Introduction

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1 Preliminary Remarks

Paradigmatically, an Achilles argument moves from an observation about the unity
of thought or consciousness to the human mind or soul needing to be a simple, uni-
fied substance. Often enough, though not always, the argument moves on from there
to conclude that the mind or soul is immaterial and/or that it is immortal. We say
'paradigmatically' both because the argument comes in a variety of versions, some
of which deviate from this gloss, and because what the key terms in the inferences
mean often varies.

The papers in this volume all discuss variations on the Achilles, arising across the
history of philosophy and into contemporary Cognitive Science. Among the philoso-
phers discussed are Plato and Aristotle, the Neoplatonists Plotinus and Proclus, Cud-
worth, Descartes, Locke, Bayle, Clarke, Leibniz, Hume, Mendelssohn, Kant, Lotze
and James. The papers address these historical figures' relationship to the Achilles:
What conceptual elements did they contribute to its development? Did they offer a
variation on the argument, and if so what was it? If they rejected the argument, or
some core element of it, what were their grounds? As for contemporary Cognitive
Science, the final paper in the volume considers the relationship between the tradi-
tional Achilles within philosophy and the pressing question in Cognitive Science of
whether unities of consciousnesses – both of the sorts emphasized by philosophers
and the new forms discovered by today's cognitive psychologists – really require a
single 'unifier' to bring various mental elements into a global representation, and if
so how the human brain could manage this extraordinary feat.

The central focus of this Introduction is the variation found in the Achilles ar-
guments. Before we turn to that, however, a word is in order about the origins of
this volume. The papers published here result from a group effort in the Department
of Philosophy at the University of Western Ontario. The Achilles Project, as it was

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soon to be called, came into existence almost as if by chance. Early discussions among two or three of us in the Department and at the affiliated Huron College revealed an already existing interest in the history of arguments based on the unity of consciousness, with a fair amount of work already done by us on the topic. Others in the Department, with a couple of natural extensions beyond it, were canvassed about interest in the topic, and one after another of us fell into place for the coverage represented here. It was as if the project was an instance of the phenomenon whose history we were studying: we appeared to be a single consciousness working on different authors from different periods in a way that paralleled the diversity of representations which, according to the Achilles argument, are brought together in a simple mind.

That we came together in this way is perhaps less a product of chance than an indication of the depth and importance of the topic, as well as the wide net of issues to which it is connected. What remains surprising, however, is that so little work has been done before on the Achilles argument. Ben Lazare Mijuskovic's pioneering work[1] was the first in modern times to draw attention to the importance of the argument, but aside from the subsequent work he has done and the previous work of project members, there is little else in print.[2]

Given the nature of the topic, in any case, the present volume makes no claim to being the history of the Achilles in the sense of an exhaustive or complete account, which for more than practical reasons would be an impossibility. Instead, it purports to be a fuller account, with deeper analysis, of what we take to be some of the more important instances of the argument found from antiquity to the present. In this sense, the project is on-going – with possible extensions of the unity theme already identified for future investigation. Whether the Achilles Project takes up the history of relations, of representation, and other such topics, only time will tell.

Meanwhile, we would like to take this opportunity to thank an anonymous referee for many useful suggestions for improvement, Shannon Dea, Katharina Paxman, and Mark Stephenson for their editorial assistance, and the Social Sciences and Humanities Council of Canada for its financial help. Thanks also to the other contributors for their many helpful suggestions. Finally, we are especially grateful to Lorne Falkenstein for very valuable comments on earlier drafts of this Introduction.

2 Variations on the Achilles

This Introduction has three main sections. In the present section, we discuss the various sorts of Achilles arguments, both with respect to how much is allegedly proven, and with respect to how the key terms are to be interpreted. We turn after that to some of the most natural objections to the Achilles. Though we do note

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[1] *The Achilles of Rationalist Arguments*. The Hague: Martinus Nijhoff, 1974.

[2] A rare, recent exception is Todd Ryan, in 'Bayle's Defense of Mind-Body Dualism,' *Aufklärung* 16 (2004) pp. 191–211, esp. 201–209.

01 connections to the papers that follow, the principal aim of these sections of our
02 Introduction is to present the argument: what it says, whom it targets, and how it
03 has been resisted. In the third and final section we will briefly survey the papers
04 included in this book.

05 It will be important, both for understanding our Introduction and for reading the
06 papers in this volume, to keep firmly in mind the various lines of thought that may
07 be fairly termed an 'Achilles argument'. The gloss given on p. 1 needs to be further
08 spelled out, and in several ways. We will suggest, in particular, that there are at least
09 four Achilles-type arguments, which we label 'Narrowest', 'Narrow', 'Broad' and
10 'Broadest'.

11 Let's begin with the Narrow Achilles. It runs as follows:

12 **P1**: Unification of representations takes place.
13 **P2**: Only a simple, unified substance can unify representations.
14 Therefore,
15 **C1**: The human soul or mind is a simple unified substance.

16 There can be a host of reasons given for endorsing P1. A very obvious one is the
17 existence of compound representations, forged from representations deriving from
18 different modalities of the mind. We get the scent of an apple through one channel,
19 its color through another, its texture through yet another. These are then fused into
20 a unified representation of the sensed apple. Clearly, unification happens in such a
21 case. But if one reads 'unification' in P1 broadly, as one should, other points come to
22 light. It seems undeniable, for instance, that in acts of comparison or in thoughts of
23 relations, some kind of 'unification', in the very broad sense of 'bringing together',
24 is required. Whatever the grounds of support for P1, the premise is part of a Narrow
25 Achilles.

