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REFLECTIONS ON DEPENDENCE

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§1. Introduction

A holist position with respect to a given science might consist in the endorsement of a view somewhat as follows:

[1] that the objects which form the subject-matter of this science should be investigated not in isolation from each other but rather only as they figure in certain appropriate circumcluding wholes.

This is merely to state a methodological rule, however, which does not tell us *why* we should adopt an attitude of the given sort in our investigations. A more adequate understanding of what holism involves is obtained only if one examines the ontological foundations of methodological rules of the given sort.

The purely ontological kernel in the above might then be captured as follows:

[2] that the objects in the domain of a given science are, in themselves, not mutually independent objects but rather entities which stand in one-sided or n-sided, mediate or immediate dependence relations with each other (and they would stand in these relations even if no scientific inquiries were ever directed towards them).

Dependence, here, is understood in the sense of Husserl's theory in the *Logical Investigations* (roughly: a is dependent on b if

and only if a is necessarily such that it cannot exist unless b exists and - to avoid trivial cases - b is not a part of a).

Note that [2] is formulated not in absolute terms, i.e. as a thesis about the world as a whole, but rather relative to the object domain of some given science, as practised at some given time. The thesis would be brought forward as part of an argument to the effect that this science embodied presuppositions which were too atomistic in this or that respect, ignored these and these dependence relations amongst the objects in its domain, and so on.

Note, too, that the purely ontological conception of dependence can cope quite adequately with mutual dependence (where a is mutually dependent upon b if and only if a is dependent upon b and b is dependent upon a). An example of mutual dependence noted by Peirce is: 'There can be no resistance without effort; there can be no effort without resistance' (cf. J. Israel, 1979, p.69: all references are to this work unless otherwise indicated). Other examples might be: mutual dependence of a colour-datum and a datum of visual extent; the mutual dependence of the sequences of utterances produced by the parties in a conversation, or of the sequences of blows produced by the parties in a fight. A commitment to mutual dependence in this sense need have no unwelcome paradoxical consequences. In particular, one can advance the ontological thesis that there are relations of mutual dependence amongst the objects in a given domain without going so far as to accept the view - at the opposite end of the spectrum from extreme atomism - according to which all the elements of the domain would stand in a single relation of interdependence à la Spinoza (the night, in which all cows are black).

§2. Epistemology

An epistemological variant of theses of the sort expressed in [1] and [2] might read as follows:

[3] that knowledge of an object or of complexes of objects in a given scientific domain cannot be attained unless knowledge of certain other objects or complexes of objects has also been attained.

(The reader should ignore, here and in what follows, the presupposition of veracity which is carried by the term 'knowledge'.)

As a thesis concerning the one-sided dependence of one sort of knowledge upon another [3] is unexceptionable. It seems that all our developed scientific knowledge presupposes other, previously acquired knowledge, a thesis with which even the most died-in-the-wool atomist will surely agree. We can therefore assume that the proponent of epistemological holism must have something else in mind when he advances a thesis like [3].

One obvious suggestion is that he wants to insist upon a mutual or reciprocal dependence of different sorts of knowledge on each other. But the acceptance of mutual dependence in the epistemological sphere brings with it peculiar difficulties, difficulties which, as already seen, are absent from the ontological sphere. For if our gaining knowledge of X depends on our gaining knowledge of Y, and vice versa, then we are trapped in a circle, the viciousness of which flows trivially from the fact that the dependence relations which hold between chunks of knowledge involve relations of temporal priority, and two processes of gaining knowledge cannot each be temporally prior to the other. On the other hand it seems that there is some analogue

of mutual dependence in the epistemological sphere. This is clearest in relation to our knowledge of certain types of cultural phenomena: our knowledge of, say, a work of literature is dependent upon our knowledge of the author's intentions in creating it, but then our knowledge of these intentions (i.e. our determination of which beliefs, experiences, aims of the author, etc., are relevant to this work) is itself dependent upon our knowledge of the given work.

There are two possible reactions to such apparent cases of mutual epistemological dependence. On the one hand one may rejoice in the very paradoxical nature of the circularity which they seem to involve. It is this alternative that lies at the bottom of many currently thriving brands of philosophy and pseudo-philosophy (from dialectics to hermeneutics), and which is conveyed by Joachim Israel for example in a passage like the following:

> When trying to specify the basic categories of dialectical reasoning we face a dilemma. By talking about dialectics we may understand what dialectical reasoning is. But we not only want to talk about dialectics, we also want to use dialectical reasoning in our account in order to grasp it. Hence, in order to grasp dialectics, we must understand what we mean when we talk about it (p.xv).

