WIGGINS' DEFENCE OF ESSENTIALISM

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It is widely believed that there are some happenings through which an object retains its identity, and that there are others through which it does not retain its identity. For example, a sheepdog which becomes a hunting-dog survives this change; but a sheepdog which is burned to ashes is said to have been destroyed, i.e., to have ceased to exist. Perhaps the distinction amounts merely to a manner of speaking. Then while there may be certain important human interests preserving the conventions governing this difference in speech patterns, it should be regarded as a logical accident.

However, many writers have regarded the distinction between kinds of happening as of great logical and ontological importance. Often called 'essentialists', they have maintained that (1) there are certain properties which objects of certain kinds must retain if they are not to cease to exist, and that (2) there are certain properties which objects of certain kinds could not have failed to have had all along, if they were to exist at all. In each case, the necessity is said not to be due to linguistic convention, but to have *de re* modal force.

David Wiggins has recently offered an original defence of the above two essentialist doctrines. In this article I argue that he is unsuccessful.

1. *Sortal terms and Identity-criteria*

Wiggins introduces the expression 'substance-concept', such that if '*F*' is a substance-concept, and *a* is *F*, then '*F*' is essentially true of *a*. His central thesis is that every object about which one can make identity-statements has true of it some substance-concept; or

> [E] there is always to be discovered not merely what we have called a *phase-sortal* but also what we have called a substance-concept appropriate to cover any identity statement.[1]

In order to assess this claim it is necessary to consider Wiggins' use of the expressions 'sortal', 'substance-concept', and 'criterion of identity'.

Wiggins gives no explicit definition of 'sortal' since he regards one as impossible; but in various places he offers what amount to four different accounts. Firstly, he simply refers (p. 65) the reader to the treatment of P.F. Strawson[2]: however, he takes back part of this when he says that a sortal need not supply a principle of counting for the objects of which it is true (pp. 1, 39). Secondly, Wiggins declares that sortals provide answers to the question 'what is *X*?' as contrasted with the question 'what is *X* like?' (pp. 27f). They provide answers to the question '*a* is the

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same *what* as *b*?' (p. 1). Thirdly, he mentions various 'grammatical criteria' (p. 28). Fourthly, Wiggins develops the second point when he says

> Now what is needed to specify what sort of object *a* is is precisely the same kind of thing as what is needed to make the command 'Trace *a* and trace *b* and see whether they turn out to coincide with one another' a comprehensible and obeyable command. It is a classification *f* of *a* sufficient to settle (adequately for the matter in hand),
> (D. iii): what it would be to pick out or discriminate *a* (so *f* must determine a criterion of *identification*),
> (D. iv): what it would be to mark *a* off from other things in *a*'s environment (so *f* must determine a criterion of *distinctness*—much the same thing as (D. iii)),
> (D. v): since *a* is a persisting thing, what it would be to pick *a* out again at a later time *t* witnin the period of *a*'s existence (so *f* must determine a criterion of re-identification),
> (D. vi): what can and cannot befall *a*, what changes it can admit, without there ceasing to be any such thing as *a* (again a criterion of reidentification), this being determined either directly (if *f* is a substance-sortal) or indirectly through understanding something which *f* restricts (if *f* is only a phase-sortal) (pp. 35f).

However all this does not provide a satisfactory way of understanding the sortal/nonsortal distinction. Wiggins' second account suffers from an obscurity in the distinction between the questions 'what is *X*?' and 'what is *X* like?'. Allusion to Aristotle's concepts of first substance, second substance and quality is no help here, for the order of explanation is the other way around. In everyday speech each of the following would be an adequate, informative answer to the question 'what is *X*?': '*X* is the brown object, weighing 30 kg., that is drinking water from the dish'; '*X* is the yellow object, 10 cubic centimetres in volume and weighing 2 kg., that is now resting on the table but which was last week in the attic'; '*X* is gold'.

Consider such words as 'boat', 'landmark', 'carnivore', 'vertebrate', 'house', 'tool'. 'Boat' has some claim to be a sortal, but it is doubtful that 'boat' determines a single criterion of identity applicable to all boats: surely the kinds of changes that a boat can undergo while retaining its identity depend on the type of boat it is. The concept of a boat is the concept of a particular. We speak of 'this boat', 'another boat', 'the same boat again'. We are able to talk in this fashion only because we do have ways of distinguishing and reidentifying boats. But these ways are not supplied by the word 'boat' itself: one learns them when one learns about the various kinds of boats there are, and how they are structured, etc.

