

PART TWO

THE THEORY OF OBJECTS

[[GEGENSTANDSLEHRE]]

Meinong spricht von einem
Vorurteil zugunsten der Wirk-
lichkeitserkenntnis.- Davon
brauche ich nicht erst geheilt
zu werden. (Husserl, K III 33, p. 28.)

*Meinong speaks of a prejudice in favour of knowledge of the actual: - That
is something from which I have never needed to be cured.

Ch.7. Ontological Realism

§ 32. Realism and the problem of the existence of the world.

In our discussion of the simple intentional acts of perception, of memory, of imagination, of hallucination, and so on, which constitute the primary material of our cognitive experience, we argued that there was an 'external' distinction to be made amongst such acts, a distinction not marked on the level of noemata as such, between those which have and those which lack referents. This distinction is, as we saw, perfectly parallel to the 'external' (i.e. non-syntactic, non-grammatical) distinction between denoting and non-denoting singular terms. There is a well-established tradition, whose main representative in the modern period has been Brentano, which maintains that all acts of the given sort, whether referential or 'purely noematic', exhibit a uniform directedness to intentional objects, i.e. objects which exist only in so far as they are intended as existing within acts of the given type. As we shall see there is much that is of value in such a theory, but only if we recognise that the use of the term 'object' by Brentano, in being 'internal' only, thereby has no ontological import. (Cf. the arguments of § 21.) Failure to recognise that it is a quite specific non-ontological use of 'object' on which Brentano's theory, if it is to have any value at all, must be seen to rest, has meant that the works of Brentano himself and of his successors have too often blurred the distinction between those acts which have a referent and those which are purely noematic. This in turn has alienated many sections of the philosophical community both from the possibility of an adequate theory of the 'object'-directedness, the 'internal' concern with (sometimes illusory) posits, which all such acts exhibit, and also from an adequate theory of intentional objects in the proper, ontological sense, that is to say a theory of objects whose existence depends upon acts of consciousness either through demarcation

in the familiar geographical sense which gives rise to such 'higher order intentional objects' as the North Sea, or through closely related analogues of demarcation in other fields, for example in the theory of sets, and in the theory of literature.¹⁵⁰

It is impossible to develop an adequate theory of the latter type, one which does not involve the uncontrolled multiplication of entities which is involved, e.g. in an ontology of mere 'possibilia', unless one can establish that there are determinate boundary conditions for the admissibility of objects as such, conditions which are already operative in a piecemeal way in all areas of experience (e.g. in our exclusion of snakes, truth values, present kings of France, Brazil, Romania, etc. from the realm of objects). But the existence of such conditions (presented in Ch.12 below) implies that there are many acts which seem to be object-giving acts, which posit 'objects' in the internal sense, which are not object-giving acts from the external point of view. Thus from the point of view of ontology we cannot analyse, say, an act of drunken hallucination of a pink dachshund as an act which somehow involves a purely intentional (canine) object as its referent, as it would be analysed in some Brentanian theories. Nor can we analyse the given act as an act which involves a hallucinatory image of a dachshund as its referent, an analysis which would seem to be implied by some of Frege's views on the subject of intrinsically subjective Vorstellungen. (See § 7 (2) above). The given act must be analysed as an act which is purely noematic, the act is merely an act which is articulated in such and such a way, it has a determinate meaning but one which corresponds to no object. But not every act which has a meaning which corresponds to no actually existent object can be subjected to an analysis of this form: this has been recognised by (some) philosophers of mathematics, but its extension to other fields (e.g. the theory of literature, and even to the philosophy of philosophy itself), has been little attempted. And even in mathematics it has been ill-conceived as implying the need to extend the notion of existence itself in such a way that it would apply not only to spatio-temporal objects but also to all objects of mathematics. In this way it is felt that it is possible to

preserve the favoured act dichotomy, sometimes by appealing to the argument that spatio-temporal and mathematical objects form a well-founded totality in view of the fact that, because of borderline cases such as the objects of theoretical physics, no sharp line can be drawn between the two categories. (Such an extension of the notion of existence can, as we shall see in § 61f, be defended, but not in such a way that all admissible mathematical objects are thereby counted as existing).

It is not a dichotomy but a trichotomy of acts which is needed however, namely a distinction between

(i) acts which involve an autonomously existing object as their referent, (ii) acts which involve a 'stable' intentional object (for example, the equator or Excalibur), as their referent, and (iii) purely noematic acts, such as acts of hallucination, which have no referent at all, (with parallel distinctions for higher-order acts erected on simple intentional acts as their basis).

The value of this act trichotomy as opposed to the act dichotomy favoured by empiricists, lies not merely in the fact that it is correct (at this level of generality: as we shall see, far more refined distinctions amongst acts can be made within the terms of the present schema). It is valuable also, we suggest, because of the quite unique series of philosophical problems which it carries in its wake, problems which have an unrealised intrinsic interest of their own. The most interesting of these arise, as already suggested, in connection with how the line is to be drawn between noematic and 'non-noematic' acts (acts of types (i) and (ii)). That is they concern the conditions which must be satisfied by purported entities which are 'internally' given in particular acts or networks of acts on the part of, e.g. the theoretical physicist or the large-cardinal set theorist, if the entities to which they seem to be committed are to be allowed, from the external point of view, as referents for the acts involved.

Our approach to these problems will be a realist one, involving a hard-headed attitude toward the results of natural and other sciences and toward

the evidence of ordinary experience, an attitude of the type which is exemplified by the works of Frege and Ingarden. One consequence of such an approach is that we shall be committed to the assumption that a significant totality of those scientific and everyday acts which are normally recognised as referential will truly belong to type (i) as distinguished above, that is, that they possess autonomous referents. Clearly this does not imply the assumption that every act which is given as having an autonomous referent will in fact do so: there are mistakes, both inside natural science and outside of it, and we are likely to be rudely awakened from commitment to the 'objects' 'given' in such acts as are erected on the basis of such mistakes. Realism does not rule out, either, that there may be acts which are universally held as secure members of type (i) which are in fact not of this type, even though it is never discovered that this is so. What is excluded is the possibility of what Käng has called a metaphysical illusion, the possibility that our entire world picture, our entire conceptual scheme, the whole of the ontological foundation upon which positive science is erected, may be mistaken. (Cf. Käng, 1975, p.69).

