investigation into the details of the method and into the exact nature of justification that it can provide. It would also require answering questions related more substantially to moral theory; in particular: Which kinds of commitments are in fact suitable or needed for developing a moral theory and which of them have initial credibility? The arguments I presented leave open the possibility that moral theories cannot be developed without relying on intuitions and that substantial moral intuitionism is thereby vindicated. If beliefs with other sources are needed, their initial credibility may be disputed as well, perhaps by arguments similar to those used by experimental and other philosophers for attacking intuitions. In any case, we must respond to the worry that when the method of reflective equilibrium is used, moral theories remain doubtful because they are developed relying on problematic input. It is, however, not clear that the initial credibility of commitments is directly correlated with their source. More plausibly, some intuitions (or perceptions or deliverances of memory etc.) have a high initial credibility while others are not initially credible at all. Several strategies for dealing with

these issues have been proposed by reflective-equilibrium theorists. Rawls (1999a) insists that the process of equilibration may only be applied to *considered* judgements, thereby giving rise to the question of how such a "filtering" of commitments may in turn be justified. Others, DePaul (2011) for example, argue that assessing initial credibility requires epistemological theories and that therefore these epistemological theories must be included as background theories in a *wide* reflective equilibrium. That such epistemological issues need further inquiry becomes conspicuous once we have dispelled the seemingly easy argument that a critique of intuitions directly invalidates the method of reflective equilibrium.

References

Appiah KA (2008) Experiments in ethics. Harvard University Press, Cambridge, MA

Audi R (2004) The good and the right. A theory of intuition and intrinsic value. Princeton University Press, Princeton

Audi R (2008) Intuition, inference, and rational disagreement in ethics. Ethical Theory and Moral Practice 11:475–492

Bealer G (1998) Intuition and the autonomy of philosophy. In: DePaul MR, Ramsey W (eds) Rethinking intuition. The psychology of intuition and its role in philosophical inquiry. Lanham etc., Rowman, pp 201–239

BonJour L (1985) The structure of empirical knowledge. Harvard University Press, Cambridge, MA

Burkard A (2012) Intuitionen in der Ethik. Mentis, Münster

Brun G (2004) Die richtige Formel. Philosophische Probleme der logischen Formalisierung. 2nd edn. Ontos, Frankfurt a. M.

Brun G, Kuenzle D (2008) A new role for emotions in epistemology? In: Brun G, Doğuoğlu U, Kuenzle D (eds) Epistemology and emotions. Ashgate, Aldershot, pp 1–31

Cappelen H (2012) Philosophy without intuitions. Oxford University Press, Oxford

van Cleve J (2011) Can coherence generate warrant *ex nihilo*? Probability and the logic of concurring witnesses. Philos Phenomenol Res 82:337–380

Cohen LJ (1981) Can human rationality be experimentally demonstrated? Behav Brain Sci 4:317–331

Daniels N (1996) Justice and justification. Reflective equilibrium in theory and practice. Cambridge University Press, Cambridge

Daniels N (2011) Reflective equilibrium. In Zalta EN (ed): The Stanford encyclopedia of philosophy. (http://plato.stanford.edu/archives/spr2011/entries/reflective-equilibrium/)

DePaul MR (1993) Balance and refinement. Beyond coherence methods of moral inquiry. Routledge, London

DePaul MR (2006) Intuitions in moral inquiry. In: Copp D (ed) The Oxford handbook of ethical theory. Oxford University Press, New York, pp 595–623

DePaul MR (2011) Methodological issues. Reflective equilibrium. In: Miller C (ed) The Continuum companion to ethics. Continuum, London, pp lxxv–cv

Descartes R (1996) Regulae ad directionem ingenii. In: Adam C, Tannery P (eds) Oeuvres de Descartes. Vrin, Paris, Vol. X pp 349–488

Elgin CZ (1996) Considered judgment. Princeton University Press, Princeton

Elgin CZ (2005) Non-foundationalist Epistemology. Holism, coherence, and tenability. In: Steup M, Sosa E (eds) Contemporary debates in epistemology. Malden, Blackwell, pp 156–167

