

BOOK REVIEWS

Aristotle's Theory of Substance: the Categories and Metaphysics Zeta. BY MICHAEL V. WEDIN.
(Oxford UP, 2000. Pp. xiii + 482. Price £37.50.)

According to one common interpretation, Aristotle's *Categories* and *Metaphysics* present incompatible accounts of the nature of substance. In *Categories* Aristotle claims that primary substances are the ultimate subjects of predication (examples of these are individual men and individual animals); in *Metaphysics* he abandons this earlier claim and says instead that the primary substances are substantial forms.

Wedin offers an alternative to this common interpretation. He argues that the two accounts of primary substance in *Categories* and *Metaphysics* are in fact compatible. For Wedin, though both *Categories* and *Metaphysics* pose the question 'What is primary substance?', this question does not mean the same thing in each of the two works. Thus though it is true that Aristotle identifies one kind of item as primary substance in *Categories* and a different kind of item as primary substance in *Metaphysics*, he is not offering two incompatible answers to one and the same question. In *Categories* he is asking what things are ontologically primary. His answer is that the most basic entities in the world are the subjects of which other things are predicated. They are things like this individual horse or this individual man. Wedin argues that Aristotle never abandons the view that individual things of this sort (what Wedin calls 'c-substances') are ontologically primary. In *Metaphysics* Aristotle introduces a new, alternative, kind of primacy, 'explanatory primacy'. He asks what things are *explanatorily* primary, and what features a thing must have if it is to be explanatorily primary. What it is for something to be explanatorily primary is for it to explain the central features of the things that are ontologically primary. When in *Metaphysics* Aristotle claims that substantial forms are primary substances, he is claiming that forms are the things that explain the central features of c-substances (i.e., of the things that are ontologically primary). Thus, far from being incompatible with *Categories*, Wedin argues, Aristotle's discussion in *Metaphysics* presupposes his earlier view that c-substances are ontologically primary. It is because items like this man or this horse are ontologically primary (i.e., primary in the *Categories* sense) that the forms of these items are explanatorily primary (i.e., primary in the *Metaphysics* sense).

The first three chapters of the book are devoted to *Categories*. Wedin argues that *Categories* contains a theory about what items we are committed to by our talk about the world: a theory of 'underlying ontological configurations for standard categorical statements' (p. 3). He claims that 'the world of the *Categories* is fundamentally a world

of individuals' (p. 3). For instance, the truth of 'Socrates is pale' depends upon the relation between one individual (Socrates) and another (the particular bit of pallor that is present in Socrates). The most basic individuals are those, like Socrates, that are not present in anything else. These are the *Categories*' primary substances.

In ch. 4 Wedin criticizes some arguments that have been put forward by other interpreters who think that *Categories* and *Metaphysics* ζ are incompatible. Then in the remainder of the book he presents his own positive interpretation of *Metaphysics* ζ . On this interpretation, Aristotle starts out *Metaphysics* ζ by recalling the claims he made about c-substances in *Categories*. He then goes on in ζ 3ff. to ask what something must be like if it is to explain the features of a c-substance: what is the substance of a c-substance? In ζ 4 Aristotle introduces the view that the things that are explanatorily primary are substantial forms. Then in the remainder of ζ he asks what forms must be like if they are to be explanatorily primary. Wedin claims, for instance, that if substantial forms are to have the explanatory role Aristotle assigns to them, then these forms cannot be universals that are predicated of c-substances. (According to Wedin, it is *this* claim that Aristotle makes in ζ 13 and not the stronger claim that substantial forms cannot be universals at all.) Wedin argues that two other constraints on forms are introduced in ζ 10–11: they must be 'pure' of matter, and they must (in some sense) be complex. Aristotle ends *Metaphysics* ζ by explaining the causal role of substantial forms. It is the substantial form that ensures that the material parts of a c-substance constitute one unified whole. Wedin argues that substantial forms can have this role only because they have the characteristics that Aristotle has ascribed to them in the earlier chapters of ζ .

This book is an important contribution to the scholarly literature on *Categories* and *Metaphysics*. Wedin puts forward an original thesis and defends it with a wealth of detailed textual argument. The book is of interest not only because of its general proposal about the consistency of Aristotle's account but also because of its careful analysis of particular stretches of Aristotelian text.

However, I was not convinced by the central claim, that substantial forms in *Metaphysics* ζ are explanatorily but not ontologically primary. To assess this claim properly it would be necessary to engage with the details of Wedin's interpretation in a way that is not possible in a review of this length. Here I shall merely put forward some grounds for doubt.

If Wedin's interpretation is right, then Aristotle must distinguish in *Metaphysics* ζ between ontological and explanatory primacy. According to Wedin, this distinction is of fundamental importance to Aristotle. It is striking, then, that Aristotle never makes the distinction explicit. Though he does distinguish between different kinds of priority at the start of *Metaphysics* ζ – between priority in time, in knowledge and in definition – none of these kinds of priority corresponds to Wedin's 'explanatory priority' (p. 166). This is, in fact, just as well, since Aristotle says here that substance is primary 'in every way' (1028a 31–3). According to Wedin, Aristotle is here only talking about the kinds of primacy that are enjoyed by c-substances. This is, of course, possible. But it is an odd way for Aristotle to start the book, if his main aim is to show that the items that are ontologically primary are different from the items that are explanatorily primary.

On Wedin's view, the notion of explanatory primacy is introduced in $\zeta 3$. Wedin argues convincingly that from $\zeta 3$ onwards Aristotle is investigating the question 'What is the substance of perceptible substance?'. When Aristotle asks 'What is substance?', he is not asking for a list of those items that are substances: he is asking instead what it is that explains why a substance is a substance. I agree with Wedin that *Metaphysics* ζ 's primary substances are, in this sense, explanatorily primary. But to agree to this is not yet to accept Wedin's central claim. Wedin has to maintain that for Aristotle this 'explanatory primacy' is a new kind of primacy, distinct from ontological primacy. It is possible to agree that Aristotle's question (from $\zeta 3$ on) is 'What is the cause of the being of a substance?', while insisting that, for Aristotle, being explanatorily primary is part of what it is to be ontologically primary. If that is right, then Aristotle is not in *Metaphysics* ζ introducing a new kind of primacy which is an alternative to ontological primacy; rather he is spelling out in greater depth what it is to be ontologically primary.

There is one obvious difficulty about distinguishing, as Wedin proposes to, between those items that are explanatorily primary and those that are ontologically primary. If Aristotle's view in ζ is that substantial forms are explanatorily but not ontologically primary, then it is hard to see how his discussion in ζ fits into his larger project in *Metaphysics*. He says that his investigation of sensible substance in *Metaphysics* ζ will be useful for his later investigation of non-sensible substance (1029b 3ff., 1037a 10ff., 1041a 7ff.). The idea seems to be that once we understand the way in which the forms of sensible substances are primary, this will help us to understand non-sensible substances (since these are separately existing forms). On Wedin's interpretation, though, the forms investigated in *Metaphysics* ζ are not at all analogous to the non-sensible substances Aristotle later investigates. Aristotle certainly thinks that *non-sensible* substances are ontologically primary. This makes it hard to see why, on Wedin's interpretation, Aristotle thinks that his discussion in *Metaphysics* ζ will be useful for his later investigation of non-sensible substance. It would be interesting to have an account of how Wedin sees the relation between ζ and the rest of *Metaphysics*. (He does mention the problem in a footnote: p. 170, fn. 31.)

On the whole, Wedin's writing is clear. The book is marred, to my mind, by an unnecessary use of semi-formal logic and by an excessive engagement with other secondary literature. These make it more difficult to read than it might have been. But it is well worth the effort. Wedin's challenging interpretation should be given careful consideration by anyone who wants to come to grips with Aristotle's views on substance.

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The Cambridge Companion to Malebranche. EDITED BY STEVEN NADLER. (Cambridge UP, 2000. Pp. vii + 319. Price £40.00.)

Genevieve Rodis-Lewis called Nicolas Malebranche the greatest French metaphysician of the seventeenth century; Etienne Gilson believed that the history of modern metaphysics would be unintelligible without an understanding of Malebranche. Yet

if French scholars of modern philosophy have always given Malebranche his due, until recently Anglo-American philosophers had almost entirely neglected him. The *Cambridge Companion*, under the editorial guidance of Steven Nadler, signals a welcome revival of Malebranche studies outside France. The collection includes the latest scholarship by contemporary Anglophone and French philosophers (whose contributions are translated for greater accessibility). The breadth and depth of coverage offer both an excellent guide for those new to Malebranche and intriguing interpretative twists for Malebranche specialists. Finally, in addition to discussion of the vision in God and occasionalism, issues which have been covered extensively in recent years, the volume includes several essays exploring topics central to Malebranche's metaphysics, such as his moral philosophy, theodicy, and theory of human free agency, which have been relatively absent from view.

The collection may be divided into three broad groupings. One group gives a detailed examination of fundamental issues in Malebranche's metaphysics and epistemology: Thomas Lennon on Malebranche's method, Nicholas Jolley on Malebranche's view of the soul, Tad Schmaltz on Malebranche's ideas and the vision in God, and Steven Nadler on Malebranche's theory of causality. A second group focuses on Malebranche's moral theory, theodicy and philosophy of religion: Denis Moreau on the infamous Arnauld–Malebranche debate, Donald Rutherford on Malebranche's theodicy, Elmar Kremer on human freedom according to Malebranche, and Patrick Riley on Malebranche's views on divine and human justice. Finally, several articles place Malebranche in his philosophical and historical context, assessing his philosophical legacy and giving a broad view of his metaphysical system: Jean-Christophe Bardout on Malebranche's metaphysics, Stuart Brown on the critical reception of Malebranche (from the eighteenth century to the present), and André Robinet on Malebranche's life and legacy.

