THE PURE AND THE IMPURE

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Many philosophical puzzles concerning identity and individuation involve the distinction between pure and impure properties. Some examples which illustrate this distinction may be helpful to the reader.

Impure properties	Pure properties
being the wife of Socrates	being a wife
being next to me	being next to something
being identical with *that* desk	being red
being the tallest man on Earth	being a man who is taller than any other man
being the pen I'm holding	being cubical
being identical with me	being identical with something

An examination of the relevant literature reveals that this distinction has never been given an adequate analysis or definition. Typically, the distinction is either explained in intuitive terms, or merely illustrated by means of examples similar to the ones presented above. In this paper I aim to fill this gap by providing an adequate analysis of the distinction between the pure and the impure. Such an analysis cannot fail to illuminate a large family of philosophical problems associated with the concepts of identity, indiscernability, and identifying reference. (¹)

(¹) See the various treatments of these problems in M. J. Loux, ed., *Universals and Particulars: Readings in Ontology* (Garden City, N. J.: Doubleday, 1970). Compare R. M. Chisholm, *Person and Object: A Metaphysical Study* (La Salle: Open Court, 1976), pp. 23-46. Chisholm defends theories of individuation and identifying reference which presuppose that there are impure properties.

I

Certain realists distinguish the pure from the impure for the sole purpose of excluding impure properties from their ontology. These realists allow that there are pure properties, but deny that there are impure properties. Other realists maintain that there are both sorts of properties, but find the distinction useful for a wide variety of reasons. Intuitively, if a property «makes reference» to some particular concrete object, then it is impure; otherwise it is pure. (²) The difference between the pure and the impure is often explained in linguistic terms. An impure property is described as one which is expressed by a predicate manufactured with the help of a proper name or indexical term designating a concrete object; a pure property is characterized as one which is expressed by a predicate which is free from any such singular term.

Such a linguistic characterization suffers from at least three major shortcomings. First of all, it relies on an unexplained relation of «expressing» which supposedly holds between predicates and properties. Secondly, an adequate explanation of this distinction should enlighten us about the sense in which impure properties «make reference» to particular concrete objects. A linguistic account makes use of the notions of a *proper name* or *indexical term* in order to illuminate this problem. Thus such a linguistic account is adequate only if we have an analysis of the manner in which proper names or indexical terms succeed in designating their referents. But it is clear that our understanding of the referential function of these sorts of singular terms remains incomplete. Lastly, a linguistic account characterizes a distinction among *nonlinguistic* entities, i.e., properties, by means of appealing to *linguistic criteria*. A deeper account of the distinction categorizes these kinds of properties in terms of intrinsic characteristics or features of the properties themselves.

In response to these, or similar difficulties, several investi-

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(²) In the sense in which I use the term 'concrete object', all concrete objects have contingent existence.

gators have abandoned the linguistic approach, and have attempted to interpret the distinction in terms of the intrinsic features of pure and impure properties. For example, some philosophers have suggested that a property is impure if it has a concrete object as a «constituent»; while a property is pure if it has no concrete «constituents». An example which illustrates this idea may be helpful at this point. The property of *being next to me* is impure because it has me as a constituent, and I am a concrete object. This sort of account avoids the drawbacks of a linguistic characterization, but it is faced with problems of its own· We are seldom given any analysis of what it is for a property to have a concrete object as a «constituent». Nonetheless, such an account is clearly on the right track. If we can provide an analysis of the notion of a concrete object, x, being a constituent of a property F, then we can provide a successful explication of the concepts of purity and impurity.

II

My aim in this section is to present an analysis which captures the intuitive distinction between the pure and the impure, but which does not logically commit me to any specific view concerning the *existence conditions* of these sorts of properties. I shall attempt to provide an account which a realist may accept without being logically committed to any particular one of the following controversial theses concerning properties:

(1) Properties, or certain kinds of properties, cannot exist uninstantiated;
(2) Properties, or certain kinds of properties, can exist uninstantiated;
(3) Properties, or certain kinds of properties, have necessary existence;
(4) Properties, or certain kinds of properties, have contingent existence.

I begin by analyzing the notion of *a property having a con-*

crete constituent in terms of certain *essential features* of typical impure properties. Consider the property of *being next to me,* and compare it to its pure counterpart: the property of *being next to something.* What essential characteristics does the former property have, which its pure counterpart lacks ? The instantiation of the property of *being next to me* entails that some *particular* concrete object exists, i.e., me. But the instantiation of the property of *being next to something* does not entail that some *particular* concrete object exists.

Bearing this in mind, consider the following account of an object being a concrete constituent of a property ([3]).