26 Turn now to what we label the 'Narrowest Achilles'. It is a version of the Narrow
27 Achilles which uses a particular sub-argument to support P2. (It is because of its
28 particular relevance in the history of the argument that we single it out for special
29 attention, and assign it a label.) We have in mind a trilemma, introduced in part by
30 the Neoplatonists and emphasized especially by Mendelssohn. The trilemma runs
31 as follows. Suppose, for *reductio*, that what gives rise to unification is not a simple
32 substance, but is instead divisible into parts. There are then three options: (a) one
33 part of the mind grasps all of the parts of the resulting representation, (b) each part
34 of the mind grasps all parts of the resulting representation, or (c) each part of the
35 mind grasps only a part of the resulting unified representation. Option (b) is either
36 rejected as multiplying global perceptions, or it is accepted, but is then claimed to
37 commit one to a single unit doing the global perceiving in any case – as each part
38 does precisely this. The same worry about conceding the conclusion attends (a).
39 Either way, P2 is not avoided. As for (c), there are two sub-cases, depending upon
40 whether the parts are taken to be conscious or not.[3]

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44 [3] It is rare for an author to consider both sub-cases of (c), that is, both the non-conscious case and
45 the conscious case. Exceptions include Mendelssohn and Cudworth.

If the parts are not conscious, it is argued that unified consciousness cannot emerge. This deserves some comment. Surely, one wants to say, there are ever so many cases in which a (mere) compound performs feats that no part of it can. Nor do we need to appeal to contemporary examples like computers (whose abilities patently go far beyond what any given silicon chip can manage). One need only think of musical instruments or wagons, objects familiar to all philosophers, from the Greeks onwards: the properties of these wholes are not shared by each part. Mendelssohn, for instances, stresses that a harmony can easily enough arise out of parts which are not themselves harmonies. Several philosophers address just this point: with his concept of superaddition, Locke points to this kind of emergence, and the issue is a centerpiece of the Collins/Clarke correspondence.

The objection is well taken. However, as we find in a number of papers in the volume, emergence in the case of unified representations from non-conscious parts poses a special problem. To give one example, Clarke and Mendelssohn both urge that whenever a composite seemingly exhibits qualities or powers not contained in its component parts, these qualities or powers really arise in the consciousness of other intelligent beings who contemplate the composite. Insofar as we consider these to be unities at all, they are surely mind-dependent. But mental unities, e.g., the conscious experience of sugar as at the same time white, granular and sweet, cannot be those kinds of unities. That would give rise to a circle. So, they contend, *mental* unities must be *sui generis* – and hence not the kind which emerge. (Similar considerations may be found in Bayle.) A variant on this argument, which appears to be original with Lotze, focuses on a difference between (a) the composition of physical qualities, paradigmatically instanced by the composition of motions, and (b) the kind of composition one encounters in knowledge of relations. (The latter, notice, is a case of a representational 'bringing together'.) Lotze argues that there are only two circumstances in which a quality ever emerges, such that it is something more than simply the aggregate of its causes: when the causes all act on a singularity, or when the effect is considered not as it is in itself, but as it appears to a conscious being. For reasons that would take us too far afield here, he adds that representational unification (e.g. in knowledge of relations) cannot emerge in either of these ways. Hence it cannot be a matter of emergence from non-conscious parts at all.

One might complain, rightly in our view, that the arguments just given move very rapidly indeed. However, explaining the precise details of the anti-emergence arguments would require a significant detour. It is enough for the moment to recognize this: whatever view *we* might have on the emergence of unificatory powers from non-conscious parts, those who support P2 on the grounds of its impossibility are arguably on solid ground, at least within their larger philosophical systems.

This brings us to the final option afforded by the trilemma, namely that each part is conscious and each grasps only a part. The trouble with this option is captured nicely by a quote from Kant. Kant considers, in the *Critique of Pure Reason*, the following claim:

> representations . . . distributed among different beings, never make up a whole thought . . .
> and it is therefore impossible that a thought should inhere in what is essentially composite.
> (A352)

Kant's illuminating comparison is with the words of a verse distributed among different persons: not being combined in one 'place,' the words do not manage to form a verse. One might equally think of a contemporary computer that has at least five registers. In the first is 'Mary', in the second 'had', in the third 'a', in the fourth 'little' and in the fifth 'lamb'. If the machine is to bind these together, even in the very weak sense of comparing them, there must be something, some special register or processor, which is able to 'read' what is in the various part-containing registers. It won't do, runs this line of thought, to have one processor that reads 'Mary', another that reads 'had', and so forth, and none that reads all of them – that would give us a 'pile' of representations, not a unity. Kant ultimately rejects this inference, labeling it a 'paralogism': it is, he maintains, a fallacy of deep philosophical significance. Though he himself rejects it, he here captures the very nub of the argument for the existence of a single unit that grasps the compound representation.

We have made brief mention of the emergence of consciousness. Doing so can easily give rise to a confusion. So let us stress that not just any argument with an anti-emergentist conclusion regarding consciousness counts as a Narrowest Achilles. To put things metaphorically, the Narrowest Achilles is characterized not by the destination, but by the path that takes one there: that is, the key characteristic of a Narrowest Achilles is how considerations about emergence get deployed, namely within the context of the trilemma. Still less does an argument become an Achilles in general simply in virtue of endorsing similar conclusions about immaterialism or immortality. Descartes, for example, arrives at such a conclusion, but not via an Achilles. Instead, an Achilles must move from some kind of reflection about representations being 'brought together' in some way, to a conclusion about the need of a unified thing which carries this out.