It is fitting that the collection begins with an essay by Thomas Lennon: the current Anglo-American Malebranche 'revival' was arguably set in motion by Lennon and Olscamp's 1980 translation of *The Search after Truth* and Lennon's accompanying 'Philosophical Commentary' on Malebranche's metaphysics and epistemology. Lennon's article 'Malebranche on Method' offers an informative and useful analysis of the place of Malebranche's method in his epistemology, in the context of his predecessors' theories of how to acquire knowledge properly and systematically and of how to avoid error. Lennon does an excellent job of explaining how Malebranche's placing ideas in the divine (rather than the human) mind overthrows the psychologism implicit in Descartes' criterion for truth of 'clear and distinct perception'. Jolley's discussion of the meaning of Malebranche's claim that, *pace* Descartes, we do not have clear and distinct knowledge of our souls also clarifies his philosophical break from Descartes. Schmaltz's article continues the development of Malebranche's 'deviant' Cartesian philosophy by analysing the ramifications for epistemology and ontology of his having shifted ideas from the human to the divine mind. Nadler rounds out this picture of Malebranche's creative metaphysics and epistemology by examining his full-blooded occasionalism as a systematic answer to worries about the relationship between the Cartesian mechanistic physics and an omnipotent God who created and continues to conserve the universe.

Denis Moreau's article serves as a bridge between those focusing on metaphysics and epistemology and those focusing on issues of moral philosophy (broadly construed to consider both divine and human agency). His concise analysis of the Malebranche–Arnauld debate shows that the battle over the issue of the ontological status of ideas grew out of deeper theological and metaphysical differences. Commentators would do well to heed Moreau's implication that turning the debate into a skirmish about sensory perception alone distorts our understanding both of the issues really at stake in the debate and of the place of epistemology in each thinker's respective philosophical system. The articles by Rutherford, Kremer and Riley share Moreau's sensitivity to the need for confronting Malebranche's views in relation to his *œuvre*, examining not only the 'better known' works such as *The Search after Truth* and *Dialogues on Metaphysics*, but also works 'lesser known' (to many Anglo-American scholars) such as *Treatise on Nature and Grace*, *Treatise on Ethics*, *Treatise on the Love of God*, Malebranche's extensive letters and responses to Arnauld, and his final work, *Reflections on Physical Premotion*. Rutherford's discussion of Malebranche's theodicy lucidly analyses the apparently paradoxical notion of God constraining himself by submitting his power to his wisdom, and how Malebranche uses this notion to answer the problem of evil. Rutherford's discussion of the crucial concept of 'order', the relation among the divine perfections that serves as God's self-imposed law, neatly demonstrates how Malebranche moves from the general concept of an infinitely powerful being to a specific account of God's governance of creation.

Riley's article on divine and human justice relates Malebranche's concepts of order and general volitions to the seventeenth-century battles over grace. In considering Malebranche's account of divine justice, Riley includes a discussion of human liberty and moral accountability, and an explanation of the role of Christ as the occasional cause of the distribution of grace. Kremer's article, which focuses explicitly on human freedom, brings admirable analytical rigour to bear on teasing out the complicated relationships among human consent, withholding of consent, natural love, free love, sin, and the human intellectual attention that occasions further knowledge about particular goods. He offers an intriguing interpretation of consent along Frankfurtian lines, whereby when we consent to a particular good we (freely) accept a desire that initially happens *to* us (naturally). In contrast, we suspend consent to a particular good by consenting instead to a 'second-order good, "something greater than *x*"'. It is to be hoped that these articles on the hitherto underdeveloped issues of divine and human agency, theodicy and ethics will stimulate further discussion in the literature.

Bardout gives an intriguing view of the relations between metaphysics and epistemology in Malebranche's philosophical system: he argues that the vision in God, by guaranteeing the certainty of ideas, moves metaphysics from a *general* science of being to a *particular* science which both scrutinizes and finds our knowing powers. The book ends with articles by Brown and Robinet on Malebranche's critical reception, life and legacy. Brown discusses Malebranche's role as philosophical inspiration and stalking-horse for figures including Bayle, Berkeley, Collier, Leibniz, Locke, Hume and Norris. Robinet, the venerable editor of Malebranche's collected works and author of seminal works on Malebranche, offers

a sweeping discussion of Malebranche's debts to Descartes and Augustine, and the philosophical innovations that would alienate other Cartesians such as Arnauld and Desgabets. However informative, Robinet's article is not for the beginner: it is densely written and filled with references which only the specialist will appreciate.

This volume is an outstanding contribution to the history of philosophy: it illuminates Malebranche's doctrines for new readers and offers insights that will intrigue specialists. Additionally, the collection shows Malebranche's influence on his contemporaries and the esteem with which they regarded him. The book will deepen contemporary philosophers' understanding of this central figure in early modern philosophy, and invigorate the revival of interest in Malebranche.

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Comic Relief: Nietzsche's Gay Science. BY KATHLEEN MARIE HIGGINS. (Oxford UP, 2000. Pp. xii + 249. Price £30.00.)

Writing about humour is, for obvious reasons, a hazardous exercise – and from this point of view it has to be said that there is quite a lot about Kathleen Higgins' new book, certainly on first inspection, to make the heart sink. Once one has got past the title, averted one's eyes from the claim on the dust-jacket that Nietzsche is generally thought to be a ponderous philosopher, and then turned to the contents page, only to be greeted with the promise of such chapters as 'Frolicking *Wissenschaft*' and 'Eternal Recurrence: Not Again!', one could be forgiven, I think, for calling it a day. Nor, really, if one does persevere would one ever feel the slightest pressure to conclude that Higgins and humour were made for one another. Higgins' style is clear and communicative, but it simply does not have the spring in its step for this sort of thing, and when she does get playful, the results, where they are not just vulgar, have a wholly lethal earnestness about them. The other problem, of course, is that since she thinks that Nietzsche's humour has been largely missed by most people, she spends a good deal of time explaining his jokes – and the explainer of jokes is always, and inevitably, going to end up looking a bit of a bore. As a book about humour, it seems to me, this one is pretty well hopeless.

It is fortunate that *Comic Relief* does more than live up, or down, to its title. It is also faithful to its subtitle: and it is as a study of *The Gay Science* that Higgins' book ought really to be approached. Construed in this way, what she has produced is a thoroughly respectable and useful survey of some of the principal themes of Nietzsche's text, and a fairly convincing argument for the thought, with which few I think would disagree, that *The Gay Science* is not just a rag-bag of unconnected fragments, but a through-written book with its own characteristic kind of unity. The most distinctive thing about Higgins' approach is her attention to Nietzsche's sources, which she shows to be more integral to his project than one might have supposed. So, for instance, she relates Nietzsche's 'Prelude in German Rhymes' to the Goethe farce whose title 'Joke, Trick and Revenge' it shares, and she suggests ways in which Goethe's themes reverberate through Nietzsche's. Similarly she refers Nietzsche's slogan 'Become who you are' back to the Pindar ode from which it

derives, and shows how imagery relating to the wheel of Ixion in Pindar informs the sense of the slogan as it appears in Nietzsche. More tendentiously, she connects the 'demon' who introduces the thought of eternal recurrence in §341 of *The Gay Science* to Descartes' malignant demon, and interprets Nietzsche's Zarathustra as a more faithful portrait of the original Persian prophet than is usually thought.

The effect of these manoeuvres is to root some of Nietzsche's concerns and preoccupations more explicitly in the wider history of ideas – but without, it has to be said, forcing or inviting any very significant reappraisal of them as a result. It is not that the things that Higgins says are uninteresting or not worth knowing about; it is simply that they do not, by themselves, amount to very much; and certainly they do not when allied to an overall interpretative strategy as modest and as conventional as hers. (It will not, for instance, be news to many people likely to read this book that Nietzsche was no Cartesian: Higgins devotes eight make-work pages (136–44) to showing that Nietzsche disagreed with Descartes about the character of the natural world, the relation between rationality and certainty, the relation between minds and bodies, and the order of priority between being and becoming.)

Indeed, Higgins' reading of *The Gay Science* is so very mainstream that it is hard to see not only how it has been substantially shaped, or given any genuinely distinctive flavour, by her investigations into Nietzsche's sources, but also how anyone might want to object to it on grounds that are really specific to it, rather than common to readings of the general type of which Higgins' is a more or less anonymous instance. I do not believe, in short, that it is only sclerotic or mule-like tendencies on my part that made me emerge from Higgins' book thinking exactly the same about *The Gay Science* as I thought when I started it, for all the virtues – clarity, decent-mindedness, a certain sort of thoroughness – that *Comic Relief* undoubtedly exhibits. When Nietzsche subtitled *Zarathustra* 'A book for everyone and no one', what he has in mind, roughly, that everyone needs it and no one will understand it, strikes me as the exact opposite of what Higgins has achieved.

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Indeterminate Identity: Metaphysics and Semantics. BY TERENCE PARSONS. (Oxford: Clarendon Press, 2000. Pp. xvii + 221. Price £30.00.)

