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# De-idealizing Disagreement, Rethinking Relativism

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## ABSTRACT

Relativism is often motivated in terms of certain types of disagreement. In this paper, we survey the philosophical debates over two such types: *faultless disagreement* in the case of gustatory conflict, and *fundamental disagreement* in the case of epistemic conflict. Each of the two discussions makes use of a (largely) implicit conception of judgement: *brute judgement* in the case of faultless disagreement, and *rule-governed judgement* in the case of fundamental disagreement. We show that the prevalent accounts work with unreasonably high levels of *idealization*. We defend two claims. First, philosophical discussions of disagreement need to be de-idealized. Second, once a less idealized account of disagreement is available, both our conception of judgement and our understanding of relativism need to be revised. Our example is a case study in the Sociology of Scientific Knowledge: Steven Shapin and Simon Schaffer's classic *Leviathan and the Air-Pump* (1985). This case study gives a less idealized account of disagreement that conceptualizes judgements as *situated* (rather than *brute* or *rule-governed*). We argue that this conception can and should be applied to cases of gustatory and epistemic disagreement. The payoff will be a reformulation of relativism in terms of *rationaly resolvable* yet *contingent* disagreements.

**KEYWORDS** Relativism; disagreement; sociology of scientific knowledge; idealization

## Introduction

This paper brings together three debates on disagreement and relativism. The first has its home in contemporary philosophy of language and focuses on the possibility of faultless gustatory disagreement over basic taste. The second debate features prominently in contemporary epistemology; here the key question is whether the clash between fundamentally different epistemic systems – typically science and religion – can motivate epistemic relativism.

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And finally, the third debate concerns studies of scientific controversies carried out in the Sociology of Scientific Knowledge (subsequently, SSK).

There are profound methodological differences, especially between the philosophical and the sociological studies, which make these different approaches difficult to compare. To make matters worse, their practitioners usually work in isolation from one another. Philosophers tend to be unfamiliar with case studies in SSK, and SSK practitioners pay only scant attention to recent developments in philosophy. Even philosophers of language and epistemologists all too often live separate lives. In order to bring these different debates together, we will first provide thumbnail introductions to all of them. We will draw out the parallels and differences between semantic and epistemological approaches to disagreement and relativism, and we will use the confrontation with SSK to bring out some of their problematic aspects.<sup>1</sup>

Our argument is as follows. Many philosophers assume that specific types of disagreement provide – at least *prima facie* – motivation for relativism. Putting things in this way is only a first approximation, however, since it is not the type of disagreement as such that matters. Rather, it is a certain theoretical rendering of this type, a specific *theory of disagreement* that is supposed to motivate relativism. The philosophical debates then revolve around two questions. First, is a given theoretical rendering adequate, that is, does it give a correct account of the disagreement in question? And second, does this theory of disagreement really motivate relativism, or are there non-relativist alternatives for explaining the disagreement under study?

In the first and second part of this paper, we briefly survey the philosophical discussions concerning these questions as they have unfolded with respect to two theories of disagreement: *faultless disagreement* on the one hand, and (what we shall call) *fundamental disagreement* on the other hand. Our claim will be that while these discussions have led to many important conceptual clarifications, they have tended to miss – at their peril – a fundamental level for the analysis of disagreements. This fundamental level is the level of *judgements*. As we shall try to show, each theory of disagreement makes use of a (largely) implicit conception of judgement: *brute judgement* in the case of faultless disagreement, and *rule-governed judgement* in the case of fundamental disagreement.

In the third part of this paper, we present a criticism of these two philosophical research programmes. We argue that the prevalent theories of faultless and fundamental disagreement work with unreasonably high levels of *idealization*. To substantiate this criticism, we rely on analyses of idealization in science. We conclude that we need to ‘de-idealize’ our theories of disagreement and the conceptions of judgement they rely on.

In the fourth part we explore what form a less idealized investigation of disagreement might take. This is the point where SSK becomes important. Many case studies in SSK focus in considerable detail on the temporal unfolding, and eventual closing, of scientific controversies in their broader historical

context. Our example is Steven Shapin and Simon Schaffer's (1985) classic *Leviathan and the Air-Pump*. We shall pay special attention to how this book treats judgements. We shall argue that judgements here turn out to be *situated* (rather than *brute* or *rule-governed*).

In the fifth and sixth part of this paper, we argue that the conception of situated judgement can and should be applied not only in sociological studies of the history of science but also in philosophical studies of gustatory or epistemic relativism. The payoff will be a dynamic and temporal reformulation of relativism in terms of *rationaly resolvable* yet *contingent* disagreements.

## 1. Faultless Disagreement

Recent work in relativist semantics has focused on so-called 'disputes of inclination' in general and gustatory disagreements in particular.<sup>2</sup> In early work in this area, Crispin Wright contrasted 'disputes of inclination' with 'disputes of fact'. Wright (2006a, 46–47) thinks that disagreements over the following claims are disputes of inclination:

Snails are delicious. Cockroaches are disgusting. Marital infidelity is alright provided nobody get hurt. A Pacific sunset trumps any Impressionist canvas. (Perhaps:) Philosophy is pointless if not widely intelligible. The belief that there is no life elsewhere in the universe is justified. Death is nothing to fear.

This list thus includes issues of moral conduct, aesthetics, metaphysics, and epistemology. In more recent writings, Wright's focus is much narrower; now the key concern is with so-called 'basic taste'. The homing in on 'basic taste' is common ground between Wright, Max Kölbel and John MacFarlane; the central paradigms for thinking about semantic relativism nowadays are disagreements over the deliciousness of rhubarb, or the tastiness of liquorice (Wright 2012; Kölbel 2016; MacFarlane 2014). Wright's motivation for this narrowing of focus is the thought that if relativism fails in the case of basic taste, it has no chance anywhere else (Wright 2015).

Note however that Wright does not claim that it is the situation of disagreement itself that motivates relativism. As Wright (2012, 437) has it, already prior to our detailed philosophical investigations we have something of a 'proto-philosophical theory' concerning disputes of inclination. And it is this proto-philosophical theory that conceptualizes gustatory disagreement as faultless:

... the folk philosophical view is that such a case can manifest faultless disagreement: there can be a genuine contradiction between the opinions concerned, neither need be in error, and neither protagonist should feel that the credibility of his own opinion is weakened by the situation. (I called these features Contradiction, Faultlessness, and Sustainability respectively ...) (Wright 2012, 437–8)

Recently Wright has identified two further elements of the folk-philosophical theory of disagreement, namely 'parity' – 'the requirement that Faultlessness be appreciable, and endorseable, from the point of view not just of neutrals but of

the committed parties in the dispute of inclination' (Wright 2012, 439) – and 'genuineness': neither of the disputants can add a truth-conditional equivalent of the opponent's belief to her own system of beliefs (Wright 2015). Wright (2012, 439) also explains that in disputes of inclination '... we are dealing with matters which essentially cannot outrun our appreciation ... these matters are ... constitutively dependent upon us'.

Other contributors to the debate have added to Wright's definition, and have refined the theory of 'faultless disagreement'. MacFarlane distinguishes between four types of disagreement and four types of faultlessness, reaching a more complex theoretical account of disputes of inclination. Of particular importance in the present context are his clarifications regarding the different ways in which a disagreement may be faultless: faultlessness can concern epistemic warrant, truth, accuracy, or the constitutive norms governing belief or assertion (2014, 133–4).

Even though Kölbel, MacFarlane and Wright agree on the importance of disputes of inclination for the question of relativism, there are also important differences between them. These differences concern the two types of questions already mentioned above, to wit, whether faultless disagreement is an adequate theoretical rendering of basic gustatory disputes of inclination, and whether this theory of disagreement is able to motivate relativism. Kölbel and Wright think that faultless disagreement adequately captures the features of disputes of inclination. MacFarlane is more guarded on this point. On his view, the adequacy of faultless disagreement depends on what we mean by 'faultless' and 'disagreement' (2014, 119–37). The details of MacFarlane's position are not important here.

In any case, the bulk of the debate focuses on the second question, namely whether faultless disagreement is able to motivate relativism. Everyone agrees that a positive answer hinges on whether semantic relativism – relativizing truth – offers the best account of the discursive features highlighted by faultless disagreement. Take the disagreement between Yum and Yuk:

Yum: 'I like [licorice]'.

Yuk: 'No, I don't like it.' (MacFarlane 2014, 131)

The following motivation for relativism is then available (see Kölbel 2004, 57–69):

- (1) *Realism* is the view that there is a fact of the matter as to whether liquorice is delicious or not. Someone must be wrong, either Yuk or Yum. The problem with realism is, of course, that it jars with the feature of faultlessness, especially the thought that neither Yuk nor Yum have missed the truth about liquorice.
- (2) *Intuitionist Realism* is a variant on realism tabled by Wright. We are allowed to judge that Yuk's and Yum's claims cannot both be true, but

denied the option of saying that either side has made a mistake. The point of this position is to do justice to both realist intuitions and intuitions about faultlessness. Alas, this too is not fully convincing: it seems strange to totally separate the question of truth from the question of faults.

