

EPISTEMICISM AND THE COMBINED SPECTRUM

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Abstract

Derek Parfit's combined-spectrum argument seems to conflict with epistemicism, a viable theory of vagueness. While Parfit argues for the indeterminacy of personhood, epistemicism denies indeterminacy. But, we argue, the linguistically based determinacy that epistemicism supports lacks the sort of normative or ontological significance that concerns Parfit. Thus, we reformulate his argument to make it consistent with epistemicism. We also dispute Roy Sorensen's suggestion that Parfit's argument relies on an assumption that fuels resistance to epistemicism, namely, that 'the magnitude of a modification must be proportional to its effect.'

Epistemicism is the view that vague concepts have sharp borderlines, but we cannot know where these borderlines lie. On this view, there is an exact number of grains of sand that make the smallest heap, but we cannot know what that number is.¹ Derek Parfit simply assumes that epistemicism is false in presenting his combined-spectrum argument, one of his main arguments for reductionism about persons.² On reductionism, personal identity need not be determinate – questions of the form 'Is X the same person as Y?' can lack determinate yes-or-no answers. When Parfit presented his argument, it was natural not to take epistemicism seriously. Epistemicism is counterintuitive and had not yet been systematically developed and defended. But now it has been.³

¹ For the epistemicist, this number may vary with context. But a full specification of the context would still leave the number unknowable. See Timothy Williamson, *Vagueness*, (New York: Routledge, 1994), p. 215; and Roy Sorensen, *Vagueness and Contradiction* (New York: Oxford University Press, 2001), p. 2. According to Williamson, the number is unknowable because vagueness gives rise to 'margin for error principles' such as: 'if we know that n grains make a heap, then $n - 1$ grains make a heap' (p. 232). See *Vagueness*, chapter 8, especially 8.3 and 8.4.

² Derek Parfit, *Reasons and Persons* (New York: Oxford University Press, 1984), pp. 236–43. See also p. 232. And compare pages 20–28 of Parfit, 'The Unimportance of Identity', in H. Harris (ed.), *Identity* (New York: Oxford University Press, 1995), pp. 13–45.

³ See Williamson, *Vagueness*; and Sorensen, *Vagueness and Contradiction* and *Blindspots* (New York: Oxford University Press, 1988).

Thus, Parfit's argument seems vulnerable to an epistemicist challenge.

We think this challenge can be met. Granted, epistemicism can be used to defend the claim that personal identity is necessarily determinate. But the determinacy that results derives from subtle features of linguistic practice and therefore lacks the sort of normative or ontological significance that concerns Parfit. His argument can be reformulated so as not to conflict with such determinacy, as we will demonstrate. Therefore, epistemicism does not undermine his project.

We will also defend Parfit's argument against a related objection due to Roy Sorensen.⁴ According to Sorensen, Parfit appears to assume the false principle that 'the magnitude of a modification must be proportional to its effect' – a principle that Sorensen thinks fuels resistance to epistemicism. We will show that Parfit's argument depends on no such assumption.⁵

1. 'Reductionism' and 'Non-Reductionism'

Call Parfit's claim that personal identity can be indeterminate *the indeterminacy claim*. This is only part of Parfit's reductionist view. Two other parts are relevant here. One is the doctrine that, roughly stated, a person consists merely in a brain, a body, and a series of interrelated physical and mental events. We will call that doctrine *ontological reductionism*. Ontological reductionism contrasts with the view that we are separately existing entities, such as persisting immaterial Cartesian egos. The other relevant doctrine is that *personal identity is not what matters*. In other words, what justifies my special anticipatory concern about my future is not that the future person will be me. Parfit sometimes uses 'reductionism' to refer just to ontological reductionism.⁶ But we will follow his broader usage, on which reductionism also includes the indeterminacy claim and the doctrine that personal identity is not what matters.

We will use 'non-reductionism' to refer to the antithesis of reductionism, in this broader sense. Thus, non-reductionists

⁴ *Blindspots*, pp. 250–52.

⁵ Peter Unger rejects Sorensen's criticism on different grounds. See Unger's *Identity, Consciousness & Value* (New York: Oxford University Press, 1990), p. 203.