(Note that the 'hard-headedness' of realism has consequences also for the status of those purported objects, such as hobgoblins, astral spirits, and subterranean civilizations, which are rejected by natural science and by the evidence of ordinary experience. The consequences are, namely, that the broad mass of such rejections are in truth justified. The different possible conclusions which it is possible to draw for different types of rejection of this sort have not always been clearly recognised, however, by realist philosophies in the past).

§ 33. Husserlian idealism: the world as a purely intentional object.

We characterised our realist position as one according to which the 'broad mass' of those acts which we normally suppose are acts of type (i) are indeed acts of this type. Here we can add also the further tenet that so, too, the greater proportion of acts given as of type (ii), (e.g. acts of concretising literary works) are in fact acts of that type (and not e.g. purely noematic). In this sense we are advancing a realist theory of non-existent objects. A parallel position is not, of course, implied for acts of type (iii), since all acts of that type — except, perhaps, those effected within one or other species of object-bracketing reduction — are given as being acts of other types. With respect to such acts the realist must appeal to a meta-level of act criticism, where he adopts the tenet that the broad mass of acts given, on this meta-level, as being acts of type (iii) are in fact of this type.

Husserl's position, normally characterised as 'idealist', has a level of subtlety, in contrast to the avowed naïveté of the realist position here defended, which makes the two positions strictly speaking incomparable.¹⁵¹ Husserl does not, for example, simply negate one or more of the three realist tenets just advanced. He rather calls into question the very basis of the framework within which these tenets are formulated. Thus the thorough investigation of Husserl's insights is a task which cannot even be attempted within our framework, although we would wish to draw attention to the fact that the very conception of the ontology here advanced, as of the less naively realist position defended by Ingarden in StEW, would have been impossible in the absence of Husserl's work.

As in the case of Frege, however, it is possible to develop within our ontological framework certain 'modified Husserlian' positions which we hope may have some interest of their own. Here however we find that it is possible to develop not one, as in the case of Frege, but two modified Husserlian ontologies. This is because, as is pointed out by Połtawski, there is a peculiar duality in Husserl's phenomenology as expressed in the Ideen and elsewhere.

For on the one hand the programme of phenomenology assumes that we can have knowledge of the transcendent objects which are given in experience, Husserl having stated the "principle of all principles", i.e. that "jede originäre gebende Anschauung eine Rechtsquelle der Erkenntnis sei" [every intuition which gives //its object// in an original way, is a legitimate source of knowledge]. (Połtawski, 1972, p.91)

Yet on the other hand he was led to treat every object as 'constituted' in our consciousness of it, where

this constitution is understood as some sort of creation (the terms used [include]: 'erzeugen', 'schaffen', 'Produkt', 'Gebilde', 'Stiftung') and pure inner consciousness is said to be the source (Ursprung) of all transcendent being. (Op.cit.p.91).

These two strands in Husserl's work are, we believe, irreconcilable. This is reflected in the fact that each generates, in conjunction with the remaining fundamental tenets of Husserlian ontology, a quite distinct ontological approach even when expressed within the limited materials which are available in our own realist framework. Before we develop these two approaches, however, we shall find it useful to make some general reflections on the role which the notion of 'creation' has played in philosophy in the recent past.

We can first of all isolate certain typical cases in which non-existent or higher-order objects would be said to be created. These include the creation of literary characters and mathematical objects, through the sentences of a literary work and through, e.g. strong existential axioms of a formal theory, respectively. They include the creation of a nation state through the drawing of certain boundaries of a map, appropriate trumpetry, establishment of a minimum of legal and diplomatic machinery, etc. And they include the creation of works of art as such (as opposed to the characters, etc., which may be depicted within them): both musical and literary works, which cannot easily be confused with the autonomous objects (scores, performances, etc.) which support them; and also paintings, sculptures, and objets trouvés where confusion of the given sort is more frequently encountered. What must give pause for reflection is that, despite his frequent appeal to the notion of creation,

Husserl, unlike his disciple Ingarden, never entered into the investigation of those objects which are clear cases of objects which arise as a result of processes of creation. Phenomenologists have rarely asked why this should be so. It might perhaps be assumed that it was because Husserl supposed that the analyses of the creation or constitution of real objects, especially of perceptual objects and of the whole real world itself, which he did develop, could be applied willy nilly to other, more familiar types of 'created' objects. We shall argue however that Husserl could not have supposed that his analyses of creation could be extended in this way; indeed Husserl could not have regarded any of the examples of creation which we considered above as genuine acts of creation at all, and nor could he have regarded the objects which result as objects in the properly ontological sense in which real and ideal objects are objects. This was because Husserl shared with his contemporaries Meinong and Frege a quite different paradigm of what creation as such could be, a paradigm which excludes the very possibility of creation of non-existent objects. (For Frege's views see SuB,33, and the interesting, though surely incorrect, development by Dummett, FPL,pp. 160,281; Meinong's views are discussed in more detail in §§ 48,49 where the present arguments are re-expressed in a more general setting).

Frege, Husserl and Meinong each acquired his paradigm of the ontogenesis of objects from the philosophy of German idealism, according to which the real world as a whole was to be conceived as having been created ab initio by some type of absolute mind or minds. Of course, that a philosopher has been bequeathed the idealist paradigm of creation does not imply that he subscribes to the associated idealist theses, nor either that he believes that 'creation' according to that paradigm is even an acceptable hypothesis: The first adequate counter-arguments to any philosophical position can be supplied only by those who share the conceptual framework of that position but reject its theses. Now whilst the extent to which Husserl truly freed himself from the theses of idealism is at best in doubt, certainly it is to the credit of Meinong and Frege that they did reject these theses and, indeed,

that they pointed the way toward the necessary counter-arguments to this position - later developed by e.g. Russell and Moore - which have formed a presupposition for all subsequent philosophy. But none of these philosophers was able to go on to develop an adequate alternative paradigm of creation¹⁵², one which would take account of examples such as those which we considered above. Hence they all failed to take adequate account of those 'higher strata' in the world of objects which are the indispensable by-products of aesthetic, mathematical, scientific and other types of intellectual activity.¹⁵³ The paradoxical flavour of Meinong's philosophy will be seen to derive precisely from this fact: that he set himself the task of developing a philosophy which was sufficiently rich to encompass higher strata of the given type, but which refused to accept any paradigm of creation as such; objects of fiction thereby come to be seen as being 'picked out' from an atemporal domain.