- (3) *Contextualism* claims that Yum and Yuk simply mean different things by 'tastes good' or 'is delicious.' And thus the utterance 'Licorice tastes good' expresses a different proposition when Yum affirms it, and when Yuk denies it. The difficulty for contextualism is that it seems to lose the element of disagreement. If Yum and Yuk affirm and deny *different* propositions, then they do not disagree. Or so it seems.
- (4) *Expressivism* holds that utterances like 'Licorice tastes good' do not express truth-conditional contents; they express evaluative attitudes. This jars with the natural inclination to treat these utterances as true or false.
- (5) If (1) to (4) can be ruled out, relativism can lay claim to being the correct response to faultless disagreement. But there is still the question of whether to adopt *Author Relativism* or *Assessor Relativism*. According to Kölbel's *Author Relativism*, Yum's view is true-relative-to-Yum's standards of taste and Yuk's view is true-relative-to-Yuk's standards of taste. In MacFarlane's *Assessor Relativism*, Yum's view is true-relative-to one context of assessment (his own or someone else's), and Yuk's view is true-relative-to another context of assessment (Yuk's or someone else's). But they cannot be true relative to the same context of assessment.

In the above we have indicated that current debates focus primarily on two questions: whether faultless disagreement is a good theory of disagreement and whether it can motivate relativism.<sup>3</sup> We will bracket these questions here and move instead to uncovering a common presupposition that structures the debate on the whole. Discussions of faultless disagreement are based on an implicit conception of judgement, a specific understanding of how we predicate certain (gustatory) predicates of certain (foodstuff) subjects. Conceptions of judgement are not purely semantic or purely logical; they also involve various epistemological, psychological and even metaphysical dimensions. (How are various types of judgements to be justified? What are the mental acts involved? What properties do the subjects and predicates stand for?). The conception of judgement that seems to be implicit in debates over faultless disagreement – that both the critics and the defenders of relativism implicitly presuppose – has the following four characteristics:

- (i) The judgements involved are *not rule-governed*. That is, I do not arrive at my judgement that rhubarb is tasty on the basis of a rule that tells me

how I ought to respond when tasting rhubarb. Whatever prompts me to judge that rhubarb is tasty, it does not take the form of a rule.

- (ii) The judgements involved are *non-evidential* in that no evidence can be cited in their support, other than the disposition to token these very judgements in the first place. There is nothing I can draw on to justify my claim that rhubarb is tasty, nothing but that it seems to be tasty.
- (iii) Because they are neither rule-governed nor evidential, the judgements in question are also *incorrigible*. If it seems to me that rhubarb is tasty, then that is the end of the matter. No further correction in light of new evidence or criteria is possible. Note that incorrigibility holds here only when the gustatory judgements concern one's own gustatory experiences here and now. If the gustatory judgements are about my general proclivities, then they can be corrected ('Don't you remember that you hated rhubarb cake last week?').
- (iv) The judgements in question are *atomistic*, that is, independent of one another. My judgement about rhubarb does not commit me to a specific judgement about other food items. This again is required in order to preserve the feature of incorrigibility.

Judgements having these four features we shall call 'brute'. Faultless disagreement – understood as a theoretical account of disputes over basic taste – construes all basic gustatory judgements as 'brute' in this sense. Later in this paper we will challenge the idea of brute judgements both in general, and with respect to taste in particular. Before turning to this argument, however, we need to consider a second theory of disagreement central in recent debates on relativism. And here too we shall home in on its characteristic conception of judgement.

## 2. Fundamental Disagreement

Disagreement plays a central role also in discussions of epistemic relativism. The central intuitions pump in epistemology is the disagreement between the religious believer and an advocate of a secular and scientific worldview. Explorations of this theme are almost as old as debates over relativism itself; they surface for instance in Ludwig Wittgenstein's (1969) *On Certainty* or Richard Rorty's (1980) *Philosophy and the Mirror of Nature*. In the contemporary literature, key contributions are Paul Boghossian (2006), Duncan Pritchard (2009), and Steven Hales (2014). In order to distinguish the epistemologists' concerns from those of the semanticists above, we shall label the relevant theoretical account *fundamental disagreement*.<sup>4</sup>

Fundamental disagreement is the theoretical rendering meant to make sense of cases in which two parties do not just have conflicting beliefs but also incompatible sets of principles for epistemic justification. Boghossian (2006, 63) calls



these justificatory sets of principles ‘epistemic systems’, Pritchard (2009, 398) ‘epistemic frameworks’ and Hales (2014, 82) ‘meta-evidence’.

Boghossian is of course a critic of relativism. Note however that, before attempting to refute relativism, Boghossian seeks to offer a *prima facie* plausible and sympathetic account of what the epistemic relativism is committed to. In this context Boghossian discusses a passage in Rorty (1980, 328–31) about the dispute between Cardinal Bellarmine and Galileo Galilei. On Boghossian’s rendering, the cardinal and the natural philosopher disagreed over the truth of the heliocentric world-view. But their disagreement was not just about questions of fact. They also accepted incompatible epistemic principles. Whereas Galileo regarded telescopic observation as a legitimate way to establish claims about the heavens, Bellarmine refused to use telescopes and instead placed his trust in the authority of the Bible. Boghossian’s relativist renders Bellarmine and Galileo as embracing different ‘epistemic systems’, consisting of different warrant-conferring epistemic principles. In particular, only Bellarmine’s epistemic system contains the ‘fundamental principle’ of ‘Revelation’:

(*Revelation*) For certain propositions *p*, including propositions about the heavens, believing *p* is *prima facie* justified if *p* is the revealed word of God as claimed by the Bible. (2006, 69)

Boghossian’s (2006, 104) relativist holds furthermore that two epistemic systems are ‘fundamentally different’ when they differ in at least one ‘fundamental’ or ‘underived’ principle. When two epistemic systems differ in this way, there is no neutral, system-independent way to adjudicate cases of conflict. Each side is able to justify itself in terms of its own principles.

Pritchard’s (2009) example is not worked out in equal detail but its general structure corresponds to Boghossian’s template. Pritchard presents ‘religious’ and ‘secular’ worldviews as relying on different ‘epistemic frameworks’ that are further spelled out as ‘clusters of epistemic principles which determine the epistemic standing of beliefs’. The epistemic relativist is then introduced as the thinker who denies that there are framework-independent reasons for favouring one epistemic framework over another (2009, 389–99).

Hales’ (2014) example of Jack and Diane disagreeing over the existence of an immortal soul again has a similar outline too. While Jack thinks that the question of the immortality of the soul should be decided by ‘analytic rationalist philosophy of mind’, Diane takes the relevant evidence to be provided by the Bible and its authoritative interpreters. Hales (2014, 79–80) allows that both Jack and Diane might achieve internal consistency for their respective beliefs systems, and concludes that there is no other uncontroversial principle for settling the question of relevant evidence.

As in the case of faultless disagreement, here too it is important to keep in mind that it is not the situation of disagreement itself that is supposed to motivate relativism; it is a particular *theoretical rendering* of the disagreement that provides the resources for epistemic relativism. Although the theoretical



constituents of fundamental disagreement are not spelled out as carefully as in the debates on faultless disagreement, we can nevertheless identify certain general characteristics.

The account of fundamental disagreement sees disagreements like those between the religious believer and the scientist as *deep* and *irresolvable*. First, they are *deep* in that they reach down to *fundamental* epistemic principles. Second, fundamental disagreements are *irresolvable*. They are irresolvable not because no evidence is in play but because evidence is insufficient to decide between the competing views; insufficient to decide between the epistemic principles on which the views are based; and insufficient to decide between the epistemic systems comprising those principles. There is no further principle that allows for an adjudication between the systems. Every attempt to justify an epistemic system will invariably end up moving in a circle.

Note that there are some important commonalities between fundamental disagreement and faultless disagreements. In both cases there is a *genuine contradiction* between two conflicting views; the disagreement is *faultless* (at least faultless as far as epistemic warrant is concerned); and the dispute is *sustainable* in that neither party is forced to lower their confidence in their own position in light of the disagreement. But there are differences, too. Unlike faultless disagreement, fundamental disagreement does not require *parity* to be a central feature of the conflict: Bellarmine and Galileo did not appreciate and endorse the faultlessness of the disagreement.

