

OBJECT AND MEASUREMENT IN MALLY'S *UNTERSUCHUNGEN*

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1. Preliminaries

In what follows I shall consider only Mally's *Untersuchungen zur Gegenstandstheorie des Messens* (1904, henceforth *Untersuchungen*).¹ In his review of *Untersuchungen zur Gegenstandstheorie und Psychologie*, the book edited by Meinong in which Mally's paper appeared, Russell stated "Meinong's [essay] and the two which immediately follow it [respectively written by Ameseder and Mally]... are largely concerned with matters of fundamental philosophical importance... The philosophy set forth in them is a development of that contained in Meinong's *Über Annahmen*, and its value appears to me to be very great".² Later on, he writes "The second and third articles, by Ameseder and Mally, contain so many important definitions in quick succession that it has been impossible to give an adequate idea of their contents in the space of a review".³ As far Mally's own paper is concerned, Russell writes: "the technical terms introduced are so numerous, and the fundamental ones so hard to apprehend, that the definitions become very puzzling".⁴ This latter quotation reveals Russell's dual attitude towards Mally: on the one hand, he considers his ideas as important, on the other, he describes the presentation of these same ideas as obscure and inadequate. One more quote exemplifies the point: "Mally's essay, before it reaches the subject of measurement, treats afresh all the fundamentals of the theory of objects; it does this in a series of definitions, often (I think) embodying important ideas, but so obscurely expressed that it is very hard to understand what they mean. I shall not attempt a summary, as no summary could be more condensed than the original, in which single pages contain more matter than one usually finds in twenty".⁵

At this stage, the main point should be clear: if we trust Russell's opinion (and intuition), the work published by Mally in the 1904 book seems to contain

¹ For a comparison between *Untersuchungen zur Gegenstandstheorie des Messens* and *Gegenstandstheoretische Grundlagen der Logik und Logistik* (1912) see [Poli forthcoming]. [Meinong 1960], 82, n. 7, does inform us that Mally's treatise was honored by the Wartinger prize in 1903 and appears in his [1904] in a completely revised form.

² [Russell 1973b], 77.

³ [Russell 1973b], 88.

⁴ [Russell 1973b], 83.

⁵ [Russell 1973b], 81-2.

a number of important ideas, but these ideas are so badly presented that it is hard to understand their real value. If this is so, it is also clear that our task is to try to understand and clarify (at least some of) these ideas.

The general purpose of the 1904 essay is to lay the foundation for the theory of measurement. I have elsewhere noted that Mally's aim was not to construct a *mathematical* theory of measurement, but to analyse the *philosophical* concept of magnitude.⁶ For this reason is important to ensure that the ontological (or metaphysical) theory of magnitudes does not overlap with the mathematical (or physical) theory of measurement. The mathematical theory of measurement considers objects only from the point of view of their magnitude, while the philosophical analysis concerns the nature of magnitudes and of the features that an object should have in order to be a *quantum*, that is, something that can be measured.⁷

As already mentioned, Russell pointed out that "Mally's essay, before it reaches the subject of measurement, treats afresh all the fundamentals of the theory of objects". Before considering Mally's theory of magnitudes, we shall therefore examine at least some of the general features of the theory of objects. Bearing this in mind, the main features of the *Untersuchungen* can be summed up as follows:⁸

1. Introduction of the principle of the independence between *Sosein* and *Sein*.
2. Distinction between two modes of *Sosein*-determination: *Wiesein* and *Wassein*.
3. Distinction between explicit, implicit and fictitious objects.

According to (1) the *Sosein* of an object does not depend on the *Sein* of the object. This amounts to saying that the way in which the object is given or shaped does not depend on its existence.⁹ According to (2), the determinations of any object A are the answers either of the question 'what is A?' (*Wassein*) or of the question 'what is A like?' (*Wiesein*). The third point is much more difficult to summarize. Russell advances the hypothesis that Mally's distinction

⁶ [Mally 1904], 125. See also [Poli *forthcoming*].

⁷ [Capone Braga 1914-15], 300.