But then how does 'boat' differ from 'red thing', which no one would regard as a sortal? We speak of 'this red thing', 'another red thing', 'the same red thing again', and have ways of distinguishing and identifying red things: it is just that these ways are not supplied by the expression 'red thing' itself.

It might be said: suppose that there are three boats on the lake, all in plain view, and each one separated from the others by twenty metres. Suppose that someone doesn't know how many boats there are in front of him: he cannot tell where one boat begins and another boat leaves off. Surely he doesn't really understand the word 'boat'? Maybe. But the

point here has nothing especially to do with reference-dividing terms and the principles of division of reference. Whenever someone is unable to answer a question to which the answer ought to be obvious, one hypothesis is that the question has not been understood. Compare the case of the boats with the following example. A person claims to understand the meaning of the sortal 'token sentence of Chinese'; his claim is not refuted by the fact that although he has a page of Chinese printing in full view on his desk, he is nevertheless unable to say how many token-sentences there are on the page in front of him, or to tell where one token-sentence begins and another leaves off.

Wiggins' 'grammatical criteria' are no help. What is needed is a criterion for distinguishing grammatically substantive terms which are sortals, e.g. 'cat', from grammatically substantive terms which are not sortals, e.g. 'red thing'—not for distinguishing sortals from adjectives and verbs. But the criteria Wiggins mentions do only the latter. 'Red thing' admits the definite and indefinite articles, forms the plural 'red things'; and it makes no sense to ask 'red thing what?' (cf. p. 28). One might introduce the word 'felous' by saying that something is felous if and only if it is a cat. The adjective 'felous' would behave syntactically just as does 'feline'. The substantive term 'felous thing' would behave syntactically just as does 'red thing'. Yet clearly 'felous thing' is a sortal term.

Wiggins might reply: 'Red thing' is not a sortal just because it does not supply identity-criteria for the objects of which it is true. If 'boat', 'landmark', etc. do not supply identity-criteria for the objects of which they are true, then one must conclude that they are not sortals either.

However this expedient would be a costly one for Wiggins. He obviously did not envisage such a result when writing most of his book—cf. his treatment 'landmark', 'monument', 'ship', as sortals. (In the body of the text, e.g., p. 38, Wiggins treats 'animal' as a sortal; it is only in the Appendix, pp. 62f, that he denies it this status.) Wiggins repeatedly declares that a sortal predicate is the very sort of predicate which answers the question 'what is *X*?' At one point he uses this principle to license the inference from the premise 'there must be an answer to the question "what is *a*?" ' to the conclusion 'there must be a sortal predicate which *a* satisfies' (p. 27). But if you overhear me talking about *a* and ask me what *a* is, I can reply adequately by saying that *a* is the boat anchored 100 metres due east from here. Thus if 'boat' is not a sortal predicate then Wiggins' argument would be glaringly unsound.

Does Wiggins have a coherent account of the relation between a sortal and the identity-criteria of the objects of which it is true? It might be said that the identity-criteria are part of the meaning of the sortal: one who fully understood the meaning of the sortal would know that the objects of which it is true have these identity-criteria. This would be M.J. Woods' view. Woods recognizes that there are some 'material object concepts', e.g. that of an instrument, which do not have a 'criterion of

identity' and a 'principle of individuation' built into them: these would not be regarded by Wiggins as sortals. But, Woods says,

> Where a [criterion of identity] and a [principle of individuation] exist for a class of objects, knowing them is a necessary condition of understanding the concept defining the class.[3]

Compare also Quine's remark that

> to learn 'apple'...we must learn how much counts as *an* apple, and how much as another.[4]

However, this is implausible. I claim to understand the sortals 'hydrogen bomb', 'neutron star', 'polio virus', 'jellyfish'. Yet although there may well be fairly precise identity-criteria for hydrogen bombs, neutron stars, polio viruses, and jellyfish, I have only a vague idea of what they are. Disputes about, or revisions of, identity-criteria for *F*s need not be disputes about, or revisions of, meaning of the word '*F*'.