The question of how to understand the phenomenon of indeterminacy (including vagueness) has been a subject of animated controversy for more than two decades. There have been three views. The worldly view places indeterminacy in objects and properties in the world. The linguistic view denies indeterminacy in the world and finds it only in reference relations between words and their referents. The epistemic view, to be set aside here, denies the existence of indeterminacy in the world or in language, and attributes the apparent existence of indeterminacy to our ignorance. It is widely held that Gareth Evans' one-page article in *Analysis*, 38 (1978), p. 208, has decisively refuted the coherence of the worldly view: specifically, the article is thought to have shown that no statement of the form 'It is indeterminate whether *a* is identical with *b*' can be true. Since the publication of this article, the linguistic view has gained much popularity and has all but achieved default status.

In *Indeterminate Identity* Terence Parsons attempts to reverse this tide. He insists in general that there is indeterminacy in the (non-linguistic) world itself, and in particular that some facts about identity are indeterminate. Examples of indeterminate identity are the identity between persons and their bodies, the ship of Theseus, some cases involving personal identity, and the identity between a cat and its precise counterparts ('the paradox of 1001 cats'). In such cases, Parsons maintains, there is no fact of the matter about whether the two (or more) things in question are identical. Not every meaningful and otherwise unproblematic statement is true or false; it may be indeterminate in truth-value because of worldly indeterminacy. And if we accept a three-valued logic resulting from such indeterminacy, we can see that the Evans argument does not hold up. Theoretically one can accept indeterminacy in the world, i.e., indeterminacy in whether an object possesses a certain property, without accepting indeterminacy in identity relations; but Parsons accepts and defends both. The first four chapters make up the core of the book.

Parsons advocates a three-valued logical system that involves the 'determinately' operator '!', where the three values (or rather value-statuses) are truth, falsity, and neither. Negation, conjunction, disjunction and quantifier rules are standard three-valued rules. The conditional follows the Łukasiewicz interpretation. '!p' ('Determinately, p') is true if 'p' is true, and is false otherwise. '∇p' ('It is indeterminate whether p') is understood as '¬!p & ¬!¬p'. Validity of an argument is defined as truth-preservation, rather than as, say, non-falseness-preservation. Consequently the law of excluded middle does not obtain, *reductio ad absurdum* is not valid, and contrapositive reasoning does not always preserve the validity of the original reasoning. It can be indeterminate whether or not an object possesses a certain property.

Parsons (p. 31) then defines indeterminate identity in terms of determinate and indeterminate property-possession: it is indeterminate whether *x* is identical with *y* if and only if *x* and *y* are neither determinately identical nor determinately not identical, that is, if and only if there is no property that *x* determinately possesses and *y* determinately does not possess, but there is at least one property that *x* determinately possesses or determinately does not possess such that it is indeterminate whether *y* possesses it. In the problematic cases mentioned above, it is indeed indeterminate whether or not two things in question are identical.

The Evans argument goes as follows. Suppose that there is worldly indeterminacy, and that it is indeterminate whether *a* is identical with *b*. But it is determinate that *a* is identical with *a*. So there is a property *b* has and *a* lacks, namely *indeterminately identical with a*. Thus by Leibniz' law *a* is not identical with *b*, contradicting the initial assumption. Therefore indeterminate identity is impossible.

Parsons' response to this argument is twofold. First, he accepts Leibniz' law only in one direction and not in the other: $s = t, \phi(s) \therefore \phi(t)$ is valid, but not $\phi(s), \neg\phi(t) \therefore \neg(s = t)$. He uses the name 'Leibniz' law' to refer only to the former rule. Parsons holds that the latter rule, the contrapositive of Leibniz' law, fails if $\phi(x)$ is not a genuine property. Again, in his three-valued system contrapositive reasoning does not always preserve the validity of the original argument. The Evans argument uses not Leibniz' law itself but its contrapositive. Secondly, Parsons contends that *indeterminately identical with a* is not a genuine property. So Evans' conclusion is avoided.

Chs 5 and 6 of the book are responses to previous critiques of worldly indeterminacy and indeterminate identity. Chs 7–9 present a way to picture indeterminate identity, and explain how to denote and count objects whose identities are indeterminate. In ch. 10 Parsons criticizes alternative linguistic approaches to indeterminacy, in particular supervaluationism. He contends that the concept of precisification (or refinement) is vague, and that supervaluationism leads to an inflated ontology of different things existing in the same place at the same time. The book ends with discussions of more advanced topics, set theory with indeterminate identity and higher-order indeterminacy.

The main problems with Parsons' theory of indeterminate identity are not technical but philosophical. At the outset of the chapter on identity, Parsons declares 'I mean by "identical" exactly what others mean by it; this is the only way I know to guarantee that we are discussing the same issue' (p. 32; see also p. xiv and p. 108). However, he gives up this policy whenever his system is threatened by inconsistency. He denies that the contrapositive of Leibniz' law is valid. He defends his denial as follows: 'By denying the validity of this principle I may be charged with begging the question in favour of indeterminate identity. I countercharge that to assume the validity of the principle is to beg the question on the other side' (p. 38). But this defence does not properly address the plausible contention that the contrapositive of Leibniz' law constitutes the meaning of identity as much as Leibniz' law itself does; that giving up the principle is *ipso facto* giving up the ordinary notion of identity.

Parsons holds the principle applicable only when the relevant predicate stands for a property, but denies that 'is indeterminately identical with *a*' stands for any property; for otherwise his system would fall prey to the Evans argument. This denial, however, seems *ad hoc*, because Parsons does not offer any principle for distinguishing predicates that stand for properties from those that do not, or any reason why the latter predicates do not stand for properties.

This problem indeed is not confined to the predicates involving identity, but is more general. There are many cases in which Parsons would say that it is indeterminate whether *a* is identical with *b* because *a* determinately has the property F while it is indeterminate whether *b* has F. If the predicate 'is determinately F' stands for a property, then we can conclude, *à la* Evans, that *a* is not identical with *b* after all, because *a* but not *b* has that property. To prevent this disastrous move, it seems that Parsons must hold that in general 'is determinately F' does not stand for a property. But if 'is determinately F' does not stand for a property even when 'F' does, in what sense can we say that the determinacy and indeterminacy we are dealing with here are objective features of the world? Parsons needs a theory of properties which somehow avoids this problem. But a more general problem is that Parsons' three-valued system that supports his notion of indeterminate identity is so different from our standard bivalent system that we are not likely to be persuaded by his claim that he is dealing with the same notion of identity as we are.

Another salient problem lies in Parsons' dismissal of linguistic solutions to the problems of indeterminate identity. Although he criticizes supervaluationism, this is hardly the only such solution. In fact, reference relations between words and their referents are themselves worldly relations in a broad sense, to which Parsons' own

theory of indeterminate property-possession is applicable; so it is quite conceivable in his theory too that some of the reference relations are indeterminate. Then it is difficult to understand why we must assume indeterminacy in identity relations, rather than reference relations, to solve the problems of indeterminate identity.

Despite these and other problems, *Indeterminate Identity* is a very good book, undoubtedly the best book-length treatment of the subject since Timothy Williamson's *Vagueness* (London: Routledge, 1994). It does what it sets out to do, formulating a view and defending its coherence. It articulates Parsons' position and honestly spells out its consequences, both problematic and unproblematic. It is indeed to the book's credit that many of its problems are so obvious. It is also quite readable: technicality is reduced to the necessary minimum. Because of its thoroughness, not only is this book recommendable to researchers and graduate students interested in the idea of worldly indeterminacy and indeterminate identity, but it should also be helpful to those who would like to see the consequences of three-valued approaches to indeterminacy in general, no matter what they think of the source of indeterminacy.

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Phenomenal Consciousness: a Naturalistic Theory. BY PETER CARRUTHERS. (Cambridge UP, 2000. Pp. xx + 347. Price £37.50.)

Carruthers' new book is a welcome addition to the extensive literature on phenomenal consciousness. Developing and expanding the principal themes of his 1996 book *Language, Thought and Consciousness*, Carruthers offers both an incisive discussion of the principal existing theories of consciousness (including the theories which deny the possibility of explaining consciousness), and a significantly new version of the higher-order thought approach to conscious experience. Unusual among contemporary contributors to the consciousness debate, Carruthers pays far more than lip-service to the interdisciplinary nature of the topic; and material from neurophysiology, developmental psychology and the scientific study of consciousness plays a pivotal role in driving some of his principal conclusions.

The argumentative structure of the book is given by what Carruthers terms the 'tree of consciousness' (p. 22). The tree of consciousness is a series of seven choice nodes which effectively delineate the principal theories of consciousness. Carruthers tackles each node and defends his own response to it, until at the top of the decision-tree we are left with a single branch, Carruthers' own non-linguistic dispositionalist higher-order thought theory. Of the seven choice nodes, four are particularly significant. At the first node we have to choose between 'no explanation' views (Chalmers, McGinn, Jackson *et al.*) and the possibility of a genuine naturalistic explanation – Carruthers, of course, opts for the latter. Like almost all contributors to the debate, Carruthers thinks that the only hope for a naturalistic theory of phenomenal consciousness is via the representational contents of phenomenally conscious states. Within the general framework of representationalism the key decision (choice node 4) is between first-order and higher-order theories. First-order theories (such as those put forward by Dretske, Tye and others) maintain that phenomenally

conscious states are representational states which impinge, or are poised to impinge, on belief formation and practical reasoning. According to higher-order theories, however, there is a further condition to be met. Phenomenally conscious states must also be the targets of higher-order representational states. Carruthers opts for the higher-order approach. Within the general framework of the higher-order approach, choice node 5 asks us to decide whether the higher-order representational states are thoughts or experiences. Carruthers takes the latter option, and (in choice node 7) argues that the relevant higher-order thoughts do not have to be formulated in a natural language.