Against this background we can now see how it is possible to develop our two alternative interpretations of 'Husserlian' ontology. The first, more orthodox interpretation arises if we allow ourselves to take seriously only the second strand distinguished above, i.e. that objects are created according to an idealist paradigm of creation. This implies that the first set of theses, which assert that it is possible to acquire knowledge of transcendent objects have to be considerably weakened: There can be no question of gaining knowledge of an entity which is ein blosses Vermeintes, a pure reflection of whatever is bestowed by consciousness from act to act. (Cf. the arguments of pp.92,143 above). What results is a theory which may be designated as purely noematic phenomenology: all acts are of type (iii), and the sole legitimate use of the term 'object' is the 'internal' use which has reference to certain positings (Setzungen) of consciousness; a use, that is to say, which is without ontological import.

The second, 'realist' interpretation of a Husserlian ontology, which is more tendentious than the first, is the interpretation which results from

taking seriously the first of the two strands distinguished, i.e. to assume that intentional objects (including, in Husserl's view, the world as a whole) are not empty reflections of consciousness in a way which is implied by the idealist paradigm of creation, but are radically transcendent to conscious acts in a way which implies that it is possible to obtain knowledge concerning those objects, in a sense of 'knowledge' which broadly corresponds to that with which we are familiar. The theory may be expressed in terms of our initial act-trichotomy (p.206) as follows: that all acts which the realist would wish to count as belonging to type (i) belong in fact to type (ii). The real world and all its constituents thereby become recognised as purely intentional objects, but the appeal is, now, to a properly ontological sense of 'object'.

This theory, in spite of the realist attitude which it maintains, can for very deep-seated reasons, be defended as an interpretation of certain crucial aspects of Husserl's philosophy. For Husserl did not wish to advance the absurd claim that the world and all of its constituents could be purely 'immanent', totally at the mercy of individual acts of consciousness with all the transience and frailty which this would imply. He recognised fully that the real world and its objects exhibit a remarkable stability, a remarkable independence from the fluctuations of conscious acts, for example in being given as satisfying (causal and other) laws which seem to have their origin in a sphere radically transcendent to the sphere of operation of subjective mental acts. (Cf. StEW, II/1 §48 for Ingarden's exhaustive analyses of the concepts of immanence and transcendence). But Husserl thought that these features of stability and independence, which seem so evident within the natural attitude of everyday life and which are adopted as a presupposition of all positive sciences hitherto developed, could be accounted for without commitment to any domain of autonomously existing objects. Such commitment he viewed as a metaphysical excess, quite parallel to the excess of supposing that there exists a platonistic "heaven" of mathematical objects which the mathematician-geographer, in the practice of his

science, may properly be said to explore (Gl, § 96). (It is parallel, even, to supposing that there was an eternal realm of fictional objects which the authors of literary works survey as part of the task of the task of creating works of fiction).

The comparison with mathematics is not an idle one. In our discussion of 'objectivist' philosophy of mathematics in § 21 we saw that the rigour and the necessary 'truth' of a given body of mathematics is something which can be established only by reference to interrelationships amongst the meanings through which the definitions and proofs of mathematics are expressed. What has to be recognised is that Husserl held that the standpoint of eidetic rigour was applicable also to our experience of the real world, and that what is truly valid in that experience could likewise be established only by reference to interrelationships amongst meanings, that is to say, amongst the noemata of experience. For such noemata, as they occur at all levels, exhaust our knowledge of the world. Part and parcel of this Husserlian approach was the readiness to abandon those features of the world, in particular the autonomous status of its constituent objects, which seem to be given in experience but which prove not to be supported by rigorous interconnections amongst noemata.¹⁵⁴

How, then, are we to explain the possibility of positive intersubjective knowledge of the world, when we abstain from commitment to the autonomy of the objects which constitute it (i.e. in the non-technical sense of 'constitute' as meaning: 'to be a constituent')? To answer this question we must return to the arguments which we presented in § 21 above in our discussion of rigour in mathematics, and recall how the parallel problem of mathematical knowledge was given a solution. We saw that it is impossible to concretise (and thereby to understand) even the most rigorously formulated mathematical theory unless the defined terms of the theory are interpreted as denoting appropriately characterised mathematical objects such that the individual variables of the theory range over the given objects and the propositions of the theory are interpreted as being about them.

We dismissed suggestions that this appeal to mathematical 'objects' can be regarded as a purely pedagogical or heuristic matter of 'internal' posits, in view of the fact that there is an intersubjective identity, not only of insight into the evidence for the propositions in question, but also of 'perception' of the objects given by those propositions. That is to say the latter objects reveal themselves as being veridical even from the 'external' point of view, which implies that we can have no reason to withhold the recognition of their ontological status as objects. But this does not imply a recognition of the given objects as autonomous. For just as the creation of a work of fiction, which is primarily the establishment of a structure of determinate interconnections of meanings, nevertheless brings in its wake the creation of an intersubjectively identical domain of purely intentional objects represented in the work. So, even though the primary task of mathematics as a philosophical science is the establishment of rigorous interconnections of meanings in definitions, proofs and theories, still the establishment of a mathematical theory brings in its wake an intersubjectively identical domain of purely intentional abstract objects 'represented' in the theory. And commitment to the latter objects is indispensable if one is to attain an adequate grasp of the propositions expressed within it: just as we read off the objects represented in a work of fiction from the text of the work, so too we read off the objects represented in a mathematical theory from a statement of the theory.

The realist 'Husserlian' viewpoint which we sketched above may now be presented as a quite parallel thesis to the effect that we read off, from the face of the real world, the objects presented in the fabric of noemata of experience of that world. And whilst in the natural attitude the world is naively assumed to be autonomous, this presumption of autonomy is no more valid than the mistaken presumption of the autonomy of Hamlet or Holmes. For from the point of view of a rigorous critique of knowledge of the world, that world is non-autonomous, it is, in itself, ein Nichts. (Cf. Ingarden, 1918, p.422f). This, at least, is 'Husserl's' argument.