So far we have introduced two Achilles arguments, which we labeled 'Narrow' and 'Narrowest'. It may help the reader keep track of things if we explain the motivation for our terminology. We call the two premise version the 'Narrow Achilles' because it is the very core of the argument: whatever form a specific Achilles argument takes, the template of the Narrow Achilles is always present. We think of the variant which makes use of the Neoplatonic trilemma to support P2 as 'narrower' because, rather than building out from the conclusion of the Narrow Achilles, thereby broadening the scope of its results, it is restricted to a tightly defined means of supporting the Narrow Achilles. In contrast, we think of arguments which take C1 on p. 3 as their departure point as 'broader' than the core argument itself.

Plotinus provides the paradigm for a Broad Achilles. (See Henry's paper for discussion.) For the sake of simplicity, we may crudely paraphrase his version of the Achilles as:

P1: Unification of representations takes place.

P2: Only a simple, unified substance can unify representations.

Therefore,

C1: The human soul/mind is a simple, unified substance.

P3: If the human soul/mind is a simple, unified substance, then it is not material.

P4: If the human soul/mind is a simple, unified substance, then it is immortal.

Therefore,

C2: The human soul/mind is immaterial and immortal.

The grounds for P3 should be clear enough: material substance by its very nature is divisible into parts; so, given the Narrow Achilles, the mind or soul cannot be a material substance. P4, in turn, rests on the plausible idea that if something has no parts, it cannot be destroyed or go out of existence, at least not by any natural means. (Many authors leave open the possibility that an omnipotent God could annihilate even a simple substance.) Hence, barring supernatural intervention, the soul or mind, being simple, cannot be destroyed.

How *exactly* the Broad Achilles goes in the various historical authors, is the burden of many of the papers included here. What is important for present purposes is to recognize the distinction between a Narrow Achilles, which (paradigmatically) uses premises along the lines of P1 and P2 to establish the existence of a unit that performs the 'bringing together', and a Broad Achilles, which goes on from C1 to draw conclusions about the materiality and mortality of the human mind or soul. It will also be useful to keep in mind the contrast between the two kinds of Broad Achilles: inferring only immateriality (common even into the Early Modern period) and also inferring immortality (more typical of earlier variations on the Achilles).

Let us finally introduce the idea of a 'Broadest Achilles'. This is any argument that makes use of something along the lines of P1 and P2, moves to a C1-type conclusion about the unity of the unifier, and then draws some other broader conclusion, i.e., something not about immateriality nor about immortality. We may further contrast a Broadest Achilles which is *strictly philosophical* from one which is not. The former are those arguments which move to a properly philosophical conclusion of some kind, but not of the sort found in Plotinus. Consider some examples.

Hume, not surprisingly, seems to face a serious and pressing problem in light of the Achilles. It is his view, after all, that there is no unified self – whether material or immaterial, mortal or immortal. As he famously says, when he looks into himself, he finds only a series of perceptions. This seems to deny outright that there is a unit of *any* sort that does the unifying. Hence whatever arguments support C1 above are equally problematic for Hume.

Kant faces a related problem. Given his larger philosophical program, Kant must insist that we cannot *know* the nature of the 'I.' More than that, we cannot even know whether it truly exists 'in itself.' Thus he cannot accept an argument that seems to establish, as a metaphysical certainty, that the thinker – where this means 'the thing in itself' – must be a simple substance. Things look especially dire for Kant because his own doctrine of the transcendental unity of apperception suggests that he ought to accept the Narrow Achilles. Indeed, the Narrow Achilles seems to be very much in line with his larger views about human psychology. (See Sassen's paper for an extended discussion of this point.)

The problems posed for Hume and Kant illustrate nicely what we intend by 'strictly philosophical versions of a Broadest Achilles'. In particular, they underline the fact that philosophers who might have little sympathy or concern for the Achilles as an argument for, say, immortality, may yet find themselves forced to examine and respond to its key elements. This is a pattern seen repeatedly in the early modern period and afterward.

An example of a not-strictly-philosophical Broadest Achilles would be Jerry Fodor's arguments, at the end of *Modularity of Mind*, for a non-modular Central System within human cognitive architecture – without which, he contends, global and holistic integration of information of various modalities would not be possible. Fodor is making an (admittedly abstract) empirical proposal here; but, despite the empirical nature of his conclusion, his point of departure is deeply reminiscent of the Narrow Achilles. (See the final paper in this volume for further examples.)

In sum, we have four kinds of arguments, each of which may with good reason be termed 'an Achilles':

i) *A Narrow Achilles*: P1 (some sort of unification of representations) + P2 (simple unified substance required to unify) $\rightarrow$ C1 (the soul or mind is a simple unified substance)

ii) *A Narrowest Achilles*: A version of the Narrow Achilles such that an appeal to the neo-Platonic trilemma is deployed to support P2

iii) *A Broad Achilles*: A Narrow (including a Narrowest) Achilles + P3 and/or P4 $\rightarrow$ C2 (immateriality and/or immortality of the soul or mind)

iv) *A Broadest Achilles*: A Narrow Achilles used to reach some conclusion, strictly philosophical or otherwise, not pertaining to the immateriality or immortality of the soul or mind.

(Recalling the grounds of our terminology: Arguments which take off from the conclusion of the Narrow Achilles we think of as 'broader' – they grant the core argument, and move forward. Arguments which instead provide support for one of the core argument's premises, we conceive of as 'Narrower'. The specific variant that deploys the Neoplatonist trilemma we call 'Narrowest'.)