⁶ See p. 268, fn. 7 of Derek Parfit, 'Experiences, Subjects, and Conceptual Schemes', *Philosophical Topics* 26 (1999), pp. 217–70.

believe: (a) *the determinacy claim*, that personal identity is necessarily determinate; (b) *ontological non-reductionism*, that it is not the case that a person consists merely in a brain, a body, and a series of interrelated physical and mental events; and (c) that personal identity is what matters; personal identity justifies special anticipatory concern. According to Parfit, non-reductionism is the common-sense conception of persons ('What We Believe Ourselves To Be'⁷), whereas reductionism is true ('How We Are Not What We Believe'⁸).

2. The combined-spectrum argument

In Part Three of *Reasons and Persons*, Parfit first tries to prove ontological reductionism (and in particular that we are not Cartesian egos); then he argues for other reductionist doctrines, given ontological reductionism. The combined-spectrum argument figures in that latter task.

The combined spectrum is a range of cases. These cases do not occur in succession; they are just distinct possible futures. In the case at the near end of the spectrum, a future person is fully continuous with me as I am now, both physically and psychologically.⁹ In the next case, a few of my brain-and-body cells are replaced with Greta Garbo-like cells. The resulting person resembles me in almost every way. But unlike me, that person enjoys acting, has a few quasi-memories of living Garbo's life, and bears a slight physical similarity to Garbo.¹⁰ In the next case, a greater number of my cells are replaced and the resulting person is a bit more like Garbo. Thus the cases involve an increasingly large number of cells replaced (always at once, never gradually). At the far end of the spectrum, all of my cells are replaced, and the resulting person is physically and psychologically indistinguishable from Garbo. The spectrum is 'combined' because it involves physical and psychological changes.¹¹

⁷ *Reasons and Persons*, chapter 10.

⁸ *Reasons and Persons*, chapter 11.

⁹ We use 'connected' and 'continuous' in Parfit's sense. See *Reasons and Persons*, chapter 10, especially pp. 204–09.

¹⁰ For Parfit's notion of quasi-memory, see *Reasons and Persons*, pp. 220 and 226. The notion originates in Sydney Shoemaker, 'Persons and Their Pasts' *American Philosophical Quarterly* 7 (1970), pp. 269–85.

¹¹ Parfit also discusses a physical spectrum and a psychological spectrum. See *Reasons and Persons*, pp. 231–236.

The combined-spectrum argument can be put as follows. In the cases at the near end, the resulting person is me, since I am very strongly connected, both physically and psychologically, to that person. In the case at the far end, '[t]here would be no connection, of any kind, between me and this resulting person. It could not be clearer that, in this case, the resulting person would *not* be me.'¹² Therefore, if our identity is necessarily determinate, there is a sharp borderline in the spectrum: a case n such that in n I am the resulting person but in $n + 1$ I am not. If there is a sharp borderline, then (i) 'the difference between life and death could just consist in any of the very small differences'¹³ between neighbouring cases in the spectrum. Of course, it would not be a 'very small difference' if we were Cartesian egos and the resulting persons were different egos in cases n and $n + 1$. But as we mentioned, Parfit assumes ontological reductionism in this part of the book. Parfit also thinks that if there is a sharp borderline, then (ii) 'we could never have any evidence where the borderline would be.'¹⁴ Both (i) and (ii) are implausible. Together, they are more implausible than the denial of an unknowable sharp borderline. Therefore, our identity need not be determinate. In numbered steps (and slightly simplified):

1. If our identity is necessarily determinate, then there is a sharp borderline in the combined spectrum, which entails that: (i) the difference between life and death consists in the minor differences between certain neighbouring cases; and (ii) such a line exists even though we could never locate it exactly.¹⁵
2. There is no such sharp borderline in the spectrum.
3. So, it is not the case that our identity is necessarily determinate.

Here and in the rest of our paper we follow Parfit in assuming ontological reductionism, and thus that persons are not Cartesian egos. But unlike Parfit, we will henceforth omit premise 1's clause

¹² *Reasons and Persons*, p. 238.

¹³ *Reasons and Persons*, p. 239.

¹⁴ *Reasons and Persons*, p. 239.

¹⁵ We follow Parfit in using 'the difference between life and death' to refer to the difference between surviving and not surviving in the spectrum. Also, (i) could be formulated more formally as follows: 'there is a pair of cases in the spectrum, n and $n + 1$, such that in n I am identical to the resulting person, but in $n + 1$ I am not.' Although we will continue to use Parfit's formulation, we mean it to be equivalent to the more formal formulation.

