

palæontological reflections on the Tractatus

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Methodological Preamble

What follows is not intended as a self-sufficient account of the Tractatus, but rather as a series of preliminary thought-experiments intended to suggest possible lines of investigation in relation to Wittgenstein's early thought, some of which may prove philosophically fruitful. Those which do, combined with other, more familiar approaches (through Frege, Hertz, Principia, Schopenhauer, Mach, Kant, etc.) could then be used to provide the necessary complete account. This should serve to forestall two sorts of criticism: (i) that these reflections are 'unbalanced': it is nowhere stated explicitly, for example, that Wittgenstein ^{did so much as} read Frege during the period in question; and (ii) that they may undervalue the originality of Wittgenstein, by repeatedly failing to give due weight to the hypothesis that Wittgenstein may have himself invented a concept, problem, or term, independently of any anticipations, of the types discussed below, in the works of Austrian and German philosophers and psychologists. But even where this hypothesis does in fact correspond to the truth this need not deprive the parallels involved of all philosophical interest in relation to the Tractatus. For the latter is notoriously - indeed shamefacedly - a work shot through with gaps at crucial points. And it seems at least conceivable that an investigation of the typical ways in which these gaps were filled by other, contemporary philosophers employing similar conceptual machinery may have some chance of proving helpful in our understanding of the internal implications of Wittgenstein's thought.

There is a third sort of criticism, which I certainly cannot hope to forestall on the basis of the present (highly preliminary) version [of an essay parts of which I hope to include in an introduction to my English translation of Reinach 1911]. This turns on the factual errors and misunderstandings which the paper contains. I ask only that such criticism be merciless.

§1

Wittgenstein's copy of the manuscript of the Tractatus, the copy seen by his colleagues during his time as a schoolteacher in Lower Austria, bore the title Der Satz, a title which may well have accompanied the familiar, more cumbersome titles (Logisch-philosophische Abhandlung / Tractatus Logico-Philosophicus) in Wittgenstein's mind even in the time before the work was published. The English philosopher's temptation is to translate this / ^{alternative} title simply as The Proposition, despite arguments such as those presented by Shwayder (1954) and Schwyzer (1962) which suggest that a more suitable translation would be The Sentential Act (or perhaps: The Linguistic Act). But can this title be translated at all if we are to be sure of being adequate to Wittgenstein's intentions in using it? For each of these suggested English translations is a technical one, carrying none of the non-technical meanings associated, in German, with the word 'Satz'!

To get some idea of what is at issue here let us recall the manner in which the Tractatus was written (or composed, as we might well say). Almost every day Wittgenstein would write down his thoughts - both personal and philosophical - in notebooks. These thoughts he would then sift and order, transferring those with which he was satisfied to further notebooks, deleting others as philosophically irrelevant, sometimes removing whole sequences of thoughts which he had come to regard as resting on dubious insights. But Wittgenstein's conception of those propositions which remained, and which are set together in the Tractatus, was not the conception of one who is satisfied with that which is left over after a process of sifting and extracting. Much more must we conceive Wittgenstein's attitude to the totality of his thoughts as being that of a fishmonger to a barrel of fish. The fishmonger extracts from the barrel items for his own personal use and items/^{which} he can sell: the whole fish;

then he extracts also of what remains that which can be easily removed. But there is a residue of bones and oil and gills silted at the bottom of the barrel, and the name for sediment of this kind in German is der Satz, the leavings, the waste.

Sometimes Wittgenstein was optimistic about the value of his work. He believed himself 'to have found, on all essential points, the final solution of the problems' (p.5). Der Satz in German is a leap ('einen grossen, mächtigen, kühnen, eleganten Satz über einen Graben'). Sometimes he was less optimistic. Der Satz in German is what things will fetch, the market price: here is the sediment, Wittgenstein is telling us, for what it's worth.

In sifting his thoughts Wittgenstein was also, of course, putting them into order. But not into any linear order: thanks to the numbering system of the propositions we have to deal rather with a complex interleaved ordering system, long numbers fitting within shorter numbers fitting in turn within still shorter numbers bounded by the whole book as container: 'Satz', in German, is the name for a nest of Chinese boxes, and has the connotation of any closely fitting ordering system.

Of more philosophical importance for our understanding of Wittgenstein is the meaning of 'Satz' as a set of objects which belong together, especially in language relating to machinery (to engineering). Thus a Satz is a set of tools, of drills, of machine parts, of lamps, of billiard balls, of playing cards; finally a Satz is a set of furniture, (which reminds us of Wittgenstein's remark at 3.1431:

The essence of a propositional sign is very clearly seen if we imagine one composed of spatial objects (such as tables, chairs, books) instead of written signs.)

This also throws light on the inadvisability of the philosopher's identification - arrived at under the pressure of mathematical language - of 'set' in English with 'Menge' in German. The latter has the primary meaning of mass, crowd, quantity, and the secondary meaning of class or extension; but it lacks any connotation of the English 'set' (in tea-set, etc.).

There is a parallelism of language and music in Wittgenstein's works. [3.141: 'Der Satz ist kein Wurtergemisch.-(Wie das musikalische Thema kein Gemisch von Tonen).'] Cf. the important but little noticed parallelism between (say) Klavier spielen and Sprache spielen in Wittgenstein's later work]. A Satz is, of course, any self-contained section in a piece of music, especially a complete movement (as it is a self-contained section in a game). But there is something more. Der Satz in logical and linguistic contexts now centrally denotes the proposition or sentence itself; it originally denoted ^{not the result but} the activity of Setzen, of positing, asserting, articulating, ordering. As already indicated, we find it necessary to adopt that interpretation of the Tractatus which rests on an identification of Satze with just this kind of linguistic activity. What is interesting, from this point of view, is that in musical contexts this meaning of Satz is still very much alive: * Der Satz is the activity of composing sections of music, where this involves the setting together ^{of} a number of tones. Thus Wieland, describing a particularly fine section of a piece was led to cry out:

Kunstlichkeit des Satzes, Freiheiten im Satze, strenger Satz: gelt! da ist doch reiner Satz! fliessende Melodie!

(What artistry, what freedom, what strength of composition: how true! this is pure composition, the melody simply flows!)

Perhaps, therefore, we should translate Wittgenstein's title somewhat as follows:

*As it is also in the context of the composing room of a printing factory.

The Dregs (for what they're worth). (I have, in a manner of speaking, staked my life* on this tightly stacked nest of boxes relating to the activity of composing or articulating sentences, melodies - eventually also moves in a game: on the one hand it is a great leap forward; on the other hand it is no more than sediment, attained by rather dubious scrapings of the bottom of the barrel of language after everything that is sayable has been removed: anyone who understands me will eventually recognise these leavings as nonsensical.)

2. The nest of boxes was a trial to Wittgenstein. Life itself was a trial to Wittgenstein. If he did not die in the trenches he was convinced that he would commit suicide. Very much on his mind, therefore, was the problem of his estate after his death. A term with which he would at this time have been familiar was the term 'Abhandlung' which in Austrian (though not in German) law designates a trial, indeed a specific kind of trial, the trial for the determination of a person's estate after death. (See ABGB § 797). We might therefore reasonably ask - following Waismann***- whether there is a deliberate legal connotation built into the title, Logisch-philosophische Abhandlung, which the work bore when accepted for publication in a philosophical journal. (Perhaps Wittgenstein thought that the shorter title was too good for philosophers).