In many ways the most considerable hurdle for naturalistic theories of phenomenal consciousness comes with the very first choice node, with defending the possibility of such a theory against the various ‘mysterian’ arguments that have been put forward by Kripke, Jackson, McGinn, Chalmers and others. By seeing how a naturalistic theory confronts these arguments we can appreciate the type of explanation it takes itself to be offering. In responding to Kripke, Carruthers makes plain the modal strength he thinks appropriate for a naturalistic theory of consciousness. It would be wrong to demand a necessary identity between types of phenomenally conscious states and types of natural properties, for any given phenomenally conscious state type might in a different possible world be differently realized. Nevertheless a naturalistic theory must entail a logical supervenience claim, so that it cannot even be logically possible for the relevant natural properties to exist in the absence of the appropriate phenomenally conscious state. This means that Carruthers has to defuse the various arguments purporting to show that no such logical supervenience claim could possibly be true.

Carruthers’ strategy here is interesting. He suggests that many of these arguments rest upon a mistaken conception of properties. For Chalmers, for example, a property is simply a function from possible worlds to extensions such that every coherent concept determines one such mapping function. This is what allows Chalmers to argue that since the existence of zombie worlds is logically possible, the property *having an experience of red* cannot logically supervene on any set of natural properties. If we can show that our concepts are such that for any candidate natural property N which we can conceptualize, it is conceivable that something should be N without having an experience of red, then it seems plausible that the concept *having an experience of red* cannot determine property N. But, according to Carruthers, if we take properties to be thickly individuated natural entities, then this conclusion does not follow. It might well be the case that our concept *having an experience of red* picks out a natural property in this world such that, in every world, every individual of whom that property is true will also instantiate the concept *having an experience of red* – even though there may be worlds in which the concept *having an experience of red* picks out a different natural property. In such a situation (which, Carruthers suggests, Chalmers *et al.* have not ruled out) there would be logical supervenience without property identity.

Carruthers’ argument here rests on denying the basic intuition underlying many of the arguments in this area, namely, that the concept *having an experience of red* picks out a phenomenological feel. He suggests, in contrast, that the concept picks out a

conceptually individuated natural property – whatever property it is that makes it the case that we have an experience of red. It is hard to see, however, why Chalmers *et al.* should be convinced by this, since what they are interested in is the phenomenological feel itself, rather than the natural property which might be associated in this world with the experience of red. It is surely open to them to define a new concept, *having an experience* of red*, stipulated to pick out the phenomenological feel of the experience of red, in complete independence of any natural property whatsoever. The usual thought-experiments will then show that the property which this concept picks out does not supervene logically on any natural property.

Turning now to Carruthers' own account of consciousness, his central argument against first-order representationalist theories is that they cannot deal with instances of non-conscious experience. That there are non-conscious experiences is, he thinks, shown not simply by exotic neuropsychological phenomena such as *blindsight* and *visual form agnosia*, but also by common or garden phenomena such as absent-minded perception and non-conscious accommodation to one's environment, as well as by some of the striking dissociations between perception and action in normal subjects which have been taken as evidence for the two-visual-systems hypothesis. If such non-conscious phenomena have roughly the same functional role as conscious experiences, then it follows that simply being poised to impinge on belief formation and practical reasoning cannot be sufficient for phenomenal consciousness.

As one would expect, of course, the evidence is far from unequivocal. In all the cases he discusses there is clearly some form of perceptual registration (to use a deliberately neutral term). The question is whether, in each case, the perceptual registration is (a) correctly described as an experience at the personal level, (b) genuinely non-conscious, and (c) more or less functionally equivalent to a conscious perception. It is far from clear that all three of these criteria are met by each of the examples which Carruthers adduces. It will be objected to many of the common or garden phenomena that they fail to satisfy both (a) and (b). It is hard to see (*pace* Carruthers' §6.1.1) how we might determine whether the absent-minded lorry-driver is non-consciously perceiving the road or simply has an unimpressive short-term memory: here it is tempting to deny (b). As far as subliminal learning is concerned, there is a certain plausibility in denying (a). Many of the neuropsychological phenomena, on the other hand, seem to fall foul of (c). The crucial point here is that (c) requires that the non-conscious phenomena do two things, feed into action *and* feed into belief formation, and it is arguable that the phenomena to which Carruthers draws attention at best do one but not the other. It may well be the case that the perceptual registrations of blindsight and visually agnostic patients do feed into action in more or less the way in which conscious perceptions do (although many researchers would deny this), but they certainly do not feed into the processes of belief formation in the right sort of way – which is why such patients describe themselves as merely guessing. Something similar holds for the visual illusions cited to support the two-visual-systems hypothesis. In the Titchener illusion, for example, normal subjects report that two circles which are in fact equally sized appear differently sized – even though when they are asked to reach towards the circles the map between finger aperture and target show that the sizes are being

correctly estimated. Again, however, (c) does not appear to be met. It is presumably the non-conscious perceptual registration of the correct size which is supposed to qualify as a counter-example to first-order representationalism – but this perceptual registration does not feed into the processes of belief formation in the right sort of way, which of course is why the Titchener illusion is an illusion.

It looks, therefore, as if the case against first-order representationalism is far from watertight. And one would be forgiven for thinking that this is just as well, since the higher-order version of representationalism which Carruthers offers in its place has some fairly counter-intuitive consequences. If, as higher-order representationalism maintains, higher-order thoughts are essential for phenomenal consciousness, then it follows that creatures incapable of higher-order thought will not be phenomenally conscious – and since Carruthers thinks that higher-order thought is the unique preserve of humans and perhaps some of the great apes, he ends up denying sentience to the vast majority of the animal kingdom. In fact he sees this as an advantage of his theory, since he can find no reason for thinking that non-primates are phenomenally conscious except crude intuitions. We only think that non-primates are conscious because, realising that they have experiences, we attempt to conceptualize those experiences, which are in fact non-conscious, on the model of our own conscious experiences.

Carruthers is no doubt correct that intuitions are not to be trusted in this area. But he neglects the most significant reason for attributing sentience to non-primates. The most plausible model we possess for explaining the vast majority of animal behaviour is that provided by conditioning theory. The basic principle of conditioning theory is that certain patterns of behaviour are reinforced by being associated with primary positive reinforcers, and inhibited by being associated with primary negative reinforcers. But learning through conditioning works because primary reinforcers have qualitative aspects. It is impossible to divorce pain's status as a negative reinforcer from its feeling the way it does. It is impossible to divorce the effect of soothing vocalizations as positive reinforcers from their sounding the way they do. The success of stimulus–reinforcement models of learning therefore provides a powerful reason for doubting higher-order-thought theories of consciousness.

In conclusion, Peter Carruthers has written a rich and rewarding book which both imposes a rigorous framework within which we can evaluate existing theories of consciousness, and significantly advances the debate. The level of argumentation is consistently high, and a wide range of empirical evidence is brought to bear. *Phenomenal Consciousness: a Naturalistic Theory* repays careful study, and no one working in the philosophy of mind and/or psychology can afford to ignore it.

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JOSÉ LUIS BERMÚDEZ

From Physics to Philosophy. EDITED BY JEREMY BUTTERFIELD AND CONSTANTINE PAGONIS.
(Cambridge UP, 1999. Pp. xv + 235. Price £40.00.)

The common thread that binds this collection of essays together is that they were all presented to Michael Redhead on the occasion of his retirement from his Chair of

History and Philosophy of Science in Cambridge. So, even though he is not a contributor, it may be useful to say a few words about what is distinctive about Redhead's own work.

One of Redhead's books is titled *From Physics to Metaphysics*. The present collection is called *From Physics to Philosophy*, and one of its contributions 'From Metaphysics to Physics'. The common theme which emerges as characteristic, even from just looking at the titles, is that of bridging a gap between otherwise separate disciplines.

Indeed, in retrospect it is not very long since philosophy of physics consisted mainly of two quite distinct types of contributions. On the one hand there were philosophers, who would often approach problems in modern physics in the manner of armchair reflections, without paying attention to the technical and formal details of their theories. Similarly, contributions by physicists would often consist of general (and sometimes naïve) claims about the metaphysical or philosophical significance and implications of their theories, without any attention to the background and history of these issues.

Not so any more. Today a certain brand of philosophers display expert knowledge of modern physical theory, and consider it part of their trade to prove profound theorems to elucidate the structure of such theories. Likewise, certain physicists address philosophical issues by carving out a precisely defined niche in the phase space of philosophical positions. The two professional backgrounds have merged into a single discipline, which contains elements from philosophy, theoretical physics and history, but is recognizably distinct from all of them. It would of course be foolish to suggest that this is all Redhead's doing, as if he single-handedly changed the nature of our profession. But it is fair to say that his tenure has stimulated this development, both by exemplifying it in his own work and by encouraging it in that of his many students.

The virtue of this book is that it brings together a variety of essays written in this 'bridging' approach, and thus demonstrates how fruitful it really is. They are all concerned with some general philosophical or metaphysical theme (such as realism, objectivity, determinism, locality, the relationship between physics and mathematics) in the very specific context of a sophisticated modern theory (ranging from quantum mechanics and quantum field theory to general relativity), showing the intricate and subtle interplay between the metaphysical playing-field and the exacting standards of mathematical thought. I cannot, of course, review each of the papers presented here. To be sure, none will remain the final word on the topic it discusses, but they are all by eminent authors, and representative of the current state of the art. I shall mention three that I found particularly interesting.