What does not reveal itself as mistaken, from the point of view of a rigorous critique of our experience of the world, is the assumption that that world consists of objects which are intersubjectively identical in the sense that they are caught in the experience of all subjects whatsoever who are conscious of the world. But these objects now come to be seen as purely intentional constructs, objects established through an infinitely complex process of sedimentation of beliefs, habits, skills, presuppositions, the results of which exhaust that which is given in any particular act to the extent that one can truly discover hitherto unobtained knowledge about the given constructs, in just the same way as it is possible in mathematics to obtain new knowledge about mathematical objects which have already been established. It is beyond the scope of the present work to provide an account of Husserl's phenomenology of constitution, the theory which Husserl developed in order to come to grips with this massively complex process of intentional construction of the world. But its results are, we believe, of immediate value, precisely in application to those 'higher strata' to which Husserl gave so little of his attention. The ontological framework which is demanded if such higher strata are even to be recognised has been hardly developed however, and it is to the task of development of such a framework which we must now turn.

§34. The discrete ontology (logical atomism).

The category of objects in general may be identified simply as the transcendent world of 'ordinary reference', the reality toward which our practical, scientific and intellectual thinking is directed. We saw that it was possible to distinguish as embedded in this world not only individual objects proper but 'object'-entities of other kinds, for example higher-order objects, (including sets), properties, relations, states of affairs, events and processes. These exist only in the presence of individual objects, being ontologically bound up with the latter in various uniform ways, and they can be distinguished only by abstraction from the manifolds of individual objects which support them. When they are so distinguished they are recognised as having properties of their own, as standing in various relations with each other, and so on, giving rise to properties of properties and a range of other entities of 'higher types'. A completely systematic survey of all that lies in this object-world would have to include also entities which are less directly dependent upon individual objects, entities such as temporal and spatial intervals, (places, moments, etc.), and also such 'near objects' of the natural world as shadows, rainbows, clouds and mental acts (considered as real psychic events).

But how are we to provide criteria for acknowledging an entity which is accepted as falling into one or other of these object-related groups as an object in the strict sense? What, for example, justifies our recognition of the totality of masonry which is the Wiener Karlskirche as an object, which would not equally justify our recognition of any other more or less arbitrarily demarcated collection of stones, whether contiguous or non-contiguous, e.g. the totality of masonry which fell under the hands of the Karlskirche architect Fischer von Erlach? The temptation has been for philosophers to side-step such problems (or 'pseudo-problems') by assuming that reference to higher-order objects of any kind is never more than a grammatical convenience, having little more than a transient anthropological

significance. From our point of view the most interesting philosophical theories which result from such an approach are associated with an appeal to the results of physics (more precisely: of microphysics), in such a way as to lead to an ontology which is of such a degree of parsimony that neither stone-heaps, nor individual stones, nor even individual stone-masons, are counted within it as objects, this status being reserved for some presumed ultimate microphysical particles.¹⁵⁵ Here we shall attempt to develop, for our own purposes, an idealised reconstruction of one such ontology, which we shall designate as the discrete ontology, \mathcal{O}^1 , an ontology which will be recognised as closely related to the ontology of Russell's logical atomism. Frameworks related to \mathcal{O}^1 have acquired a position of some orthodoxy in recent philosophy, since such frameworks suit well the Ockhamist climate within which much of current work is carried out. All of these frameworks are distinguished by the fact that they are reflected in a uniform way in the language, \mathcal{L}^1 , of standard predicate logic, which may be indicated, in a preliminary way, somewhat as follows:¹⁵⁶

Within \mathcal{L}^1 we symbolise

- (1) arbitrary objects by singular terms: 'a', 'b', 'c', 'a₁', ... (sometimes called individual constants), 'x', 'y', 'z', 'x₁', ... (individual variables), ' $\lambda_x \Phi$ ', ' $\lambda_y \Psi$ ', ... (definite descriptions; here Φ, Ψ, \dots are any well-formed formulae in the language \mathcal{L}^1)
- (2.1) arbitrary properties of individual objects by 1-place predicates: 'A¹', 'B¹', 'C¹', 'A₁¹', ...
- (2.2) arbitrary relations between two objects by 2-place predicates: 'A²', 'B²', 'C²', 'A₁²', ...
- (2.n) arbitrary relations between n objects by n-place predicates: 'Aⁿ', 'Bⁿ', 'Cⁿ', 'A₁ⁿ', ..., for each $n = 3, 4, 5, \dots$
- (3.1) the state of affairs that a property A¹ applies to an object a, that a has the property A¹, by a closed atomic formula or atomic sentence: 'A¹(a)', usually abbreviated to: 'A¹a'.
- (3.2) the state of affairs that a relation A² holds between the objects a and b by: 'A²(a,b)'.
- (3.n) the state of affairs that a relation Aⁿ holds between n objects, a₁, ..., a_n, by: 'Aⁿ(a₁, ..., a_n)'.

§ 35. Ontology and quantification theory.

We might interpret (1) and (2) as providing a list of all 'nominal expressions' (see § 30 above) in the language \mathcal{L}^1 . (3), on the other hand, gives us a list of one set of 'syntactic forms' in \mathcal{L}^1 , namely the formal equivalent of the subject-predicate form (with its relational variants) as this occurs in such ordinary language sentences as 'John is mortal', 'Jack loves Jill', etc. In order to determine the remaining syntactic forms of \mathcal{L}^1 , and thereby to determine more precisely the nature of the ontology \mathcal{O}^1 as reflected, element for elements, in the syntactic structure of \mathcal{L}^1 , new syntactic machinery, the machinery of quantification, will have to be introduced.

First of all however let us concentrate for a moment upon the more general question of how an ontological category, such as our category of individual objects, may be justified as coherently delineated. Clearly the initial basis for such a justification will have to be an appeal to our more or less well-defined intuitions concerning the entities in question: do we conceive of mathematical objects, for example, in a way which is homogeneous with our conception of tables, chairs, molecules and electrons? It might be thought that a direct appeal to 'intuition' could be dispensed with in favour of investigations into those expressions of natural language which we use to talk about the entities in question. Unfortunately however, the reflection of ontological distinctions is of the lowest priority amongst the considerations which determine the features which natural languages shall possess. The appeal to intuition can be supplemented by the more precise and stable results provided by a study of language, but only if the language to which we appeal is a language which has been deliberately constructed to reflect our ontological intuitions in a systematic way, such that within the given language it becomes possible, in particular, to formalise in a rigorous way arguments which we had hitherto erected on a purely intuitional basis. Certainly we should be much closer to providing a coherent justification of a given ontological category if we can show that such a formal language can be

developed in a way which respects that category within its syntax and which allows us to formalise in a perspicuous way all the relevant ontological arguments which had hitherto been developed only informally. But the test of adequacy for such a language is, as we shall see in § 38, a severe one. What is demanded is that all ontological categories should be reflected syntactically, that the language which we develop should be a characteristica universalis adequate, on this level of generality, to all domains of discourse. To develop such a language would be a task demanding the 'gigantic preparatory work of generations' (see p.76 of Husserl, 1911), but modern logicians have, rightly or wrongly, opted for the Procrustean course of developing simpler languages and of allowing the latter to determine which ontological distinctions shall be counted as admissible.