We can point to four important works as candidates for having had some influence on the style - the numerical style - of the Tractatus: Hertz's Mechanics, Principia Mathematica, the Bible, and the Österreichisches Bürgerliches Gesetzbuch, (the Austrian civil law code). Wittgenstein notoriously thought that

*Der Satz = stake in a poker game. **including his philosophical legacy

*** See p.2 of Shwayder, 1954.

his work consisted of two halves, a written and an unwritten half, and that it was the latter, the unwritten half, which was the more important of the two. We encounter a further legal metaphor if we look for indications which might help us to understand the unwritten portion in such accounts as we have of Wittgenstein's attitude to life during the time in question. That which can be said relates to the facts in the world; that which cannot be said relates to that which is beyond the world. Engelmann (1967) reports that

the image of God as the creator of the World, hardly ever engaged Wittgenstein's attention, but the notion of a last judgment was of profound concern to him. 'When we meet again at the last judgment' was a recurrent phrase to him, which he used in many a conversation at a particularly momentous point. He would pronounce the words with an indescribably inward-gazing look in his eyes, his head bowed, the picture of a man stirred to his depths. (p.77f).

and

The notion of a day of judgment, /of the associated rewards and punishments, gives structure, we might say, to the region which is outside the world, the region of which we cannot speak. I am not yet in a position to exploit this claim in such a way that it would throw light on Wittgenstein's meaning at the end of the Tractatus, but I can give several independent reasons /that an investigation of Wittgenstein's thought in the light of legal theory may prove fruitful.

The first of these reasons turns on the parallelism which exists between the terminology of logic and the terminology of law, a parallelism which has existed, it seems, ever since the time of Aristotle. Consider, for example, the concepts of Gesetz, Grundgesetz, Gesetzmassigkeit (Frege's 1893, the Grundgesetze der Arithmetik, contains a discussion of the several meanings of the term 'law' followed by an explicit comparison of logic with an arbitrating judge, p.XIX); evidence (but not Evidenz in German); the Husserlian triple Intentio, Constitutio,

Fundatio, each of which owes its origins to the terminology of Roman law; proof, Beweis, justification, judgment, Urteil, sentence (pass sentence = das Urteil fällen); foundation, Begründung, validity, Geltung; argument, rule, ruling, form, formula, formality, legitimation, etc. What is significant for our purposes is that in the Tractatus this parallelism is extended even further: there is a constant emphasis on der Fall sein (being the case), (Wissen Sie, wie die Sachen sich verhalten? = do you know the facts of the case?), (Verhalten = behaviour, conduct), Die Welt zerfällt in Tatsachen (1.2), etc.

How close the Tractatus comes to problems in the philosophy of law

can be seen from a consideration of a paper by the legal theorist Gerhard (son of Edmund) Husserl on the nature of the legal trial, (1955). Despite the relative lateness of this essay and the very many conceptual and terminological parallels with the Tractatus it seems from an investigation of G. Husserl's other works that an influence of Wittgenstein upon him has to be excluded. The paral-

first of all
 els ought rather to be explained, I would argue, by appeal to the common influence

on both philosophers of the framework of

ideas presented in E. Husserl's Logical Investigations and in (related) works of

Meinong and Stumpf, and secondly by appealing to the fact that one central idea

of the Tractatus, that of the picture theory of meaning, seems to have come to

Wittgenstein whilst he himself was reflecting on the nature of a trial, after

reading a newspaper report of a Paris trial pertaining to a traffic accident in

which models were introduced into the court. (Cf. Wittgenstein, 1961, p.7, 29.9.

1914). For Husserl's paper begins with a discussion of Bilder, pictures, as these

are used both inside and outside the context of a court: "Die Darstellung," he

tells us (p.146), "ist Bild eines Etwas. Sie ist nicht dieses Etwas selber."

It is not essential to the picture that it be a picture of something which exists

or which once existed:

Es genügt, dass das Dargestellte den Sinn eines Wirklichen hat. Abgebildet kann nur werden, was wirklich sein könnte - wenn es nicht wirklich ist oder war.

Die Abbildung ist selbst ein Ding der Wirklichkeit. Sie hat ihren Platz in Zeit und Raum. Ihren Sinn erhält sie aber dadurch, dass sie auf etwas anders verweist, das sie - das Bild - nicht selber ist. (p.147)

[It is enough that something is represented which has the sense of something actual. Only that can be depicted which could be real - whether or not it is or was real.

The depiction is itself a thing of reality. It has its place in time and space. But it acquires its sense in being referred to something else, something which is not the picture itself.]

Thus when, on the stage in the theatre, the hero falls to the ground after having been 'stabbed' by a dagger there is no real murder committed: a murder is represented; one which took place, perhaps, in the 16th century. We experience not a real murder but rather a state of affairs represented in a picture - ein im Bilde dargestellter Sachverhalt (p.147) - which exhibits the essential characteristics of a murder. We might say that the two states of affairs, the depiction which unfolds upon the stage and the original murder itself, have in common an identical kernel of sense, (Sinneskern, p.148).

It may seem, Husserl continues, that there is no connection between affairs of the law and mere pictures, which belong to the world of aesthetic appearance. For legal affairs are real, they have consequences, they fulfil an eminently practical goal. Yet nevertheless, he goes on, it does not follow that the law cannot use depiction, Abbildung, of real processes as a means to the fulfilling of this goal.

No legal process springs out of nothing. It is set in motion in order to solve some given problem, whether this is the death of a man, the breakdown of a mar-

raige, the breach of a contract, the foundation of a trading company, or what have you. The legal order clearly wishes to come into contact with actual facts (facts which are, in general, facts of human behaviour). This meets no special

difficulties where the legal norms function between human beings without any mediation of a legal process. Problems arise only with/ such a process, For facts, as such, as entities which unfolded themselves in the past, can never themselves be experienced in a subsequent legal trial. Somehow a depiction of these facts must be created, using the materials available to and within the rules of procedure laid down by the court. What now is the means by which these states of affairs in the past are brought to representation? Typically, of course, we employ speech, but we may also, as G. Husserl points out explicitly (p.150), appeal to pictures or to three-dimensional models.

Now the judge, in making his judgment, does not attach the relevant legal consequences to actual facts, facts which he himself has really experienced, but rather to possible states of affairs depicted in the actually uttered sentences or in pictures or models presented to the court. These are introduced into the locus of the trial first of all by prosecuting and defending lawyers. The witness is then brought forward to testify whether a given depicted state did or did not actually take place, he being someone who actually experienced the facts in question. But what he introduces into the trial is once again no more than the verbal representation of that which he has seen. And the judge cannot reach through the witness's reports to the past facts, anymore than he could reach through the preliminary depictions of the lawyers. Thus the judge cannot properly say of anything: 'this is an actual fact'. All he can say, and does say, is: 'I am convinced that the report of the facts given by this witness corresponds to

the truth.' (Cf. op. cit., p. 151).

What is the difference between the depictions of the theatre and the depictions of the court? Only this: that relative to the pictorial representations which take place in the theatre any facts which may or may not correspond to the depicted states of affairs are deliberately put into brackets, left out of account, for the sake of our aesthetic appreciation of the play. In the court, however, this correspondence between depicted states of affairs and facts is precisely what is put up for discussion. But because past facts cannot themselves be experienced in the court, the domain of depicted states of affairs, typically a domain determined by verbal reports, can never be transcended.