One more refinement in terms of variations on the Achilles. We have introduced four Achilles templates. We call them 'templates' not because they contain explicit schematic variables to be filled in by constants, but rather because one can use these arguments to arrive at rather different lines of thought *by interpreting their key terms in various more specific ways*. Recalling P1, we would highlight in particular ten kinds of things which may be 'brought together':

a) Unification of intellective representations

b) Unification of various sensory perceptions, including sensory inputs from distinct modalities

c) Unification of intellective representations with sensory ones

d) Unification of aspects of one object into a representation of the entire object

e) Unification of representations of various objects into a comparative representation of them

f) Unification of representations across time

g) Unification of each of the above, into a global representation of 'the world' (or at least of the present scene)

h) Unification of thought-parts to form a complete judgment (i.e., joining concepts into thoughts)

i) Unification of the elements of some cognitive *act* (as opposed to the elements in the object of that act)

j) Unification of the premises in an argument so as to draw an inference

Clearly, one could run an instance of the Narrow Achilles – and hence instances of the Broad and Broadest Achilles – using any of (a)–(j). Each of these 'things brought together' could be held to require a single cohesive unifier – though to be sure the cogency of the resulting argument might differ. (Nor are these the only kinds of items unified, in the broadest possible sense: as the papers that follow make clear, appeals to 'ontic unities,' as opposed to 'representational unities,' may be found in Condillac, James, Malebranche, and Spinoza. We revisit the issue of ontic unity at the end of Section 3.)

Equally, one might have in mind any of the following three senses of 'bringing together'. That is, rather than various relata as above, there are various relationships (or something like that), each meriting the label 'unity', that an author might have in mind:

k) Representations brought together into a cohesive whole

l) Self awareness

m) Being aware of various representations even without synthesizing them into a coherent whole

Thus when Plotinus speaks of unities created by the soul, he seems (following Plato) to have in mind something like the production of a compound, cohesive representation, whether formed on the basis of the various senses, on the basis of the intellect, or both. This is (k). In contrast, as Henry explains in his contribution, Proclus appealed to a very different kind of unity to defend the soul's simplicity: the unity of an entity that is able to be aware of itself (see also Clarke on 'the reflex act'). Finally, turning to (m), in a very novel twist Lotze points out the need for a unified self that is *appeared to*, even if we appear to ourselves as non-unified! Arguably even this most minimal sense of 'bringing together' supports C1.

3 Objections to the Achilles

No introduction to the Achilles argument would be complete without some discussion of the most natural objections raised to it: the grounds on which any argument is commonly rejected elucidate the argument itself; moreover, having a sense of the salient objections to the Achilles clarifies how the authors discussed here fit into the larger picture. To give just one example, though Spinoza seems not to have addressed the Achilles directly, some of his ideas about ontic unity seem to buttress an objection to the Achilles. Grasping Spinoza's relation to the Achilles thus

requires familiarity with the kind of objection to which his metaphysics might make a contribution. (See Dea's contribution for discussion.) On the other hand, such a discussion of objections cannot help but be limited in scope – not least because, at least sometimes, which objections arise depends on which specific Achilles is on offer: e.g., a response to a Broad Achilles in favor of immortality might offer reasons for rejecting P4, whereas these might not affect either the Narrow Achilles or other 'broader' Achilles arguments. In light of this, our aim here is certainly not to canvass every objection that has been, or could reasonably be raised. Instead, we have singled out a few that strike us as of special importance. Different historical figures have offered their own variations on some of the objections considered here; we don't rehearse those either, leaving that to the individual papers that follow.

The first objection we consider concerns P2, namely that only a simple unified substance can unify representations. Consider this modal claim. It may be read with wide-scope 'necessary', as in P2', or with narrow-scope 'necessary', as in P2":

P2': It is necessary that the thing which performs unification be a unified simple substance.
P2": The thing which performs unification is necessarily a unified simple substance.

Now, P2' is arguably supported by considerations about how unification actually takes place: it *does* seem necessary, at least at first glance, that there be a single 'place' at which the various sub-representations come together. In contrast, P2" does not seem to be similarly supported, not even *prima facie*: Why should the actual unifier be *necessarily* simple and unified in this way? That is, it may be that the mind needs to contain something which is in fact a unity; but there's little reason to believe that it contains something which is necessarily (and hence permanently) a unity. A contingently simple item would seem adequate. Given this, continues the objection, consider which of P2' and P2" can support, say, immortality. Maybe P2" can, but P2' pretty clearly cannot: something which merely *is* unified might well cease to be such, and hence might cease to be.

The objection can be made more precise by putting it specifically in terms of the Aristotelian contrast between undivided and indivisible – a distinction which is worth flagging here in any case, given its recurring role in historical Achilles arguments. Suppose we understand 'simple unity', as several of the figures discussed in this volume clearly do, as meaning 'lacking divisions (or parts)'. Now, the ability to unify representations seems, at least *prima facie*, to require a unifier which *in fact* is not divided into parts – for otherwise, as per the Neoplatonic trilemma, the whole could not do its job. But, even granting this, does this same integrative ability demand something which is in principle indivisible? It seems not. And, continues the objection, there is no reason to think that something which is merely contingently undivided should be indestructible: only the indivisible may reasonably be held to be immortal.

A powerful reply to this objection, raised for example by Clarke, runs as follows. First, the respondent will insist that 'unified simple substance' be understood in the just-introduced terms, as requiring something *without parts*. Not just any unity will do. Second, continues the reply, when it comes to unifying representations and the like, there can be no great difference between parts which are, say,

a millimeter apart (hence divided) and parts which have been attached by glue or some other sticky substance (hence undivided, though divisible). If there is a mystery about how the former parts could yield unity of consciousness, or comparison of representations, it is surely equally a mystery how those parts *plus some kind of material fastener* could do so. Thus the allegedly important contrast between undivided/indivisible turns out to be a red herring in the present context. (What's more, whereas there are some senses of 'unified simple substance' on which the contrast in P2' and P2" makes reasonable sense, it is hard to see how something could be only contingently and temporarily without parts. If an entity satisfies the demand for lacking parts, then surely it is *ipso facto* necessarily without parts as well. So, here again, the distinction in 'readings' turns out, in this context, to be without force.)