On the other hand one may argue that the paradox may be resolved by the adoption of a view of knowledge which recognises that a certain amount of tacking is possible: one may go from inferior knowledge of X to achieve slightly less inferior knowledge of Y, and go from there to achieve still less inferior knowledge of X, and so on.

Ideas of this sort seem to be at the root of Quine's

epistemological holism. And they are used also by Husserl's pupil Roman Ingarden as the basis for important writings on the foundations of epistemology. Ingarden's (by no means unfamiliar) problem was as follows: How is epistemology possible in relation to any given domain of scientific inquiry? How is it possible to answer the question: 'is knowledge in the strict and proper sense, knowledge adequate to these given objects, possible?'? For of course an answer to this question would seem to presuppose that one had some prior knowledge of what these objects are like, i.e. that one already had something with which to compare the knowledge under review. Ingarden recognised, in effect, that there exists a mutual interdependence between our first-order knowledge of given objects and our second-order knowledge of the adequacy or correctness of this very knowledge. He argued that one could resolve the problem raised by this mutual dependence by tacking between these two kinds of knowledge: one looks first at the objects, then at the knowledge of these objects in the light of the question: is it adequate to the objects themselves?; one than looks back at the objects, having learned something about them from reflecting on the adequacy of our knowledge; and so on. The science of epistemology, in Ingarden's view, consists precisely in drawing lessons from such tacking processes in relation to different sorts of knowledge and to different sorts of object.

Note, however, that whilst

(1) our knowledge of our knowledge of X,

or: (2) our knowledge of the correctness of our knowledge of X,

or indeed: (3) our knowledge of our language about X,

or even: (4) our knowledge of our perceptions of X,

all depend mutually upon

(5) our knowledge of X,

it would surely be mistaken to conclude, with Joachim Israel and Nini Praetorius, that our knowledge of X and X itself are mutually dependent, or (more generally) that there is a mutual dependence of 'language, knowledge and reality'. But more on this anon.

§3. Epistemology and Ontology

A second way in which one might want to extract something interesting from the thesis that there exist examples of epistemological dependence is by seeing this thesis as itself having ontological implications. For example from:

> it is impossible to gain knowledge of human beings except by examining the societies in which they live (or the means of production by which they live, or what not),

some might want to conclude that:

> human beings are in fact not separate atoms, but rather moments or dependent parts of larger social wholes, or of social processes, social totalities, and the like, or that they are 'ensembles of societal relations' (p.138).

It is possible to capture what is common to such views in the form of a thesis like:

[4] from the fact that knowledge of objects X is dependent upon knowledge of objects Y (that it is impossible to gain knowledge of X except by gaining knowledge of Y), it follows that objects X are themselves ontologically dependent upon objects Y.

This is an interesting thesis, though it is certainly not true in

the general case. I cannot gain knowledge of neolithic culture except via communications formulated in some post-neolithic language, but it would be absurd to suppose that neolithic culture is (was?) dependent for its existence on the development of post-neolithic languages. I cannot gain knowledge about the physical structures of electromagnetic fields except through the exercise of knowledge about partial differential equations, but it would be absurd to suppose that electromagnetic fields themselves, or their physical structures, are dependent for their existence on those peculiar abstract mathematical entities which are pictured by such equations. It is an interesting question as to the extent to which a thesis like [4] can indeed be accepted (cf. Sacks, 1983).

Can we embrace an implication in the opposite direction? Something like:

[5] from the fact that objects X are dependent upon objects Y it follows that it is impossible to gain knowledge of X except by gaining knowledge of Y.

Again, this thesis is certainly not true in the general case. Thus suppose, as seems reasonable, that our mental acts are dependent upon certain physical processes in the brain. It does not by any means follow from this that we cannot gain knowledge of mental acts except via a knowledge of these processes. On the other hand some heavily modified version of [5] may be true in specific domains, for example in relation to certain kinds of knowledge in the domain of quantum mechanics (though then the primary question would be that concerning the nature of the underlying ontological dependence relations).

§4. The Declaration of Independence

Our knowledge of an object is, we have insisted, at most one-sidedly dependent upon this object, at least for the most typical varieties of objects of knowledge (rocks, molecules, trees, etc.). Indeed large segments of reality as a whole, can and do perfectly well exist even though no knowledge is ever acquired of them. Similarly, language about an object like a tree is at most one-sidedly dependent upon this object; the latter can perfectly well exist, at least in normal cases, even though no one ever talks about it.