D1: The property F has x as a concrete constituent =df. F is a property such that: (i) F is possibly instantiated, and (ii) F is necessarily such that if it is instantiated, then x exists at some time, and (iii) x is a contingently existing concrete object.

D1 allows us to say that the property of *being next to me* has me as a concrete constituent since (i) this property is possibly instantiated, (ii) this property is necessarily such that if it is instantiated, then I exist at some time, and (iii) I am a contingently existing concrete object. Consider the examples of impure properties mentioned earlier. Each of these properties, and similar ones, have concrete constituents in the sense defined in D1. Moreover, no pure property can have a concrete constituent in this sense. The following pure properties cannot have a concrete constituent: being blue, and being the tallest man, i.e., being a man taller than any other man. Each of these properties can be instantiated by any one of a number of different concrete objects· Therefore, it is impossible for there to be a contingently existing concrete object, x, such that: the property of being blue is necessarily such that it is instantiated only if x exists at some time. Similarly, for the

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([3]) Throughout the paper I employ the notion of *de re* necessity, a concept which allows one to say that an item has a property *necessarily.* Intuitively, an item, x, is necessarily such that it has the property F just in case (i) x has F, and (ii) it is absolutely impossible for x to exist and lack F.

property of being the tallest man, or for any other pure proper-
ty. Thus no pure property can satisfy D1 ([4]).

If it is impossible for a property F to be instantiated, then F's
being instantiated entails the obtaining of every state of affairs.
Thus the property of being a round square is necessarily such
that if it is instantiated, then George Washington exists. Thus
if clause (i) were eliminated from D1, then the resulting defini-
tion would imply that George Washington is a concrete consti-
tuent of the property of being a round square. But this con-
sequence is absurd. By requiring that if a property has a con-
crete constituent, then it is capable of instantiation, clause (i)
of D1 prevents such impossible properties from vacuously
satisfying the antecedent of the conditional in clause (ii) of
D1.

In clause (iii) of D1 I make use of an intuitive notion of a
concrete object. According to this notion, all concrete objects
have contingent existence. Items of the following kinds are
instances of this concept of a concrete object: physical objects,
persons, particular events, times, and places. In the sense
intended, entities such as properties, relations, propositions,
numbers, linguistic types, etc., are not concrete objects. It is
customary to classify items of these kinds as *abstract entities*.
One traditional view is that abstract entities have necessary
existence. Nevertheless, since the time of Aristotle, there have

([4]) Consider a pure property, $\emptyset$, which satisfies the following condition:
   $\emptyset$ is a maximal conjunction of all the pure properties which some con-
   crete object a instantiates.

Such a property $\emptyset$ will include both the pure intrinsic characteristics of
every part of the universe, and all of the pure relationships which these
parts bear to one another throughout eternity. Since $\emptyset$ is pure, a predicate
which expresses $\emptyset$ does not contain a proper name or indexical term which
designates a particular concrete object, place, or time. Leibniz may have
held the following view: $\emptyset$'s being instantiated entails that a exists. Such
a view implies that $\emptyset$ is a pure property which satisfies D1. But this
«Leibnizian» view is extremely implausible. The claim that $\emptyset$ satisfies D1
conflicts with a deeply rooted intuition that $\emptyset$ could have been instantiated
by some object other than a. Thus it is implausible to suppose that $\emptyset$, and
similar properties, satisfy D1. Consequently, this «Leibnizian» view does not
present a serious objection to my claim that no pure property can satisfy
D1.

been philosophers who have maintained that abstract entities have contingent existence. My claim that no pure property has a concrete constituent is consistent with this view of abstract entities. Let us assume that the pure property of being blue has contingent existence. Evidently, the property of being blue is necessarily such that if it is instantiated then the property of being blue exists. Thus given our assumption, it follows that the property of being blue is necessarily such that if it is instantiated then some *particular* contingent object exists, viz., the property of being blue· Does this imply, contrary to what I have claimed, that the property of being blue has a concrete constituent ? No. D1 does not permit us to say that the property of being blue has itself as a concrete constituent. Clause (iii) of D1 requires that a concrete constituent be a *concrete object,* and the property of being blue is not a concrete object. Thus D1 implies that a concrete constituent of a property cannot be a property or any other nonconcrete entity.

The notion of a concrete constituent which I have developed can be used to define a concept which singles out certain paradigm or *basic* cases of impure properties.

D2: F is a basic impure property =df· F is a property such that:
     F possibly has a concrete constituent.

Each of the impure properties mentioned earlier satisfy D2, and thus are basic impure properties. No pure property *possibly* has a concrete constituent. Consequently, no pure property can satisfy D2.