The previous objection built on an Aristotelian contrast. The next objection is directed at Aristotelians who also wish to endorse the Achilles, or even just its core conclusion, that the human soul is a simple unified substance. (This argument may be found in Locke and is at the core of Hume's attempt to respond to the Achilles in the *Treatise*.) Suppose, with Aristotle and the Scholastics, that sensory perception is a matter of the soul 'taking on' sensible forms. Now, we humans can perceive conflicting qualities at the same time: e.g., red and white on distinct balls. If the soul really is just one unit, however, without any parts, then these *conflicting* qualities would inhere in one and the same single thing during perception. And that is impossible. We have here something like a 'reverse Achilles.' One begins with a simple observation about human cognition, namely the perception of diverse and conflicting qualities at the same time. One then infers something about the thing which performs the cognitive act – this time, that it *cannot* be an undivided simple. Put in a nutshell, the reverse Achilles might be phrased as follows: If there is a problem about how a non-unity can grasp a compound representation, there must equally be a problem about how a unity can grasp a disparate series of representations that do not form a compound. (See the contributions by Hill and Schachter for discussion.)

A usual response to this sort of objection, found in Aquinas for example, is to compare the simple soul to the center of a circle: it is the meeting point of seemingly conflicting lines. This, goes the response, is how unification takes place, consistent with the Aristotelian hylomorphic theory of perception. (See Thorp's paper for discussion.) It's natural to worry, however, that this doesn't really help. If we take the analogy seriously, it doesn't seem to be a good model of what occurs. Worse, it isn't really a hylomorphic model anyway: it breaks down the allegedly illuminating parallel between perception on the one hand and what the Aristotelian postulates in material versions of form-inherence on the other. Surely the latter isn't at all comparable to lines meeting at a point. On the other hand, if we don't take the analogy perfectly seriously, then we are merely camouflaging the mystery by appeal to an image that ultimately does little work. (The same may be said, by the way, of appeals to intentionality to deal with conflicting properties being grasped by a single substance. They either do away with the parallel with material inherence or they merely re-label the problem.)

So far we have seen two relatively obvious objections to the Achilles. The third objection comes from Kant, who gave the Achilles its name. Kant insists that it is a dialectical inference, a paralogism. Put in terms of our reconstruction, he appears to urge, first, that P2 (or something along those lines) is not analytic.[4] That only a simple unified substance can unify representations is not knowable from concepts. Nor, Kant suggests, can this claim of necessity come from experience. Thus the argument, despite its initial attractiveness, must fail, since it cannot be defended on either of the only two possible grounds which Kant admits. Kant tries to resist the argument's force by suggesting that 'I think,' which he takes to be the hall-mark of representational integration, is merely a 'logical proposition' and hence one that carries no metaphysical implications with respect to the alleged subject of thinking. Whether his objection to the argument holds up depends, we think, upon the coherence and plausibility of this gambit. (See Harper's paper for discussion. Speaking of Kant, it is interesting to speculate why he choose the name 'Achilles' for this argument. One thought is that the argument appears to have real strength, but upon close examination it turns out to have a fatal flaw, just as the mythic Achilles himself did. Another is that Kant took the name from Bayle, who characterized an Achilles argument as the champion argument characteristic of a sect. On this view, an Achilles argument was so-called in the Schools, not in reference to the invincibil-ity of Achilles, but because of the insolubility of Zeno's puzzle about motion. Then again, it may be neither of these.)

The final objection we will discuss here rejects a core presupposition of the Nar-row Achilles. P1 says that unification takes place. But maybe that is an illusion. How so? Because, goes this final objection, unity exists 'out there.' It is the default state of affairs, if you will. Thus there is no need for unification to occur, so as to create unity. In which case, the Narrow Achilles is blocked because there is now no need for a unifier – simple or otherwise.

There are two variants on the objection. The first appeals to the common sense idea that there are multiple objects in our world, and that each of them comes already bundled with its properties. On this variant, there are many ontic unities. For exam-ple, consider an apple, whose properties of redness, crispness, crunchiness, etc., are already bound together 'out there'; in addition, consider a skunk, whose properties of blackness, furriness and stink are bound together too. Given that the apple and its various properties are already united, goes the objection, there is no need for unification. The second variant is monistic. On this view, there is only one object to be perceived, maybe the Cartesian's *res extensa* or Spinoza's single pantheistic substance.

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[4] As is often the case with Kant, it is hard to know for sure how he himself intends the argument. One interpretive doubt is especially worth flagging. Despite our brief discussion on pp. 5–6, it is not entirely clear to us whether Kant takes the *Narrow* Achilles to be the paralogism (so that he is objecting to inferring the very *existence* of a unified unifier), or whether he is more concerned to resist the immortality of a simple substance, such that the paralogism would instead be a *Broad* Achilles.

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12   T.M. Lennon, R.J. Stainton

The historical interest of this objection lies in two places. First, something along these lines seems to be found in Spinoza, and in certain writings by William James. (See Brown and Dea for related discussion.) Second, a commitment to ontic unity might explain the otherwise very curious fact that no Achilles is to be found among the Cartesians: not in Descartes himself, nor in Malebranche, LaForge or Régis. This omission is especially glaring given that the Cartesians are in so many other respects Platonists or Neoplatonists, who moreover share the conclusions of the Broad Achilles.

4 Survey of Contributions

Chapter 1 Moses Mendelssohn's *Phaedon* revamped an argument for the simplicity and immortality of the soul that debuted in Plotinus's *Enneads* IV, 7.6, and drew fire from Kant in the Second Paralogism in the *First Critique*. But did the argument really originate with Plato in the *Phaedo*, rather than with Plotinus, as Ben Mijuskovic has argued?