Wiggins declares that a sortal term *F* true of an object *a* provides a classification of *a* sufficient to settle questions of identification, distinctness and reidentification for *a* (pp. 35f). It is quite clear that for Wiggins 'sortal *F* provides adequate identity-criteria for...' is an extensional context. For example, 'sortal *F* provides identity-criteria for *F*s' means more than sortal *F* provides criteria for its continued application to the objects of which it is true. Sortal *F* is said to provide identity-criteria for *those objects*, however they are picked out. This is vital to Wiggins' account. As he says, his view is an essentialist one. If men are essentially rational, and all featherless bipeds are men, then featherless bipeds are essentially rational.

This raises some difficulties for Wiggins. If 'primate' is a sortal, then according to Wiggins it provides adequate identity-criteria for primates. All monkeys and all men are primates. Hence if 'primate' is a sortal, it provides adequate identity-criteria for monkeys and for men. The identity-criteria for monkeys and men just *are* the identity-criteria for primates. So the indentity-criteria for monkeys are the same as identity-criteria for men. Note that this result is reached quite independently of whether 'monkey' and 'man' *restrict* 'primate': it is enough that all monkeys and all men are primates.[5] Yet surely Wiggins is committed to *denying* that the identity-criteria for monkeys are the same as the identity-criteria for men: for considerations of memory, personality, etc., play a much more important role in reidentifying men than they do in reidentifying monkeys (Part Four passim). Wiggins is therefore committed to denying that 'primate' is a sortal term. But now one is left wondering just how many common substantival terms will turn out to be sortals.

The preceding considerations show the implausibility of maintaining that every sortal term determines a criterion of identity for the objects of which the term is true. I conclude that Wiggins does not have a coherent account of the relation between sortal terms and the identity-criteria for the objects of which the terms are true.

Must one abandon the sortal/nonsortal distinction? It may be suggested that there is a definite answer to the question, 'How many cats

are there in this room' but not to the question, 'How many red things are there in this room?'. Can this difference be used to explain the distinction? One problem is vagueness of various kinds. When does one have a mere hill and when does one have a mountain? How many trees must a bushfire destroy before it destroys this forest?

For special purposes one can by fiat tighten up one's criteria of application of a term, and one's identity-criteria for the objects of which it is true, so as to give 'how many?' questions a determinate answer (known or unknown) where previously they had no determinate answer. For example, a court might rule that in legal contexts any group of trees containing more than 100 trees is to be treated as a forest, with the proviso that any such groups of trees separated by clearings less than 20 metres wide are to be treated as parts of the one forest. Such a ruling might render it determinate for legal purposes how many forests there are in the state. Yet not all 'how many?' questions can be given a definite answer in this way. However much one tightens up the meaning of 'red thing' or tightens up one's identity-criteria for red things—i.e. one's identity-criteria for apples, roses, etc.—one will not make it to any degree more determinate how many red things there are in a certain room. (Tightening up the meaning of 'red thing' would consist of tightening up one's criteria of application of the term 'red'—not in saying, e.g., that one intends the word 'thing' to cover only articles of furniture.)

This suggests the following rough account. '*F*' is a sortal term if and only if either (1) the expression '*F* in region *r* at time *t*' is instantiated, and the question 'how many *F*s are there in region *r* at time *t*?' has a determinate answer, or (2) the expression '*F* in region *r* at time *t*' is uninstantiated, but if it were instantiated then the question 'how many *F*s are there in region *r* at time *t*?' would have a determinate answer, or (3) the appropriate question could be given a determinate answer by a tightening up of the criteria of application of '*F*' or the identity-criteria for *F*s.[6]

2. *Wiggins' use of the term 'substance-concept'*

Wiggins' distinction between phase-sortals and substance-concepts was introduced on his p.7 as that

> between sortal concepts which present tensedly apply to an individual *x* at every moment throughout *x*'s career, e.g. *human being*, and those which do not, e.g. *boy*, or *cabinet minister*.

On p. 30 it is said that

> a distinction between substance-sortals and restricted or phase-sortals might be based on the test whether '*x* is no longer *f*' entails '*x* is no longer' (or 'for all *f*, *x* is no longer *f*').