What, then, are we to make of a passage such as the following:

> In order to avoid any idealistic mistake I want to formulate the language-reality relation in the following way: Language and reality are different. Reality cannot be reduced to statements about reality. Language, in turn, cannot, in a naturalistic fashion, be reduced to sound waves. But we cannot speak about reality without possessing a language, which means using language correctly, and we cannot use language correctly without speaking about reality. For that reason language and reality form a unity or whole and the relation is of a logical kind (Israel, 1983, p.17).

First of all it is to be welcomed that Joachim Israel wishes to avoid any idealistic mistake. For much of what he says does indeed seem to be interpretable as a straightforwardly idealist view according to which reality would be dependent upon the language forms which we choose or are constrained to adopt. But idealismus repugnat, as the scholastic philosophers were fond of pointing out and as Professor Israel recognises, and thus we have to assume that his thesis is capable of being made in some way consistent with a realist view according to which reality or the

world exists independently of language or experience.

Professor Israel goes on to affirm that 'we cannot speak about reality without possessing a language'. And to this also one can agree without further ado: one cannot speak about anything without possessing a language. And he goes on further: 'we cannot use language correctly without speaking about reality'. This, too, can be accepted as a trivial truth, reflecting a quite reasonable choice as to the correct use of the word 'correct' in the given context (crediting someone with a knowledge of a language then implies crediting him also with 'an ability to produce (some) correct statements about the world' (p.3)). Yet all that this establishes is that correct uses of language are (analytically) one-sidedly dependent on reality, that correct uses of language cannot exist unless there is a reality in relation to which they are correct. It would seem, however, that Israel believes that there is some further and more interesting sense in which language and reality 'form a unity or whole'. In fact he wishes to defend a view according to which language and the world are in his terms 'independent' of each other yet 'intrinsically related' (pp.37, 85, etc.).

It is at first difficult to make sense of his views on this matter, not least because his account of intrinsicality seems itself to imply a denial of independence, as for example when he asserts that:

> An extrinsic relation between two relata exists when each of them can, and in certain cases...must be viewed as independent from each other. Something is what it is, independently of whether the other is, or is not (p.83).

Or when he tells us that

> An intrinsic relation has at least three characteristics: (1) the relata make up a unity or totality, (2) they are separate and

> different, (3) they are interdependent (p.84, my emphasis).

It seems, however, that we are to understand intrinsicality as that which is present where two or more things work or function together: for instance the parts of a watch, which 'do not "function" or "exist" independently, but only in relation to each other' (p.84, cf. also p.92). Can we then use this notion of a working, functioning whole to throw light on the relation of language and reality as Israel conceives it? Consider the following passage:

> The relation between the knowledge producing subject and the world of objects, being independent of him, is mutual. The subject is not only producing knowledge. He also produces a world of objects, and the social world concretely. Thus he is, at the same time, a product of pre-existing social and physical conditions, as well as of the objects of his own creation (p.19).

Here, too, there is much with which we can agree. Thus we can agree that the subject is himself a product of social and physical conditions (though this idea, too, can be given an interpretation which would make it trivially true). But when Professor Israel says that the subject 'produces a world of objects' he is clearly beginning to skirt, once more, the edges of idealism. Yet this thesis, or something like it, would seem to be crucial to his project. For if the language-using subject and the 'independent reality' are to form a working, functioning whole, then there must be some sort of interaction in both directions[1]: it must not merely be the case that reality somehow shapes the subject, but also that the subject shapes reality. How can this be, if the idealist mistake is to be avoided? Here I should like to consider briefly just one possible answer to this question and to show (even more briefly) why I think it will not

work.

§5. Contour Dependence

Clearly it is to be somehow the same world or reality to which we award meaning in language and which exists, independently of our experiences. And it is to be as if the world or reality as experienced exists, with language, as part of a single working, functioning whole. It undergoes, as we might say, a certain linguistic shaping. And it is this idea of a 'shaping' by language which suggests the answer to our problem. Reality as experienced and reality in itself - to put the matter somewhat crudely - would stand to each other as the shaped clay of a finished sculpture stands to the amorphous mass of clay on its way to the sculptor's studio. We could then say that the matter of reality is independent of, where the contours and internal boundaries, the structures of reality are 'intrinsically related' to, our language and experience. Experienced reality is dependent for its contours upon uses of language, and what we mean when we use language correctly in talking about reality is always the shaped and contoured reality, never the amorphous or unknowable matter of reality (in) itself.