In this paper Nielsen reexamines the relevant passages in the *Phaedo* (in particular the so-called affinity-argument for the immortality of the soul) and argues that Mijuskovic and the analyses he considers overlook a passage with a more obvious connection to Plotinus's simplicity argument, the so-called Wooden-Horse passage in *Theaetetus* 184–187. Although the Wooden-Horse passage presents what Myles Burnyeat has dubbed 'the first unambiguous statement in the history of philosophy of the difficult but undoubtedly important idea of the unity of consciousness,' there does not seem to be sufficient evidence to conclude that Plato connected the unity of consciousness to the simplicity or indivisibility of the soul, although he insists on the unity – oneness – of the perceiving subject. Thus, it is debatable whether Plato should be honored (or reviled) as the progenitor of the Achilles argument. Although Plato clearly bases his affinity argument for the immortality of the soul on considerations of the soul's simplicity, he does not base his endorsement of the soul's simplicity on considerations about the unity of consciousness. Unlike Plotinus and Mendelssohn, Plato (in the *Republic*, at least) seems untroubled by the idea that a partite soul could be the subject of a unified consciousness. This may be due (a) to a failure to spot a putative philosophical problem or (b) to an unarticulated conviction that the reasons underlying the Achilles argument are weak, or (c) to an understanding of partition that differs from the one presupposed by Plotinus and Mendelssohn.

Chapter 2 Aristotle does not accept the Achilles argument; indeed he might almost be said to repudiate it, for he accepts its premise and denies its conclusion: he agrees that consciousness is unified, but he denies that it follows that the knower is simple, incomposite, partless. Indeed, very explicitly and puzzlingly, he proposes that we must understand the knower as both one and many, single in one sense and multiple in another, a unit but not an atom, undivided but divisible.

The language he uses to present this theory is somewhat mysterious: he speaks of the knower as one in number and place, but multiple in 'being' or in 'account'

(*logos*). He offers the analogy of the mathematical point – a point in a line, say – which is one in number and place, but can be taken either as the last point in a segment or the first in another segment.

This paper presents Aristotle's ruminations on this matter as they are developed in three different (and very difficult) texts: *de Anima* III, 2 & 7, and *de Sensu* 7. It tries to develop a sympathetic understanding of what it is that Aristotle has in mind, and to lay bare the underlying hypotheses of his work in psychology that give rise to this theory. In the end it finds Aristotle's idea to be much less mysterious than at first it seemed. However that may be, it is clear that Aristotle's subtle views about the unity-and-plurality of the knowing subject disqualify him for membership in the Achilles club.

Chapter 3 Although the Achilles argument has its roots in Plato and Aristotle, it is (almost) fully articulated for the first time in Neoplatonism. The Neoplatonic Achilles consists of two main parts: the basic argument for immortality, plus a series of further arguments designed to show that the soul is both incorporeal and separable from body (its main premise). While all Neoplatonists seem to agree on the basic immortality argument, they employed different arguments for securing this premise, giving rise to two main versions of the Achilles: a Plotinean version and a Proclean version. The major difference concerns the incorporeality of the soul. Plotinus moves from the unity of consciousness, to the incorporeality of the soul, to its immortality, whereas Proclus moves from the capacity of the soul to reflect on itself, to its incorporeality, to its immortality. Both versions are deployed by other Neoplatonists. For example, Porphyry, Simplicius, and Philoponus all use the argument from self-consciousness to establish the *separability* of the soul, while Philoponus also makes use of Plotinus' unity argument to establish its *incorporeality*.

Chapter 4 Lagerlund traces the Achilles argument, or the argument for the unity (simplicity) and immortality of the human soul, in the works of a few medieval thinkers starting with Augustine and ending with John Buridan in the fourteenth century. It becomes apparent that the argument is foremost used by thinkers that emphasize an Augustinian or Neoplatonic conception of the soul, such as Avicenna, Peter John Olivi, Henry of Ghent, John Duns Scotus and William Ockham. He contrasts these thinkers with so-called Aristotelian thinkers such as Thomas Aquinas and John Buridan, who primarily use other Aristotelian arguments for the soul's immortality. He further contends that the arguments for the unity or simplicity of the soul are often associated with observations of contrary appetites and inner conflicts in the soul, hence creating a paradox. Finding solutions to this paradox, he suggests, becomes a central task in later medieval philosophy and informs discussion of the nature of the human soul.

Chapter 5 Despite the pervasiveness of the Achilles inference in the history of philosophy, there are a number of major figures who never make recourse to it. Among these are Hume and Spinoza, who nonetheless figure large in the history of the argument – Hume due to his lengthy criticism of it in *Treatise* 1.4.5, and Spinoza because Hume invokes him throughout much of that criticism. Hume argues that the Achilles argument is so similar to Spinoza's arguments for the simple unity of substance that proponents of the former inevitably open the door to Spinozism. This

essay considers the analogy that Hume draws between the Achilles inference and Spinozism. While ultimately no analogy holds between the Achilles and Spinozism, Dea argues that there is in fact a strong analogy between Spinoza's and Hume's reasons for eschewing the Achilles. However, they also encounter analogous difficulties as a consequence of their respective positions. She concludes by sketching these.

Chapter 6 Locke rejects the Achilles inference explicitly on four grounds, (1) the existence of an unextended substance is humanly inconceivable, (2) an unextended and immaterial substance is as incompatible with the data of consciousness as is extended substance, (3) withal, material substance could be made to think through God's unknowable powers, and (4) whether we are immaterial substances that persist after death is irrelevant in any case to the really important question that prompts that discussion, namely that of personal immortality. Yet, despite his complete rejection of the argument for demonstrating the immateriality of the human soul, he applies the argument, possibly derived from John Smith (1618–1652), a Cambridge Platonist, to demonstrating the necessary immateriality of the divine mind. In this paper, Schachter explores Locke's rejection of the proof for one purpose and his application of it to the other, as well as two serious obstacles he does not address.