⁸ In this section I follow on the analysis presented in [Poli *forthcoming*], with some slight modifications.

⁹ In the 1904 paper we find both a principle of dependence and a principle of independence. The principle of dependence states that the *Sein* of an object depends on the *Sosein* of the object. See [Mally 1904], 126. The principle of independence states that the *Sein* of the *Sosein* of an object does not depend on the *Sein* of the object. Cf. [Mally 1904], 127. One should be careful not to confuse the realm of the contradictoriness of the determinations of the *Sosein* with the realm of the impossibility of the object. These are two hierarchically distinct levels. For more details see [Poli 1990], 119-20.

between what is explicit and what is implicit amounts to a theory of denotation. He writes: "In place of the theory of denoting, Mally ... develops a theory of explicit and implicit Objekte, which serves a similar purpose". And again: "As to his explicit and implicit objects, their relation seems to be that of denoting concept to object denoted". Even if there is some truth to this interpretation, it is nevertheless rather misleading, amongst other reasons because it seems unable to explain the role of fictitious objects. In describing these objects, Russell himself is forced to admit that "this distinction is an elusive one; at the same time, it is certainly genuine and important".¹⁰

2. General structure of the *Untersuchungen*

The 1904 paper contains an important inner tension. And it is precisely this tension that makes the work so interesting and so difficult. On the one hand, we have the thesis that anything is an object (and this is the *gegenstandstheoretisch* aspect of the book); on the other, the theory is developed on four different levels. We can also say that there are four connected but nevertheless different theories: of objects, of qualities, of relations and of complexions (*Komplexionen*). Each of the four theories has two sides: the side of the objects and the side of the objectives. Thus:

objects:	Objekt	Objektive
qualities:	Quale	Qualität
relations:	Relat	Relation
complections:	Komplex	Komplexion

Qualen, Relaten and Komplexen are objects; Qualitäten, Relationen and Komplexionen are objectives. The choice itself of these names shows that the last three theories (of qualities, relations and complexions) are developed mainly from the side of objectives, whereas the theory of objects is developed from the side of the objects. We may start by assuming the following three theses:

1. Everything is an object;
2. Any object has *Sein* and *Sosein*;
3. *Sein* and *Sosein* are objectives.

From these theses it follows, for instance, that also objectives have *Sein* and *Sosein*. In this sense we can speak of the *Sein* of the *Sosein* of an object, or of the *Sosein* of the *Sein* of an object, etc.

The *Quale* is an inner determinant of the object. The *Qualität* is an inner determinant of the objective. The *Relat* is an external determinant between or

¹⁰ [Russell 1973b]. The quotations are respectively on pp. 81, 83, 82.

among objects. The *Relation* is an external determinant between or among objectives. The *ratio* is quite simple:

Quale	⇒	Objekt	⇒	Relat	⇒	Komplex
Qualität	⇒	Objektiv	⇒	Relation	⇒	Komplexion

The four layers of the theory present the following features:

1. Distinction between possible (real and ideal) and impossible objects;
2. Distinction among explicit, implicit and fictitious objects;
3. The concept of coincidence.

I now examine these features in the following order: possible-impossible, coincidence, explicit-implicit-fictitious.

2.1. *The opposition between possible and impossible objects*

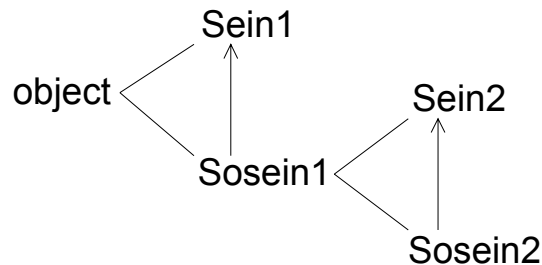
This opposition is a predominant feature of the whole book and is one of Mally's main contributions to Meinong's theory of objects.

Let us distinguish between types of *Sein* and types of *Sosein*. Pertaining to the former is the distinction between possible and impossible objects; to the latter the distinction between to exist and to subsist and therefore between real and ideal objects. By definition, we shall say that something is real when its nature does not exclude existence. For complement, something is ideal when its nature *does* exclude existence (but not its subsistence). The nature of the object is its *Sosein*.