(ii), which states that the borderline in question would be unknowable. We do this mostly because, in the ensuing discussion, only (i) will be directly relevant. Further, dropping (ii) does not seem to us to weaken the argument – in fact, we think it makes the argument stronger. Without clause (ii), we get:

1. If our identity is necessarily determinate, then there is a sharp borderline in the combined spectrum, which entails that the difference between life and death consists in the minor differences between certain neighbouring cases.
2. There is no such sharp borderline in the spectrum.
3. So, it is not the case that our identity is necessarily determinate.

Call that the *simple formulation* of the combined-spectrum argument. Premise 1 is plausible and, for present purposes, may be granted. 3 follows from 1 and 2 by *modus tollens*. That leaves 2.

3. Sorensen's objection

Sorensen challenges premise 2. As an epistemicist, he thinks that minor differences can affect the application of *any* vague concept. He thinks, for example, that one hair fewer can affect whether someone is bald. On his view, the difference between life and death can consist in a minor difference, given that 'same person' is vague.

According to Sorensen, Parfit appears to assume *the proportionality principle* in denying that there is a sharp borderline in the spectrum. This is the causal principle that 'the magnitude of a modification must be proportional to its effect.'¹⁶ Sorensen thinks this principle fuels resistance to epistemicism.¹⁷ But as he says, it is false:

An extremely tiny change in the velocity of an object can make the crucial difference as to whether it achieves escape velocity and travels far out into space, or fails to escape and crashes to earth. Of course, it is enormously improbable that the impact of a particular raindrop on a rocket will make the crucial difference. Likewise it is enormously unlikely that changing a

¹⁶ *Blindspots*, p. 251.

¹⁷ *Blindspots*, pp. 250–52.

brain cell will make the crucial difference between life and death. The proportionality principle virtually always provides the correct answer when applied to any particular miniscule change. But its distributive reliability does not entail its collective reliability.¹⁸

Parfit never explicitly invokes the proportionality principle in defending premise 2, that there is no sharp borderline in the spectrum. Does he rely on it implicitly?

One might say that the difference between life and death couldn't consist in any small change in cells, since no small physical change could have large, identity-altering psychological effects. That claim would be suspect, given the possibility of threshold effects: a single cell replacement might result in a large psychological change, just as a single raindrop might result in a large change in a rocket's trajectory. Parfit, however, relies on no such argument. He stipulates that the neural *and psychological* differences between neighbouring cases in the spectrum are minor. Therefore, he does not have to *prove* that there are only minor psychological differences between any pair of neighbouring cases; that assumption is true by hypothesis.

Perhaps Sorensen thinks Parfit relies on the following argument:

1. The magnitude of a modification must be proportional to its effect. (the proportionality principle)
2. In the combined spectrum, each individual modification (i.e., each cell replacement and psychological change) is miniscule.
3. So, the effect of each modification must be miniscule.
4. Death is not miniscule.
5. So, in the combined spectrum, no individual modification can have as an effect that the original person dies.

¹⁸ *Blindspots*, p. 251. In the proportionality principle, the contrast between modification and effect can be read in two ways: (a) size of cause vs. size of effect; or (b) amount of intrinsic change vs. that change's intrinsic (moral or rational) significance. As we understand Sorensen, he intends the (a)-version. But his rocket example does not fully clarify which version he has in mind. The rocket's plunging to Earth is a sizeable effect (in terms of the region of space-time it occupies), which suggests the (a)-version. The plunging also has great moral and rational significance (astronauts die, NASA loses money, etc.), which suggests the (b)-version. But he gives other examples that favor the (a)-version. For example: 'A banana peel can elicit spectacular acrobatics from a lumbering pedestrian, a pebble in the fuel line of a truck can bring it to a halt . . .' (Sorensen 1988, p. 252). Such events do not typically have great moral or rational significance.

But that argument's emphasis on 'modifications' betrays a confusion. According to its second premise, each modification in the combined spectrum is miniscule. But some of the modifications are *huge*, consider the case in which all of my cells are replaced with Garbo-like cells. The 'modifications' that pertain to Parfit's argument must be the *differences* between adjacent cases. In offering the proportionality principle, Sorensen misinterprets the combined spectrum as being a series of modifications, rather than a range of possible futures.