Just as in the debates over relativist semantics, so also in discussions of epistemic relativism we can distinguish two levels. The first level is concerned with the question whether fundamental disagreement is the correct theoretical description of the types of conflict we encounter when the religious believer and the scientist disagree. Most arguments against epistemic relativism target this level.<sup>5</sup>

The second question that is central is whether fundamental disagreement – assuming it applies to at least some situations – motivates epistemic relativism. As in the case of faultless disagreement the answer depends on the promise of the possible alternatives. Hales (2014, 64–69) discusses the following ‘disagreement elimination strategies’:

- (1) ‘*Keep arguing until someone capitulates.*’ This is the *realist* response based on the assumptions that ultimately there is but one correct position and one correct epistemic system. This clearly seems like the right response in most cases. But it feels less than compelling in cases where two parties disagree over the very evidence that should be brought to bear on an issue. Hales uses the example of two parties disagreeing over the question whether abortion is permissible.
- (2) ‘*Compromise.*’ The ‘abortion conservative’ and the ‘abortion liberal’ might have to compromise, for instance, by allowing abortion only

during the first three months of the pregnancy. In other cases of disagreement this strategy is not plausible. How would one ‘compromise’ between two sides that disagree over ‘whether the demise of feudalism was a cause of the Industrial Revolution’ (2014, 64)?

- (3) ‘*Ambiguity*’: This strategy has its natural home in contextualism. Again the worry is that contextualism fails to preserve the element of disagreement. If Bellarmine and Galileo mean different things by ‘observation’ then it is unclear whether they disagree when Galileo affirms and Bellarmine denies that observation is key to knowledge about the heavens.
- (4) ‘*Pyrrhonian scepticism*’: This strategy denies that we can have knowledge about the issues at stake. Hales thinks that Pyrrhonian scepticism qua general solution to the problem of disagreement ‘is chasing a flea with a sledgehammer’. But he agrees that sometimes this strategy is our only option. (Hales 2014, 68)
- (5) If (1) to (4) can be ruled out, epistemic relativism emerges as the correct response to fundamental disagreement. Epistemic relativism states that a belief is justified only relative to an epistemic system, framework or meta-evidential standard.

For our purposes we need not enter into the controversy over the choices between (1) to (5). We aim for a deeper analysis. No matter where individual contributors fall on the question of whether fundamental disagreement motivates epistemic relativism, everyone seems to agree on the relevant form of judgement. The implicit conception of judgement involved here has the following characteristics:

- (i) The judgements involved in these disputes are *rule-governed*. For instance, it is assumed that Galileo arrives at his judgements about the moons of Jupiter (*inter alia*) on the basis of specific epistemic rules that determine what he is allowed to believe on the basis of what type of observation. Of course Bellarmine does not share all of these rules.
- (ii) The judgements involved are *evidential* in that there is evidence that can be cited in their support. Galileo and Bellarmine both *justify* their claims about the truth or falsity of the heliocentrism by reference to evidence. But what is evidence for Galileo is not necessarily evidence for Bellarmine. And this difference is explained by a difference in epistemic rules (and the epistemic systems they constitute).
- (iii) The judgements are both *corrigible* and *incorrigible*. They are *corrigible* insofar as they are responsive to possible new evidence licensed by Bellarmine’s and Galileo’s respective epistemic systems. But the judgements are *incorrigible* in the sense that they cannot be challenged from outside of the respective epistemic systems. For instance, there is no

epistemic way in which Bellarmine can force Galileo to adopt his principle of *Revelation*.

- (iv) Finally, the judgements involved are *holistic*. All of Galileo's epistemic beliefs are governed by one and the same epistemic system.<sup>6</sup> In this sense, all of Galileo's epistemic beliefs form a whole. (Note though that judgement holism goes together with *system atomism*: different epistemic systems are separate and incompatible with one another. And epistemic systems can be talked about in separation from other systems, say moral or legal systems.)

We shall use the first-mentioned characteristic as the title of these judgements: fundamental disagreement takes epistemic judgements to be *rule-governed* judgements.

Let us take stock. As we have shown, the current philosophical discussion of relativism is dominated by two theories of disagreement, *faultless disagreement* in the philosophy of language and *fundamental disagreement* in epistemology. Each theory comes with an (implicit) conception of judgement. *Faultless disagreement* is based on a conception of judgements as *brute*; *fundamental disagreement* involves a conception of *rule-governed* judgement.

From the literature that we have surveyed so far, it may seem as if *brute judgement* and *rule-governed judgement* were our only options for conceptualizing judgement. Or perhaps they are the best options for understanding the judgements that are at the root of disagreements over basic taste and between competing epistemic systems. In what follows, we will introduce a third option – *situated judgement*.

Our main motivation for seeking out this alternative is the high degree of idealization prevalent in the philosophical literature. Before we introduce our account of situated judgement, we will analyse the idealizations present in current debates on disagreement and relativism, and explain why they are problematic. We defend two claims. First, philosophical discussions of disagreement need to be de-idealized. Second, once a less idealized account of disagreement is available, both our conception of judgement and our understanding of relativism need to be revised. On a less idealized account of disagreement, the concept of situated judgement can and should be applied not only in sociological studies of the history of science but also in philosophical studies of gustatory or epistemic relativism. This in turn leads naturally to a reconsideration of what relativism amounts to.

### 3. A Call for de-idealization

Philosophers of science standardly distinguish between two forms of idealization: in 'Aristotelian idealization' inessential features of a 'target system' (the physical system under study) are stripped away. Only those features that are

relevant to the occurrence and behaviour of the phenomena of interest are included in the representation (Cartwright 1989). In ‘Galilean idealization’ some features of the target system are deliberately distorted. The representation operates on the basis of assumptions about that system that are known to be false (McMullin 1985). ‘Caricatures’ combine Aristotelian and Galilean idealizations (Frigg and Hartmann 2012). Obviously, the boundary between Aristotelian and Galilean idealizations is not sharp. Think of a table-top model of the solar system. Is leaving out of the rest of the universe an Aristotelian or a Galilean idealization? One way to tell the two forms of idealization apart is in terms of the goal. Galilean idealization helps achieve computationally tractable theories, while Aristotelian idealization facilitates the isolation of relevant causes (Weisberg 2007). Finally, for our purposes it is useful to add a third form of idealization that might be called ‘Wittgensteinian’. This form of idealization is in play when one restricts one’s investigation to a very small (potentially ‘one-sided’) ‘diet’ of examples (see Wittgenstein 2001, §593).

All three forms of idealization can be found in the philosophical debates over faultless and fundamental disagreement. In the former debate, the focus on brute gustatory judgements – judgements about first impressions of tastiness here and now – clearly disregards most forms of gustatory judgements prevalent in our everyday practices. This is Wittgensteinian idealization. But Aristotelian and Galilean idealizations can be identified here, too. Wright and his colleagues leave aside all considerations of concrete dialogical situations in which gustatory judgements occur (Aristotelian idealization) and they reduce gustatory disagreement *qua* activity – *qua* controversy and debate – to disagreement *qua* state (Galilean idealization).

Disagreement as an activity is occasionally touched upon in the literature on faultless disagreement, but usually this dimension does not receive detailed analysis. Herman Cappelen and John Hawthorne point out that the verb ‘to agree’ may pick out either a state or an activity and observe that only the latter use is interactive. They also suggest that agreement as an activity need not involve shared belief. This is one of the reasons why they choose to focus primarily on the first – stative – use of ‘agree’ (Cappelen and Hawthorne 2009, 60–61). When MacFarlane takes up this distinction in the context of his analysis of disagreement, he proceeds in a similar fashion. He notes that disagreement *qua* activity – unlike disagreement *qua* state – depends on the opponent’s attitudes and actions. But he takes the state-sense of ‘to disagree’ to be more fundamental. His reason is that disagreement as an activity has to involve reference to a state of disagreement; or else disagreement would collapse into mere misunderstanding (MacFarlane 2014, 119–20). Nevertheless, MacFarlane makes room for some degree of temporality in the analysis of disagreement when he introduces the concept of ‘retraction’. When I no longer find ginger tea sweet, I should retract my earlier statement ‘Ginger tea is sweet’. I thereby disavow the assertoric commitment involved in the original assertion (MacFarlane 2014,

13–14, 108). Note here that MacFarlane discusses norms for retraction only in the context of changes in taste or of new evidence. He is not interested in the more complex, context-dependent argumentative processes that below we will argue are characteristic of disagreement as an activity. As we see it, a less idealized analysis must take disagreement as an activity seriously. An in-depth analysis of disagreement as an activity might even end up challenging some of the distinctions (verbal agreement vs. shared belief, misunderstanding vs. real disagreement) that seem to underwrite the exclusion of this dimension from the domain of philosophically interesting problems.