Therefore, in order to know if something can exist, it is sufficient to analyse its *Sosein*. Note that, according to this definition, the theory of objects does not address the existence or the non existence of the objects, but rather their possibility of existing or not existing. This explains why the theory of objects is a purely *a priori* theory. The pure analysis of the *Sosein* tells us whether something can be an existent, real object or a non existent, ideal object.

Real and ideal objects are both possible objects. An impossible object is an object whose nature does exclude the being (*Sein*) of its object. That is, it is an object whose nature does exclude *both* the existence and the subsistence of its object. An impossible object is for instance an object with a contradictory *Sosein*. An other impossible object is an object whose *Sosein* has a contradictory *Sosein*.

For a better understanding of the situation, we can use the following diagram:



The object is impossible when its *Sosein* (*Sosein1*) is contradictory. In such a case *Sosein1* does exclude the being (both in the sense of existence and in the sense of subsistence) of *Sein1*. In the same way, we shall say that *Sosein1* is an impossible object when its *Sosein* (*Sosein2*) does exclude the being of its *Sein* (*Sein2*). Etc. Impossible object do not have being, that is they do not exist nor do they subsist. They are not real nor ideal objects. They are beyond existence and subsistence.¹¹

2.2. The concept of coincidence and the theory of objectives

The concept of coincidence is the real cornerstone of the 1904 theory. At a first sight, Mally's definition seems quite clear: the objects x and y are termed *coincident* iff both determine z . Formally, the definition could be stated as: $C(x,y) \equiv (\exists z)(z \text{ is } x \wedge z \text{ is } y)$.

Then follows the definition of essentially coincident objects. The objects x and y are essentially coincident objects iff they are coincident objects of the same *quale*. The point, therefore, is this: what is a 'quale'?

In his 1904 paper Mally starts with an analysis of the two fundamental modes of determination. As already said, the first mode answers the question 'what is A?'; the second mode answers the question 'what is A like?'. Mally's examples are, respectively, the following: 'this thing is a lever' and 'the sky is blue'. In Mally's words, to the *what* there corresponds a *quid*, to the *what... like* there corresponds a *quale*. Although the opposition of quids and quales is not amenable to definition, for Mally it was always recognizable with certainty.¹² Mally then observes that every *quid* is entirely determined by a *quale*, and viceversa.¹³

We have seen that according to Mally, the coincident objects of the same *quale* are 'essentially coincident objects'. This means, adds Mally, that they can be distinguished only formally. Following Mally's exemplification we may say that the *quale* 'red' in 'A is red' coincides essentially with the *quid* 'something

¹¹ For a more detailed analysis see [Poli 1990].

¹² [Mally 1904], 135-136.

¹³ In my [Poli *forthcoming*] I stressed only the quid-quale direction.

red' in 'A is something red'. An other example can be helpful. According to Mally, the *quid* 'circle' in 'A is a circle' is an essentially coincident object with the *quale* 'round' in 'A is round'.¹⁴

In order to conduct better analysis of the theory of the *quid* and the *quale*, we must analyse the structure of the objective, and this is a rather complex task.

At first sight, it is usually maintained that the objective presents *three* different objects: the object of determination; the determinant object, and the determination. However, for full understanding of the many subtleties of the theory, it is much more correct to state that the objective is connected to *four* different objects: as well as the three just mentioned, we must also to consider what Mally calls the *Eigenschaftsgegenstand*.

The difference among all these objects becomes clearer if we consider the judgements or the assumptions 'this thing is a lever' or 'the sky is blue'. In the first case, 'this thing' is the object of determination, 'lever' is the determinant object, 'the being a lever of this thing' is the determination. The same applies to the other judgement: 'the sky' is the object of determination, 'blue' is the determinant object and 'the being blue of the sky' is the determination. The difference between the two examples is the fact that in the former case the determinant object (lever) is a *quid*, whereas in the latter case the determinant object (blue) is a *quale*.