Chapter 7 Hill challenges Schachter's claim that, for Locke, modest agnosticism is the only rational position we can take regarding the nature of the soul. On Hill's view, the internal logic of Locke's criticism of the Achilles ought to have obliged him to accept some version of non-reductive, emergentist materialism. Although Locke did not, strictly speaking, formulate a version of the Reverse Achilles, he did provide arguments pointing directly toward it. This was especially the case in his *Examination of Malebranche*. There he thoroughly criticized the possibility of God's absolutely simple intellect containing the diversity of idea types, as Malebranche's thesis of seeing all things in God seemed to him to require. Locke also presented a limited version of the Reverse Achilles, an argument that sense perception is impossible if it terminates in a single point and so requires terminating in something extended. Thus, despite remaining officially committed to dualism, Hill argues that Locke is with good reason credited with laying the conceptual foundation for eighteenth-century materialism, especially French versions, and the *philosophes*' use of the Reverse Achilles.

Chapter 8 Ralph Cudworth and Pierre Bayle seem to differ rather dramatically in philosophical style and outlook. But the Achilles argument is deployed by both, and in ways that invite their treatment together. A look at Cudworth in Lennon's paper leads to Bayle's use of two very different arguments, one a latter-day version of Plotinus's argument that the perception of a complex object requires simplicity on the side of the perceiver. The other argument is a Proclean argument on the basis of introspection, the appreciation of which requires a look at Bayle's view of the debate between Malebranche and Arnauld over the nature of ideas. Although neither Cudworth nor Bayle comes to terms with it, the issue in both arguments is intentionality – how it is that the mind can be directed toward an object: something else in the one case, and itself, perhaps one's self as such, in the other.

Chapter 9 A discussion of the Achilles Argument prominent in the 18th century was a correspondence (1706–1708) between Samuel Clarke and Anthony Collins.

Reading the correspondence prompted Leibniz to engage in extended exchange with Clarke. The correspondence is noteworthy for its in-depth discussion of the question whether one can show that the soul is immaterial. Clarke offered the Achilles Argument, Collins rejected it. The discussion of the Achilles argument itself is short, but the correspondence is revealing about the metaphysical presuppositions of the argument. Collins rejected the argument mainly on the ground that it failed to address the possibility that thinking emerges from material qualities. But they both rejected the idea of a conscious material subject being a collection of conscious particles. In this paper, Rozemond focuses on that aspect of their discussion.

It is tempting to focus on the nature of thought in analyzing this argument, but views about the nature of matter are crucial to usage of the Achilles Argument throughout its long history. The argument purported to show that the subject of thought cannot be material because matter is infinitely divisible, and a thinking subject must be simple. Rozemond examines the various possibilities Clarke and Collins discuss for a suitably unitary material subject of thought.

Chapter 10 Given the argument's prevalence, as well as textual evidence that Leibniz was well familiar with it, it is a puzzling fact that he does not anywhere explicitly make use of it. In this paper, Schachter addresses the question of the role of the Achilles in Leibniz's thought. As a preliminary, he examines the argument type and sets its defining conditions. He considers one of Leibniz' very early arguments as a potential Achilles, and ultimately rejects it as genuinely such. He then focuses on Section 2 of the *Monadology*, in which Leibniz makes the cryptic claim that there must be 'simples,' since there are 'composites.' This is a foundational Leibnizian thesis that can be discovered in his earliest writings, but one which he never seems to defend directly. The reason, argues Schacther, is that in his mind, *everything* he writes is a defense of this fundamental position. In effect, it is argued that the reason the Achilles argument does not explicitly surface *within* Leibniz's philosophy is that his philosophy is as a whole nothing other than an extension and elaboration of this most fundamental thesis.

In briefest terms, this thesis follows, for Leibniz, from the even more basic presumption that strictly speaking only simple substances can be said to exist. From which it follows that if *anything* at all exists, this entails the existence of the only things that *can* exist, namely simple substances. He calls these simples 'Monads,' and Schachter argues (a) that the 'composites' he speaks of are our unified experiences, and (b) that he seeks to demonstrate the existence of his Monadic substances directly from the existence of our unified experiential manifolds. But this is, on the one hand, the burden of his whole philosophy and, on the other, an argument of the Achilles type.

Chapter 11 Hume discusses a 'remarkable' argument for the immateriality of the soul – the soul must be immaterial because whatever is material is always divisible into further parts. But were multiple pieces of information distributed to separate individuals for processing, there would be no one individual who knows all the pieces of information and so no possibility of generating the awareness of wholes that phenomenal consciousness reveals us to have. Hume put an odd spin on this argument by treating it as resting on the assertion that perceptions cannot be 'locally conjoined' with matter because they do not occupy space. He then refuted the

argument by claiming that, while some perceptions do not occupy space, others do.
The same reasons that lead immaterialists to assert that an unextended perception
could not be locally conjoined with an extended mind put materialists in a position
to charge that an extended perception could not be locally conjoined with an un-
extended mind. Either way there is a problem, given that there are perceptions of
both sorts, and the only solution is to dismiss the entire question of the substance
of the soul as unintelligible. But Hume's predecessors did not argue for the imma-
teriality of the soul by claiming that thoughts are unextended or that thoughts must
occupy the same point in space that minds do. They instead argued that thoughts
contain a variety of different items of information and that the subject (or the part of
the subject) that apprehends one piece of this information must be identical to the
subject (or part) that apprehends the other. So, argues Falkenstein, Hume appears to
have missed the point. The point is that a compound or complex impression must
be apprehended by a simple subject, not that an unextended perception can only be
'locally conjoined' with an aspatial subject. And Hume appears to have offered a
merely rhetorical answer to the real problem.