A better argument can be formulated in terms of a revised proportionality principle:

1. Consider modifications M1 and M2 and their respective effects E1 and E2. The difference between E1 and E2 must be proportional to the difference between M1 and M2. (the revised proportionality principle)
2. In the combined spectrum, the difference between modifications in adjacent cases (e.g., between replacing none of my cells and replacing a few) is miniscule.
3. So, the difference between these modifications' effects must be miniscule.
4. The difference between life and death is not miniscule.
5. So, in the combined spectrum, no adjacent modifications can be such that only one causes death.

Sorensen's examples falsify the revised proportionality principle. Therefore, the first premise of the preceding argument is false.

But Parfit need not rely on the revised proportionality principle or on any principle that succumbs to Sorensen's examples. First, Parfit might not be relying on any general principle at all; he may have rejected the idea of a sharp borderline simply as an intuition, as something plausible in itself. Second, Sorensen's examples involve causality *beyond* the initial difference: a difference of one raindrop has enormous significance because it causes a big change in the rocket's trajectory. In the combined spectrum, however, there is no suggestion that the small differences in cells and psychology result in further, significant changes in cells and psychology. Rather, the issue is whether those differences *in themselves* could constitute, or guarantee, a difference in personal identity. Thus, in rejecting a sharp borderline in the spectrum, Parfit might appeal to something like the following principle:

Trivial differences in low-level phenomena cannot, in themselves, constitute or guarantee non-trivial differences in high-level phenomena. For example, a tiny change in bits of wood cannot, by itself, ensure that a table ceases to exist; replacing a microscopic portion of a single brain cell cannot, by itself, make it the case that a person ceases to exist.

Call that *the constitution principle*. It may need revising, but something like it can serve Parfit's purposes. Alternatively, he could appeal to a normative principle that he attributes to Bernard Williams:

Since personal identity has great significance, whether identity holds cannot depend on a trivial fact.¹⁹

Parfit describes this principle as 'plausible.' Of course, he cannot accept it as stated, since he denies that personal identity has great significance. But he can accept a conditionalized version: *if* personal identity has great significance, then whether identity holds cannot depend on a trivial fact.²⁰ Even that version may need revising, as may the constitution principle. But neither is refuted by Sorensen's examples of threshold effects.²¹

Sorensen presents his objection in passing, while developing his epistemicist view. Perhaps his objection was motivated by the suspicion that Parfit's argument fits uneasily with epistemicism. That is a more serious concern, to which we now turn.

4. The objection from epistemicism

Epistemicists contend that vagueness consists in ignorance: our necessary ignorance of sharp boundaries. For example, they

¹⁹ *Reasons and Person*, p. 267. See Bernard Williams, *Problems of the Self* (Cambridge: Cambridge University Press, 1973). Parfit discusses the Williams principle in the chapter following that in which he presents the combined-spectrum argument.

²⁰ Parfit seems sympathetic to a reductionist analogue of the Williams principle: 'This Reductionist View also meets the analogue of Requirement (2) [i.e., of the Williams principle] . . . On this stand, what is important is relation R: psychological connectedness and/or continuity, with the right kind of cause. Unlike identity, this relation cannot fail to hold because of a trivial difference in the facts. If this relation fails to hold, there is a deep difference in the facts' (*Reasons and Persons*, p. 271).

²¹ We take no stand on whether either principle is true. Our point is only that, if Parfit is relying on any general principle (which might not be the case) it is not the proportionality principle. We offer the constitution principle and the conditionalized Williams principle as candidates.

believe that there is an exact but unknowable number of seconds past which a toddler is no longer a toddler. That view may seem incredible, and until recently it was disregarded.²² But due primarily to Sorensen and Timothy Williamson, it must now be taken seriously.