If we adopt a two names plus copula structure – that is the traditional 'A is B' structure – we can easily realise that object of determination (A), determinant object (B) and determination (the being B of A) are *explicitly* present in the objective.¹⁵ That is, if the objective is given, then those objects are also given. But we have said that the objective has also another object, the object that Mally calls *Eigenschaftsgegenstand* (henceforth, EG).

Mally is extremely laconic in his description of the EG, as if its status were absolutely clear, beyond any reasonable doubt. As far as I can understand, the EG is the object described by the objective. More precisely, it is the object described by the objects that compose the objective. These last objects are the aforementioned 'object of determination', 'determinant object' and 'determination'.

This is an appropriate moment to provide a systematic set of conventions able to distinguish the different objects we have discussed. Following Mally's own conventions, we may say that the 'A' in 'A is B' represents the object of

¹⁴ In German it is possible to say that 'A ist rot' (*quale*) is essentially coincident with 'A ist etwas Rotes' (*quid*) or even with 'A ist ein Rotes' (*quid*). [Mally 1904], 136-137.

¹⁵ We could also say that the determination is represented by the structure 'is-B'. [Mally 1904], 131, note. Adopting a Fregean framework of the type P(a), we could say that 'a' is the object of determination, 'P' is the determinant object and 'P()' the determination.

determination, and the 'B' represents the determinant object. The determination will be written as 'the being B of A', whereas the objective will be 'that A is B'. At this point we can give technical expression to the *Eigenschaftsgegenstand* by using the structure 'A, that is B'.

2.3. *The opposition among explicit, implicit and fictitious objects*

The opposition among explicit, implicit and fictitious objects is one of the most obscure and complex parts of Mally's paper. I have already quoted the opinion of Russell on this distinction and it is not necessary to repeat it again.

In what follows, I shall consider only *Sosein* objectives, that is, objectives of the type 'that A is B', not those of the type 'that A is'.

In Mally's theory, 'explicit' means 'grasped by judgement'.¹⁶ Later on he notes that 'explicit' means 'immanent' and 'implicit' means 'transcendent'.¹⁷

There are explicit objectives, explicit objects of determination, explicit determinant objects, explicit determinations and explicit EG. This amounts to saying that any one of the distinct objects we have so far introduced into the theory can be grasped by judgements.

If we pass to the implicit objects, we find a first important difference. In fact, Mally does not speak of implicit objectives, nor of implicit determinant objects, nor of implicit objects of determination, but only of implicit determination, and of implicit EG. Objectives, determinant objects, and objects of determination are *always and only explicit*. This means that they can be grasped only by judgements, they are judgement-dependent.

But what does 'implicit' mean? Mally's definitions run as follows:

1. x is an implicit determination iff x is a determination and it *essentially coincides* with an explicit objective without being an explicit objective.
2. x is an implicit EG iff x is an EG and it *essentially coincides* with an explicit EG without being an explicit EG.

The two definitions exhibit the same structure. In order to understand their exact meaning, it is necessary to understand the clause 'essentially to coincide with a so-and-so without being a so-and-so'. The first step is recognizing that anything that is implicit is always coincident with something (of the same type) that is explicit. That is to say it has to be grasped by some judgement (because it coincides with something explicit), even if it is not a judgement (because it is

¹⁶ Or by presentations plus assumptions. Here Mally refers to the first edition of Meinong's *On Assumptions*, §§ 25-28. [Mally 1904], 137, note.

¹⁷ [Mally 1904], 145.

implicit), but something of a different ontological realm (for instance it is something transcendent).

Recall that two objects were said to be ‘coincident’ if they ‘determine the same object’, and that they were defined ‘essentially coincident’ when they were determinations of the same quale.¹⁸

The third ‘category’ introduced by Mally is the category of fictitious. This is used for objectives, determinations and EG, but not for objects of determination and determinant objects. Mally says that an object is fictitious when it is explicit and contains the determination ‘being implicit’.