Rob Clifton's paper discusses the old problem of whether quantum theory admits an interpretation in terms of 'beables', from a new angle, that of the algebraic approach to quantum theory. There is a well known series of no-go theorems, starting with von Neumann's, which throw obstacles in the way of any such attempts, if these beables are supposed to have an algebraic structure isomorphic to that of the corresponding quantum observables.

Clifton proposes a new way to dodge these obstacles. He maintains a definite algebraic structure for the set of candidate beables, which he calls, in honour of

I.E. Segal, a Segalgebra (roughly, this is an algebra on which two kinds of multiplication, one commutative and one anti-commutative, are defined). He also maintains that the hidden-variables states should be conceived of as linear maps on such a Segalgebra. The point where he sees leeway beyond the von Neumann theorem is by assuming that the Segalgebra of beables is only a subalgebra of the Segalgebra of all observables.

I think that Clifton is a little quick in casting aside 'received opinion' about lessons to be drawn from Bell's famous analysis of von Neumann's theorem. In my opinion at least, the main lesson is that we should be careful not to carry over any relations and properties valid for quantum observables to the level of hidden variables without reason. So one would like to see some arguments supporting the idea that beables should have the specific structure of a Segalgebra. Clifton offers very little. He introduces these assumptions by merely saying that they are 'natural', or that 'there is no reason for not requiring' them, as if that would be sufficient to favour them.

Nevertheless it remains an interesting question how far one can get on the basis of these assumptions. Naïvely, one might perhaps expect that these assumptions are already so similar to those employed by von Neumann that one ought to expect the same result; i.e., no such hidden-variables interpretation exists unless the beables are commutative to begin with. But this is not so. Clifton shows that some non-commutative Segalgebras (which he calls 'quasi-commutative') can still be assigned definite values in certain states.

Actually this should not come as too big a surprise. Already in 1929 (*Science* 69) Condon observed that it is possible to have common eigenstates for all observables in an algebra, in spite of the fact that they do not commute. (His example was the ground state of the hydrogen atom, and the algebra generated by the components of angular momentum \vec{J}_x , \vec{J}_y and \vec{J}_z .) But it is a neat result of Clifton's work to see how this observation can be generalized.

Another remarkable paper, both in content and size, is by Fleming and Butterfield. It addresses the problem of finding an acceptable account of position and localization of particles in relativistic quantum theory. Again there is a series of no-go theorems, by Hegerfeldt, Malament and others, which seem to prevent such an account. This essay presents a comprehensive view of the problem and of a particular approach to solve it, developed by Fleming and his co-workers since 1965. Because of its review qualities, this paper will prove to be a classic reference in this field.

The main idea of Fleming's approach is to make the notion of localization relative to a frame of reference, or 'hyperplane dependent' (HPD). This notion of HPD localization allows that under a passive boost a localized state transforms into a non-localized state. It is shown that this seemingly counter-intuitive aspect actually occurs also in classical special relativity for the centre of mass of extended systems.

There is also a reply to recent criticisms of the approach by Malament and Saunders. It is pointed out, convincingly in my opinion, that one should not identify or confuse the notion of preparing (or measuring) a localized state with that of an

operation which can be carried out locally (i.e., in a bounded open region of space-time).

However, another problem is that HPD localization operators on space-like separated regions do not commute. This threatens to allow the occurrence of causal anomalies or superluminal propagation. Fleming and Butterfield state that they wish to avoid such anomalies, but it is not completely clear whether and how they can. They express the hope that in the formalism of approximate or unsharp measurements one might show that approximate joint measurements of localization observables in spacelike separated regions are still feasible. Unfortunately, more recent work of Busch (*Journal of Physics A*, 32, 1999, p. 6535) and of Halvorson and Clifton (quant-ph/0103304, 2001) suggests that this is unlikely without causality violations.

The last paper I shall mention is Shimony's, on the question whether the laws of nature could be the result of evolution. This paper is exceptional in the collection, striking a less technical note, and also because of its unusual topic. Yet Shimony is able to trace his theme to a series of authors, ranging from philosophers such as Leibniz and C.S. Peirce to modern physicists like Wheeler and Smolin, and is able to dissect their arguments.

His main conclusion is cautious. Although it is conceivable that certain laws do evolve, one cannot maintain that all laws are subject to evolution. The reason is that evolution presupposes a definite phase space or arena of possibilities, whose structure cannot itself be subject to evolution without a danger of infinite regress.

One point which struck me in Shimony's essay is his claim that the theory of natural selection does not have principles of its own. Rather, Shimony claims (p. 212), it is 'nothing more than the systematic deployment of information about organisms and their environment for the purpose of evaluating ... the probabilities of survival and reproduction of variant organic lineages. The considerations that determine these probabilities are drawn from other branches of biology and from the physical sciences of the environment.' I admit that I agree with almost everything being said here, but still fail to see why this should count as an argument against the existence of principles for a theory of natural selection.

To explain my point, I can slightly rephrase Shimony's. Suppose we replace 'systematic deployment of information' by 'systematic deployment of evidence drawn from more specialized sciences'. When phrased in this manner, the case for a theory of natural selection seems little different from other theories of principle in science, for example, energy conservation. One can argue that this merely deploys the evidence, drawn from special sciences concerning electrodynamics, gravitation and the weak and strong interactions, that all known forces happen to be conservative. But to speak of a principle of conservation of energy means something more: it commits us to the view that all fundamental interactions in Nature, even the ones we have not yet discovered, will be conservative, i.e., we believe the conservation of energy will be true also beyond the evidence provided by the special sciences.

Similarly, one can argue that in the late 1920s all data systematically employed by the founding fathers of quantum mechanics were provided by special sciences like spectroscopy. Yet we do not say quantum theory has no principles; we believe, as the founding fathers did, that the formalism is valid beyond this restricted input.

So it seems that all it takes to turn a theory of natural selection into a principled theory is to declare boldly that the systematization in question is valid beyond the original body of evidence. For example, one could claim that if life-forms exist somewhere else in the universe, presumably on a planet where the geology and other special circumstances are quite different from our own, one would still find the mechanism of selection in place.

Such a claim may or may not be credible. But I doubt whether there is a philosophical problem about viewing the theory of natural selection as a theory with principles of its own, just because it relies on evidence from special sciences.

To sum up, I repeat that the book provides a truly valuable collection of essays. Any critical remarks made above are really just a sign of how they set you thinking. It is an ideal work for anyone who wishes to get a view of the variety and status of topics currently debated in the philosophy of physics, and I fully recommend it.

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JOS UFFINK

Thinking about Mathematics: the Philosophy of Mathematics. BY STEWART SHAPIRO. (Oxford UP, 2000. Pp. xiv + 308. Price £15.99.)

There is a lamentable paucity of introductory or survey books in the philosophy of mathematics, and this book comes as an admirable addition to the few. It is well written. It is accessible and comprehensive within the parameters set by the type of book it is and by the readership at which it is aimed.

The book surveys seven main positions in the philosophy of mathematics: Platonism, formalism, logicism, intuitionism, structuralism, nominalism and naturalism. Four come up as chapter headings: formalism, logicism, intuitionism and structuralism. Some historical background is provided for the positions. Platonism is given a good airing under sections on Plato's philosophy of mathematics, Gödel's philosophy of mathematics and some discussion of Maddy. Naturalism is discussed in the context of Quine's influence on the philosophy of mathematics. Hilbert is unhappily squeezed into the formalist camp. Shapiro is aware of the possible misunderstandings which might arise from calling Hilbert a formalist, and makes it clear that he is in some respects closely allied to the constructivists and in others closer to the formalists. Platonism, logicism, formalism and constructivism are standard to any course for beginners in the philosophy of mathematics, and these take up about half of the book. All this is in keeping with the tradition set by Körner and Benacerraf and Putnam in the 1960s.

Popular wisdom has it that structuralism started in the 1960s with Benacerraf's article against Platonism. More recently, philosophers have been able to trace the beginnings of structuralism to well before the 1960s. However, it is only since the 1980s that the position has become a mature philosophical theory, championed by Shapiro, Resnik and Chihara. It is a welcome development, in the literature introducing the philosophy of mathematics, to treat this as a well thought out position in its own right.

It is controversial whether or not naturalism properly counts as a philosophy of mathematics. One could argue that it is more accurately seen as a position in the philosophy of science which has repercussions for the pursuit and development of mathematics. Naturalism might be more immediate to an American readership than a British readership. Nevertheless it is worth discussing in the present philosophical climate, which pays homage to Quine. Shapiro does not make any categorical claims that naturalism is a position in the philosophy of mathematics as such. Instead he is quite liberal in his approach. He is careful to say explicitly where positions diverge, and gives reasons for and against each philosophical position. It is then left to readers to make up their own minds.

This coheres well with his suggestion early on in the book that it is the mathematicians and not the philosophers who determine what the content of mathematics is. This would not follow if one were willing to be revisionary, because then there might be parts of mathematics which are illegitimate. Shapiro clearly is not revisionary. The default assumed in the book is that whatever else the philosophy of mathematics is, it is philosophy as applied to whatever it is that mathematicians do as mathematicians. This is quite a good position when one thinks of people approaching the subject for the first time. They will naturally assume that they will engage with whatever it is that mathematicians are doing.

The readership at which the book is aimed is upper-level undergraduate students with some background in philosophy and mathematics. Nevertheless the explanations of the philosophical positions and of the mathematical technicalities are clear. Technical vocabulary, whether philosophical or mathematical, is defined and explained. Thus no particular courses in either philosophy or mathematics are required for understanding the book.