Within a formalised language it becomes possible to 'channel' along one particular symbolic axis all of the many different and sometimes conflicting indications of the ontological status of particular entities which are to be found in natural language. At the most trivial level the formal channeling of commitments takes the form of ensuring that each object in the domain of discourse receives one (or at most one) corresponding individual constant in the language which is constructed. The channeling of ontological categories is achieved most effectively, for the case of entities which belong to the super-category of objects-in-general, by means of the device of selecting particular types of bindable variable, which are to range over the whole of the category to which they are assigned, and of associating with each type of variable an appropriate machinery of quantification. ¹⁵⁷ The fact that a given entity t belongs to the category C with which variables x^C, y^C, z^C, \dots have been associated is then expressed by means of whatever is the formal equivalent of: 'there is an x^C , such that $x^C=t$ '. (Here 'there is an x^C ' plays the role of a generalised existential quantifier). In this way we can hope to escape the confusion of categorial status with the possession of particular properties or with membership in particular sets. (Such a confusion seems to be inevitably implied by the use of a single-type of variable, ranging over all entities in the universe, such that membership in a particular ontological category is expressed by means of special 'ontological' predicates. As we shall see, it is not only confusion but inconsistency which is implied

by such a move).

What distinguishes the discrete ontology, and what makes it possible to develop with relatively simple means a language adequate to characterise it, is the fact that only one mode of being and categorial status is recognised, that of existent objects, hence only one type of bindable variable features in the representation of that ontology (the variables x, y, z , in (1) above).

The most immediate improvement on the discrete ontology which we shall counsel will consist in the recognition that there are objects which do not exist. That is, that the mode of being existent (or; actually existent, autonomously existent) does not coincide with the ontological category individual object. Great pains are necessary in order to express this claim in a way which removes the air of contradiction which it may at first seem to possess. Cocchiarella has suggested the following version: there are senses of 'for some' which allow the quantification-theoretic 'for some (object) x , x does not exist' to express a true proposition. This implies

the allowance or recognition of modes of being other than that of actual existence, modes of being comprehended by these additional senses of 'some'....

Thus

some objects do not exist - but then only in a sense of 'some' comprehending an acknowledged mode of being other than that of actual existence. (Cocchiarella, 1969, p.37).

Within the discrete ontology however there is only one sense of 'some', that is, only one type of existential quantifier. Thus the domain of objects is identifiable simply as the domain over which one can quantify existentially. A singular term t denotes an object, within this framework, if and only if, given any sentence Φ in which t occurs free, we can infer from the truth of Φ to the truth of $\exists x. \Phi(t/x)$. (Here $\Phi(t/x)$ is the open formula which results when we replace all occurrences of t in Φ by occurrences of x .¹⁵⁸) What this means, broadly, is that if t Φ 's, then there exists something which Φ 's.

Thus within \mathcal{L}^1 we symbolise

- (4.1) the state of affairs that there is (in the exclusive sense of 'there exists') an object which possesses the property A^1 by: ' $\exists x . A^1 x$ ', and the state of affairs that every (existing) object has A^1 by: ' $\forall x . A^1 x$ '.
- (4.2) the state of affairs that there is (in the sense of 'exists') an object which stands in the relation A^2 to some particular object a , by: ' $\exists x . A^2(x, a)$ '; that all (existing) objects stand in this relation to a , by: ' $\forall x . A^2(x, a)$ '; that there is (in the sense of 'exists') at least one pair of (not necessarily distinct) objects which stand in the relation A^2 to each other by: ' $\exists x \exists y . A^2(x, y)$ ', and so on.
- (4.n) by analogy with (4.1) and (4.2) for each $n = 3, 4, 5 \dots$

A further inadequacy of the discrete ontology, which is reflected in the syntactic parsimony of \mathcal{L}^1 , derives from the fact that there are other ontological categories than the category of individual objects proper, for example the categories of properties and relations and states of affairs, certain analogues of which can be expressed in \mathcal{L}^1 (in a sense which shall be made clear), but which cannot be denoted within \mathcal{L}^1 . It is possible, however, to create a richer language, which will include \mathcal{L}^1 as a proper part, within which it will be possible to refer to entities of the categories in question. This follows from the fact that quantifiers, as channels of ontological commitment, can be applied to entities other than individual objects.

Let us consider, in particular, the case of properties. Within \mathcal{O}^1 it is not asserted that there is anything 'in the absolute furniture of the universe' corresponding to any of: ' A^1 ', ' B^1 ', ' A^2 ', ' B^3 ', etc., as there is, in contrast, with respect to at least some of ' a ', ' b ', etc. Thus we may characterise \mathcal{O}^1 as a position of anti-realism with respect to properties. According to such a position ' A^1 ', ' B^1 ', etc. are syncategorematic symbols to which nothing corresponds on the side of the entities themselves.

Perhaps the suggested syncategorematic status of such predicate symbols may be made clearer by considering the specific example of the identity pred-

icate '='. Would it not be absurd, argue the proponents of \mathcal{O}^1 , to claim that there is something of the nature of an 'attribute' which is 'in' the subject of an identity statement 'a = a' in virtue of which that statement is true? Certainly against the background of the (broadly micro-physical) discrete ontology it does not seem unreasonable to hold that all predicates function as does the identity predicate.