Epistemicism supplies the non-reductionist with a clear response to the combined-spectrum argument: there *is* a sharp borderline in the spectrum, albeit an unknowable one. That there should be a sharp borderline is hard to believe. It is also hard to believe that there is a sharp borderline in a typical sorites series, involving grains of sand and heaps, or hairs and bald men, and so on. Epistemicism is hard to believe. But if it is true, then there is an unknowable sharp borderline in all sorites series. Epistemicism does not entail that there is such a borderline without the further premise that 'same person' is vague (and likewise for related concepts such as 'survives' and 'dies'). But epistemicists can accept that premise, and therefore their view would seem to provide a basis for rejecting the combined-spectrum argument.²³

In our view, the objection from epistemicism must ultimately fail, for the following reason. What is central to Parfit's view is that persons should be understood on the model of heaps, nations, clubs, and other vague phenomena. Although Parfit denies that the vagueness of persons is epistemic, he need not. He can accept that there is an unknowable sharp borderline in the combined spectrum; he need only reject a sharp borderline that has important implications for parts of reductionism other than the indeterminacy claim. In the next section, we will present a version of his argument that denies the existence of a normatively relevant borderline: a borderline that has consequences for what matters in survival. Later, we will present a version that denies the exist-

²² There are notable exceptions, such as James Cargile, 'The Sorites Paradox', *British Journal for the Philosophy of Science* 20 (1969), pp. 193–202. For historical antecedents of the view, see Williamson, *Vagueness*, chapter 1.

²³ The epistemicist need not accept this premise. For the sake of argument, however, we will assume that she does. We have not addressed whether in Parfit's argument 'our identity', 'same person', etc., refer to classical identity or some weaker relation. We believe that our arguments do not depend on how that issue is resolved. But there are complications. In particular, if in Parfit's argument 'our identity' expresses classical identity, then Williamson would likely deny that the term is vague. (See *Vagueness*, chapter 9, section 2.) If the relevant terms are not vague, then the objection from epistemicism does not even get off the ground.

tence of an ontologically based borderline: a borderline that is determined by the world rather than linguistic practice.

5. The normative formulation

The simple formulation of the combined-spectrum argument neglects the normative part of non-reductionism – the doctrine that personal identity is what matters. Non-reductionism does not entail merely that there is a sharp borderline in the combined spectrum. It entails that there is a sharp borderline *that is relevant to what matters* – a borderline that has implications for special anticipatory or prudential concern in our survival. Here is a formulation of the argument that includes that idea:

1. If our identity is necessarily determinate and personal identity is what matters, then there is a normatively relevant sharp borderline in the combined spectrum.
2. There is no such sharp borderline in the spectrum.
3. So, it is not the case that: our identity is necessarily determinate and personal identity is what matters.

Call that the *normative formulation* of the combined-spectrum argument. If sound, it would show that the indeterminacy claim follows from ontological reductionism combined with the doctrine that personal identity is what matters.

As before, the premise at issue is 2. 2 is plausible. Moreover, it can be defended with the (conditionalized) normative principle mentioned earlier: if personal identity has great significance, then whether identity holds cannot depend on a trivial fact.

When Parfit presented his argument, he may have had the normative formulation in mind. Why does he think that the difference between life and death couldn't consist in the minor differences between neighbouring cases in the spectrum? His stated reason is that those minor differences are 'trivial' (p. 239). The triviality could be normative or ontological. If he intends the former, then his point is that the minor neural and psychological differences between neighbouring cases can't justify special anticipatory or prudential concern in our survival. On this reading, he tacitly assumes that the sharp borderline would have to be normatively relevant. We will discuss another reason to think Parfit intended the normative formulation in the next section. In section 7, we will consider the alternative, ontological reading.

The normative formulation lets Parfit respond to the epistemicist without challenging epistemicism, as follows: epistemicism may show that there is an unknowable sharp borderline in the combined spectrum, but it does not show that the borderline has normative relevance. So, we must now ask: can epistemicism be used to establish the existence of a normatively relevant sharp borderline in the spectrum? In terms of the above argument, does epistemicism support thinking that the normatively relevant difference between life and death could consist in the minor differences between neighbouring cases?

We do not think so.²⁴ For epistemicists, minor changes in linguistic practice can change the location of a sharp boundary. Williamson writes,

A slight shift along one axis of measurement in all our dispositions to use 'thin' would slightly shift the meaning and extension of 'thin'. On the epistemic view, the boundary of 'thin' is sharp but unstable.