A good guide to further reading is provided at the end of most chapters. The guides to further reading include, on average, just over ten books or articles, with a brief indication of what they contain. The books and articles referred to are quite easy to get hold of.

There are some gems in the book. For example, there is a very neat discussion comparing how Frege develops the numbers with how Russell and Whitehead develop them. This is particularly well done, and by no means an easy task. This then acts as a backdrop against which the reader can usefully compare the philosophical merit of the two versions of logicism. Frege is able to prove the infinity of the natural numbers, whereas Russell and Whitehead have to add an axiom guaranteeing the existence of an infinite set. Frege's formal system is inconsistent, indicating that there is something amiss with his claim that the logical axioms of his formal system are indubitable and need no justification. Russell and Whitehead's system is consistent, but departs from logic more obviously than does Frege's. Frege's ontological commitment is unscrupulously vast (leading to contradiction), whereas Russell and Whitehead are careful to introduce the minimum needed for their purposes. Because of the problems facing both attempts at logicism, the questions become very pressing of what constitutes logic (i.e., what divides it from the rest of mathematics), and which formal system best exhibits logic. More relevantly to today's debate in neo-logicism, we might ask whether any project can be salvaged

which is worthy of being associated with the name 'logicism'. The modern debate is covered sufficiently for a student to begin reading recent articles concerning neo-logicism.

I would recommend this book as a major text for an upper-level undergraduate course or a lower-level postgraduate course in the philosophy of mathematics. I have used it as such, and it has been well received by the students attending the courses. If the book is used as a principal text for a course, I suggest supplementing it with original material and more advanced articles in the subject-matter. The guides to further reading are helpful in this respect.

Having followed such a course successfully, a student will have a good grounding in the major issues in the philosophy of mathematics, and will be well equipped to pursue further study in the form of a look in greater depth at one of the positions or debates. The book does give a taste for further study. The author is careful to indicate that the debates are not closed where he leaves them. In reading the book, one wishes he had spent more time on some topics. This is inevitable in a survey, and is also a merit of the book because it incites further independent exploration.

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MICHELE FRIEND

Principles of Social Justice. BY DAVID MILLER. (Harvard UP, 1999. Pp. xi + 337. Price £27.95.)

This is David Miller's second book-length examination of social justice. His first, simply entitled *Social Justice*, was originally published (by Oxford UP) in 1976. Surprisingly, perhaps, this latest study makes only passing references to the earlier one. Despite differences in terms of approach and in what is argued, there are marked continuities. Both books defend a kind of pluralism, arguing that social justice has to be understood in terms of a number of mutually independent principles which cannot be given any simple rank ordering. Both maintain that theories of social justice must be assessed in terms of how well they fit our considered judgements. And both contend that these considered judgements give us strong reason to endorse principles of social justice which require institutions and practices to distribute advantages in a way that is sensitive to both need and desert.

Whilst the earlier book maintained that different principles of justice in some sense fit different types of society, Miller's new book argues that different principles fit different kinds of relationship that co-exist in the same kind of society. Miller now believes that principles of social justice are best seen as corresponding to three different modes or 'ideal types' of human relationship, *viz* solidaristic community, instrumental association, and citizenship.

In a solidaristic community, people share an identity and see themselves as bound together by common beliefs or culture. Miller argues that the principle of distribution in accordance with need is most fitting for such a relationship, with people's needs determined against the community's standard of what counts as a decent human life. In an instrumental association, people co-operate with one another in order to achieve some purpose because each stands to gain by doing so. Distribution

in accordance with desert is the most appropriate principle here, with different individuals' deserts assessed by their contribution to realizing the purposes of the association. The third ideal type, citizenship, is conceived as a moral relationship in which members are given equal status, conferred through appropriate legal and political structures. The most fitting distributive principle for citizenship is equality: since citizenship confers equal status, each person must possess essentially the same rights and liberties and enjoy the same access to any services provided by the political community. Miller suggests that disputes over what social justice requires can often be understood as disputes over how we should understand one person's relationship to another in a given context, or over which relationship should take priority in determining how some particular benefit or burden is to be distributed.

Much of the book is spent refining these three principles of justice, defining their proper scope, and defending them against sceptics who maintain that they are irrelevant to social justice. So, for example, Miller defends the coherence of a notion of desert which would justify rewarding individuals for the contribution they make to society by directing their talents and powers towards some valued end. He maintains that a properly designed market can reward aspects of desert, so understood, and that the best qualified applicant for a job deserves it because he is the person most likely to deserve the income that such a market would attach to it. And in a nuanced discussion of the principle of need, Miller argues that it is a genuine principle of justice, distinguishable from the related humanitarian principle which holds that as much neediness as possible should be relieved, but also subtly different from a strict priority principle which would target those with the most urgent needs without further regard to the overall distribution of needs.

There is much of interest in Miller's discussion of these issues. The main focus of critical attention is likely to be his defence of desert as a principle of social justice, which incorporates and extends his previously published work. Some will argue that economic desert requires not only reward for contribution but also reward for effort which does not result in achievement, so long as that effort is not wholly misdirected. If this is so, it is hard to see how markets could be designed to track desert, even approximately. Even those willing to accept that contribution of some appropriate kind is all that matters for economic desert may deny that markets could ever provide a means of measuring it, given the way in which actual as opposed to ideal markets respond to the mere preferences of individuals (whether informed or uninformed), and reflect fluctuations in supply and demand which are due to a variety of often unpredictable causes.

At a deeper level still, many liberal egalitarians will argue that desert is either irrelevant for social justice or that it has to be understood differently if it is to justify departures from equality of condition, on the ground that the different potentials with which people happen to be born should make no difference to their access to advantage. Miller is well aware of the possibility of these attacks on his position. Against the radical position which would deny the relevance of desert for social justice, he would argue that theories of justice should reflect our ordinary convictions about justice, as revealed by empirical research, and that these convictions are inextricably bound up with judgements about desert. Against the more moderate

position which would allow desert a role in our understanding of social justice, but deny that people can deserve reward for their achievements to the extent that these are due to their native talents rather than to the effort they choose to expend, Miller would argue that the notion of desert collapses if we try to purge it of all contingency in order to make judgements of desert track freely chosen effort alone.

But neither of these responses is wholly persuasive. Defenders of the radical position will argue that our considered convictions have far less justificatory force than Miller maintains, especially when (as he concedes) there is disagreement amongst people about whether contribution alone deserves reward or whether effort may also do so when it is not misplaced. This raises difficult questions for Miller's methodology, which simply takes people's ordinary convictions about justice to be evidence of what justice itself requires, provided that they are consistent and do not rest upon false factual claims or logical errors. Defenders of the moderate position will insist that, in principle at least, a notion of desert which holds that people deserve to be rewarded for their freely chosen efforts, but not for achievement which is due to their native talent, can be made coherent, even if it is at some distance from our ordinary notion of desert.

The difficulties with Miller's arguments do not detract from their interest. His defence of the importance of judgements of desert for social justice is one of the most sophisticated available, and provides a serious challenge to those who think we should abandon the notion. The pluralist position emerging from the book, which insists that inequalities of condition must be constrained in order to ensure equality of status and to meet needs as fairly as possible, is attractive. It provides a genuine alternative to the more thorough-going varieties of egalitarianism which currently shape much liberal political theory, many of which would allow inequalities of condition only when they can be traced back to choices for which individuals can legitimately be held responsible, but forbid inequalities that are due to differences in natural potentials or social circumstances.

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Deliberative Democracy and Beyond: Liberals, Critics, Contestations. BY JOHN DRYZEK.
(Oxford UP, 2000. Pp. vii + 190. Price £19.99.)

Dryzek's book begins with a list of questions that he proposes to answer. It is an odd list, mixing very theoretical and philosophical questions with quite practical questions. Among the philosophical questions he asks are 'Is political equality central to the deliberative ideal?', and 'Is deliberation a means for arriving at decisions that solve social problems more effectively, or is it just an intrinsically desirable procedure, irrespective of the problem-solving substance of its outcomes?' (p. 7). Just before this question, he asks 'Might existing representative institutions prove inhospitable to effective deliberation, so that alternative locations should be sought?'. Though Dryzek answers all of the fourteen questions in the last chapter with brief paragraph-long assertions, he does not discuss the most philosophical questions at all in the body of the book, and spends very little time with most of the others.

Democracy, for Dryzek, seems to come down to contestation of discourses. What is a discourse? It is 'a shared means of making sense of the world embedded in language ... grounded in assumptions, judgements, contentions, dispositions, and capabilities [which] enable those who subscribe ... to perceive and compile bits of sensory information into coherent stories or accounts that can be communicated in intersubjectively meaningful ways' (p. 18). This contestation should be open-ended. The point of contestation seems to be to alter the balance of discourses in society, in the sense that the result of contestation is the transformation of people's opinions, thus affecting the number of people who adhere to one discourse or another (p. 51). Votes 'are largely epiphenomenal, functioning mainly as markers of the prevailing balance' (p. 51). Collective choice arises through reasoned agreement, not necessarily on values but on policies, which may be supported for different people by different values (p. 49).