What, then, is the role of syncategorematic predicate symbols from the anti-realist point of view? On this question anti-realists fall into two groups:¹⁵⁹ Conceptualists, who hold that ' A^1 ', ' B^1 ', etc., have no reference but do have an objective sense, namely an appropriate (one-place) concept. Thus ' $A^1 a$ ' means that a falls under the concept A^1 (this is its sense, again since there are no mind-independent properties, so there are no mind-independent states of affairs; thus ' $A^1 a$ ', too, fails to refer). Nominalists, on the other hand, hold that ' A^1 ', ' B^1 ', etc. have neither a reference nor any uniformly identical conceptual sense - although such symbols (or their natural language equivalents) may raise particular private associations within particular individuals on particular occasions of use. From the objective point of view of philosophy such symbols are to be treated purely syntactically, along with 'and', 'the', and 'sake'.

Realists, however, hold that the very notion of object presupposes the status of objects as carriers of properties - that a totally 'bare' particular is an absurdity. (See StEW, II/1, § 45 for a brilliant demolition of bare particular and 'bundle' theories of ontology). But realism, too, divides into two conflicting positions which we may designate, following Bochenski (1956, 46f.), as the identity theory and the similarity theory. Both theories admit the existence of properties as entities on the side of the objects themselves ('in' the objects not as separable parts or constituents, but as inseparable moments). In virtue of such properties corresponding propositions about those objects ('the table is made of wood', 'John is more intelligent than Claude') are true. But the theories differ in that the first allows that distinct objects may possess one and the same

property (two different cherries may possess one and the same identical shade of red), whilst the second holds that properties occurring 'in' distinct objects must - if only in virtue of that distinct residence - themselves be distinct (two different table-tops may both be square, but their shapes can be similar only, never identical). The similarity theory suggests an opposition, interestingly developed by Künig, between concrete and abstract properties. The former are identified as the individual moments resident in particular objects, the latter may be viewed as purely intentional properties created by abstraction on the basis of our knowledge of the similarity or equality which holds between the members of a particular group of concrete properties (e.g. the concrete rednesses of all the individual cherries in the basket which we determine as having the same abstract shade of redness). The process of 'abstraction' in the field of properties is just this introduction or creation of abstract properties on the basis of individually experienced concrete properties. As Künig puts it:

the concrete equality of the concrete properties is that aspect of concrete reality on which abstraction is based (the "fundamentum in re" of abstraction) and by thus justifying the introduction of abstract entities it makes it possible to consider predicate expressions as names of a certain kind which stand for these abstract entities. (1964, p.35).

The dispute between the identity theory and the similarity theory may be held to be an idle one, however; since, given that there are what seem to be clear cases of support for either side, it seems that it is necessary to develop a dualist theory (or perhaps a more complex multi-category ontology - see §42), according to which some concrete properties are indeed 'universals', possessed by more than one distinct object, whilst others are 'particulars' which are merely similar to other particular concrete properties possessed by other objects. To satisfy our principle of representing each category by a distinct type of bindable variable whose syntactical role reflects in some coherent way the ontological role of that particular category it would be incumbent upon us, in any complete development of the present theory, to select distinct types of variables to represent, respect-

ively, universal concrete properties, particular concrete properties, and (perhaps) corresponding universal abstract properties. However it will prove sufficient for our purposes within the present work to operate with only one type of attribute variable. The language \mathcal{L}^2 which results, is the symbolic reflection of a realist discrete ontology \mathcal{O}^2 (which embodies a parallel simplification, one which is acceptable here only because the concrete/abstract problematic, in the form it takes with respect to properties, will not be of central concern to the subsequent development of our argument).

Within \mathcal{L}^2 we symbolise

[as a supplement to (2.1) above:] arbitrary properties of individual objects not only by ' A^1 ', ' B^1 ', etc., but also by ' X^1 ', ' Y^1 ', ' Z^1 ', ' X_1^1 ', (1-place property variables).

[as a supplement to (2.2) above:] arbitrary relations between two objects not only by ' A^2 ', ' B^2 ', etc., but also by ' X^2 ', ' Y^2 ', ' Z^2 ', ' X_1^2 ',

[with similar supplements to (2.n) for each $n = 3, 4, 5, \dots$].

As was the case for singular terms in (1) (p.217) above, it is not here assumed that constant attribute symbols are, in general, non-empty (' B_7^1 ', for example, may symbolise: 'is a piece of phlogiston'). The nature of variable symbols as bindable by quantifiers implies, however, that such symbols are always assumed to denote (that is to say, to range over the totality of attributes of a given type).

We can now symbolise

[as a supplement to (4.1) above:] the state of affairs that there is some property which is possessed by the object a , by: ' $\exists X^1.X^1a$ ', that a possesses every property by: ' $\forall X^1.X^1a$ ', and so on.

[as a supplement to (4.2) above:] the state of affairs that there is some relation which holds between a and b , by: ' $\exists X^2.X^2(a,b)$ ', that a and b stand in every relation to each other, by: ' $\forall X^2.X^2(a,b)$ ', and so on.

[with similar supplements to (4.n) for each $n = 3, 4, 5, \dots$].

There are categories of object-entities which continue to remain referent-

ially accessible within \mathcal{L}^2 . For although we can symbolise certain types of, say, states of affairs within that language, in order to be able to refer to states of affairs it would be necessary to introduce a sort (in the typographical sense) of variable to range over such entities, and perhaps also a number of constant terms to denote certain states of affairs picked out as specially important. It might be thought that it is possible to exploit the machinery which one has to express e.g. that the property A^1 (and we shall assume that ' A^1 ' is a denoting predicate constant) is assigned to a , in order to refer to the state of affairs that $A^1 a$. This would take the form, perhaps, of a noun-generating functor ' σ ' read: 'the state of affairs that', which is introduced by analogy with the more familiar noun-generating functor ' γ_x ' read: 'the object which is such that'. We shall see however that it is possible to employ a functor such as ' γ_x ' only within a language which is already provided with referential machinery (individual constants and individual variables) by means of which objects can be denoted without the use of such a functor (or 'abstraction operator'). To introduce a functor such as ' σ ' in a language without statal constants and variables introduces into the language a confusion between meaning-entities which can be expressed within the language, and object-entities, including states of affairs in the strict sense, which can only be denoted. However, these problems will be considered in more detail in Ch.9 below.