Suppose that I am on the 'thin' side of the boundary, but only just. If our use of 'thin' had been very slightly different, as it easily could have been, then I should have been on the 'not thin' side. The sentence 'TW is thin' is true, but could very easily have been false without any change in my physical measurements or those of the relevant comparison class.²⁵

According to epistemicism, the sharp boundary of 'same person' comes from linguistic practice, just as the sharp boundary of 'thin' does. Thus, for the epistemicist, the source of the sharp borderline in the combined spectrum is linguistic practice.

²⁴ It is worth bearing in mind that, even if the differences between neighbouring cases in the spectrum were *extremely* small, the epistemicist would claim that there is a sharp borderline. Suppose neighbouring cases n and $n + 1$ differ only in this respect: in $n + 1$ one one-trillionth more of a single neuron is replaced. Our question would then be whether such an extremely minor difference could make a great normative difference.

²⁵ *Vagueness*, p. 231. The view Williamson expresses in this paragraph has a conventionalist flavor. Epistemicism is independent of conventionalism. In fact, Sorensen expresses reservations about conventionalist approaches to meaning (and about the related view that 'meaning is mind dependent'; see *Vagueness and Contradiction*, pp. 19–20). But we know of no developed version of epistemicism that would avoid objections like those we adduce against Williamson's version. Thus, for simplicity, we will assume that he speaks for all epistemicists. It may be possible to formulate a coherent version of epistemicism to which our objection would not apply. On such a view, (a) vague terms have precise extensions and (b) those extensions are determined by the world and not by linguistic practice or any other human activity. But this paper concerns epistemicism as it has been defended.

Therein lies the problem for showing that such a borderline has normative relevance: how could what matters be whether I survive, if my survival depends on the subtleties of linguistic practice? From the normative point of view, such subtleties are arbitrary.

And so, epistemicism alone cannot explain how there could be a normatively relevant sharp borderline. Might epistemicism provide the non-reductionist with *part* of such an explanation? We do not see how it could; again, from a normative viewpoint, the borderlines it entails are arbitrary. We conclude that epistemicism does not undermine the normative formulation of the combined-spectrum argument.

On the normative formulation, premise 2 denies that there is a normatively relevant sharp borderline in the spectrum. Of course, if an epistemicist accepts this premise, she cannot maintain that 'X is the same person Y in a normatively relevant sense' has an indeterminate extension. Rather, her position would be that this predicate fails to pick out a real (moral/rational) feature of the world. On this view, whether X is the same person as Y never matters, rationally or morally; what matters are benefits and burdens, not how they are distributed. This seems the most reasonable view for the epistemicist to take about the extension of 'X is the same person Y in a normatively relevant sense': the alternative would be to take the predicate to mark a sharp borderline in the spectrum, which is wildly implausible (given ontological reductionism).

6. Parfit's reply to a similar objection

Parfit discusses an objection that, like the objection from epistemicism, relies on semantic considerations.²⁶ Let us briefly relate his discussion to ours. Some philosophers think that the notion of an identity claim that is neither determinately true nor determinately false is incoherent.²⁷ If they are right, then Parfit cannot

²⁶ *Reasons and Persons*, pp. 240–41.

²⁷ Some attribute the argument to Gareth Evans ('Can There Be Vague Objects?', *Analysis* 38 (1978), p. 208), and Nathan Salmon (*Reference and Essence*, Princeton: Princeton University Press, 1981, pp. 243–46) offers a version. Both the argument and the attribution to Evans are controversial. For criticisms of the argument, see John Broome, 'Indefiniteness in Identity', *Analysis* 44 (1984), pp. 6–12. For criticisms of the attribution, see David Lewis, 'Vague Identity: Evans Misunderstood', *Analysis* 48 (1988), pp. 128–30.

maintain that our identity can be indeterminate. In response, he emphasizes that their view about identity claims is consistent with the idea that personal identity is not what matters. Parfit describes the latter idea as ‘the most important claim in the Reductionist View.’²⁸ Someone who accepts the idea can say, ‘The view that identity can’t be indeterminate forces me to concede that there is some determinate line, but such a line would have no rational or moral significance.’ Of such a view, Parfit writes, ‘I regard this view as one version of Reductionism, the tidy-minded version that abolishes indeterminacy with uninteresting stipulative definitions.’²⁹

Similar things can be said about the objection from epistemicism. A reductionist can say, ‘Epistemicism forces me to concede that there is a determinate line in the spectrum, but that line would have no rational or moral significance; for such a line would be determined by linguistic facts that are, from a rational or moral viewpoint, arbitrary.’ Such a view may also be characterized as a version of reductionism – one that incorporates a linguistically based determinacy that makes no difference to what matters. Our normative formulation of the combined-spectrum argument can be conceived as a working out of this response.