Substance-concepts receive further characterisation on pp. 35-39.

Neither of the tests quoted above succeeds in marking out the intended distinction. Not every sortal which happens to apply to something throughout its life need be a substance-concept, e.g., 'boy' of someone who dies in boyhood. Indeed, there could have been a universe in which some phase-sortal happened to apply to all things throughout

their lives. (For this reason alone, Wiggins' principle (D. ii) would not by itself guarantee the truth of E.) Presumably 'x is no longer a war-veteran' entails 'x is no longer', but 'war veteran' is surely a phase-sortal rather than a substance-concept.

It might be suggested that 'F' is a substance-concept if and only if 'F' is a sortal and 'F's being true of x at *some* time during x's life is logically sufficient for 'F's being true of x at *every* time during x's life. Now this treatment would make such sortals as 'firstborn' and 'twin' substance-concepts. Saying that 'firstborn' is a substance-concept amounts to saying:

$\Box(x)(t)(x \text{ is } F \text{ at } t \supset (t^1)\ (x \text{ exists at } t^1 \supset x \text{ is } F \text{ at } t^1)$

Clearly on this account there is nothing distinctively *essentialist* about the claim that some objects have substance-concepts true of them.

Equally clearly, Wiggins wants to say more than is implied by the above explanation of 'substance-concept'. He declares explicitly that if a is F, and 'F' is a substance-concept, then the sentence 'a is F' is true of *de re* necessity: the truth is that $\Box(Fa)$, where this last assertion is to be generalised as '$(\exists x)[\Box F(x)']$' (p. 42). His view is essentialist (p. 41).

Wiggins' strong way of putting things implies that if 'F' is a substance-concept true of certain objects, then not only cannot those objects cease to be F without ceasing to exist entirely, but also those objects could not all along have been other than F.

Furthermore, someone might ask whether a certain predicate might be both (a) essentially true of all the objects of which it was true, and (b) such that there might have been *other* objects of which it was true but not essentially true. For Wiggins a substance-concept could not be a predicate of this kind. Evidently a substance-concept is intended to be such that the predicate 'is essentially true of all the objects of which it is true' is essentially true of it. (This is consistent with Wiggins' belief—p. 59f, 60—that whether or not a given sortal is a substance-concept may well be an *a posteriori* matter.)

Hence if Wiggins' thesis E is correct, and every object about which one can make identity-statements has true of it some substance-concept, then the two essentialist claims mentioned at the beginning of this article are true.

3. *Wiggins on substance-concepts and identity through time*

Wiggins supports his thesis E with two lines of reasoning. The former, on his pp. 27-34, is via the claim that for all objects x there is some sortal term g such that for all times t, if x exists at t, then g is true of x at t. As he puts it:

(D. ii) $(x)(\exists g)(t)[(x \text{ exists at } t) \supset (g(x) \text{ at } t)]$

The latter, on pp. 34f, concerns conditions for tracing objects and seeing whether they coincide. Wiggins sees the latter as an informal

development of the former. I shall begin with the argument for (D. ii) which begins on p. 30.

Wiggins claims that he has established that

> it is excluded that a might coincide under a phase sortal f with b, b coincide under f with c_1 and b coincide under f^1 with c_2, where $f \neq f^1$ and $(g)(c_1 \neq c_2)$.

He now seeks to disprove,

> the possibility that a should coincide with b under f, b_1 with c_1 under f^{11} with d..., where f, f^1, f^{11},... are not related by being qualifications of some one sortal.[7]

Sydney Shoemaker points out that Wiggins must establish both the following statements:

> (1) If two sortals f and f^1 are (or can be) successively satisfied by one and the same thing in such a way that the f phase and the f^1 phase of the thing's existence are temporally adjacent but not overlapping, then f and f^1 must be restrictions of some common sortal.