Fictitious objects are impossible objects. Generally speaking, they are referred to by abstract names.¹⁹ More generally, we may say that every ‘general object’ or every ‘universal’ is a fictitious object.²⁰ The introduction of fictitious objects is a decisive step in the development of *Gegenstandstheorie*, because it significantly widens the field of impossible objects. From this point on, impossible objects are not only objects with a contradictory *Sosein* (as in the famous ‘round square’ example), but also all the explicit objects determined as implicit objects.

In order to gain a better understanding of the situation, let us collect our data in the following table.

	Explicit	Implicit	Fictitious
Objective	YES	NO	YES
Object of determination	YES	NO	NO
Determinant object	YES	NO	NO
Determination	YES	YES	YES
EG	YES	YES	YES

Everything can be explicit, that is grasped by a judgement. But it is not true that everything does exist in the world. As far as we consider ‘real’ objects, we can say that objectives, objects of determination and determinant objects are only ‘psychological’ objects; they are non ‘mundane’ objects. What is ‘real’ is the determination, that is the mode in which something is given (the being B of A) and the EG (A, that is B). Note that in both cases we have to do with wholes endowed with a specific structure. In similar terms, we can also say that objects of determination and determinant objects cannot be impossible objects. They are too simple to be such. Fictitious objects have one of the following structures: that A is B; A, that is B; the being B of A. In other words, there must

¹⁸ Implicit determinations are said objects or objectives *in a wide sense*. We will see later (§ 3.2) the correlative ‘object or objective *in a strict sense*’.

¹⁹ Mally points out that in German they are nouns that end in *-keit, -heit, et similia*.

²⁰ [Mally 1904], 166, note.

be an indication both of an object of determination and of a determinant object (this explain why objects of determination and determinant objects cannot be fictitious objects).

Mally than adds that any implicit object is factual, that is existent or subsistent.²¹ On the other hand, any fictitious object is an impossible object.

2.4. Analysis of the 'Eigenschaftsgegenstand'

Let us now consider in more detail the case of the *Eigenschaftsgegenstand*. We have seen that the explicit EG is the immanent object and that the implicit EG is the transcendent object. This statement fits very well with the other details of the picture we are drawing. We can also add that the existence of qualia depends on the existence of their implicit EG (and viceversa). That is, the implicit EG is the bearer of qualia.

At this point, the fictitious EG, that is, an explicit EG with the determination 'being implicit' seems to be nothing other than the *Gegenstandstheoretisch* correlate of the ideal objects of a Platonic ontology. Among the few quotations I can adduce to support my thesis, the most explicit is the sentence where Mally says that general objects and universals are fictitious objects.

The picture is now quite complete. Mally's theory has a place for the objects in the world (implicit EG), for the immanent objects (explicit EG), for abstracta (fictitious EG) and for the objects that compose the objectives. It is now clear that when Russell wrote that explicit and implicit objects seem to play the role of a theory of denotation, he was able to grasp some of the components of the theory of Mally, but only some of them and wrongly connected.

One of the most obscure points of the 1904 paper is the definitions of fictitious. We can perhaps explain the idea that Mally was trying to express as follows. The problem is finding a general characteristic able to explain the coordination between abstract terms and the things in the world. But since the *Gegenstandstheoretisch* analyses always start from the *Sosein*, if the abstract terms contain an inner determination of the type 'being exemplified', then the problem is preventing the inference from this determination to its actual exemplifications. According to Mally, we obtain this result if we realise that the objects so determined are impossible objects. What matters is the fact that, according to this theory, abstract terms denote objects that act in the same way as impossible objects, and impossible objects cannot be exemplified.

This device can be of some help in also solving the famous objection to Meinong advanced by Russell in his famous 1905 paper published on *Mind*. We know the point. If the round square is round and square, the existing round square should be round, square and existing. But 'existing' is an exemplification

²¹ "tatsächlich (existierend oder bestehend)": [Mally 1904], 140.

of the determination ‘being implicit’ (that is transcendent). It follows, by definition, that the existing round square is a fictitious object. And every explicit but-implicitly-determined object is an impossible object.

Mally’s analysis continues with study of complexes and complexions. Here I shall restrict myself to specifying that ideal complexions are *founded* on their *inferiora*, while real complexions are *produced* by their *inferiora*.