So much for Gerhard Husserl's argument. But we here may go further than this. For let us suppose that the depictions of one court are called into question in another, second court, a court of appeal. Here the realm of depicted states of affairs will be of a different nature ^{since} /the issues to be decided are now questions concerning the course of events in the original court. (The extent to which reports there followed the appropriate rules of procedure, etc.) But here too it is impossible to transcend the realm of depictions: no matter how many times the issue is taken to appeal, along a whole succession of higher and higher courts, there can never be any access to the facts themselves. In a certain sense, therefore, there is in the world no intrinsically higher court of appeal. Only God, the guardian of ontology, can make securely well-founded judicial decisions, but for these we will have to wait for the day of judgment, and that is not in the world but beyond it. Something like this, I think, is what Wittgenstein meant (in the 6.4s) when he said that there is, in the world,

nothing which is intrinsically higher.

We could not even test the validity of one legal process by setting it against another quite different, somehow more adequate legal framework. For just as we can never measure the correctness of a clock by comparing it, somehow, with the passage of time itself, but only by comparing it with another clock, (6.3611) so we cannot measure the adequacy of a legal framework except by measuring it against another actually presented framework and never by appeal to 'the law' itself.

§3. One final reason for introducing legal theoretical considerations into the discussion of the Tractatus turns on the importance of the German legal phenomenologist Adolf Reinach as the first philosopher to subject the notion of Sachverhalt to a rigorous philosophical investigation. (See his 1911 and my discussions in A and B). Both Reinach and Wittgenstein were of Jewish descent, born at roughly the same time, and had in common certain important personality traits: both were extremely charismatic, and suffered from the exhausting effects of their philosophical thinking and teaching, though Reinach recovered from exhaustion not by watching films and reading detective magazines but by playing games of dominoes. Both were passionate readers of Augustine's Confessions; and Reinach once remarked, in a very Wittgensteinian vein, that

The difference between himself and others was that they needed a reason to be sad, while he needed one to be happy. (Oesterreicher, 1952 p.89).

Unfortunately
/ whilst Wittgenstein returned from the front, Reinach was killed in battle in 1916, shortly after having been converted to Christianity and after having

sketched out, in the trenches, the main ideas of a vast work on our cognition of the Absolute* (it seems that Reinach was attempting to put into words the second, unwritten half of Wittgenstein's Tractatus). The effect of Reinach's personality, in this period, on those who knew him, is well-testified by the fact that, subsequent to his death his wife, his sister, his brother and sister-in-law and several friends and pupils one by one entered the church. Indeed his sister joined the Benedictine nuns of Mont Vierge, Belgium, where Reinach's depth and piety had already become so well known that on the day before his sister arrived at the nunnery the Prioress addressed the Chapter as follows:

Tomorrow we shall have the great joy of welcoming to our community a new member, who is, even according to the flesh, a sister of Our Lord. (!)
(Oesterreicher, op.cit., p.118).

What is philosophically important about Reinach's works for our purposes, though, is that Reinach developed an extremely detailed philosophical method (which he applied not only in the field of law, but also in the philosophy of mathematics and logic, philosophy of language and, finally, ethics and the Absolute). At the very centre of this method was the concept of Sachverhalt, a term which, as I have tried to show elsewhere (see A), Reinach uses in a manner which is closer than any other philosopher of the time to the way in which it was used by Wittgenstein in the Tractatus. For someone unfamiliar with Reinach's works it is difficult to believe the extent to which Reinach employed the Sachverhalt concept in the solution of philosophical problems. Reinach founds his philosophy of numbers, for example, on Sachverhalte in explicit opposition to Frege and his definition of numbers as applying to

(See his 1921a)
concepts./ The whole of Kant's theory of analytic/synthetic judgments, the whole of logic and the theory of judgment, the whole philosophy of science including

*Cf. H. Conrad-Martius' "Introduction" to Reinach 1921.

the problems of causality and induction are all of them, in Reinach's works, re-built around the notion of Sachverhalt, a phenomenon which, were it not for the Tractatus, would be quite unique in the history of philosophy. What I hope to show, in the final version of the present paper is that there are important reasons why Reinach, with his legal training, found a central, and eventually an ethical and religious importance in the Sachverhalt concept. I hope to show also that legal-theoretical considerations may perhaps throw some light on that other early 20th century Sachverhalt ontology expressed in the Tractatus.

Reinach was not an isolated philosopher. He was rooted in a tradition which, in various guises, had achieved an important position in the German-speaking philosophical and psychological communities by 1911. I have said something elsewhere about the strictly philosophical aspects of this tradition.* In the second half of this paper I want to say something about the method as it expressed itself in psychology, and to show that there are here, too, important parallels with, perhaps even influences upon, the Tractatus.

§4. First, however, I wish to make a short excursion into social philosophy. In particular I want to consider the notion of (social and intellectual) stratification; (note that this term / has found its way into social theory from palaeontology, the science of fossil remains). It seems clear that there are certain societies in which the idea of stratification, of hierarchical ordering, of differences of level, is stressed, is freely accepted, in many different spheres; and other societies in which hierarchies are as far as possible suppressed, and in which those differences of level which survive are somehow camouflaged. Clear cases of the former would be medieval England with its hierarchy of King, barons, thanes,

*Its leading figures were, perhaps: Brentano, Meinong, Husserl, Stumpf and Külpe.

knights, freemen, serfs..., the British Empire in its heyday, and, of course, the Dual Monarchy of Austria-Hungary. Typical examples of the latter, reduced social orderings are England in the 1930's and '40's, and Austria after the fall of the Habsburgs. It is beyond my competence to draw any historical conclusions concerning the opposition between these two kinds of society. And nor do I wish to make facile generalisations concerning the relationship between the ordering of a society and the kind of philosophy (reductionist or non-reductionist) to which it gives rise. (Not that I exclude the possibility of interesting results in this field: see, in particular, Nyíri, 1972, 1974, 1976, 1976a). I want to make rather the much simpler point that those societies with highly conspicuous stratificational orderings (of various types) will demand the development by social theorists of conceptual machinery adequate to those orderings; I then hope to show that conceptual machinery thus developed has sometimes been adapted by philosophers for their own, perhaps quite different purposes.

One particularly interesting example of conceptual advance in response to a stratificational social ordering is provided by the work of the 12th century legal theorist Henricus Bractonis (Henry Bracton). To oversimplify somewhat we can say that in the feudal system all land was the property of the King, but then also separate constituent parcels of this land were the property of different grades of lord, down to the individual clods of earth farmed by serfs.

There is a clear problem which arises when we ask how these different people could each of them own the same parcel of land. Before Bracton this problem had been purportedly solved by appeal to different modi habendi on the different levels. Bracton saw, however, that there can be only ^{such} one/modus, that if a person owns a thing then he owns it, and that is that. His solution to the problem was to deny that it is one thing which is owned by all of these people. Rather we have to deal here with a hierarchy of different legal creations, higher-order intentional objects (in the terminology of Smith, B, adapted from Ingarden, 1964/65, vol.II/1). Each of these legal creations is related, in different ways, to the underlying clods of earth, but they differ amongst each other in occupying different positions in what we might call legal space. These creations of law were called estates: the crown estate related to that parcel of land which extended across the whole country, but it was not identical with that land, as can be seen from the fact that the King had certain limitations on his rights relating to it. Individual lords of various grades below the King then each owned the appropriate estate, down to the tenants of lowest order who, according to the theory, were regarded as owning the land itself rather than any higher-order legal creation resting upon a set of temporally determined rights relating to the land. (For a more detailed — and more accurate — account of the theory see G.Husserl, 1969, and Plucknett, 1956).*

*The notion of estate acquired a central position in English social and political life. As one jurist put it: 'What a man had largely determined what he was. His status as a legal person depended on his legal estate and tenure in English land.'