> (11) If two sortals f and f^1 are (or can be) simultaneously satisfied by a single thing, that is, are (or can be) satisfied by it in such a way that the f phase and the f^1 phase of the thing's existence wholly or partially coincide, then f and f^1 must be restrictions of some common sortal.[8]

Someone might ask whether these statements really need elaborate defence. If the current vocabulary of one's language does not already contain a sortal which both 'f' and 'f^1' restrict, can't one simply invent such a word? Wiggins would probably reply that one needs specific arguments to show that this will always be possible. His position is complicated by an apparent distinction between sortal *concepts* and the sortal *predicates* which in a given language correspond to the concepts: cf. his suggestion that a sortal may exist either 'named or unnamed' (p. 33).[9] If sortal concepts are somehow prior to sortal predicates, then there may exist extra-linguistic constraints on one's ability to introduce into one's language predicates which correspond to sortal concepts. Wiggins' failure to clarify his views makes it hard to assess negative existential generalisations concerning sortal concepts.

On the rough account of 'sortal term' that I gave at the end of section 1, for any two sortals 'f' and 'f^1' there will always be a sortal 'f or f^1' which they both restrict. For example, let 'x is a lask $=_{df}$ 'either x is a lamp or x is a desk'. Since the question, 'how many lasks are there in this room?' has a definite answer, 'lask' must be regarded as a sortal term. Hence I must concede that Shoemaker's (1) and (11) are trivially true. But the truth of (1) and (11), and so of (D. ii) achieved in *this* fashion, would lend almost no support to Wiggins' central thesis E, that 'there is always to be discovered...a substance-concept appropriate to cover any identity-statement'. Thus Wiggins' own arguments for the *nontrivial* truth of (D. ii) remain interesting and important.

Wiggins' argument begins as follows:

Suppose I have found a to coincide with b under f and that the individual which is a and b then reaches the end of its f phase. I have then to decide whether it continues or ceases to exist. Suppose it were said that *any* sortal would do to preserve or continue it in existence provided it applied to whatever was in the place where the individual b was when it ceased to be f. That would be wrong because it would fail to distinguish sufficiently between a thing's being *replaced* and it *continuing to exist*...But in that case there must be some limit on the range of admissible sortals whose applicability would serve to continue a or b, the f thing, in existence. But suppose there were even as many as two such sortals, f^1 and g, competing respectively to make b coincide under f^1 with c_1, and coincide under g with c_2. Since by the prohibition on branching not both can secure b, why should either? If there is to be any such thing as individuation then there must be some basis on which putative rival claims can be distinguished, and the only basis there could be in this. [P] A thing is legitimately individuated and singled out as one thing through a chain of phases if and only if the chain is so organized that the sortals, $f, f^1, \ldots$describing a thing in adjacent phases, phase f, phase $f^1, \ldots$are *restrictions of the same sortal.* Now if the relation 'f restricts the same sortal as f^1' is an equivalence relation, then this relation will secure that some one underlying sortal extends from any adjacent pair of phases throughout the whole chain back to the beginning and forward to the end of this particular individual's existence. So all that needs to be shown in order to establish (D.ii) is that this relation is indeed an equivalence relation (p. 31).

A preliminary query: what does Wiggins mean when he says that a sortal f^1 would serve to continue a previously f thing in existence? He talks about sortals competing to *make* an individual coincide under them with different individuals, and sortals *securing* an individual. This suggests that the f^1 nature of the object is in some sense the ground of its identity with the previously f thing. Thus one interpretation is that if an f phase of some object is followed by an f^1 phase of some object, in an appropriate spatio-temporal relation to it, then this logically guarantees that the two phases are phases of the same object. But clearly Wiggins has in mind such cases as the sortal 'woman' continuing in existence an individual which previously had fallen under the sortal 'girl'. There is no logical guarantee here of identity: a girl could be replaced by some other person, a woman, in a continuous way. Perhaps to say that a sortal f^1 preserves or continues a previously f thing in existence is merely to say that f^1 is true of the same thing that was previously f. Wiggins' inexplicitness on this point is unfortunate, since it seems that the entry-point for essentialism may be just in his claim that 'there must be some limit on the range of admissible sortals, whose applicability would serve to continue a or b, the f thing, in existence'. He assumes it as a premise: it can hardly be supposed to follow immediately from the distinction between a thing's being replaced and its continuing to exist.