Rather than explain how there can be any such thing as a compound or complex
impression if there is no material or immaterial subject who apprehends all of its
component parts, Hume flippantly declared that the problem is as much of a problem
if one takes the subject to be immaterial as if one takes the subject to be material.
Falkenstein thinks Hume was right about this, if one is looking for perceptions to
be 'locally conjoined' with a subject. But he is not right if one understands the
relation between subjects and impressions differently. All of that notwithstanding,
Falkenstein argues that there is more to Hume's argument in Treatise 1.4.5 than
the brief critical survey just presented would suggest. He urges that the text goes
some way to dismiss any account of the nature of the relation between perceptions
and minds other than the 'local conjunction' account. And he argues that Hume's
rejection of the notion of a substantial soul did not impede his ability to account for
compound and complex perceptions.

Chapter 12 This is a paper on Kant and Mendelssohn, in particular, on the treat-
ment each offered of the implications of the Cartesian 'I think'. Mendelssohn's dis-
cussion appeared in his 1767 *Phaedon*, Kant's in the two editions of the *Critique of
Pure Reason* (1781, 1787). The relationship between these texts and their arguments
is quite complex. On the one hand, Kant was critical of Mendelssohn, as is evident
from the 'Refutation of Mendelssohn's Proof for the Permanence of the Soul' that
was appended to the second edition Paralogism (B413–18). Although Mendelssohn
was not named in the first edition, Kant was there similarly critical of the sort of
argument that appeared in the Second Dialogue of the *Phaedon*, which he identified
as 'the Achilles of all dialectical inferences of the pure doctrine of the soul' (A351).
Yet, in the B-edition Transcendental Deduction of the Categories, Kant defended at
least a portion of the argument we find in the Second Dialogue of the *Phaedon*.

Given the complex interrelationship just sketched, Sassen proceeds as follows.
Beginning with the arguments for the incorruptibility of the soul, she treats
Mendelssohn's argument in the First Dialogue of the *Phaedon* and Kant's Refutation
of it in the second edition of the *Critique*. Here it quickly becomes evident that Kant

misinterpreted Mendelssohn's argument since the latter offered an answer to Kant's
later objection which Kant seems to have failed to notice or appreciate. Granted, the
incorruptibility of the soul is not identical with its simplicity and immortality, but
it has often been taken as such (though not by Mendelssohn) and his reason for not
equating those concepts is itself interesting. Secondly, she turns to Mendelssohn's
refutation of materialism in the Second Dialogue of the *Phaedon*, in order to show
how a portion of the argument is echoed in the Transcendental Deduction of the
Categories, but also quite severely criticized in the A-edition Paralogism. To indi-
cate how the debate continues into the 19th century, she ends with Johann Gottlieb
Fichte's critique of Kant.

Chapter 13 In the first edition of his *Critique of Pure Reason* Kant character-
izes the Achilles inference as the second paralogism of transcendental psychology.
According to him, this famous inference to the simplicity of the soul from the re-
quirement that representations must be combined in a single consciousness to make
up a whole thought is unsound even though it is deceptively attractive. His grounds
for regarding it as unsound are informed by his closely related treatment of a parallel
argument to the substantiality of the soul as the first paralogism of transcendental
psychology. Kant's treatment of these arguments as unsound is closely tied to his
empirical realism and corresponding rejection of the Cartesian ideal of empirical
knowledge as incorrigible access to merely subjective contents of consciousness.
In the second edition Kant completely rewrote his treatment of such arguments, but
remained committed to counting them as unsound and to his closely related rejection
of the Cartesian inspired new way of ideas.

Chapter 14 In his response to the Achilles argument William James agrees that
some sort of medium or vehicle is required in order to account for the unity of ex-
perience and that 'soul' may be used as the name of that medium. The inference by
the Achilles argument to an immaterial, simple soul, however, is rejected by James
for going well beyond what is warranted by experience in a number of respects.
In the end, then, for James, while the unity of experience justifies an inference to
some sort of ground responsible for such unity, the concept of soul can be used to
represent such a ground only as a placeholder, the metaphysical characteristics of
which remain as yet unknown.

Chapter 15 The problem posed by the Achilles is reflected in contemporary
science, where it is known as 'the binding problem.' This chapter reviews empirical
investigation into the binding problem in psychology and in neuroscience and dis-
cusses the similarities and differences between contemporary views of the binding
problem and the Achilles. In some respects, the binding problem is fundamentally
different from the historical approach to the unity of consciousness; the 'self' being
unified is assumed to be material and the answer to the question of how unity arises
is sought in terms of psychological or neural structures and mechanisms. Further,
while the Achilles is generally outlined in terms of complete thoughts (such as
Kant's example of the words of a line of verse), research on the binding problem
focuses mainly on the unity of visual experience and assumes (either explicitly or
implicitly) that other types of binding will be performed using mechanisms similar
to those that unify visual experience. In other respects, however, approaches to the

binding problem clearly reflect the responses that have been given to the Achilles. In the case of neuroscience, for example, there are two main candidate theories proposed to explain the unity of visual experience. The hierarchical model holds that the various streams of processing all converge on a 'cardinal cell' that represents the entire visual experience. The alternative denies that such convergence occurs and argues that unity is achieved through temporal co-activation of a group of cells, each of which represents part of the visual experience. The debate over which of these alternatives is more plausible echoes the problems raised in the philosophical literature on the Achilles.