Every complex has elements. If a complex consists of other complexes, the ultimate elements, which are no longer complex, we may call ‘of the lowest degree’. For Mally, every explicit complex must comprise at least some implicit lowest-degree element; otherwise, it is an impossible object.

We have now reached the point at which we may take a preliminary look at Mally’s theory of measurement.

3. *From the theory of objects to the theory of measurement*

Mally regarded as measurable everything which by its nature does not resist the execution of a measurement.²² To measure is to determine an object in terms of its magnitude. Magnitude is an ideal quality: specifically, it is an implicit determination of the quale ‘large’. It belongs to the class of properties which have been called qualities (= properties which are not objectives).²³

Let us call *quantum* an object with magnitude. Every magnitude may be augmented or decreased, but augmenting or decreasing is not merely adding or removing quanta because there are simple quanta which cannot be increased or decreased.

Let us call *Null* the lower limit of the objects that are quanta. The Null is a fictitious object; that is, an object with a determination whereby it does not correspond to any implicit object.

There are two essential types of quanta: divisible quanta and indivisible quanta. Let us begin with divisible quanta.

3.1. *Divisible quanta*

Divisible quanta are complexes (although not all complexes are divisible quanta). Being divisible entails having parts. Divisible quanta are such that they present complexes of elements which may coincide with them.

²² [Mally 1904], 170.

²³ [Mally 1904], 174. In a note Mally reveals the widespread tendency to distinguish between magnitude as quantity from other properties, which are qualities. But he emphasises that ‘quality’ is the best term for all properties which are not objective.

An object A is a quantum if A may stand between the Null and some other object determined by the same type of A.²⁴ In other words, we have quanta when we are able to speak of a 'distance' from zero. The Null is, by definition, the boundary, the lower limit of quanta.

A particularly important aspect of divisible quanta is the problem of the continuum.

Mally's analysis has a typically Brentanian flavour. Suffice it to mention here that Mally regarded the continuum as the bearer of all the boundaries subsisting in it; it has infinite boundaries, which are not its elements but belong to it; they are 'given' in it. The continuum is the 'bearer' of all the boundaries subsisting in it.²⁵

Mally then provides definitions of point, line, straight line, direction, surface, plane and space. For example, he defines a point as the boundary of a continuum which is not itself a continuum. A line is a continuum whose boundaries are all points. A straight line is one in which for every three of its points one of them is always between the other two. And so on.

3.2. *Indivisible quanta*

Anything without parts is indivisible. An object is indivisible when no complex of its elements can coincide with it. Indivisible quanta are not wholes composed of their parts. Hence they are not complexes but simples. Mally explicitly states that the indivisible quanta are properties.²⁶

But what kind of property are we talking about here? We may distinguish between qualities of objects and qualities among objects. A simple quality with magnitude of the former is, for example, frequency. Regarding the latter, mention should be made of the cases of difference and of identity. Let us consider the latter. Because diversity is a quantum, for every specific diversity D there are indeterminate diversities which stand between D and Null and which are therefore less than D. When $D(A,B)$ is the lower boundary, i.e. the Null, we may say that A is identical to B.²⁷

Mally goes on to analyse the various operations among measurements (addition, multiplication, raising by power, etc) without, however, saying anything of particular interest. As far as I can judge, he conducts a lengthy excursus into the language of the theory of the objects of obvious and discounted arithmetical operations. The entire operation is assigned to the incorporation into theory of the objects of numerical field and of the ordinary arithmetical operations.

²⁴ [Mally 1904], 172.

²⁵ [Mally 1904], 175-182.

²⁶ [Mally 1904], 191.

²⁷ [Mally 1904], 196.