Wiggins claims that the only basis on which rival claims for identity through time can be arbitrated is his principle P (in the above quotation). Shoemaker argues for the 'if' clause of P by saying that if sortals f and f^1 were restrictions of a common sortal, then f and f^1 would share a common criterion of identity.[10] I have argued in Section 1 that this is false.

The 'only if' clause of P is false. That is, it is false that any two sortals, f and f^1, which pick out successive phases, an f-phase and an f^1-phase, of

one object, restrict the same sortal. For consider an object which from t_1 to t_2 is a railway bridge, and which at t_2 has its rails removed and is stood on its end, so that from t_2 to t_3 it is a signal column, used to aid ship navigation. Although the sortals 'railway bridge' and 'signal column' mark out adjacent phases of the one object, its railway bridge phase and its signal-column phase, they do not seem to be restrictions of any signal sortal. (Note that a signal column need not be a human artifact; 'physical object' is not a sortal term; 'useful object' is not a sortal term.)

Is the relation 'restricts the same sortal as' an equivalence relation? Since it is obviously symmetrical and reflexive, the issue is: is it transitive? Wiggins' arguments (pp. 32-34) on this question are effectively criticised by Shoemaker,[11] who proceeds to offer an argument of his own for an affirmative answer. Wiggins had discussed a situation in which sortals f and f^{11} both restrict a sortal g and in which sortals f^{11} and h both restrict a shortal h_1. Shoemaker declares:

> What must be shown is that since, by hypothesis, the g_1 and h_1 in the example are both restricted by the genuine sortal f^{11}, and so are cosatisfiable, there must be a common sortal which both restrict. This is precisely the thesis I earlier referred to as (11). And while Wiggins barely hints at it, there does seem to me to be a plausible argument for (11). Where two sortals f and g are such that an f and a g can exactly coincide at a given time, that is, what will show them not to be cosatisfiable will be the fact that a particular f and a particular g can coincide at one time without coinciding throughout their histories. For example, if a person can have different bodies at different times, and so first can coincide with a given body and then cease to coincide with it, this shows that the sortals *person* and *human being* are not cosatisfiable. But this implies that if sortals g_1 and h_1 are cosatisfiable, they must be such that if it is necessarily the case that a g_1 and an h_1 cannot coincide at one time without coinciding throughout their histories. And this can be so only if g_1 and h_1 share the same criterion of identity through space and time. They will share the same criterion of identity if they restrict a common sortal..., and it is difficult to see how else they would do so.[12]

Shoemaker gives no reason for the fourth sentence ('Where two sortals...'). We are here deep in essentialist talk. For it is logically possible that a lightning flash and an electric discharge should exactly coincide at a given time, and it is logically possible that a particular lightning flash and a particular electric discharge should coincide at one time without coinciding throughout their life-spans, yet the sortals 'lightning flash' and 'electric discharge' are cosatisfiable. Evidently Shoemaker's 'can' has *de re* modal force. But even accepting this, there are counter-examples. The sortals 'animal' and 'heap of cells' can exactly coincide at a given time, and a particular animal and a particular heap of cells can coincide at one time without coinciding throughout their life histories—e.g. Gerald Ford and the heap of cells that now form his body. Yet the sortals 'animal' and 'heap of cells' are cosatisfiable, e.g. by a single-celled amoeba.

Shoemaker's premise, 'If a g_1 and an h_1 cannot coincide at one time without coinciding throughout their histories, then g_1 and h_1 share the same criterion of identity' is also false, even accepting the legitimacy of a *de re* interpretation. Assume that every human being is essentially a

human being, and suppose that there exist human and robot calculators. A human being and a calculator cannot coincide at one time without coinciding throughout their histories (though of course a human being can cease to calculate); yet it is false that 'human beings' and 'calculator' share the same criterion of identity—for human beings can undergo identity-preserving changes that some calculators, viz., robot ones, cannot undergo, and vice versa. (Wiggins, of course, would deny that 'calculator' is a sortal term.)

Finally, there may be direct counter-examples to Shoemaker's principle (11). I tentatively suggest the following: 'dagger' restricts both 'knife' and weapon', but there is no sortal term which both 'knife' and 'weapon' restrict.