Turning to fundamental disagreement, it is again easy to identify Wittgensteinian idealization: epistemologists return time and time again to the same example of the scientist and the religious believer. The endless number of other forms of disagreement – in science, metaphysics, ethics and politics – are left out of the picture. With respect to the central paradigm, Boghossian's sketchy reconstruction of the conflict between Galileo and Bellarmine offers the most detail. Other than Pritchard or Hales, Boghossian chooses an example of actual conflict between real historical actors. But Aristotelian and Galilean idealizations still loom large throughout Boghossian's discussion. Open any standard historical account of the episode, and invariably you will find something like the following observation: 'This was a controversy involving issues of methodology, epistemology, and theology as well as astronomy, physics, and cosmology' (Finocchiaro 2005, 1). Authors influenced by SSK add period-specific relationships between patrons and courtiers; traditions of instrument-making; the tensions between different religious orders; the politics of the papal court; the political problems between Spain and the Vatican; the Thirty-Year War; and much else besides (Biagioli 1993; Biagioli 2006). It is a form of Aristotelian idealization when Boghossian strips away pretty much all of this context. In Boghossian's reconstruction, all of these issues are set aside as irrelevant. Galilean idealization adds to the Aristotelian: religion is turned into an epistemic system; epistemic principles are treated as isolated or isolatable entities with fixed implications. And, perhaps most importantly, disagreement *as an activity* – as an extended series of events, a debate – is reduced to a *state*: Bellarmine accepts *Revelation*, Galileo rejects it. There is no discussion of how the two rivals responded to one another, which argumentative strategies they chose to employ to convince one another, or whether and how they modified their strategies over time.

In section 5 we shall criticize the *specific* omissions and distortions in the two debates over faultless and fundamental disagreement. At this point we offer *general* reasons for why the philosophers' idealizations, at least in the cases at hand, are *more* problematic than the scientists' idealizations. As briefly mentioned above, scientists idealize in order to facilitate computation and causal explanation. And the legitimacy of their idealizations can be determined (especially convincingly) by the degree of accuracy of scientific predications. In

numerous cases, scientific predictions based on distorted and simplified models do extremely well by this standard.

The case of philosophy is different. Outside of logic and ‘mathematical philosophy’, computations play little role in philosophy. And neither does prediction. Philosophers use idealizations for different purposes. The most important of these are analyses of concepts (like ‘truth’, ‘knowledge’, ‘beauty’...) with the help of ‘intuition-pumps’: highly idealized ‘cases’ meant to trigger the same intuitions in every appropriately trained philosopher.

How successful is this use of idealization? There is of course currently no general consensus on this issue. Let us therefore restrict our answer only to the cases at hand. How successful is the method with respect to cases used in the literature on faultless and fundamental disagreements? It seems to us that it is not very successful. There are two issues. One problem concerns what we might (loosely *per analogiam*) call ‘the problem of internal validity’. Despite all their idealizations, philosophers continue to disagree over how to think about the respective cases and their philosophical import. Wright, MacFarlane and Kölbel disagree over the question whether relativism is the best theoretical account of faultless disagreement; and Hales and Rorty have different intuitions about fundamental disagreement than have Boghossian or Pritchard.

As if this were not bad enough, there is also what we (again loosely and *per analogiam*) call ‘the problem of external validity’. Recall once more that scientific idealizations typically allow for predictions that approximate measurable values. For instance, the Ideal Gas Law ( $PV=nRT$ ) allows us to predict, roughly, the pressure ( $=P$ ) of a gas, given its volume ( $=V$ ), moles ( $=n$ ), and absolute temperature ( $=T$ ). The predictions are only approximately true, since the Ideal Gas Law is based upon a number of idealizations, for instance, that molecules have zero volume. But in scientific practice, idealization is typically followed by *de-idealization*. That is to say, scientists seek to increase the predictive accuracy of their theories by systematically removing idealizations. In the case of the Ideal Gas Law for example, physicists have come to formulate corrections that make due allowance for the size of molecules and for their mutual attraction.

Again the situation in philosophy is very different. Even if philosophers’ intuitions about Wright’s or Boghossian’s idealized scenarios were uniform, it would still be unclear how to de-idealize these scenarios and thus reach conclusions about actual disagreements. Assume the discussion of a highly idealized case led us to believe that relativism is the only plausible way to account for our intuitions in this case. Would this show that relativism is the right way to think about disagreement in the real-world? Or would it show that relativism is the best account of our actual concepts of ‘truth’ and ‘justification’. Not in any straightforward way. After all, it might turn out that the real world is not sufficiently similar to the idealized case. Relativism would then help us to understand a caricature, an artefact of the idealization process, but nothing else.

Ultimately, the idealizations prevalent in the two philosophical discourses make it impossible to adequately capture any real-world ‘target systems’. Faultless disagreement and fundamental disagreement ‘caricature’ real-world disagreements to such an extent that they fail to tell us something informative about the real world or about our actual concepts. Absent specific and generally agreed upon criteria for internal and external validity, we are incapable to assess whether the type of relativism that is motivated by our favourite philosophical ‘caricatures’ is a correct account of some aspect of the real world, or whether it offers an illuminating analysis of concepts such as ‘truth’ or ‘justification’. We simply have nothing to check this type of relativism against, apart from the ‘caricatures’ that were used in order to construct it in the first place. In the following, we will present a less idealized case as a corrective. And we will show that, by providing us with an alternative view of judgement, this less idealized case also forces us to revise our understanding of relativism.

#### 4. Situated Judgement and Disagreement as an Activity

Time has come to indicate what there might be to learn from a less idealized approach to disagreement. This is the point where we bring in a case study from the Sociology of Scientific Knowledge, or ‘SSK’. We maintain that (many) case studies in SSK provide us with *realistic* – and hence *not overly idealized* – accounts of actual disagreements. These accounts point towards an understanding of judgements as ‘situated’ rather than as brute or rule-governed. Situated judgements, in turn, can be made sense of in terms of rationalist particularism. Our example is Steven Shapin and Simon Schaffer’s (1985) *Leviathan and the Air-Pump*, their socio-historical analysis of the conflict between Robert Boyle and Thomas Hobbes. To anticipate, *Leviathan and the Air-Pump* treats disagreement as many-layered and as unfolding over a long time period. Of course, every historical investigation must leave some causes unexplored; to that extent some Aristotelian idealization might seem unavoidable. But historians take care that these background causes are ‘standing’, ‘structural causes’, or ‘causal preconditions’, rather than salient ‘triggering causes’ (compare oxygen versus the striking of the match as causes of the fire). And of course any given case study is open to be complemented by others.<sup>7</sup>

The controversy between Boyle and Hobbes concerned a variety of different yet interconnected questions. The textbooks tell us that at issue was the possibility of a (workable) vacuum within the extraction chamber of Boyle’s air-pump. But Shapin and Schaffer show that in fact at least seven different levels played a crucial role:

- (1) *Metaphysics*: Can there be a space devoid of air?
- (2) *Engineering*: Does Boyle’s air-pump leak?
- (3) *Credibility*: Who is a reliable witness for air-pump experiments?



- (4) *Epistemology*: What are the foundations of knowledge – demonstration from first principles or observation in the context of experiments?
- (5) *Aims*: What should natural philosophy achieve?
- (6) *Politics*: What is (natural) philosophy's social function?
- (7) *Topic*: What is the key issue of the whole debate?

For our purposes it is important to underline that both participants used their answers to (1) to (7) flexibly and in manifold ways. For both Boyle and Hobbes, their respective beliefs in these different realms were closely intertwined and formed coherent sets in their respective minds. There was no fixed order of priority between the seven issues; and it was only in response to specific challenges that they were ordered sequentially, one-directionally, or hierarchically.

For instance, consider how Boyle defended his claim that the 'receiver' (of the air-pump) could be emptied of (almost all) air by operating the pump (issues 1 and 2). To believe this statement was to rely on the engineering of Boyle and his workmen, and to trust the report of 'gentlemen' witnesses who confirmed the relevant experimental outcomes (issue 3). The reliability of these gentlemen in turn was meant to be secured by their epistemological commitment to report facts and to not speculate on causes (issue 4). Bracketing disputes about causes again was intended to make sure that aggressively fought controversies would not arise. Natural philosophy needed ways to tame discord (issue 5). As a peaceful community the natural philosophers would then function as model for society as a whole (issue 6).

Contrast this with how Hobbes concluded that the receiver was never devoid of air. First of all, Hobbes claimed that Boyle's air-pump engineering was faulty (issue 2). Second, Hobbes thought he had an in-principle metaphysical argument why no human-made device could produce a vacuum (issue 1). Hobbes arrived at this conclusion using an epistemology according to which only deduction based on clear definitions guaranteed certain knowledge (issue 4). This epistemological view was supported by his claim that credible reports based upon experience were hard to come by (issue 3). Hobbes' epistemology supported and was supported by his view of politics and his political aim: Philosophy was to lay down the rules according to which society should make decisions. Only in this way was it possible to tame discord (issue 5 and 6).

The above gives us some indication of the difficulty to filter out one level – for instance epistemology – from all the other concerns. Boyle's and Hobbes' epistemological commitments were inseparable, say, from their metaphysical or political views. Epistemological principles were adopted, tested, and interpreted in light of these other concerns. This brings us to our core concern, the priority of situated judgements over rules or principles. We shall consider two aspects of this concern: the interpretation of received principles by Boyle and Hobbes, and the replication of Boyle's experiments.