The polymorphous hierarchical society which was Austria-Hungary gave birth, in its social theory, to a stratificational ontology of a highly insightful kind, resting on a conceptual advance which was much more deep-going than that which had been effected by Bracton, since the ordering system which it involved was not one which could have been obtained merely by "reading off" an ordering of strata overtly manifested in society. I refer to the revolutionary account of the capital structure which was presented by Carl Menger in his Grundsätze der Volkswirtschaftslehre (Principles of Economics) of 1871, a work which served as an economic handbook to the Habsburg Empire during the period of economic and political liberalism which followed its publication. The notion of a capital structure was itself to a large extent original to the Viennese School of economics which Menger founded.* Hitherto it had been customary to take for granted the homogeneity of "capital" (as measurable, e.g., purely in terms of land, or in terms of money-in-the-bank), with a consequently devalued conception of the role of the capitalist. The latter comes to be seen within Austrian economic theory as having the indispensable function of preserving the capital structure (and also, where possible, of developing it) in the face of continual changes in its determining conditions; (changes, for example, in the availability of raw materials, in consumer tastes, changes caused by epidemics, wars and other actions of governments, and, of course, changes caused by the activities of other capitalists).

Oversimplifying somewhat we may sketch Menger's account of this structure as follows: the economic activity in a society is of value only to the extent that it satisfies the needs of consumers, i.e. that it leads to the creation of goods whose purchase is held to yield an immediate increase in the psychic income of the purchaser. There are only certain goods, however, which have this quality (goods such as foodstuffs). Other goods (cooking utensils, for example) do not

*Other important members of the school include: F.von Wieser, E.von Böhm-Bawerk, L.von Mises and F.H.von Hayek (the latter a distant cousin of Wittgenstein). For reasons which will become clear in the sequel, Menger's school has also been called the First Austrian School of Value-Theory, in virtue of its manifold relations to the 'Second' such school, comprising especially Brentano, Meinong, Ehrenfels, Witasek and Mally. See Eaton, 1930, p.16.

directly serve to satisfy any needs at all. It is of course on the word 'directly' which everything hangs; for each of the goods of this latter group can be used in some way as to contribute to the production of direct need-satisfying goods. Menger called the first, need-satisfying goods goods of first order. Goods which are used, in combination, to produce goods of first order Menger called goods of second order (for example: a cooking stove, a pan of water, raw potatoes, together with fuel, constitute a complementary set of goods of first order). Goods used to produce goods of second order (for example the knife which peeled the potatoes) are goods of third order and so on. Clearly it is nothing intrinsic to a good which determines its position, at any given time and in any given function, in the rank structure: this depends exclusively on the decisions of the capitalist (and clearly within the Mengerian framework the housewife peeling and cooking potatoes is, to this extent, a capitalist). The ordering of the rank structure is therefore an ordering which is dependent upon particular networks of acts of consciousness on the part of subjects who react, in determinate (but sometimes highly original) ways, to changes in the underlying conditions. They thereby cause changes in the rank structure which will, in their judgment, lead to increases in the psychic incomes of consumers.

Clearly there is no suggestion that the capitalist should conceive himself as standing in any kind of conscious relationship to 'the capital structure' as such (as if he were some kind of gardener, charged with the task of preserving the order of a large garden from season to season). His relationship is rather directly to the goods themselves (those goods which fall within the locus of his particular interests), and in this he differs from the consumer only in that his interests include also goods of higher order within their orbit. It is in explaining the psychological mechanisms by means of which the interests of the

capitalist express themselves in the market in such a way as to lead to the maximum of consumer satisfaction under any given set of initial conditions (especially conditions relating to the limitations on our knowledge at any given time) that Menger's greatness lies. And it was almost certainly this psychological achievement which attracted Meinong and Ehrenfels to Menger's lectures in Vienna, both ^{philosophers} revealing an important influence of the latter in their works on value theory and psychology. To Ehrenfels, the titular father of Gestalt psychology, we shall ^{return} below. Meinong's first major published work (1894) he conceived as a generalisation of Menger's approach to economic goods (of first and higher order) to goods (valued objects) in general. In his later works this generalisation was carried even further, taking the form of a completely general theory of objects (of first and higher order).

Now Meinong's paper "On Objects of Higher Order" (1899) was among the works subjected to thorough treatment by Russell in the six articles which he wrote on Meinong during the period from 1902 to 1907, precisely the period between his discovery of the paradox in Frege's Grundgesetze and his invention of the ramified hierarchy of types (the theory of types and orders)*. One is therefore tempted to suggest that there is an echo, in Russell's terminology of 'higher orders' and e.g. in the now so widely accepted terminology of 'higher order logics', of Meinong's ontology and of Menger's 'psychology' (a suggestion whose philosophical importance consists, perhaps, merely in the fact that it reveals how inadequate is our understanding of the early history of mathematical logic in particular and of analytic philosophy in general, particularly as this relates to the thought of France, Germany and Austria).

*See Russell, 1904, 1905, 1906, 1907 and the references to "the excellent Herr Meinong" in his The Principles of Mathematics (1903).

§5. It is difficult for us to appreciate the extent to which psychological issues determined the course of philosophy at the turn of the century. Perhaps the best comparison would be that between psychology at that time and logic and linguistics today: for each of these disciplines have, in order, broken free from philosophy, thereby determining across a wide front the problems and concepts which philosophers find important and the methods which philosophers have found themselves using. It is, I would claim, impossible to understand very many works published between, say, 1871 and 1921, without a very clear awareness of the role of psychology in influencing (e.g.) the set of questions to which they are addressed. We can get some idea of the importance of psychology if we reflect that in the 1890's A. Hüfler, with the help of Meinong, wrote a two-volume introduction to philosophy, used widely as a textbook in schools and universities throughout the Empire, the first volume of which was, in fact, a textbook of logic, the second a textbook of psychology. Philosophy, then, at least from one point of view, was conceived as resting upon these two parts, logic and psychology, with, of course, manifold interconnections between the two. And what was true of Austria was no less true of Germany, nor of England, especially Cambridge, where, as we shall see in more detail below, scientific psychology first took root on this side of the channel.

Scientific psychology began in Germany, effectively with Herbart's Psychologie als Wissenschaft, neu gegründet auf Erfahrung, Metaphysik und Mathematik (1824/25).

Herbart's influence in Germany combined with that of experimental physiologists (such as Weber) and physicists who had turned their attention to problems of sensation (such as Helmholtz) led to a veritable explosion of experimental psychology in that country, especially with the work of Wundt and his school.