Let us now turn to Wiggins' reasoning on pp. 35f. Its structure is very obscure. The following truth-condition *T*, for the identity-statement '*a* = *b*', is said to play a fundamental role in all our individuative practices:

> If one locates each of the particulars *a* and *b* [under covering concept or concepts] and, where appropriate, sc. in the case of 'identity through time', traces *a* and *b* through time [under covering concepts], one must find that *a* and *b* coincide [under some covering concept *f*].

What particularly needs to be shown, says Wiggins, is the essentialist character of the parts of *T* marked by square brackets.

However it is not clear what work *T* actually does in Wiggins' overall argument. If *a* is identical with *b* then *a* and *b* coincide as long as either exists. One cannot infer that a necessary condition of establishing the identity of *a* and *b* is that one discovers, by tracing *a* and *b* through space and time, that they always coincide. One *can* infer that it is a sufficient condition of establishing the nonidentity of *a* and *b* that one discovers, by tracing *a* and *b* through space and time, that they do not always coincide. Suppose that one conjoined this truth with the further (false) premise that to trace an object through time one must be able to apply to the object a sortal term satisfying (D. iii)-(D. vi). It would not follow that in order to ascertain whether or not *a* is identical with *b* one must be able to apply to *a* and *b* a sortal term satisfying (D. iii)-(D. vi). This *would* follow from the premises that in order to assess the truth-value of '*a* is identical with *b*' one must be clear as to the referents of '*a*' and '*b*', and that this required the specification of what sort of object *a* is, and so a specification of a sortal term satisfying (D. iii)-(D. vi). But now condition *T* has dropped out of the discussion entirely: it is not making any contribution to Wiggins' defence.

The claim that 'what is needed to specify the sort of object *a* is...is a classification *f* of *a* sufficient to settle [(D. iii)-(D. vi)]' occurs as a *premise* on p. 35: there is no argument for it here or on the following page. Obviously the argument for (D. i) on pp. 27-29 does not establish it: there is no mention of anything like (D. iii)-(D. vi). Evidently Wiggins believes that it has been established by the argument for (D. ii) on pp. 30-34. But how? Wiggins is extraordinarily inexplicit.

It might be claimed that to obey the command 'Trace *a*' one needs specifying under what conditions a given space-time region of the world is correctly described as 'containing *a*'. It might further, though less plausible, be claimed that the citing of such rules is necessary to fix the reference, here and now, of '*a*'. But there is no essentialism here.

Thus Wiggins has not established his thesis E. Indeed, he has not shown that t ıere is *any* object which has true of it a substance-concept, or even that .here is *any* object which has essentially true of it some predicate.

NOTES

[1]D. Wiggins, *Identity and Spatio-Temporal Continuity* (Blackwell, 1967), p. 29. Future page references in parentheses will be to this work.

[2]P.F. Strawson, *Individuals* (Methuen, 1959).

[3] M.J. Woods, 'Identity and Individuation', in R.J. Butler (ed.), *Analytical Philosophy, Second Series* (Blackwell, 1965).

[4] W.V. Quine, *Word and Object* (M.I.T. Press, 1960), p. 91.

[5]Wiggins refers the reader to Geach's account of restriction. On p. 30 Wiggins gives an example: 'boy' is definable as 'human being that is male and biologically immature'; thus 'boy' restricts 'human being'. Recent discussion suggests that comparatively few sortal terms can be defined in the manner of 'boy' or 'bachelor'.

[6] I shall pass over in silence problems caused by sortals true of (if anything) nonspatial objects such as numbers and disembodied minds. A cleaned-up account is not needed for the argument that follows.

[7]Both passages from p. 30. Wiggins has not at this point explained the locution '*a* coincides with *b* under sortal *f*'. His views emerge on his pp. 35f.

[8] S. Shoemaker, 'Wiggins on Identity', reprinted in M.K. Munitz (ed.), *Identity and Individuation* (New York University Press, 1971), p. 109f.

[9] 'Sortal concept' is in fact his normal expression. He does use 'sortal predicate', e.g. on p. 27. I do not see just how his suggestion that a sortal may exist named or unnamed fits in with his talk on p. 69 of our *inventing* sortals.

[10] Shoemaker, *op. cit.*, p. 111.

[11] *Ibid.*, pp. 111f.

[12] *Ibid.*, p. 113.