D2 has at least one feature which merits further discussion. There is a controversy over whether or not there are impure properties of the form 'being identical with a' which are uninstantiated throughout all of time. It is not obvious that there are no impure properties of this kind which remain uninstantiated throughout all of time. Nor is it obvious that there are properties of this kind which are eternally uninstantiated. Each of these views is problematic, and further arguments are necessary if one or the other of them is to be established. An analysis of impurity which is neutral on this controversial is-

sue has a clear advantage over an analysis which is nonneutral. All other things being equal, we know that a neutral analysis is correct regardless of which of these controversial views happens to be true. But we know that a nonneutral analysis is incorrect if certain problematic claims are indeed false. D2 does remain neutral on this issue. D2 only requires that it be *possible* for a basic impure property to have a concrete constituent. Suppose that the property of *being identical with Alfonso* is an impure property which as a matter of contingent fact is uninstantiated throughout eternity. In these circumstances, Alfonso could have existed, even though *in fact* he never does exist. D1 requires that a concrete constituent of a property be an existing object. Therefore, D1 implies that the property of *being identical with Alfonso* does *not* have Alfonso as a concrete constituent. Nevertheless, if Alfonso had existed, then he would have been a concrete constituent of the property of *being identical with Alfonso*. So the property of *being identical with Alfonso* possibly has a concrete constituent. Consequently, this property satisfies D2 whether or not it has any concrete constituents. Thus D2 is logically consistent with the thesis that there are impure properties of the form 'being identical with a' which are forever uninstantiated. On the other hand, one cannot logically deduce from D2, together with the assumption that there are impure properties of the form 'being identical with a', the conclusion that there are impure properties of this form which are eternally uninstantiated.

Do all impure properties satisfy D2? The answer to this question depends on just how rich our realistic ontology turns out to be. Some philosophers have argued that there are no truth-functionally complex properties, e.g., negative properties, and conjunctive properties. In a similar vein, it might be claimed that there are no properties which are quantificationally complex. Yet others are skeptical towards properties of the following sorts: (i) higher-order properties, i.e., properties which can only be instantiated by properties, or by properties of properties, and so on; (ii) modalized properties, e.g., being possibly red. But not all realists share these skeptical attitudes concerning properties.

If there are disjunctive properties, then there are some properties which may not satisfy D2. Consider the property of *being either next to me or blue.* Remember that I require my account to be logically consistent with a wide variety of existence conditions for properties. Thus my account should be logically consistent with the following state of affairs: possibly, this disjunctive property exists even though I never exist. On this assumption, the disjunctive property in question can be instantiated under the following condition: I never exist, and something is blue. But this entails that the disjunctive property in question is not necessarily such that if it is instantiated then I exist at some time. Consequently, it is not possible for this disjunctive property to have me as a concrete constituent. Nor is it possible for it to have any other concrete constituents. Since a property of this sort does not satisfy D2, it is not a basic impure property. However, intuitively, the property of *being either next to me or blue* is impure. This property, and similar ones, are *nonbasic* impure properties.

If D2 is supplemented with certain recursive definitions, then my account of the impure will be adequate to an enriched realistic ontology which includes truth-functionally or quantificationally complex properties. These recursive definitions permit the generation of nonbasic impure properties out of basic impure properties. A sample recursive account of the notion of an impure property is given in the following definition ([5]).

D3: The property of being F is an impure property =df. The property of being F is such that: (i) Any truth-functional compound of a property, or properties, which contains an impure property as a component is an impure property, and (ii) where the property of being G is any impure property, the property of being such that $(\exists x)(Gx)$ is an impure property, and (iii) either (a) the property of being F is a basic impure property, or (b) the property of being F can be generated out of basic impure properties according to (i) or (ii).

([5]) The letters 'F' and 'G' in D3 are schematic and may be replaced by any appropriate predicate expression.

Such an account permits the generation of truth-functionally complex and quantificationally complex nonbasic impure properties out of basic impure properties.

If it is desired, we can add recursive clauses to accommodate modalized properties, higher-order properties, and so on. Here are some examples of such additional recursive clauses:

> if the property of being F is impure, then the property of being identical with the property of being F is impure; if the property of being F is impure, then the property of being possibly F is impure.

Given any particular determination of the richness of a realistic ontology, one can provide appropriate recursive clauses for the construction of the requisite properties. Given some particular determination of the richness of a realistic ontology, the pure and the impure can be defined as follows (⁶).

D4: The property F is impure =df. F is a property such that: either (i) F is a basic impure property, or (ii) given an appropriate set of recursive rules which initially operate on basic impure properties, F can be generated out of such basic impure properties.

D5: The property F is pure =df. F is a property such that: F is not impure.

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(⁶) My definitions can easily be adapted to cover impure relations and impure propositions. For the sake of brevity I have limited my discussion to singulary attributes, i.e., properties.