It might be thought that in order to develop a fully adequate realist (discrete) ontology it would be necessary to appeal not only to the language \mathcal{L}^2 within which we can denote the attributes of individual objects, but also further languages, \mathcal{L}^3 , \mathcal{L}^4 , etc. which would embody realist commitment to properties of properties, relations between properties, properties of relations, (in the case of \mathcal{L}^3) and properties of properties of properties, etc. (in the case of \mathcal{L}^4). Certainly in any full development of the theory here presented it would be necessary to take such entities into consideration. However it does not seem that this axis is central to ontology, and certainly there is no question of an infinite progression of levels of the sort which is

presented in Russell's theory of types (interpreted as an ontological theory). In this respect the system of the Principia represented a step back from that of Frege's Grundgesetze: The latter was, in spite of its inconsistency, ontologically closer to the truth.

§36. The Logic of Objecthood and Existence.

The fact that, as we have argued, there are objects which do not exist, implies that the two concepts of objecthood and existence are independent of each other. This must not be taken to imply, however, that the concept of objecthood is independent of the theory of quantification as such. Quantification theory still retains its status as the channel of categorial commitments of whatever character. What is implied is that it is necessary to recognise a species of objectual quantification, more general than the familiar \exists/\forall quantification (as quantifiers which range over individual objects only).

To this end we propose the introduction of two new 'objectual' quantifiers 'S' and 'A', quantifiers which range over the domain of all admissible objects, whether existent or non-existent, in just the same way that ' \exists ' and ' \forall ' range over the (smaller) domain of existent objects.¹⁶⁰

Where we read:

' $\exists x.\phi$ ' as: 'there exists at least one object x such that ϕ holds of x' (here we assume that ϕ is some formula which contains x as its single free variable),

and ' $\forall x.\phi$ ' as: 'for all existing objects x, ϕ holds of x',

so we shall read:

' $Sx.\phi$ ' as: 'for some object x, ϕ holds of x',

' $Ax.\phi$ ' as: 'for all objects x, ϕ holds of x'.

Just as \exists and \forall are interdefinable by means of the equivalence

$$\exists x.\phi \leftrightarrow \neg \forall x.\neg \phi,$$

so S and A are interdefinable by means of

$$Sx.\phi \leftrightarrow \neg Ax.\neg \phi. \quad 161$$

It is important to recognise that the domain of S/A quantification is no less determinate than that of \exists/\forall quantification, for it is always in principle possible to determine, for any given fictional, scientific,

mathematical, theological or metaphysical context, whether that context is externally committed to objects as such, in a way which involves no greater conceptual and practical difficulty than is involved in determining whether the given context is externally committed to existent objects. It is possible, indeed, that to provide criteria for objecthood is less problematic a task than the task of providing criteria for existence (for individual objects). For the notion of existence is, as we shall see, bound up with and thereby shares the difficulties of the notion of truth in a way which does not apply to the notion of objecthood.

In terms of S and A a particular act, proposition or theory is externally committed to the object-status of candidate entities which seem to be purported by it, only if it is possible to make, relative to an expression of the propositional content of the act, proposition or theory, an 'external' move of what might be called S-existential generalisation, that is to say, a move such as that from:

(1) John is eating an apple,

to: (2) There is something which John is eating;

(the latter is expressible either as:

(2') $\forall x$. John is eating x,

or as: (2'') $\exists x$. John is eating x.

Very rarely, however, will it be the case that these two forms of expression are thus interchangeable.)

Or such as that from:

(3) Conan Doyle presents Holmes as a violinist,

to: (4) There is something which is presented by Conan Doyle as a violinist; i.e. to:

(4') $\exists x$. x is presented by Conan Doyle as a violinist.

Sometimes of course our intuitions as to whether any move such as that from (1) to (2) or from (3) to (4) is permitted will seem relatively fluid. Consider for example a problematic case such as:

(5) Certain 19th century astronomers believed that there exists an intramercurial 'Planet Vulcan'.

It is a part of our realist credo that this fluidity can be removed, namely by providing a set of necessary and sufficient conditions for determining where external S-existential generalisation is admissible, and thereby also a set of necessary and sufficient criteria for objecthood, criteria which will find general acceptance amongst those who have considered the issues at hand.

Despite the roughness - at least at this stage of the inquiry - of certain of our intuitions concerning S-existential generalisation, there are certain clear examples of contexts which can be recognised as having no external commitments at all,¹⁶² given, that is to say, as contexts where S-existential generalisation (and therefore a fortiori also \exists -existential generalisation) is not admissible. For example, contexts within which sentences such as the following may occur :

- (6) John wants to eat an apple,
- (7) John imagines there is an apple in the corner,
- (8) John can recognise an apple when he sees one,
- (9) Conan Doyle wishes to write a novel which features a violin player,
- (10) Conan Doyle became convinced that there was a giant crocodile called 'Fatima' who was pursuing him.

Such examples point to the necessity to distinguish between improper terms (terms which do not denote any object) and terms which denote non-existent objects.¹⁶³ This in turn implies that we should provide logical rules for determining or establishing the truth value of propositions expressed by sentences containing terms of either sort, rules which would supplement those which we have with regard to 'mundane' propositions which turn only upon objects which exist. These supplementary rules would tell us how to determine the truth value of, say,

- (11) Sherlock Holmes solved the case of the disappearing fan,
- (12) Sherlock Holmes was created by Conan Doyle,
- (13) Hamlet was psychoanalysed by Ernest Jones,
- (14) Half the population of London were sent out in search of Fatima the crocodile.

Paradoxically the crucial insights in this field have been provided by Russell, a philosopher who rejected, for reasons of the type discussed in § 33, any distinction such as that between terms denoting non-existent objects and terms which do not denote at all. Russell's work is valuable since there is a deep-rooted parallel between this distinction and a distinction which he did recognise, namely that between terms which denote existent objects and terms which do not denote existent objects. Here 'terms' includes definite descriptions such as 'the largest arid desert in Cheshire', 'the President of Brazil', and so on. Russell's 'theory of descriptions' was an attempt to develop logical machinery to deal with propositions whose truth value has become problematic as a result of the discovery that a certain kind of ontological mistake has been made.¹⁶⁴ Russell's insight was that where a mistake has occurred, propositions which result are to be counted false. Thus both

(15) The largest arid desert in Cheshire is inhabited,

and (16) The largest arid desert in Cheshire is uninhabited,

are determined as false by Russell's theory.