But Herbart's influence was equally great in Austria where the 'empirical' (non-experimental) psychology of Brentano was founded, a psychology which found important echoes not only in Husserl's phenomenology but also in the work of Meinong and /Stumpf, and in the later experiments of the Würzburg school to which we shall have to turn below. From the time of Wundt and Brentano experimental psychology became an Austro-german export. James and Titchener, for example, in America, represented the influence of Wundt; Ward and Stout in Cambridge the influence of Herbart and Brentano. By the time Wittgenstein arrived in Cambridge psychology had been made into a compulsory subject for the Moral Sciences tripos; and for this subject Moore gave lectures some of which were almost certainly attended by Wittgenstein, lectures at which the principle textbooks were the works of Ward and Stout. (For references see Hallett, 1977). It was against this background that Moore had read and been so impressed by Brentano's work on ethics, and that Russell had done his considerable work on Meinong, including a review of Meinong's book on the Weber-Fechner law concerning the intensity of sensations. Dawes Hicks and the American Critical Realists, too, were closely involved in the early growth of psychology under the special influence of Meinong's work. Dawes Hicks in particular served as an assistant in C.S. Myers Cambridge Institute for Experimental Psychology, the first such institute to be founded in England (as Meinong had founded the first in Austria-Hungary). Experimental psychology was, when Wittgenstein arrived in Cambridge, already a highly technical subject, though - and this will have important philosophical consequences for what follows - one lacking any kind of self-consciousness or self-confidence. Yet it seems that Wittgenstein was already something of an expert (though one who always maintained a cynical stance relative to the discipline of psychology). Thus

for example he later showed himself capable of giving an explanation of the Weber-Fechner law in a way which suggested more than a mere knowledge of Russell's review of Meinong's book on the subject (see ^{Wittgenstein} / 1962, p.41); he attended psychological meetings organised by Myers; he exhibited a machine for measuring reactions to rhythms at the opening of Myers' new Institute building; and he carried out experiments of his own in Myers' laboratories. (See Wittgenstein 1974).

This immediately raises the question as to where Wittgenstein acquired his knowledge of and his interest in the subject. The first possibility which suggests itself is Manchester; the professor of philosophy during Wittgenstein's time there, was - like most other major philosophers of the day - a passionate follower of the fortunes of scientific psychology, having himself studied in the Freiburg laboratories of H. Münsterberg and, what will be important for what follows, having maintained a correspondence with the German philosopher-psychologist Oswald Külpe.* It seems also possible that Wittgenstein may have had contact with T.H.Pear, later Professor of Psychology at Manchester, perhaps even that it was Pear who put Wittgenstein into contact with C.S.Myers.

Another possibility is that Wittgenstein acquired something of his knowledge of experimental psychology during his time in Berlin. We already know that as a youth Wittgenstein had read Helmholtz's works on the senses of vision and hearing, one of Wittgenstein's main interests being the psychology of music and

*There is little evidence of any contact between Wittgenstein and Alexander in Manchester, though it has been conjectured that it was Alexander who was instrumental in sending Wittgenstein to see Frege in Jena. See Ambrose and Lamerowitz, 1972, p.272.

sound. It seems hardly conceivable that he would not have become familiar with the classic work on the psychology of sound since Helmholtz, the two-volume Tonpsychologie (1883/90), written by Carl Stumpf who had for 12 years been Professor of Philosophy and a leading figure in the intellectual and musical life of Berlin - the musical capital of the world - when Wittgenstein arrived.

Every serious discussion of the psychology of sound in general and of the psychology of music in particular published in the first decades of this century had to take account of Stumpf's works. (Note also that there is a further, quite independent reason for supposing that Wittgenstein had some contact with Stumpf or with philosophers close to Stumpf, for it was the latter who introduced the term 'Sachverhalt' into the language of technical philosophy, and there is as yet no obvious explanation as to how Wittgenstein got hold of the term while working on the Tractatus. For details see Smith A and C.)

The influence of psychological issues in the Tractatus seems obvious. We have, first of all, the well-explored influence on Wittgenstein's early thought of Schopenhauer and Mach. In the text itself we can discern, for example in the 2.01's and 2.02's a stress on the knowledge of objects, on the manner in which objects are given, on our being able to think a space empty,* and the examples Wittgenstein uses here and throughout the work, relating to specks in the visual field, to the senses of sight, touch, and hearing, are examples which belong to the experimental psychology laboratory. In the 3's Wittgenstein introduces the term 'Gedanke' (thought) in a manner which ^{though undoubtedly Fregean in origin} points less to the influence of Frege's 'eternal realm of thoughts' than to the use of this term in the works of Würzburg psychologists (discussed in detail below). At 4.1121 Wittgenstein takes it for granted that psychology is a natural science, and here he explicitly compares *forms of speech which are even more common in the Notebooks (see Wittgenstein 1961).

his method not, indeed, to psychology, but to the philosophical 'study of thought-processes, which philosophers used to consider so essential to the philosophy of logic'. At 5.5423 we find Wittgenstein appealing to the Necker cube in his discussion of the perception of complexes. Most important for our purposes however is Wittgenstein's discussion of the problem of solipsism. This problem, as Wittgenstein conceived it, was not simply a limit position from the philosopher's armoury of comical tricks; it was a central, foundational problem of the new scientific psychology: how, namely, does the psychological subject break through the solipsistic circle of his perceptions, thoughts, feelings, etc., to reach an objective world. Some followers of Brentano had denied that we could break out of this circle. It was in opposition to this view that Theodor Lipps, grandfather of the Munich group of phenomenologists to which Reinach belonged, developed his theory of empathy, a theory which was later adapted by Husserl for the solution of the same problem.

The philosophical ego, Wittgenstein tells us, is not the human being or the human soul of which psychology treats, but the metaphysical subject, the limit of the world and not a part of it.(5.641). And solipsism, when all its implications are followed through strictly, coincides with pure realism: The self of solipsism shrinks to a point without extension and there remains the reality coordinated with it (5.64). These remarks remind us of the passage in which T.S. Eliot summarises the account of the soul defended by Theodor Lipps (1964, p.71)*

*Beside Lipps - and Meinong - the central figure in this work - (a Harvard dissertation submitted by Eliot in 1916)- is F. H. Bradley, in whose thought also the philosophical-psychological problem of solipsism had played a central role, see Ch.21 of his 1893.

The Ich and its objects form metaphysically one whole, a whole from which we can abstract in either direction...(p.79:) the soul is, in fact, the whole world of its experience at any moment.

In fact it seems clear that the central problem in the foundations of psychology in Wittgenstein's day was precisely the problem of the nature of the soul, of the psychological ego, of the conscious subject. For the experimental psychologists, jealous of their new discipline, were forced into the position where they had to give an account of what it was, in their experiments, which they were investigating. Not the body or some part of the body (say, the central nervous system), since this fell within the province of experimental physiology. And not the mind (or reason or thought or the understanding) either, in the sense in which these were then conceived, for they all fell centrally within the province of philosophy as this had been determined by the still-philosophical psychology of the old, pre-experimental days. Many conservative thinkers denied, indeed, that a science of psychology was possible at all.* One of the chief conclusions of Eliot's dissertation, for example, arrived at by standard Bradleyan arguments, is that psychology as science cannot exist, that all of its results must rightly be assigned either to physiology on the one hand, or to philosophy on the other. Wittgenstein, in contrast, was concerned to keep philosophy and psychology rigidly separate - (in this he was at one with Husserl and with Frege) - and hence his treatment of the problem of the nature of the soul at the conclusion of the Tractatus.