4. Conclusions

In conclusion, Mally's theory of objects displays an evident tendency towards the maximum generality of its analysis.²⁸ In specifying the areas of enquiry that distinguish his theory of objects from mathematics, Mally declares that the former studies the objects of every presentation and of every concept, while the latter is distinguished by the presence of more constructive procedures. Mathematics constructs its own concepts and studies the definitions of the objects that it assumes. The principal difference is therefore between a science which analyses that which is given and a science which analyses that which it constructs.²⁹

If one is to make overall assessment of Mally's work, a distinction should be drawn between that part of it in which he synthesises his theory of objects and that part in which he presents his theory of measurements. Of the two, the former seems more systematic. Although these were elaborations only at their initial stage and which would be altered in Mally's later works,³⁰ their presentation is systematic and homogeneous. The second part, however, is impaired by a basic ambiguity. Despite Mally's assertion at the beginning of the book that measurement is a psychic process,³¹ the work contains absolutely no discussion of the psychological procedure of determining magnitudes. On the contrary, the section on measurement is devoted to purely a priori analysis of magnitude and of operations with magnitudes. Moreover, if we accept that his theory of objects proceeds by purely a priori analysis, the problem of mathematics is not resolved. Why should we be obliged to reinterpret elementary arithmetic? Despite Mally's desire or hope that the theory of objects should be the more general science, it is difficult not to conclude that his theory of objects or, in our case, his objectual theory of measurement, is a specific interpretation applied to arithmetical procedures. In this case, the more general science is certainly mathematics and not the theory of objects which, at most, is a specific interpretation of some of its components.³²

However, these remarks do not fully account for the problem. Mally's difficulties stem from a deeper cause.

²⁸ [Mally 1904], 259.

²⁹ [Mally 1904], 258.

³⁰ On this see my [forthcoming].

³¹ [Mally 1904], 122.

³² Mathematics was a problem for the Graz school. In his introductory essay to his book of 1904, Meinong wrote: "a suitable place for mathematics could never be found in the system of sciences... Mathematics is, in its essential features, a part of the theory of objects. I say 'in its essential features' in order to explicitly leave open the possibility of a specific differentiation of mathematical interests". In the subsequent note, Meinong refers to [Mally 1904] "for the beginnings of the relevant work". Cf. [Meinong 1960], 98.

Elsewhere I have noted that Brentanians, and in general those philosophers active prior to the Great War, developed their analyses on the study of presentation; on the basis, that is, of the psychological study of something that is actually given. For this reason their researches can and must be understood within the context of a close connection between metaphysics and psychology.

Scholars in the subsequent period instead used categorial tools based on what would later become the concept of model, and they attributed progressively greater importance to the multiplicity of possible models. They were interested not in what was somehow *given* but in what was *possible*. Reality was thus reduced to the occurrence of a structure, for which reason their enquiry concentrated on the relationship between ontology and logic.³³

Meinong is in between. He was one of the main supporters of the distinction between metaphysics as the science of the given and ontology as the science of the possible. He started with psychological studies and ended with the theory of objects, that is with a theory that, considering not only possible objects, but even impossible ones, is even wider than ontology.

Starting from ontology (or from the theory of objects) or starting from metaphysics has consequences of enormous significance which have rarely been considered. To ask only one question: Is metaphysics a *section* of ontology or is ontology a *variation* of metaphysics? In other words, must knowledge of what is possible precede knowledge of what is real, or should the modal be understood as an extension (or variation) of the actual?³⁴ Needless to say, I cannot even start to present some plausible answer to these questions.

I limit myself to note that one of the principal effects of the shift from metaphysics to ontology has been the situation of 'incommunicability' that has arisen between logic and psychology. An incommunicability which, at various levels, has characterized the evolution of the entire twentieth century and which only now, owing to the impact of new research into artificial intelligence and cognitive psychology, is beginning to dissolve.

It seems to me that Mally is trapped in the above dilemma about the connections between metaphysics and ontology (in his case, between metaphysics and theory of objects). His starting points are of a metaphysical nature, but all his subsequent developments are of an ontological nature. From this point of view, even if his formal tools are too poor to be of any help, his conceptual analysis still present some points of interest.

³³ [Poli 1994].

³⁴ Purely by way of example, I would only note that the celebrated anti-psychologist revolution in logic has almost never been connected with the parallel shift of interest from metaphysics to ontology.

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