7. The ontological formulation

A critic of the normative formulation might say, ‘By bringing in normative concerns, you have distorted the argument’s metaphysical orientation.’ We think the normative reading finds considerable support in Parfit’s writings. But the argument can also be revised to satisfy the objector.

According to common sense, personal identity is always determinate, but not due to the subtleties of linguistic practice. Consider a slight variation of an example given by Parfit.³⁰ Suppose that someone whom I neither know nor care about is about to undergo major neurosurgery. I ask the surgeon whether the patient will survive. She replies, ‘Yes, but only given recent shifts in linguistic usage; thanks to them, the term “same person” now correctly applies to the patient and the person who will wake up

²⁸ *Reasons and Persons*, p. 241.

²⁹ *Reasons and Persons*, p. 241.

³⁰ *Reasons and Persons*, p. 233.

after the operation.’ Intuitively, the surgeon is evading my question. The idea that the determinacy of our identity derives from arbitrary linguistic practice runs afoul of common sense.

It is more in keeping with common sense to say that ‘person’ refers to a natural kind, where the distinction between persons always carves nature at a joint. So, if non-reductionism is the theory of common sense, it holds the distinction between persons to be ontologically based. The combined-spectrum argument may thus be conceived as attacking the idea that there is a sharp borderline that is determined by the world, not by linguistic practice.³¹ In presenting this version, we will continue to assume ontological reductionism and thus that we are not Cartesian egos. Consider:

1. If our identity is necessarily determinate and the source of that determinacy is ontological, then there is an ontologically based sharp borderline in the combined spectrum.
2. There is no such sharp borderline in the spectrum.
3. So, it is not the case that: our identity is necessarily determinate and the source of that determinacy is ontological.

Call that the *ontological formulation* of the combined-spectrum argument. If sound, it would show that the indeterminacy claim follows from ontological reductionism and the assumption that the source of determinacy would be ontological.

As before, the premise at issue is 2. 2 is plausible. Moreover, it can be defended with the constitution principle mentioned earlier: trivial differences in low-level phenomena cannot, in themselves, constitute or guarantee non-trivial differences in high-level phenomena. It might be said that this principle begs the question against epistemicism. But Parfit may appeal to an amplified version of the constitution principle: trivial differences in low-level phenomena cannot, in themselves, constitute or guarantee non-trivial, *ontologically based* differences in high-level phenomena. The amplified principle does not conflict with epistemicism, given epistemicism’s linguistic orientation.

Like the normative formulation, the ontological formulation provides a response to the objection from epistemicism: although epistemicism explains how there could be a sharp borderline in the combined spectrum, it fails to explain how there could be an

³¹ Parfit emphasizes this point in ‘The Unimportance of Identity’.

ontologically based borderline. Rather, epistemicism posits a borderline determined by the subtleties of linguistic practice. The conclusion is the same as before: epistemicism, if true, undermines only the simple formulation. Both revised formulations are consistent with epistemicism.

8. Conclusion

Parfit's combined-spectrum argument does not rely on the proportionality principle, which Sorensen rightly rejects. It does face an epistemicist challenge. Epistemicism, if true, would undermine the simple formulation of the argument, but it would not undermine the normative or the ontological formulation. The point of the argument is not that the spectrum counts against the determinacy of persons. The point is rather that it counts against any normatively relevant or ontologically based determinacy. Parfit's argument, suitably sharpened, survives the challenge.³²

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³² Torin Alter thanks the Research Advisory Committee of the University of Alabama for a grant in the summer of 2001 that helped fund this work. We presented this paper at the 2001 meeting of the Alabama Philosophical Society and the 2002 Mid-South conference in Memphis. We thank those audiences and our commentator in Memphis, Nathan Nobis. For helpful comments, we thank Jennifer McKittrick, William FitzPatrick, Chase Wrenn, Pal Benko, John Hawthorne, Mark Scala, and an anonymous referee for *Ratio*.