§6

Now the first philosopher to have nurtured the idea of psychology as a science was, as we have already seen, Herbart, and it is Herbart's solution to the problem: what is the object of scientific psychology? which formed the starting-point for all subsequent solutions, including, as we shall see, the

* This was certainly true of Kant.

solution proposed by Wittgenstein in the Tractatus. Herbart is, perhaps, the crucially important figure for any understanding of Austrian philosophy of the second half of the 19th century; his followers filled most of the chairs of philosophy in Austria during the period, and Herbartian educational psychology formed the basis for the curriculum and teaching methods in educational establishments throughout the Empire. Herbart's theory of inhibition and of the unconscious seems to have influenced Freud's psychoanalysis*, and his philosophy influenced such important thinkers as Lotze, Fechner, Husserl, Frege**, Lipps, Ward, Stout, Wundt, Mach, Avenarius, Bradley, and Riemann.

It seems, then, that we must come to some fair impression of the nature of Herbart's psychology, and for this it is important to realise the break with tradition which was effected in Herbart's works. Before Herbart metaphysicians had started with the mind as given; only then were they led to consider the ideas (thoughts, acts...) of the mind, and thus they repeatedly encountered the problem of explaining the relationship between the mind and its ideas, e.g. by appeal to mysterious forces called 'faculties'. Herbart reverses this order of approach. He resolutely dismisses the soul from the experienced world (from the realm of that which can be the subject-matter of our investigations). Instead it is placed - in effect - at the limit of the world, since its nature is totally unknown and forever remains so. Herbart starts, instead, with the ideas themselves: the soul, he says, has no power to call up, make, keep or recall an idea or to deduce one idea from another. All these matters the ideas arrange amongst themselves. Here we see one possible germ of Wittgenstein's claim that logical inference and eventually thought itself must take care of itself. (Cf. e.g. 5.132).

*see Klein, History of Scientific Psychology, pp. 767-777.

** -perhaps: see his 1884, p.iii.

How the ideas of each individual subject combine and interact, and how - most importantly for Herbart, a thinker whose main direct contribution to the history of ideas has been in the field of pedagogical theory - the ideas of a given subject change and develop through time, are matters to which we shall return only after we have discussed the general ontological (or metaphysical) framework within which Herbart was working. Herbart's ontology may most correctly be designated as an atomistic realism. The world consists of a plurality of absolutely simple atoms (which Herbart calls Realen). His argument for the existence of such simples - as far as I can understand it - seems to rest on an appeal to the Aristotelean identity theory of the predicate (a theory which, we must remember, was almost universally held, in one or other form, by logicians up to the time of Frege). According to this theory the 'is' in 'S is p' is an 'is' of identity. If we interpret this view in what seems, for our present purposes, to be the most intuitively acceptable way, then we may say that 'S is p' is to be re-expressed, in canonical form, as: 'Some part (or accident) of S is identical with p'. 'Socrates is red', for example, expresses the identity ^{some part of} of Socrates with (some individual accident) red. Now, Herbart argues, what is 'real', the ultimate furniture of the universe, cannot have a multiplicity of determinations, for let us suppose that S denotes such a real, and that S has the different determinations a, b, c; i.e., in canonical form, part of S, say s_1 , is identical with a, another part of S, say s_2 , is identical with b, and a third part, s_3 , with c. Now suppose s_1 , s_2 and s_3 are non-identical parts of S. From this it follows that S can be decomposed into a number of different parts; but then these parts are more ultimate, ontologically speaking, than S, which con-

contradicts our hypothesis. Hence s_1 , s_2 and s_3 are all identical to each other.

But then since $s_1 = a$, $s_2 = b$, $s_3 = c$, it follows that a, b , and c are identical,

which contradicts the hypothesis that S enjoyed a number of distinct determinat-

ions. Hence by reductio ad absurdum we must conclude that what is real is

absolutely simple.*

How, then, does it come about that we are presented, in our experience, with objects having a multiplicity of attributes? According to Herbart all attributes are a consequence of combinations among reals. (Compare Wittgenstein at 2.0231:

[die] materielle Eigenschaften...werden...erst durch die Konfiguration der Gegen-

stände gebildet.**) To see a real S as red, corresponds, according to Herbart, to experiencing S in combination with a series of further reals, say, $S_1, S_2, S_3 \dots$

To see S as hard to experiencing/^{it}in combination with a different series, say

$S'_1, S'_2, S'_3 \dots$. That it is the same object S which is seen as both hard and

real is a consequence of the fact that this is a common element in both series,

as the centre of a circle is the common element in every radius.

*Leibniz, it seems, employed a different version of the identity theory of the predicate, and it seems plausible that the differences between his monadological atomism and Herbart's Real-theory (discussed below) turn on differences in the two versions of Aristotle's theory. An open problem, which I leave to minds capable of more intricate thought-connections than my own, is the following: that Wittgenstein's Tractarian atomism stands to the Fregean function-argument theory of the predicate, as Herbart's and Leibniz's atomisms stand to their respective versions of the Aristotelean identity theory.

**Material properties are only produced by the configuration of [absolutely simple] objects.

Thus the intuitive conception, according to which the several attributes 'possessed by' an object share a single locus, is overturned; instead we have to recognise that every attribute (individual accident) possesses a plurality of (absolutely simple) loci or, more precisely, that wherever there is the appearance of an attribute there is in truth a plurality of reals.

The first and most obvious application of this theory is to the problem of change in objects through time. In fact we can construct a reductio argument exactly parallel to the above which would show that if 'S is a' is true at time t_1 , 'S is b' at time t_2 and S is an ultimate real, then a and b are identical, from which it follows that there can be no change in reals over time. What we conceive as a change in S from being a to being b is, in fact, a change in the stock of reals which are in combination with S at different times. As Wittgenstein put it:

Der Gegenstand ist das Feste, Bestehende; die Konfiguration ist das Wechselnde, Unbeständige. (2.0271)*

And from this it seems obvious that the Herbartian appeal to a kind of 'linear combination' among reals has much in common with Wittgenstein's account in the Tractatus of Sachverhalt-configuration of simple objects.

*Objects are what is unalterable and subsistent; their configuration is what is changing and unstable.

Cf. also 2.021: Objects make up the substance of the world. That is why they cannot be composite.

2.027: Objects, the unalterable, and the subsistent are one and the same.

The kernel of Wittgenstein's view of 'simple' configuration is effectively a modified version of Frege's theory of saturated and unsaturated entities. Where for Frege saturated objects are conceived as 'completing' unsaturated functions to yield saturated collapsed statal entities (truth values: see my A, p.9), for Wittgenstein it is the absolutely simple objects themselves which are unsaturated (or perhaps we should say semi-unsaturated), and such objects - where they are of such a form that they 'fit into each other', perhaps in the way in which Aristotelean individual accidents fit into each other, - combine to yield saturated states of affairs.** (Cf. Allaire, 1963). [Note, in passing, that for Wittgenstein thus to treat objects very much as Frege had treated concepts would not have been, e.g. terminologically, a great leap: Moore in "The Nature of Judgment" had treated concepts and objects as in effect identical; for Russell in the Principles (1903) both concept and object belonged to the same ontological category of items or terms. Further Meinong's Gegenstandstheorie included concepts within its orbit, and concepts were included by Reinach in the category of objects. Indeed, since Reinach and Wittgenstein both share the same dualistic ontology of objects on the one hand and statal entities (Sachverhalte and Tatsachen)/we might expect to gain some useful insight into the meaning which is acquired by the German word 'Gegenstand' when it is brought within this kind of dualist framework by comparing the "tables of entities" admitted, respectively, by Wittgenstein and Reinach:-

*Cf. the discussion of the meaning of 'Satz' in § 1 above.