In the first chapter Dryzek succumbs to the temptation to find a single notion behind the term 'liberal democracy'. He describes 'the liberal account of politics' as 'the pursuit, interaction, and aggregation of interests defined in advance and privately by individuals' (p. 11). He criticizes liberal democracy on the grounds that it focuses exclusively on the making of law and that it relies solely on legal institutions to provide the nature of democracy. These ideas do describe some people's views of politics, such as the interest group pluralists or those who are inclined towards an economic view of politics. But they do not describe most of the theorizing that has been done about democracy in the liberal camp, for example, by John Locke, John Stuart Mill, Ernest Barker, Leonard Hobhouse, John Rawls, Ronald Dworkin or Robert Dahl. These are all 'liberal' theorists, but they are all quite different from one another; none of them satisfies the first of the descriptions above, and few satisfy the second. For example, Mill thinks that the transformation of public opinion and the transformation of character are two of the most important aims of liberalism and democracy. And he thinks that these must be achieved in part through non-legal means.

Even when applied to actual democracies, Dryzek's claims seem false. Though law and administrative policy play a large role in democratic societies, they are not the only means used by the state. In the United States, Congress reprimands, honours, and debates a wide variety of phenomena, with the intention of influencing opinion. The President is supposed to use the 'bully pulpit' to influence opinion and alter behaviour. Furthermore, though law and policy are important means, they often only characterize the form in which influence is exercised. For instance, the government often engages in advertising and other propaganda campaigns to influence the society, such as the various campaigns intended to diminish the level of teenage smoking in society or the use of narcotics. And the government supports a wide array of activities by non-governmental groups, which it only partially regulates. In addition, the government often threatens to regulate individuals in the hope of changing their behaviour.

Dryzek's critique of social choice theory in ch. 2 rightly but irrelevantly suggests that opinions can be changed in democratic decision-making. In addition, however, he displays an alarming complacency in suggesting that deliberation really can

transform preferences to the point of bringing about agreement, or at least of transforming preference profiles so that the problems of majority cycling do not arise. Apart from giving a few anecdotes, he nowhere suggests how the depth and breadth of disagreement we see in everyday politics can be reduced; nor does he point to evidence that its reduction actually occurs.

In ch. 3 Dryzek discusses various ideas that come under the heading of 'difference democracy'. He is sceptical about the idea that special representation can advance the interests and points of view of minorities, for reasons I shall discuss below. He is agnostic about whether the ideal of deliberation is biased towards the interests of the dominant ethnic groups. And he advocates the inclusion of modes of communication that are not primarily argument, such as rhetoric, storytelling and testimony.

The most interesting part of the book is in chs 4–5, which are about the contribution of civil society to democracy and about the most desirable shape of democracy in the international context. Much of democratic theory, so far as it has institutional implications, is concerned with the structure of state institutions such as the distribution of votes and voting power, the extent to which interest groups are incorporated into the government and the structure of the system of representation. Dryzek argues that the state and its political institutions ought not to play so large a role in our thinking about democracy as it often has. A number of reasons are given for this downgrading. First, Dryzek argues that since contestation of discourses is the central feature of democracy, much more attention ought to be paid to the capacity of groups in civil society to transform and contest the discourses in which deliberation is couched. The state can at best play a limited role in this process of contestation: it is too constrained by its imperatives and the need to conciliate different interests. Groups in civil society are freer to contest in innovative ways the reigning discourses in society.

Secondly, Dryzek advances the thought-provoking claim that many groups in society do better by not being formally represented in the state either by corporatist arrangements or by arrangements of special representation, or even by participation as a political party. Groups do well in these kinds of institutions only if they are essential to the advancement of a state imperative, e.g., to the maintenance of public order, the defence of the society, the satisfaction of basic needs. So the incorporation of the *bourgeoisie* in the state in the seventeenth and eighteenth centuries was a great boon to that class, as was the incorporation of the working class at the end of the nineteenth century to the latter. Perhaps, Dryzek argues, environmentalist groups will succeed best by participating in the state. The jury is still out on that question. On the other hand, Dryzek argues that minority groups, say, in the United States, have not fared so well by being taken up in the state or political parties. They do not advance state imperatives there, so they tend to have to tame their messages if they are to remain players, in return for which they receive primarily symbolic rewards. In addition, their participation in civil society is restricted by their need to remain in good standing in the state, so they lack the freedom to contest or transform the reigning discourses. They are net losers in this arrangement.

Thirdly, along with many others, Dryzek notes the decline in the power of the state in the global community as a result of the increasing importance of global

markets and society, and the need to create a hospitable environment for business. He criticizes what he calls 'market liberalism' on the ground that it tends to produce unregulated collective evils, and he argues for more democracy in the international context. He also argues against the idea that democracy in the international environment ought primarily to be embodied in global legal institutions, and defends the idea of an international civil society where groups can contest the reigning discourses in international society.

Dryzek makes it sound as if democracy comes down to debate about basic ideas. Surely, however, democracy and deliberation are more than mere debate, no matter how open-ended. They have to do with choice on a collective level when there is serious disagreement. Hence they have to do with what should be done, and how to do it. Secondly, I worry that characterizing democracy, or even deliberative democracy, as contestation of discourses really misses a large aspect of democracy; for debate can be carried out in a democratic or non-democratic fashion. Nevertheless Dryzek does not give us an account of equality in democracy. This is what is especially troubling, about even the best parts of the book. For instance, whether the deliberative ideal is biased towards dominant groups in society or not depends on what bias and equality consist in. And, in the same vein, whether contestation of discourses in domestic or international society is democratic depends on whether it is carried out in an egalitarian way. But we need to know what kinds of equality are necessary in order to answer this.

The issues of what democratic equality consists in and why it is important are ones that Dryzek ignores, despite promises to the contrary. Discussions of these problems, or at least hypotheses about the best answers to these questions, are necessary to successfully defending his bold and interesting claims. Ch. 7 displays the dangers of ignoring theoretical questions most clearly. Dryzek argues for an 'ecological democracy' (p. 150) wherein humans and non-humans communicate rationally with one another. Though nature does not verbally communicate with humans, humans can 'listen' to nature (p. 149). What this listening comes down to, though, consists in observation and explanation of natural phenomena. But once we look at it in this way, it is hard to see why democracy should not be extended to inanimate objects as well as artificial objects. If so, it is hard to see what the participation of these entities consists in, or how they contribute to decision-making. Dryzek argues that equality can hold between humans and non-humans in a democratic context. He says nature can be represented, in the sense that someone speaks for it, and it can be listened to, in the sense that people can see what happens to it (pp. 153–4). But if this is what democratic equality consists in, then the relations between slaves and their masters in eighteenth-century America can be considered one of democratic equality. Surely something has gone terribly wrong here.

Still, there are at least two significant strengths to this book. It brings together in one volume an unusually wide variety of approaches to democracy, and it advances some very challenging and positive theses about the relations between democracy, the state and civil society. These make it worth the read.

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The Routledge Companion to Aesthetics. EDITED BY BERYS GAUT AND DOMINIC McIVER LOPES. (London and New York: Routledge, 2001. Pp. xvii + 581. Price £60.00.)

Not too many years ago the field of aesthetics was described variously by distinguished analytic philosophers as ‘dreary’ and ‘bogus’ – as a ‘nightmare science’ or ‘poor step-sister’ within areas of philosophy. That this attitude has largely disappeared is made evident by the appearance within the last ten years of three reference books for aesthetics published by presses with distinguished reputations in analytic philosophy. The most recent of these is *The Routledge Companion to Aesthetics*. This volume consists of forty-six short essays by knowledgeable and established aestheticians and art theorists, organized into four parts. The first part is devoted to the history of aesthetics, and includes entries devoted either to individual philosophers or specific topics, e.g., Plato, empiricism (Hutcheson and Hume), Kant, formalism, expressivism (Croce and Collingwood), Sibley, and postmodernism (Barthes and Derrida). The second part deals with topics in aesthetic theory, e.g., taste, beauty, interpretation, metaphor, representation. The third addresses ‘issues and challenges’, e.g., criticism, art and ethics, environmental aesthetics and feminist aesthetics. The final part deals with individual art forms.

The succinctness and clarity of the essays will make this a source that individuals not familiar with aesthetics will find extremely helpful. Courses in aesthetics often attract students who lack a background in philosophy; this is true both of introductory and advanced courses, and is at once a reward and a challenge for instructors. A ‘companion’ such as this will undoubtedly be of great help to such students by providing them with a general view which will supplement lectures and their own reading. Even sophisticated aestheticians are often relatively ignorant of work done in connection with individual arts, e.g., dance or architecture. For teachers of aesthetics faced, as they often are, with a cohort of students from a specific field (when, for example, an introductory course in aesthetics becomes a requirement for architecture students), the essays in part IV offer an excellent introduction to philosophical problems in art forms from which one might not usually draw examples. Each essay comes with suggestions for further reading which are very valuable. (Indeed, I wish the index to this volume had included names of the persons cited in these lists, for this would have made it an even richer resource.)

Individual essayists, of course, approach their topics differently. I have not space to evaluate every essay, so a few examples must suffice. In his essay on dance, Graham McFee opens by briefly saying what questions about dance share with more general aesthetic questions (for example, how a choreographer’s intentions figure in the interpretation and evaluation of a performance). He then proceeds to the ways in which aesthetics of dance raises unique questions (how, for instance, the relations between visual, musical and temporal aspects affect response and assessment). In his discussion of the aesthetics of architecture, on the other hand, Edward Winters begins immediately to raise what he takes to be the central question, namely, ‘What is architecture?’. Mark DeBellis begins by asking the reader

to consider what music's power over us is and why it exists. All are effective strategies; all engage readers.