We may express Russell's procedure as follows: given an open sentence Φ , which contains x as its single free variable, ' $\lambda_x \Phi$ ' symbolises: 'the x such that Φ '. For example, ' $\lambda_x x$ is a horse' symbolises: 'the horse'. Now if Ψ is a closed sentence which contains the constant term t (which may itself be a description) and which does not contain the variable x , we have it that $\Psi(t/\lambda_x \Phi)$ is true if and only if the following three conditions are satisfied:

(i) $\exists x. \Phi$, there is (in the sense of 'exists') something which Φ 's,

(ii) $\forall y \forall z. (\Phi(x/y) \ \& \ \Phi(x/z) \rightarrow y = z)$, i.e. there is not more than one existent object which Φ 's. (Conditions (i) and (ii) are sufficient to

ensure that no 'ontological' mistake has been made in our use of ' $\lambda_x \Phi$ ' or of whatever is its natural language equivalent. Finally we have

(iii) $\exists x(\Phi \ \& \ \Psi(t/x))$, which is to say that there exists at least one Φ which is also a Ψ .

These three conditions may be expressed with the minimum of redundancy by means of the following equivalence

$$(D) \quad \Psi(t/\lambda_x \bar{t}) \text{ iff } \exists x [\forall y (\bar{t}(x/y) \leftrightarrow y=x) \ \& \ \Psi(t/x)]$$

Interestingly perhaps, not only both (15) and (16) come out false by (D), but so also do:

(17) The largest arid desert in Cheshire exists,

and (18) The largest arid desert in Cheshire does not exist,

where 'exists' here is treated (in a non-Russellian way) as a predicate,¹⁶⁵ which we may symbolise as 'E!' satisfying

$$(E!) \quad E!x \leftrightarrow \exists y (y = x).$$

This is not to say that it is unwelcome that both (17) and (18) come out false. For, of course, 'the largest arid desert in Cheshire' is an improper term, not a term which denotes a non-existent object. (The fact that it is possible that there exists such a desert is of no interest from the point of view of S-existential quantification.)

What is less welcome is that both

(19) The detective immortalised by Conan Doyle exists,

and (20) The detective immortalised by Conan Doyle does not exist,

are, again by an appeal to (E!), determined as false by Russell's theory.

Before we put forward a means of meeting this difficulty (which arises, clearly, from the fact that we would wish (20) to be determined as true), we might consider an extension of the bare 'theory of descriptions' to apply to proper names. An extension of this sort was already glimpsed by Russell (see his 1905, 54 and PM, 31), but the possibilities have been fully developed and exploited by Quine. Broadly speaking the extension involved rests on the device of associating with each proper name (individual constant term) a one-place predicate constant which applies only to the referent of that name (if it has one; otherwise it applies to no object). For example with the name 'Pegasus' we associate the predicate 'pegasises' which is such that

$$x \text{ pegasises} \leftrightarrow x = \text{Pegasus.}$$

If we confine all our individual constants to a single list: ' a_1 ', ' a_2 ', ' a_3 ', ... then we can systematically associate with each a_n of the list a one-place predicate A_n^1 , such that $A_n^1 x \leftrightarrow x = a_n$.

Then supplementing (D) above, we have, for each n ,

$$(D_n) \quad \Psi(t/a_n) \text{ iff } \exists x [\forall y (A_n^1 y \leftrightarrow y=x) \ \& \ \Psi(t/x)].$$

(D_n) represents no substantial departure from the initial purely descriptional theory presented above. For it is still the case, for example, that both

(21) Sherlock Holmes exists,

and (22) Sherlock Holmes does not exist, are counted as false on the appropriate translation.

Given certain not unreasonable assumptions as to the future course of French constitutional history we can assume that 'Louis XX' belongs to the totality of improper terms. Hence it will follow, I believe, that

(23) Louis XX = Louis XX

should be counted as false (Louis XX is not identical with 'himself' since there is no such object). This indeed proves to be supported by an application of the Russell theory. But again, there are other identity statements counted as false by Russell's theory, for example

(24) Hamlet = Hamlet,

(25) $\aleph_{17} = \aleph_{17}$,

where the alephs have reference to some false theory of infinite sets. (Not all set theories are true, even when we restrict ourselves to those set theories within which a fair initial segment of Cantor's sequence of alephs is definable. This follows trivially from the fact that, e.g. not both the axiom of choice and its negation are true). How, then, are we to refine the Russell theory in such a way that (23) and its ilk continue to be counted as false, where (24) and (25), etc., are acknowledged, as they ought to be acknowledged, as true? The answer to this question is, in fact, a very simple one. All that is necessary is that we develop a new theory of descriptions, structurally identical with the Russell theory, but in such a way that

it is determined whether an ontological mistake of the given kind has or has not been made not by reference to the notion of existence but by reference to the more general notion of objecthood. This is achieved by reformulating the Russell conditions in terms of the S/A quantifier machinery in place of Russell's original \exists/\forall . In this way however the description operator involved is seen to have a meaning which is different from Russell's original ' \exists_x ' which may well be given the reading: 'the existent object x such that', the new description operator ' \mathcal{L}_x ' which we shall introduce may be interpreted simply as 'the object x such that'. Then:

$\Psi(t/\mathcal{L}_x\Phi)$ is true if and only if

(i) $Sx.\Phi$, there is at least one object which Φ 's,

(ii) $AyAz.[\Phi(x/y) \ \& \ \Phi(x/z) \rightarrow y=z]$, i.e. there is at most one object which Φ 's,

and (iii) $Sx.[\Phi \ \& \ \Psi(t/x)]$.

Collectively:

(D*) $\Psi(t/\mathcal{L}_x\Phi) \text{ iff } Sx.[Ay(\Phi(x/y) \leftrightarrow y=x) \ \& \ \Psi(t/x)]$,

and similarly

(D_n*) $\Psi(t/a_n) \text{ iff } Sx.[Ay(A_n^1 y \leftrightarrow y=x) \ \& \ \Psi(t/x)]$, for each n .

The theory which results is, as the reader is invited to verify for himself, adequate to distinguish, in precise accordance with what was determined as desirable above, the truth behaviour of sentences containing terms which are strictly improper from terms which denote non-existent objects. The smoothness of this refinement of or supplement to the Russell theory reveals once more the extent to which the notions of objecthood - reflected in the S/A quantifiers - and of existence - reflected in \exists and \mathbf{A} - are logically parallel notions, neither being more nor less obscure or indeterminate than the other. ¹⁶⁶