** I hope to be able to provide a fuller account of what this 'fitting together' could be in a later version of this paper, appealing first of all to Stumpf's theory of dependent and independent parts and to the whole-part theory presented in Husserl's IIIrd Logical Investigation, especially as this has been developed by the German logician Wolfgang Degen.

WITTGENSTEIN:	
Objects (all simple) [<u>Gegenstände</u>]	Some or all of: <ul style="list-style-type: none"> spatio-temporal simples tones colour(-flecks?) points point-instants thought-units Satzelemente = einfache Zeichen? = names? ...
Statal entities [<u>Sachverhalte</u> and <u>Tatsachen</u>]	Sachverhalte (all simple): contingently obtaining and non-obtaining Tatsachen (typically non-simple) all actual: including: <ul style="list-style-type: none"> pictures thoughts propositions sentences non-pictorial facts (facts not actualised as pictures)
REINACH: (see his 1911; esp.p.82)	
Objects (actual, possible & impossible) [<u>Gegenstände</u>]	spatio-temporal objects (simple and compound) <ul style="list-style-type: none"> tones colours points point-instants thoughts and thought-units (lower and higher-order <u>Vorstellungen</u>) concepts sentences mental acts events numbers ...
Statal entities [<u>Sachverhalte</u>]	contingently obtaining states <ul style="list-style-type: none"> " non- " " analytically " " " non- " "

a similar 2-category diagram could be constructed also for Meinong (Objekte and Objektive). Cf. Habbel, 1960.]

We can now proceed to the comparison of Wittgenstein's account of the simple configuration of the Sachverhalt with Harbart's conception of serial com-

combination: what is the model which underlies Herbart's theory, which would correspond to the Wittgensteinian metaphors of chain-linkages (2.03) and saturation? We must remember that Herbart conceives the reals themselves after the pattern of geometrical points (not e.g. machine parts fitting into each other). Thus there can be no question that their combination can involve any ineinander Hängen à la Tractatus. Herbart's account of the 'combination' of reals involves rather an appeal to the notion, given currency by the physics of Newton, of action at a distance. In fact we are treated to a description of the relationship between the reals as resting on a kind of quasi-gravitational or quasi-magnetic attraction and repulsion. In virtue of the existence of what might be conceived as a 'field of force' amongst the reals, certain combinations or 'alliances' are formed between compatible reals, against the repelling forces of other, incompatible reals.*

That this kind of 'mechanical union' exists amongst reals is almost all that can be said within the strictly ontological sphere of Herbart's philosophy. We can go further, to provide, in particular, an explanation of how an objective material world arises, only when we move from the province of ontology to

* I am not adequate to the task of distinguishing what might be, from the modern point of view, the philosophical working parts in such accounts. It seems lamentable that Herbart scholarship has waned to the extent that it has, and this is almost certainly the result of a historiographical simplification - that '19th century German philosophy' = 'Hegelian idealism' - introduced originally merely for pedagogical purposes. (Compare the account of British philosophy as 'Locke, Berkeley, Hume' - at the expense of e.g. Reid, Brown, and Hamilton). Perhaps the most that I can hope for, from the present remarks, is not that they should throw any significant light on Wittgenstein's thought, but that they may rather generate some modicum of interest in Herbart. We should thus be using the Tractatus as a doorway not, indeed, out of but back into a perhaps over-hastily discredited tradition. A comparison of Herbart's thought with that of Bolzano, for example, is urgently required if we are fully to understand either philosopher.

that of psychology, for it is in virtue of mental activity alone that such a world can be said to exist.* The crucial problem, then, is this: how are reals, in combination, presented to us in the ways in which they are so presented? - And here too it is exclusively in terms of specific kinds of mechanical combination that the existence of ideas or 'presentations' is to be explained. For according to Herbart the soul itself is an absolutely simple real, and it is the relations in which it stands to other reals (der sich zueinander in bestimmten Weisen Verhalten)** which give rise to our conscious - and unconscious - experience. Once again we shall find it useful to present Wittgenstein's account of such experience before moving on to give a summary of the Herbartian theory.

For Wittgenstein, as for Herbart, we have to distinguish between the mental content (thought) and the object-combination which is presented (pictured) in that content. Now since every thought is itself, for Wittgenstein, a combination of simple elements (in virtue of its linguistic articulation), it becomes possible for him to conceive the relation between these two entities as one of isomorphism, as resting on some complex kind of isomorphic mapping of one configuration of absolute simples onto the other. As we shall see, this account rests, in the end, on Wittgenstein's major achievement:

*The experienced world or 'objective semblance' is thus, in the terminology of Ingarden (1964/65; cf. also Smith, B), a higher-order intentional object founded upon the autonomous totality of reals.

**I have not yet discovered examples of this mode of expression in Herbart's writings, but it does occur, for example in Lotze.

his theory of logical operations.** Wittgenstein divides configurations, first of all, into simple and complex. To simple configurations (Sachverhalte) we shall have to return below, but suffice it here to say (i) that we have a determinate method for establishing isomorphism of two simple configurations - effectively by drawing lines connecting the elements of one with the elements of the other, and (ii) that we are to conceive it as being possible to develop a (Principia-style, identity-free) world-mirroring, formal language whose atomic formulae would themselves be simple configurations. The nature of complex configurations (Tatsache) Wittgenstein now explains as follows: atomic formulae can be compound-ed together, by means of logical operations, to yield complex formulae. Thus we shall be able to provide an account of the isomorphism (picturing relationship) between complex propositions and complex configurations (facts), (and thereafter also of the isomorphisms between thoughts and propositions and between thoughts and facts, between sentences (Satzzeichen) and propositions and between sentences and facts, and so on), if we can generalise the notions of logical operation and logical compounding to apply not merely to linguistic formulae but to simple configurations in general. That such a generalisation is indeed possible is shown by demonstrating (i) that the application of 'logical operations' to simple configurations can be shown to involve an appeal simply to the totality

*Nowhere in the Tractatus does Wittgenstein state that atomic formulae (Elementar-sätze) are Sachverhalte as is assumed here in the text. He does however seem to be committed to the weaker statement that such formulae can be put into isomorphism with Sachverhalte, which will prove sufficient for our purposes.

**The theory of logical operations was not, of course, original with Wittgenstein: see item 'Operation' in Appendix II; what was original was the underlying extensionalism, with its consequences e.g. in the fields of probability theory, ethics, philosophy of religion, etc.

of all possible combinations of the results of applying the functors

das Bestehen von and das Nichtbestehen von

to the totality of Sachverhalte, and (ii) that these functors have in turn a satisfactory intuitive meaning within the framework of our ontology, corresponding, respectively to the existence of the simple configuration in question, and to the non-existence of that configuration. Thus we obtain the units, the 'logical' combination of which yields the whole of the 2nd tier of organisation.