There are certain passages in Professor Israel's writings which suggest that he might agree to something like this thesis of contour-dependence, e.g. in his discussion of Feyerabend's view that:

> from our early days [we] learn to react to situations with the appropriate responses, linguistic or otherwise. The teaching procedures both shape the 'appearance' or the 'phenomenon' and establish a firm connection with words, so that finally the phenomena seem to speak for themselves without outside help or

extraneous knowledge (cf. Israel, p.20).

To see why this account will not work, however, it will be useful to consider a more explicit development of the thesis of contour-dependence such as is to be found, for example, in Harald Delius's book Self-Awareness. Delius isolates certain predicates as having what he calls a 'modifying function', a function which he describes as follows:

> while the word "blue" is simply a name in that it has no other function than referring to the property blue, the modifying word "just" is not simply a name but has the additional function of being the (linguistic) device by which we articulate the impressions which, say, a certain man's decision makes on us - or the way in which it affects us - in judging it to be just (p.109).

Or again:

> The property just...is one that modifies the object (e.g. decision) as being just - and this is a circumstance or process which would not occur if there were no person who felt, believed, and judged it to be just by applying to that object the modifying predicate "just". However, once it is thus judged to be just, the property just may also be said to inhere in that object (i.e. the decision then 'has' that property), though it does not inhere in it simpliciter ("on its own grounds") but only in relation to a person judging it, and only qua mediated by this relation (p.110).

Clearly Delius is affirming contour-dependence not of reality as a whole but only of certain specific regions or strata of reality: the perceptual world he accepts as contour-independent. Even in relation to Delius's preferred examples, however, the thesis of contour-dependence is too strong to be acceptable. It amounts, first of all, to the thesis that

objectivity ends with perceptibility, that there is, e.g., no justice except where people find there to be justice or feel that there is justice, and this is clearly an idea which not everyone would be happy to accept.

Another example of a modifying predicate favoured by Delius is the word 'beautiful'. Let us suppose that A asserts of B that she has a beautiful face. In virtue of what can A properly articulate an experience of B's face as beautiful? If there is nothing on the side of B which justifies this articulation, then ascribing beauty to her face becomes completely arbitrary. If, on the other hand, there is something on the side of B which makes A's statement true, then it is surely this which A means - when he is using language correctly - by 'beauty'.

And similarly, in regard to every case of a modifying predicate considered by Delius there would seem to be underlying contours of the matter to be articulated which allow some articulations and rule out others, and it is surely precisely these underlying contours to which our language must refer. Only thus is there provided the necessary exterior friction which enables language of the given sort to gain a purchase on reality in the first place.

Endnote

1. The centrality of the notion of mutual dependence to the dialectical project is illustrated e.g. in the following passage, quoted by Israel from B.Ollman, Alienation, 1971 (p.15):

> The relation is the irreducible minimum for all units of Marx's conception of social reality. This is really the nub of our difficulty in understanding Marxism, whose subject-matter is not simply society, but society conceived 'relationally'. Capital,

> labour, value, commodity, etc., are all grasped as relations, containing in themselves as integral elements of what they are, those parts with which we tend to see them externally tied...This view does not rule out the existence of a core notion for each factor, but treats this core notion itself as a cluster of relations.

The crucial question, of course, is whether an ontology of relations can make sense in the absence of any ultimate relata.

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COLOURS AND COMPLEXITY

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Many twentieth century philosophers and psychologists (often psychologists with a nose for philosophical problems)have devoted a lot of attention to colours.For example,Brentano,Stumpf,Meinong,Husserl,Katz,Bühler, Metzger...and Wittgenstein.Often this has been because colours were held to provide the best examples of different sorts of necessary truths.One such sort of (apparently) necessary truth is provided by the orderings of colour-qualities:there is a natural and necessary sense,it has been claimed,in which orange lies between yellow and red. A second sort of necessary truth is provided by the types of complexity that colours and associated phenomena exemplify.And it has been claimed that there are necessary connexions between features of a visual sense-field and that such sense-fields necessarily contain certain features.

It seems reasonable to assume that - quite apart from the intrinsic interest of the subject - the complexity exhibited by colour phenomena (and by sense-fields generally) may well provide the key to understanding other "higher order" or more abstract types of complexity.In some sense,after all, it is with the complexity endemic to the different sense-fields that we are most familiar.It may,therefore,be useful to set out some of the examples of colour phenomena to which philosophers and psychologists such as those mentioned above have devoted particular attention.This will confirm and put in a broader perspective what Pehr Sällström says about