Boyle and Hobbes were each trying to teach natural philosophers a specific 'language game'. In the process, they both made out their respective language game as faithful to, and the correct application of, some important received principles. Such principles included the following three: (a) that natural philosophy ought to be mechanical; (b) that philosophy ought to be public; and (c) that philosophy ought to offer a response to civil strife. But whereas Boyle and Hobbes agreed on these principles in the abstract, they disagreed on how they ought to be interpreted and applied.

Consider (a) first. Both Boyle and Hobbes thought that their respective positions were faithful to (a) by avoiding non-mechanical notions like the self-moving of matter or the *horror vacui*. And yet, each accused the other of employing these very notions. Hobbes insisted that Boyle's 'spring of air' was not a mechanical concept, while Boyle judged Hobbes' naturally moving corpuscles to be non-mechanical (Shapin and Schaffer 1985, 204–205). Thus Hobbes read (a) as ruling out Boyle's programme, whereas Boyle in turn rendered it as a commitment to remain metaphysically uncommitted – at least on the surface.

Concerning principle (b), that is, that philosophy ought to be public, Boyle presented the laboratory as a public space. What made this space public was the presence of gentlemen. They acted as witnesses of successes and failures in experimentation (Shapin and Schaffer 1985, 55–58). Hobbes disagreed. He did not accept that the presence of a select few made a space public (Shapin and Schaffer 1985, 113). In his view, knowledge was truly public only if it was accessible to anyone possessing natural reason. Accordingly, the public status of (natural) philosophy could be secured only by following the rationalist method of deduction from definitions (Shapin and Schaffer 1985, 100–101). It was only when a specific understanding of 'public' was inserted into the abstract principle, that it had a determinate consequence. Boyle and Hobbes differed regarding this understanding.

Finally, what about principle (c), that is, that philosophy ought to offer the answer to civil discord? Boyle's overarching concern was to protect experimentally established 'matters of fact' from contested causal and metaphysical knowledge. (Shapin and Schaffer 1985, 49) Matters of fact commanded universal agreement since they were made by nature, not man (Shapin and Schaffer 1985, 67). Questions regarding causes, however, were open for dispute and contestation. Disagreement could be tolerated as long as it rested on a firm basis of established and collectively accepted facts (Shapin and Schaffer 1985, 72). This was how philosophy could ensure civil debate and thus social peace. For Hobbes, unlike for Boyle, 'there was no philosophical space within which dissent was safe or permissible' (Shapin and Schaffer 1985, 107). Accordingly, Hobbes wanted consensus to be established not by attending to (uncertain) matters of fact but rather by geometrical demonstrating of the truth. For Hobbes, 'it is method, not matters of fact, that puts men right and that mobilizes consensus' (Shapin and Schaffer 1985, 145) What Boyle considered as a virtue of

his experimentalism – that it left a space for disagreement – Hobbes considered a fatal flaw. Again we see that the abstract principle had definite consequences only given a specific understanding of matters seemingly very distant from it.

We see here that the above-mentioned ‘principles’ were merely ‘rule-formulations’, or ‘incomplete expressions’, prior to their interpretations at the hands of Boyle and Hobbes. They acquired determinate content only when Boyle and Hobbes interpreted them in specific *judgements* in specific *situations of contestation* for specific *situations of application*. This is what we mean when we say that ‘situated judgements’ are prior to rules.<sup>8</sup>

We can capture the same insight also by focusing on another chapter in *Leviathan and the Air-Pump*, the issue of replication (of an experiment or experimental observation). Boyle did not just disagree with Hobbes. He also faced opposition from other experimentalists. Particularly important in our context is the disagreement with Christiaan Huygens over so-called ‘anomalous suspension’ (Shapin and Schaffer 1985, 225–82). In the early 1660s, Huygens was the only other natural philosopher possessing a workable air-pump. Its design differed in some respects from Boyle’s two ‘machines’ (Shapin and Schaffer 1985, 237). In late 1661 Huygens reported the following experiment. With the help of his air-pump he had first removed all air-bubbles from a quantity of water. He then had used this water in a barometer. That is, a thin tube, closed at one end, had been filled with this air-free water. The tube was then turned around, and the open end was inserted vertically into a trough filled with (the same air-bubble-free) water. Huygens had then placed the barometer in the evacuation chamber of the air-pump, and had extracted the air. To his own surprise, the water-level in the tube had not descended. This was ‘anomalous suspension.’ It seemed to contradict Boyle’s earlier experimental series in which the water would descend, leaving a ‘void’ at the tip of the tube within the ‘void’ of the evacuation chamber. Boyle had not used air-free water (Shapin and Schaffer 1985, 241–3).

Over the next 18 months, Huygens argued with Boyle and other English natural philosophers over the significance of his finding (Shapin and Schaffer 1985, 241–52). Importantly, during this time period, the English experimentalists were unable to replicate Huygens’ result. To Huygens this was unsurprising: he thought that the design of his pump was superior to Boyle’s. Indeed, Huygens thought that it was a mark of a good air-pump that it enabled one to remove air-bubbles from water, and thereby detect the new phenomenon. In other words, anomalous suspension could be used for purposes of calibration: it made it possible to distinguish between effective and insufficient pumps (Shapin and Schaffer 1985, 243). The members of the Royal Society in London reasoned the other way around: our air-pumps are superior; we do not detect anomalous suspension; ergo it is a mark of a bad air-pump that the water levels on the barometer do not fall; this just shows that the air has not been sufficient evacuated (Shapin and Schaffer 1985, 245). – This type of dispute

is called an ‘experimenters’ regress’ (Collins 1985; Shapin and Schaffer 1985, 226): two sides cannot agree on an existence claim because they cannot agree on the value of their respective experimental set-up; and they cannot agree on the value of their respective experimental set-up because they cannot agree on the existence claim.

Both sides acted on the principles that

(\*) Anomalous suspension, if real, would be a genuine anomaly for Boyle’s overall programme; and

(\*\*) An air-pump must meet the highest possible standards of calibration.

Because the English accepted (\*) they went to great lengths to discredit Huygens’ findings. Boyle argued that the latter contradicted his famous law (according to which the pressure of the air increases as the volume of the container decreases); that the effect was due to bad pump-design; and that Huygens had not used the established calibration method for testing air-pumps (especially the inflation of a closed bladder during air extraction). The last-mentioned point shows that Boyle and Huygens judged or interpreted (\*\*) in different ways: for Huygens anomalous suspension was the best test of a working air-pumps, for Boyle the inflated bladder (Shapin and Schaffer 1985, 237–43).

The whole issue was important since it had the potential to ignite anew the metaphysical debate between ‘plenists’ and ‘vacuists’, and throw Boyle’s whole experimental programme – structured, as it were, around the air-pump – into doubt. Indeed, Huygens claimed to have been converted to plenism by his experiment. He suggested that what supported the water-column in his set-up were ‘subtle fluids’ beyond the reach of air-pump operations (Shapin and Schaffer 1985, 252, 270–71). And Huygens did not capitulate in the face of Boyle’s opposition. He bombarded his English colleagues with letters; did his experiment more than 30 times, and with two different air-pumps of different design. And, most importantly, 18 months after his first report, he travelled to London, and successfully reproduced the effect working together with leading English natural philosophers, and ultimately in front of Boyle’s own eyes (Shapin and Schaffer 1985, 248–53).

This dramatically changed the situation. Had Boyle stuck with his previous renderings of (\*) and (\*\*), his whole project would have been in trouble. He therefore shifted to different interpretations; his situated judgements modified the rules. He now agreed that it was not a sign of a faulty air-pump that one could use it to produce anomalous suspension. He dropped this claim and adopted instead a new reading of (\*). He accepted that anomalous suspension was real, but immediately went on to modify this acceptance in two ways. First, he distanced the phenomenon from the air-pump. He claimed to find anomalous suspension in air-free mercury barometers even outside the air-pump. ‘Unpurged’ mercury (with air-bubbles) would rise to 30 inches; ‘purged’ mercury to 52 inches. This indicated that the new phenomenon could be quantified

and subtracted from air-pump measurements (Shapin and Schaffer 1985, 254–5). Second, Boyle reduced the phenomenon to no more than a curiosity: there would always be ‘some unheeded circumstances ... some odd phenomenon or other ... difficult to be accounted for’ (Shapin and Schaffer 1985, 246). That is, Boyle treated anomalous suspension as an anomaly all right, but as one that would eventually be explained away. And most of Boyle’s English colleagues agreed. By the end of the decade, anomalous suspension appeared only in the advice to budding experimentalists not to use water for calibration purposes (Shapin and Schaffer 1985, 274). To sum up, Boyle’s actions show the flexible use of rule formulations: their content is not fixed once and for all, but rather, it becomes fixed only in situated judgements. Judgements govern the rules; in the sense that they fix their content, not the other way around.