Goodman N (1972) Sense and certainty. In: Goodman N Problems and projects. Bobbs-Merrill, Indianapolis, pp 60–8

Goodman N (1983) Fact, fiction, and forecast, 4th edn. Harvard University Press, Cambridge, MA

Hare RM (1973) Rawls' theory of justice. Philos Q 23: 144–155, 241–252

Hooker B (2002) Intuitions and moral theorizing. In: Stratton-Lake P (ed) Ethical intuitionism. Re-evaluations. Clarendon, Oxford, pp 161–183

Huemer M (2005) Ethical intuitionism. Palgrave Macmillan, Basingstoke

Huemer M (2007) Compassionate phenomenal conservatism. Philos Phenomenol Res 74:30–55

Huemer M (2008) Revisionary intuitionism. Soc Philos Pol 25(1):368–392

Locke J (1979) An essay concerning human understanding. Oxford University Press, Oxford

Nimtz C (2010) Saving the doxastic account of intuitions. Philos Psychol 23:357–375

Rawls J (1999a) A theory of justice. Revised edition. Belknap Press, Cambridge, MA

Rawls J (1999b) The independence of moral theory. In: Rawls J Collected papers. Harvard University Press, Cambridge, MA, pp 286–302

Roche W (2012) Witness agreement and the truth-conduciveness of coherentist justification. South J Philos 50:151–169

Sayre-McCord G (1996) Coherentist epistemology and moral theory. In: Sinnott-Armstrong W, Timmons M (eds) Moral knowledge? New readings in moral epistemology. Oxford University Press, Oxford, pp 137–189

Scanlon TM (2008) Moral dimensions. Permissibility, meaning, blame. Harvard University Press, Cambridge, MA

Scheffler I (1954) On justification and commitment. J Philos 51:180–190

Shafer-Landau R (2003) Moral realism. A defence. Oxford University Press, Oxford

Shpall S (2012) Moral and rational commitment. Philos Phenomenol Res. doi:10.1111/j.1933-1592.2012.00618.x

Singer P (1974) Sidgwick and reflective equilibrium. Monist 58:490–517

Sinnott-Armstrong W (2006) Moral skepticisms. Oxford University Press, Oxford

Sinnott-Armstrong W (2008) Framing moral intuitions. In: Sinnot-Armstrong W (ed) Moral Psychology. Vol. 2. The Cognitive science of morality. Intuition and diversity. MIT Press, Cambridge, MA, pp 47–76

Sinnott-Armstrong W (2011) An empirical challenge to moral intuitionism. In: Graper Hernandez J (ed) The new intuitionism. Continuum, London, pp 11–28

Sinnott-Armstrong W, Young L, Cushman F (2010) Moral intuitions. In: Doris JM, The Moral Psychology Research Group (eds) The moral psychology handbook. Oxford University Press, Oxford, pp 246–272

Sosa E (1998) Minimal intuition. In: DePaul MR, Ramsey W (eds) Rethinking intuition. The psychology of intuition and its role in philosophical inquiry. Lanham etc., Rowman, pp 257–269

Sosa E (2007) Intuition. Their nature and epistemic efficacy. Grazer Philos Stud 74:51–67

Streumer B (2005) [Review of] Robert Audi: The good and the right: A theory of intuition and intrinsic value. Notre Dame Philosophical Reviews. (http://ndpr.nd.edu/news/24816-the-good-in-the-right-a-theory-of-intuition-and-intrinsic-value/)

Tersman F (1993) Reflective equilibrium. An essay in moral epistemology. Almqvist and Wiksell, Stockholm

Weinberg JM, Nichols S, Stich SR (2008) Normativity and epistemic intuitions. In: Knobe J, Nichols S (eds) Experimental philosophy. Oxford University Press, Oxford, pp 17–45

Williamson T (2007) The philosophy of philosophy. Blackwell, Malden