Donald Crawford's essay on Kant cannot avoid the use of vocabulary likely to be confusing to novices (and old hands), but this of course is Kant's fault, not Crawford's. His essay is a good example of the ways in which this volume will help students who need to supplement their own work with a brief, clearly organized summary written by a respected scholar. Ruben Berrios and Aaron Ridley's entry on Nietzsche does a better job of avoiding jargon, and will be a very helpful introduction for readers who have some degree of philosophical sophistication, e.g., those who know what metaphysics is.

Since the essays are written by scholars currently at work on the topics they discuss, this volume benefits from providing the reader with up-to-date presentations of current debates. Berys Gaut's essay on art and ethics, for example, is a clear exposition of recent debates about how ethical assessment does or does not affect judgements about aesthetic merit. Like other essayists, he does a fine job of describing opposing views fairly, but is also able to present his own opinion. This is another way in which readers with various degrees of philosophical sophistication will be engaged by the discussions.

In their introduction the editors not only claim that this book will serve as a useful introductory reference tool but also suggest that it will be useful as a textbook for introductory courses. I think this will not be the case. Excellent as the individual essays are for a general view, they are too short to substitute for primary (or even longer, more detailed, secondary) sources. And I expect that this volume will be too expensive to ask students to purchase as a supplementary text. (It should be pointed out that a paperback, and hence cheaper, edition of this volume is expected next year.)

Thus one must ask who will or should purchase this book. Certainly libraries, both academic and public, should include a copy in their reference rooms. Philosophy departments with their own libraries will also want to own it. But what about individuals who have limited personal budgets? Here one will be forced to choose, I think, between this book and the two other reference books published in the last decade to which I referred above. One, edited by David Cooper (1992), is another 'companion', this one in Blackwell's *Companion* series. The other is the four-volume *Encyclopedia of Aesthetics*, edited by Michael Kelly (Oxford UP, 1998). Cooper's companion is a more standard reference work than Gaut and Lopes; like a dictionary, it is arranged alphabetically and has many more and shorter entries. Kelly's opus, of course, has many more entries, and they are much longer than those in the other two. It also boasts multiple essays on the same topic, thus providing readers with the perspectives of several authors. For example, the Nietzsche entry includes a survey of his work accompanied by essays on Nietzsche, Schopenhauer, disinterestedness, Nietzsche's literary style, Nietzsche and visuality, and Nietzsche on art and politics. The survey article is much more scholarly than the entries in the *Companions*, covering more of Nietzsche's works as well as making reference to several scholars who have studied and debated interpretations of his writings. Unlike Gaut and Lopes, Cooper does not include any entries on the individual arts. Kelly does – again with

multiple points of view. All have discussions of art and morality and other significant issues. Blackwell's contains more historical coverage, Routledge's more up-to-date discussion, Kelly's both. The *Encyclopedia* is, of course, very expensive, so most people interested in owning their own reference work will probably choose between the Blackwell and the Routledge *Companions*. Like libraries, specialists in aesthetics will undoubtedly want both on their shelves. Others will have to choose between more entries that provide good surveys (Blackwell) and a volume with fewer essays that provide more current discussion (Routledge).

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MARCIA MUELDER EATON

Fiction and Metaphysics. BY AMIE L. THOMASSON. (Cambridge UP, 1999. Pp. xii + 175. Price £35.00.)

In this interesting book Thomasson uses an account of fictional objects and their dependence relations to other entities to develop a full-scale ontology. For her, an object like Hamlet is a created, existent, abstract artefact. It is brought into existence by the particular imaginative and other intentional acts of its creator, and it depends for its identity on its having been created by those acts. (A qualitatively identical character created by Ben Jonson would not be Hamlet.) It depends for its continuing existence also on the existence of some literary work that is about it. Similarly, a literary work depends on the particular intentional acts of its author and on the existence both of some copy of it and of an audience able to understand it. Because fictional characters and literary works thus have the same sorts of dependence relations and are both abstract (neither has a particular spatiotemporal location), they fall into the same ontological category. Building on unpublished work by Kripke, Thomasson argues that in using the name 'Hamlet' we achieve a direct reference to a well individuated fictional object via the literary works on which it depends.

In the second part of her book, Thomasson urges that we should indeed postulate such objects. Rejecting them makes it difficult to explain important features of intentional acts about them. Moreover, attempts to paraphrase away references to characters (considered as genuine existent entities) also fail, for example, Kendall Walton's make-believe account of fiction. (Theories like Terence Parsons' or Edward Zalta's which postulate fictional objects in Meinong-influenced ways also prove inadequate.) Among other problems, these attempts require *ad hoc* statement-by-statement adjustments which do not provide a uniform treatment of all sentences of a given class – for instance, of both 'Hamlet is a man' and 'Clinton is a man'. (Thomasson might note that in *Mimesis as Make-Believe* Walton argues that he has provided such a treatment.) In contrast, Thomasson's own theory treats all predications made outside the context of what is true in the story ('Hamlet is a fictional character') as holding if and only if the object has, in its real existence, the property expressed by the predicate. Predications which are made inside that context describe what is true according to the story. ('Hamlet is a man' is shorthand for 'In the play, Hamlet is a man'. Only according to the play is the character Hamlet a man; in its real existence, it is a mere abstract thing.)

Thomasson concludes with a multi-dimensional system of categories that classifies entities by their various dependence relations to spatiotemporal things and mental states. This system offers many categories between the purely mental and the purely physical, thus capturing what is ontologically distinctive about things like characters and literary works, which depend both on mental acts and on physical copies of works. It also captures the variety of other entities that fall outside the usual ontological categories – laws, theories, works of art, churches, dollar bills, pieces of real estate. Because fictional objects and literary works belong to the same category, it is false parsimony to reject the objects while accepting the works. Here the case of such objects is exemplary, for a similar point applies to attempts to reject the other sorts of entities just mentioned. Thomasson takes her system to promise thus a better account of our social and cultural world than do more traditional austere ontologies.

Thomasson's development of the above ideas is well organized and lucid. Important parts of her criticisms of other theories can be found in earlier work, as can parts of her positive views. (Already in 1954 Margaret Macdonald suggested that fictional characters are a kind of created artefact; and Peter van Inwagen's treatment of claims like 'Hamlet is a man' is akin to Thomasson's in important ways, as she notes.) Moreover, Thomasson acknowledges a significant debt to phenomenologists like Roman Ingarden. Nevertheless the overall development of her views is her own. Her book is a worthy descendant of the phenomenological tradition on which she draws; and I believe that, in its most general structure, her treatment of fictional objects may well be correct.

However, Thomasson's development of her suggestions is sometimes sketchy, and important questions remain unanswered. She does not make it clear exactly how George Eliot, by imagining (or otherwise mentally engendering) a concrete and seemingly not-really-existent man, thereby creates the existent abstract non-man whom she baptizes 'Silas Marner'. (Indeed, plausible as Thomasson's view may seem, how can an abstract thing be created at all?) Nor is it completely clear how this baptism itself works. Eliot's use of the name is supposed to serve as 'quasi-indexical reference' to the character dependent on the text, as if that use were to say 'The character founded on these very words is to be called "Silas Marner"' (pp. 47–8). Speaking of 'these very words' sounds indexical. But is there some further indexicality involved in achieving reference to the character itself via its dependence relation to the words? And how does appeal to that relation achieve the reference? Do we fix the reference of 'Silas Marner' via the description 'the character founded on these very words'? But Thomasson says only that it is 'as if' we use that description (which in any case Eliot and others unfamiliar with Thomasson's theory cannot employ). So what do we really do?

Again, the apparent non-existence of Hamlet provides foes of characters with one reason for renouncing him in favour of *Hamlet*. By treating characters as created existent *abstracta*, Thomasson, like van Inwagen before her, eliminates that reason. But the impression remains that she is sweeping difficulties about non-existence under the carpet. To the objection that, while we commonly treat 'Hamlet does not exist' as true, on her theory it is false, Thomasson responds that we in effect paraphrase that claim as meaning 'There is no (real) person who is Hamlet'. Here,

however, she is forced to infringe the maxim she stresses two pages later, that we should not shift the way we read a sentence 'merely on the basis of the type of object that it concerns'. (See p. 114 and her pp. 111–12 defence of the paraphrase. Her reading of 'Hamlet is a man' also seems to violate this maxim.) Moreover, I doubt that such sentences – both true ('Vulcan does not exist') and false ('Copenhagen does not exist') alike – really are to be read as negative existentials ('There is no person/planet/city such that ... '). Rather they express singular claims denying existence. (Another potential difference between characters and works lies in the fact, not noted by Thomasson, that not everyone takes works to be tied to their creators' particular intentional acts in the way Thomasson does, following aestheticians like Jerrold Levinson. Gregory Currie, for example, regards works as tied instead to the types of aesthetically relevant acts through which they arose.)

Like the earlier worry about Eliot's creation of an existent non-man through her imagination of a not-really-existent man, these points suggest that traditional concerns about the non-existence of characters need further attention. Hence Thomasson's argument, that there is no principled reason to eliminate characters but not texts, hangs fire. One could still argue that given the general need to postulate characters, a need she well defends, we have as good reasons to accept them as we do *abstracta* like texts. But this reasoning is less ambitious than her own. Nevertheless Thomasson's system of categories retains its interest, despite my doubts. So also do her wise general remarks about false and genuine parsimony. Those remarks, like her clear-headed, incisive views of ontology and of the nature of fictional characters, show the considerable strengths of this book. It is full of important, attractive ideas and is essential reading for everyone interested in her topics.

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