Before leaving the anomalous-suspension episode it is worth noting that the outcome amongst the English natural philosophers was not inevitable: anomalous suspension *could have* re-ignited the debate over plenism and the value of experimentation in natural philosophy. This would not have been an irrational path for natural philosophy to take. The arguments did not all point in Boyle’s direction. They did not have to add up so decisively in Boyle’s favor. This much, in any case, can be gleaned from the historical record: whereas anomalous suspension was set aside in England, it was taken very seriously well into the 1670s in Paris. Here too Huygens was a major player, and here his theoretical work was received with much greater interest. And all the fundamental questions about plenism and experimentation were vigorously debated for years (Shapin and Schaffer 1985, 265–76).

Let us zoom out from the details of the case study and draw some conclusions. Shapin and Schaffer’s study of (primarily) English seventeenth-century debates over experimentation in natural philosophy exemplifies what a non-idealized study of disagreement might look like. *Leviathan and the Air-Pump* shows that epistemic concerns were inseparable from worries and interests in many other dimensions. It is therefore impossible to pick out specific epistemic rules as governing the decision-making of individual or collective actors. Moreover, Shapin and Schaffer present disagreement as an activity of confrontation, negotiation and constant re-interpretation of received principle. The material presented allows us to add detail to our category of ‘situated judgements’:

- (i) Situated judgements are *not rule-governed*. Rule-formulations are incomplete expressions until they are embedded in, or interpreted by situated judgements. Situated judgements fix the content of the rules, not rules the content of situated judgements.
- (ii) Situated judgements are *evidential* in that evidence can be cited in their support. And yet, what counts as evidence, and how evidence is to be interpreted, depends on further situated judgements.

- (iii) Situated judgements are *corrigible* but only by further situated judgements. Ultimately, the situated judgements of the community of natural philosophers brought the dispute between Hobbes and Boyle to an end. But such closure is always and deeply contingent: if the available reasons had been ordered differently, a different situated judgement might well have resulted. This is not to say that the closure is invariably irrational. As Shapin and Schaffer (1985, 13) put it:

[T]here was nothing self-evident or inevitable about the series of historical judgements in that context which yielded a natural philosophical consensus in favour of the experimental programme. Given other circumstances bearing upon that philosophical community, Hobbes's views might well have found a different reception.

Collins (1994, 502) expresses the same sentiment with respect to a different case study: 'it is quite reasonable that [the different arguments] were made to add up the way they did, and it would have been quite reasonable had they been made to add up another way.'

- (iv) Finally, situated judgements are radically holistic in that they are made in the context of networks of reasons. The relations between reasons are malleable and not fixed in advance.

Situated judgements are thus fundamentally different from both brute and rule-governed judgements. It might be helpful to reformulate the important difference in terms borrowed from meta-ethics (Dancy 2013). Let 'regularism' about a domain D be the view that correct judgements in D are applications of D-specific rules. Let 'particularism' about a domain D be the view that correct judgements in D are not applications of D-specific rules.<sup>9</sup> Particularism is, *mutatis mutandis*, the correct view of brute judgements. After all, there are no gustatory principles in faultless-disagreement. Regularism, again *mutatis mutandis*, captures the rule-governed character of epistemic judgements. Moreover, *rationality* is typically construed in terms of regularism. The rational person follows the rules of rationality. And epistemic rationality involves epistemic rules or principles. Given this understanding of regularism, brute judgements are not rational. They are not based on rules at all, and thus either *a-rational* or *irrational*. The particularism of judgements of basic taste is thus a *non-rational particularism*. Hence, we can distinguish non-rational particularism (concerning gustatory judgements in disputes of inclinations) and rational regularism (concerning epistemic judgements in disputes of facts).

Situated judgements by contrast are best captured by what we propose calling 'rational particularism'. On the one hand, situated judgements are not based on determinate rules. This justifies speaking of 'particularism'. On the other hand, situated judgements are not 'brute', like judgements of basic taste were. Situated judgements are evidential and corrigible, and they are made on the basis of reasons.

Of course, the picture of rationality involved here is different from the ‘regularist’ one. It does not identify rationality with following deterministic rules or with deriving the fixed consequences of epistemic principles. Rather, it takes rationality to consist in the practice of assembling and ordering available reasons in a situated judgement which specifies the content of the rule or principle. It is true that sometimes very different judgements – and even judgements that contradict each other – can be supported by reasons in one and the same situation. And yet, that more than one selection and ordering of reasons is possible does not imply that reasons play no role. Hobbes and Boyle did not simply follow predetermined rules of rationality when they justified their respective conclusions on the possibility of the vacuum. Nevertheless, the positions that they endorsed were based on reasons – on evidence and criteria. In this sense, situated judgements are rational, and the label ‘rational particularism’ seems apt. In the final part of our paper, we return to the philosophical discussions and draw conclusions from the rational particularism of situated judgement to how to think about relativism. As we will show, the conception of situated judgement can and should be applied to gustatory and epistemic disagreements as well: De-idealizing disagreement means thinking of judgements in all these different domains as situated. At the same time, it also forces a revision of our understanding of relativism.

## 5. Rethinking Epistemic Conflict and Disputes of Inclination

We think that the critique of idealization and the alternative conception of judgement that we have arrived at as a result has important implications for how we should think about relativism. But before we return to relativism, we shall bolster our claim that the conception of situated judgement developed here applies not only to the history of science. We believe that judgements are typically, and perhaps always, ‘situated’. Alas, we cannot defend this claim in its full generality here. We shall therefore restrict our argument to the epistemic judgements involved in disagreements between the scientist and the religious believer, and the gustatory judgements involved in disagreements over basic taste.<sup>10</sup> We shall seek to make plausible that the cases and examples that philosophers are typically most interested in are cases of situated judgement and that this should also prompt us to revise our understanding of relativism.

Consider first *fundamental* disagreements, and especially Boghossian’s little case study of Bellarmine and Galileo. Central here was the epistemic rule of ‘*Revelation*’:

(*Revelation*) For certain propositions *p*, including propositions about the heavens, believing *p* is *prima facie* justified if *p* is the revealed word of God as claimed by the Bible. (2006, 69)



As Boghossian has it, Bellarmine's belief in geocentrism resulted from an application of this principle. Moreover, since Galileo rejected *Revelation* he was free to believe in Copernicanism on the basis of empirical evidence.

Unfortunately, this interpretation of the episode is a distortion, and contradicts the best recent scholarship. (Boghossian's only reference is Giorgio de Santillana's *The Crime of Galileo* (1955).<sup>11</sup> The truth of the matter is that both Bellarmine and Galileo accepted *Revelation* – they differed only in how they specified the 'certain propositions p ... about the heavens'.

To cut a long story short, both Bellarmine and Galileo accepted the following tripartite distinction between propositions about the natural world: (i) propositions about the natural world that have been *demonstrated* (by our natural lights, that is, by reason); (ii) propositions about the natural world that in principle are *demonstrable*, but that have not yet been demonstrated; and (iii), propositions about the natural world that are *beyond demonstration* (Blackwell 1991, 3328). Let us now consider propositions in these three categories that, *given a literal reading*, seem to contradict the Bible. Bellarmine and Galileo agreed on what to do about cases in (i): in such cases, the biblical passages were to be reinterpreted figuratively in such a way, that they would come out true, and that they would not contradict the demonstrated proposition. This procedure was motivated by a belief, shared by Bellarmine and Galileo, that the Bible – a text allegedly dictated by the Holy Spirit – spoke the truth and nothing but the truth. Galileo and Bellarmine also agreed on how to react to category (iii): when such propositions contradicted the Bible, then they had to be rejected as false and heretical. In this case, revelation invariably trumped philosophical speculation.

To repeat, Bellarmine and Galileo both rejected *Revelation* for category (i), and they both accepted *Revelation* for category (iii). The point of contention was what to do about category (ii). Here Bellarmine and the Church insisted that, when such propositions contradicted a literal reading of the Bible, then they had to be considered false and heretical. This did not preclude using these propositions (and the theories to which they belonged) as useful fictions. But no *realist* commitment to these propositions was acceptable. Galileo differed. He urged the Church not to treat such propositions as false and heretical. This proposal was of course inseparable from Galileo's belief that Copernicanism was an instance of category (ii). In other words, Galileo accepted that the truth of heliocentrism had not yet been demonstrated. Nevertheless, he asked that the Bible – read literally – should not be the yardstick for judging Copernicanism. Instead the Church ought to suspend judgement until a demonstration for either Copernicanism or the Ptolemaic system had been found. For Bellarmine (and later for Pope Urban VIII) this position was unacceptable. But this was not only because they rejected Galileo's rendering of category (ii) as problematic; the deeper reason was that they likely considered the question of the correct 'world system' to belong into category (iii).

Why is all this important? Boghossian sees Bellarmine's and Galileo's judgements about geocentrism as guided by epistemic rules like *Revelation* (in Bellarmine's case) or *Observation plus Inference to the Best Explanation* (in Galileo's case). Someone who had adopted *Revelation* had to end up opposing Copernicanism; someone who had instead adopted *Observation and Inference to the Best Explanation* could opt for Copernicanism. Our brief excursion into the historical scholarship shows that this reading of the event is mistaken. It was not the adoption or rejection of *Revelation* that made the difference – both Bellarmine and Galileo accepted it. But they differed in how they interpreted this rule. Two kinds of situated judgements were crucial here: judgements that interpreted *Revelation* with respect to the categories (i), (ii) and (iii); and judgements concerning the proper position of Copernicanism as falling into either (ii) or (iii). Historians have shown us in great detail the great variety of considerations that influenced both streams of judgements: to repeat, the context of the Counter-Reformation, relationships between patrons and courtiers; traditions of instrument-making; the tensions between different religious orders; the politics of the papal court; the political problems between Spain and the Vatican; the Thirty-Year War; and much else besides (Biagioli 1993; Biagioli 2006). Interpretative decisions made in light of such complex and intricate considerations cannot be reduced to a simple – or even a complicated – rule. Only situated judgements will do.

Let us be clear on the burden of proof here. We take it that the best historical scholarship sets the standard for understanding historical episodes like those between Hobbes and Boyle on the one hand, or between Bellarmine and Galileo on the other hand. And the best historical scholarship about these cases supports the view that the key judgements in the two cases – 'Boyle's air-pump produces a workable vacuum', 'The Heliocentric System has been supported by telescopic observations' – were *situated* judgements: they were made against the backdrop of a wide variety of different considerations, ranging from the theological to the scientific, the political to the methodological; and without the guidance of clear-cut verdicts ushered by existing epistemic rules. Of course, there is nothing wrong with Boghossian, Hales, Pritchard and other epistemologists using such historical cases in their arguments for or against epistemic relativism. On the contrary, such curiosity in real disagreements is only to be encouraged. And yet, this laudable curiosity is no licence to idealize – without further justification – situated judgements into rule-governed (or brute) judgements. Nor will it do to defend the epistemologists' procedure with the familiar rhetorical question: 'Can't we just make up a case, without even trying to do justice to the intricacies of the real-world histories?' The issue is not whether one can make up radically simplified scenarios. Of course one can. The issue is whether these radically simplified scenarios are helpful for understanding something important and fundamental about the actually

existing disagreements. This cannot simply be taken for granted. The onus is on the epistemologists to make a case.

We have very similar concerns about the ways in which philosophers of language construct *brute* judgements. Remember that Wright so restricts the domain of relevant gustatory judgements that only strictly *incorrigible* judgements remain. Accordingly, Wright focuses only on judgements of basic taste made about gustatory experiences here and now. Our critical question is this: Is there really a *relevant* category of such judgements? An affirmative answer might invoke the classical saying '*de gustibus non est disputandum*'. But we are unconvinced. It seems to us that in everyday life we generally do not treat judgements of taste as sacrosanct.

Perhaps ironically, despite the idealizations that can be found in their accounts of disagreement, Hales (2014) and MacFarlane (2007) themselves provide the arguments that point in this direction. Hales denies that, say, Jones' announcement 'I (here and now) find rhubarb delicious' is invariably and properly answered with a tolerant shrugging of shoulders. It all depends on the context. Sometimes one might invoke an expert opinion against Jones: 'Are you sure? Smith likes this rhubarb, and he has tried rhubarb in many different dishes over the last few days.' Or one might offer a compromise: 'I think you tried a piece of the pie that hasn't been in the oven long enough; have one of my pieces, I am sure that will change your mind.' On other occasions the right thing to do is to propose a suspension of judgement: 'Let's not jump to conclusions quite yet; let's try different varieties and dishes and then make up our mind' (Hales 2014, 77). MacFarlane invites us to imagine a world in which we had no terms like 'delicious' or 'funny' (the key terms focused on in debates over faultless disagreement). In such a world, rather than uttering sentences like 'rhubarb is delicious', we would only be able to say things like 'rhubarb is very pleasing to my taste buds'. The difference between the imagined world and our world, MacFarlane (2007, 29) suggests, is that in the imagined world 'there would be a lot less controversy'. It makes sense to respond to 'rhubarb is delicious' with 'no, not at all; rhubarb is bland.' But to counter 'rhubarb is very pleasing to my taste buds' with 'no, rhubarb is not pleasing to my taste buds' is infelicitous. MacFarlane goes on to reflect why it is that we have expressions like 'delicious' and 'funny' even though there is 'no (nonrelative) truth on which both parties can converge'. Why do we use 'controversy-inducing ... vocabulary' (2007, 30)? MacFarlane speculates that we do so in an effort to bring our interlocutors around to our point of view:

Controversy encourages coordination because, in general, controversy is uncomfortable ... Assessment-sensitive expressions exploit this psychological fact about us – our tendency to treat dispute as a crisis to be resolved – to foster subjective coordination by provoking controversy. (2007, 30)

We think Hales and MacFarlane are right. Judgements of basic taste are not *per se* incorrigible and brute; it all depends on the context. And in most contexts

they trigger further conversation and discussion. Moreover, even when on some special occasions a particular gustatory judgement is treated as incorrigible – think of the expert wine taster who gives their ‘final’ verdict on a new wine – it is still part and parcel of a complex web of individual preferences, social expectations, rules of politeness and propriety, or culinary arguments. It is just that in such situation the complex web is treated as a background.

So far we have tried to make plausible that judgements of taste are within the space of reasons; that is, they are rationally corrigible in light of a wide variety of considerations. We do not commit to the thought that judgements of taste are governed or determined by fixed sets of gustatory rules. This is not to deny that we have more or less stable dispositions to judge different foods as delicious or disgusting in various circumstances. We also accept that making one gustatory judgement about one food might commit us to another gustatory judgement about another food, or the same food under different circumstances. But these two concessions do not add up to the thought of gustatory systems of gustatory principles. We think it is no surprise that no-one has ever tried to write down what such principles might look like. And in the absence of any such proposal the onus of proof is squarely on the side of gustatory regularist. Note also that the dialectic of this section does not demand that we offer a detailed argument against the gustatory regularist. Our opponent here is the non-rational particularist. We take the considerations invoked above to make a case against the ‘non-rational’ component of the view: judgements of taste are corrigible and evidential. Again we can sum up our concerns by using the language of Aristotelian, Galilean and Wittgensteinian idealizations. First, Wright and others confine themselves to a highly one-sided diet of examples: judgements of basic taste (Wittgensteinian idealization). Second, they leave aside all considerations of the contexts in which gustatory judgements occur (Aristotelian idealization). And third, Wright and his colleagues reduce gustatory disagreement qua activity – qua controversy and debate – to disagreement qua state (Galilean idealization). It is only when these three idealizations are accepted that the brute judgement view becomes plausible. We maintain of course that these three idealizations are not acceptable. They distort rather than reveal. They remove gustatory judgements from their everyday setting and make invisible their situated character. Whoever engages in such removal owes us an argument; the onus of proof lies squarely in their court.

Let us return to the question of relativism. What bearing do our analyses of judgements and idealization have on the various debates over relativism canvassed above? A first and immediate implication of our analysis is that the ‘semantic relativism’ of Wright, Kölbel and MacFarlane as well as the ‘epistemic relativism’ of Boghossian, Hales and Pritchard are theoretical responses to ‘caricatures’ that do not as such exist in our social world, and that are of doubtful value even in their intended role as *models* of real disagreements. They simply distort too much.

This does not mean that there is nothing of value in the literatures on faultless disagreement and fundamental disagreement.<sup>12</sup> Even though we oppose the idealizations prevalent in these discourses, we still find them sophisticated and important. There are plenty of useful conceptual tools in these discussions. For example, they have led to a much better understanding of the kinds of propositions the relativist is committed to; to helpful distinctions between different forms of disagreement; to insightful separations of various senses of ‘faultlessness’; and to sophisticated conceptualizations of epistemic systems. We believe that these achievements can be preserved in the context of a less idealized approach to disagreement and relativism. We want to conclude this paper by providing a rough sketch of how this might be done.

## 6. Rethinking Relativism

We have started this paper with an analysis of the philosophical debates on disagreement and relativism as resolving around two questions. First, is a given theoretical rendering of disagreement adequate? And second, does this theory of disagreement motivate relativism? We have uncovered the implicit conceptions of judgement involved in these debates – brute judgement and rule based judgement. Let us now proceed the other way around, by starting from the conception of situated judgements that we have found to be operative in less idealized accounts of disagreement. Let us investigate, first, what theoretical rendering can make sense of disagreements involving situated judgements, and second, whether this theoretical rendering motivates relativism.

Central concepts from the discourse on faultless and fundamental disagreement are useful for spelling out the theory of disagreement that we get based on an appreciation of the situated character of judgements. If our analysis is roughly on the right track and judgement in the philosophically relevant cases is situated, then there are real disagreements that are *sustainable*, *holistically faultless*, *rationally resolvable* and yet *contingent*.

- (i) The disagreements are *sustainable* insofar as the encounter with another position does not force one to lower confidence in one’s own. The existence of Boyle’s overall system of beliefs and values did not force Hobbes to abandon his.
- (ii) The disagreements are *holistically faultless* in that both sides have rational resources to defend themselves (by their own lights) appropriately against specific challenges from the other side.
- (iii) The disagreements are temporally limited and *rationally resolvable* in that the debate between the two positions can eventually reach closure. Situated judgements can lead to the rational conclusion of a debate. Eventually the majority of natural philosophers were convinced of Boyle’s arguments and sided with him against Hobbes or Huygens.

- (iv) But the rational resolution of disagreement is *contingent*. The content of the closure is contingent in that it is not the only possible rational outcome. A different constellation of arguments and situated judgements could have led to a different outcome.

Note that our position preserves some central elements of the literature on faultless and fundamental disagreements. We too see Wright's 'Contradiction', 'Genuineness', and 'Sustainability' as central parts of our theory of disagreement. But we differ at other points: our theory does not speak of the faultlessness of individual judgements. Our theory views disagreements as rationally resolvable. And it allows for the contingent closure of disagreements based on situated judgements.

Does this theoretical rendering of disagreements motivate a form of relativism? We think the answer is 'yes'. It seems to us that the rational, yet contingent resolvability of disagreement is best explained by relativism, the idea that justification is relative to the particular situated judgements made by individuals and communities in concrete social contexts and at specific points in historical time. The structural features of our theory of disagreement already point in the direction of relativism. Let a quick and simple rendering of relativism suffice here. The relativist with respect to a certain domain makes three claims: First, the domain contains judgements that contradict one another. Second, the competing judgements are appropriate or inappropriate relative to different webs of beliefs and goals. Third, these different webs of beliefs and goals cannot be ranked in a neutral fashion. Our theory of disagreement involves all three of these elements. It preserves the thought that a given domain can contain judgements that contradict one another. It also remains committed to the idea that competing judgements are appropriate or inappropriate relative to different webs of beliefs or goals – albeit that these beliefs and goals are, when they function as justifying resources, highly malleable. And it holds on to the thought that different such systems cannot be ranked. At least they cannot be ranked during a certain time interval.

However, the type of relativism that emerges in response to our theory of disagreement also differs from many other types of relativism. For our relativist, what is a rationally intractable disagreement at one time, might be contingently rationally resolvable at another time. At this point, it should be clear that a theory of disagreement based on situated judgement has unique features: it is dynamic and temporal and it points to the *rational, yet contingent resolvability* of disagreement.

We expect that these features cannot easily be accommodated by realist, skeptic or contextualist theories. Kölbel, Wright, and Hales have already provided many convincing arguments against the alternative renderings on the market. The fact that our theory of disagreement preserves the features of 'Contradiction', 'Genuineness', 'Sustainability', and a version of 'Holistic



Faultlessness' that were seen to motivate relativism in the semantic and epistemological debates, lends at least some *prima facie* plausibility to the idea that the same arguments apply to our theory of disagreement as well. In particular, it seems that a realist reply would jar with the feature of holistic faultlessness, while a contextualist reply would lose the elements of contradiction, genuineness and sustainability. However, further research is required to fully assess the standing of relativism vis-à-vis its alternatives in the context of de-idealized disagreement.

## Notes

1. Readers familiar with contemporary debates in ethics and political philosophy might wonder why we are confining our attention to philosophy of language, epistemology, and SSK. Why not also consider other areas of philosophy? For example, our discussion leaves out the extensive literature on 'peer disagreement'. We agree that this, as well as other debates are relevant to the issues discussed here. But our argument is complex enough even with just three recent debates. A still broader scope would have made it impossible to cover the relevant ideas in one paper. Note also that the discussions in ethics and political philosophy are in the background of our discussion: e.g. our 'particularism' is influenced by Jonathan Dancy (2013).
2. We can here cover only a fairly small amount of literature. Garcia-Carpintero and Kölbel (2008) gives a good sense of the many facets of this work.
3. Kölbel and MacFarlane think that we need a relativist semantics to capture the features highlighted by faultless disagreement. Wright's position is less straightforward, as he has gone back and forth between advocating a relativist and an intuitionist-realist analysis (Wright 2001, 2006a, 2006b, 2008, 2012; Wright 2015). There is also the question whether the argument for relativism has to run via the idea of faultless disagreement, or whether there are alternative resources for the relativist to draw on. For example, MacFarlane (2014, 118–37) holds that one can motivate semantic relativism independently from issues concerning faultless disagreement.
4. Here too we can only discuss a limited amount of literature. For excellent critical reviews of the whole field of epistemic relativism, see Baghramian 2004; Carter 2016; Baghramian and Carter 2015; Seidel 2014. Sankey (2011) intriguingly explores the complex relationship between epistemic relativism and skepticism. See also Williamson 2015. Rovane (2012, 2013) deals primarily with ethical relativism, but her views have also important implications for epistemic relativism.
5. Boghossian commits the epistemic relativist to fundamental disagreement only to then go on to argue that *Revelation* is not really a fundamental principle at all. To decide whether the Bible is the word of God we have to draw on other kinds of evidence, he argues, and Bellarmine is inconsistent when he denies Galileo the right to use observation as an epistemic route to knowledge about the heavens: does not Bellarmine himself use his eyes to determine whether it is cloudy? (2006, 104–105) Pritchard tries a gambit similar to Boghossian's. Pritchard's epistemic relativist holds that all epistemic justification is framework-dependent. But this view jars with the idea that epistemic justification must be truth-tropic. Epistemic relativism fails because fundamental disagreement fails.



Hales begs to differ. He believes that fundamental disagreement is the correct theoretical rendering of disagreements involving meta-evidence.

6. Boghossian's argument against relativism is precisely that this condition cannot be held up for both sides in an epistemic conflict. On his interpretation, Bellarmine did not derive all his judgements from one and the same fundamental principle, his epistemic system was therefore inconsistent. The implicit conception of judgement that Boghossian adopts is still that of judgement as fundamental and holistic, only Boghossian thinks that there is just one epistemic system that is shared universally.
7. We are only too aware that SSK in general, and *Leviathan and the Air-Pump* in particular, are controversial (see e.g. Sargent 1995). We cannot even begin to defend this work here. However, since we use this case study primarily for heuristic purposes – to explore what a realistic account of disagreement and judgement might look like – not too much hinges on whether Shapin and Schaffer are spot on in all their claims. Moreover, readers who are unable to suspend their disbelief might consider the option of conditionalizing our whole argument on the approximate truth of this case study. Finally, using *Leviathan and the Air-Pump* has the advantage that we can refrain from extensive introductions; the book is read widely even in philosophical circles.
8. Our use of the opposition between 'rule' and 'judgement' is indebted to other sociologists of scientific knowledge. See especially Pickering 1984 and Collins 1985. Neither of them puts the point quite the way we do here. But we make no special claim to originality. Our goal is to introduce, to the philosophical debate, an insight from SSK, not necessarily to improve on SSK itself.
9. Think of Jonathan Dancy's defence of 'moral particularism'; 'at its most trenchant', the view that 'there are no defensible moral principles, that moral thought does not consist in the application of moral principles to cases, and that the morally perfect person should not be conceived as the person of principle' (Dancy 2013). In Dancy's terminology, 'generalism' is the denial of particularism. We prefer 'regularism' for obvious reasons.
10. A referee here asked the question what is to be gained by treating all judgement as situated. Our answer is that it offers a better understanding of disagreement as an activity, and thus ultimately a better understanding of how best to motivate and explicate relativism. This should become clearer below.
11. The following studies can be regarded as constituting or reflecting (in good part) the state of the art on Galileo and his conflict with the Catholic Church: Biagioli 1993; Biagioli 2006; Blackwell 1991; Finocchiaro 1980, 2010; Drake 1978; Heilbron 2010; Koyré 1978; Machamer 1998; McMullin 2005; Redondi 1987; Renn 2002; Wallace 1984.
12. Neither do we seek to dismiss all types of philosophy that involve a degree of idealization. We are well aware that there are plenty of fields within (analytic) philosophy where genuine attempts are made either to keep idealizations to a minimum, or to take serious steps in the direction of de-idealization. Two examples are feminist epistemology (e.g. Fricker 2007; Haslanger 2012) and the recent stages of the debate over peer disagreement (Christensen and Lackey 2013).

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