It is this two-tier structure of simple and complex configurations (Sachverhalte and Tatsachen) which makes it possible for Wittgenstein to give an account, in the Tractatus, of the 'higher mental processes' (that is to say, an account of the logical order of our thinking activity) which explains, at the same time, how even highly compound thoughts can preserve a relationship to the underlying combinations of elementary objects. Herbart, too, defends such a two-tier structure, *but in a way which provides us with no adequate theory of the (logical) order of our thoughts; indeed for almost 100 years after Herbart's Psychologie, experimental psychologists were unable to account, within their theories, for mental activity more complex than sensation, rote memory, and simple associative thought, until the ^{logical} double-tier approach was introduced (by Meinong and Husserl -- and by Selz, to whom we shall turn below) only a few years before the publication of the Tractatus.

We must now attempt to assemble together the details of Herbart's theory of presentation that we may achieve thereby an adequate estimation of his philos-

*This is discussed briefly in the section which follows.

optical importance. The soul is, we said, an absolutely simple real. However, in virtue of its manifold connections with other reals it becomes possible to conceive it as being itself subject to a manifold of temporally changing determinations, called 'ideas' or 'presentations'. We might say that what is thus experienced as manifold, when the soul is conceived in its relation to other reals, has to be viewed as a single absolutely simple, eternal (or better: timeless) act — as one fell swoop — when the soul is conceived in abstraction from such relations. We shall shortly be able to dispense with this latter mode of conception of the soul, since, as Herbart quite rightly points out, the soul as a real is absolutely inaccessible to our experiences, which are confined exclusively to the objective semblance. But we should first of all indicate the crucial role in Herbart's theory which is played by the assumption of the absolutely simple soul-real in manifold combination with other, external reals. For it becomes hereby possible simultaneously to provide a solution to two crucial problems which had bedevilled the British empirical psychologists, particularly Hume, to whom Herbart is otherwise in so many respects related. These were (i) to account for the unity of the mind (of the sequences of impressions and ideas, amongst which we can discover no unifying term which we could label as the 'self'), and (ii) to account for the 'contact' between each individual soul and the surrounding world, including other individuals. The unity of the mind is accounted for, of course, by the fact that what, from one point of view, appears as manifold is, in reality, absolutely one and simple. And 'contact' likewise is accounted for by the fact, that given the presentation of something which is manifold, this can only be in virtue of the existence of combinations with other reals; thus the very fact of experience leads

analytically, within Herbart's theory, to the assumption of plurality. Solipsism is, as we shall see, absolutely impossible for the Herbartian.

It is by now clear that for Herbart there is, in the world of appearance, no such thing as the subject that thinks or entertains ideas (cf. 5.631-641). In this sense therefore the Herbartian subject, along with all other reals, lies at the limit of the world, where its nature is and forever remains totally unknown. What there is in the world (in the objective semblance) is mental experience and the material world which is presented thereby. Intuitively we are to think of each and every experience as resting on the attraction and repulsion of vast numbers of reals in contact with the soul-real, the vast number of ideas thereby generated forming series which interweave, both amongst themselves and amongst other idea-groups previously established in the mind, these latter groups enabling us to make sense of the newly introduced ideas, yielding associative memory-experiences, etc.

What now is the nature of the connection which exists between the ideas or presentations generated in this way? Presentations may, first of all, be exactly alike: as two successive ideas of an identical red. In such cases the two ideas fuse or coalesce into one single idea. They may, secondly, be entirely contrary: as an idea of red and an idea of green. If two such ^{ideas} attempt to establish themselves in the mind at a single instant there is an ^{immediate} tendency for them to exclude or inhibit each other. Finally we have the (typical) case where ideas are disparate but compatible: for example an idea of green and an idea of hard. In these cases the ideas form combinations or complexes.

On investigating those ideas which may thus 'complicate' with each other to form complexes, Herbart arrives at the notion of a qualitative continuum; for example: the continua of colours, of tastes, of sounds, of hardnesses, and so on. Two elements from the same qualitative continuum can combine only partially, in a manner which involves what Herbart calls 'fusion with/ ^{arrest} Elements from different qualitative continua can, given appropriate environing conditions, unite in a single time-instant to form a complex, for example the complex of ideas which is my present perception of this coloured, moving fleck before me. Typically our experience consists of many interweaving series of ideas, complicated together (i.e. forming complexes, the elements of which belong to different qualitative continua) and interrelating in a variety of different ways. (Cf. Stout, 1888, p. 20 and e.g. the remark on p.13:

According to Herbart, every sensation, however simple it may appear, is due to the fusion of innumerable homogeneous components, which are given successively in the minute divisions of time during which the external stimulus operates).

However, Herbart's most important contribution to our contemporary mode of thought rests not on his accounts of the ordering of such mental activity—nor indeed on his account of the relationship between 'inner' and 'outer' (mental and material) combination among reals, to which we shall have to turn below. It rests, rather, upon his use of mathematics in the study of the mind, in particular of the differential calculus (which deals, of course, with variations which are continuous). Herbart provided, indeed, the philosophical tools for ^{mathematical} the/solution of a problem which had hitherto/ ^{balked} philosophers and mathematicians alike: how is it possible that, in a world consisting of discrete elements -

which were, in Herbart's case, absolutely simple, immutable reals,- the appearance of continuous variation may arise (in space, time and in each of the qualitative continua distinguished by Herbart)? Herbart in fact developed an elaborate theory of continua as intellectual fictions read into the objective semblance and corresponding only indirectly to determinations in the real world. Thus the two spheres (the objective semblance and the world of reals) have different mathematical structures. Given Herbart's work in this field, together with the constant stress in his writings on the concepts of 'manifolds', 'spaces', 'dimensions', 'orders', one is tempted to make out a case for ascribing to Herbart (and his followers throughout central Europe) a quite unique role in determining the intellectual conditions which made possible, for example, non-Euclidean geometry, Einstein's relativity theory, Machian sensationalism, perhaps even Freud's tripartite theory of the mind. *

Finally we must sketch, briefly, some aspects of the account which Herbart supplies of the 'presenting' relation between series and complexes of ideas on the one hand and objects in the world of appearance on the other. The determinations on each side/^{ultimately}rest, as we have seen, on combinations of reals,

*The most influential and the most distinguished agent in all of this was certainly the mathematician Riemann, a devoted follower of Herbart, who ascribes to his philosophical mentor an essential role in his invention of the general theory of (discrete and continuous) manifolds, the theory which lies at the core of (e.g.) relativity physics. (See the introductory paragraphs of Riemann's 1854, and the discussion in my 1976, § 13). Note that although Herbart almost certainly acquired the term 'Mannigfaltigkeit' from Kant, the theory which he presented was original with him: Kant's theory of manifolds excludes the possibility of mathematical treatment.

yet we may rightly demand, in a philosophically adequate account of mental experience, something more than a merely mechanical account of interrelations among the reals. The crucial additional factor which Herbart supplies is a recognition of the fact that each presentation can be conceived from two points of view: either (i) as activity, - the presentation as subjected to mechanical interaction with other presentations, - or (ii) in abstraction from its relations with other presentations. Under the first aspect the presentation is something which belongs to the subject matter of empirical psychology (a species of mechanics, for Herbart): and from this point of view presentations may 'conflict', may 'coalesce' and so on. Under the second aspect, however, the presentation - or 'concept' - belongs to the subject-matter of logic, for from this aspect we are interested exclusively in the content of the idea, and not in any contingent situations in which it may have come to be actualised. From this point of view presentations or concepts are 'contrary', 'equivalent', 'complementary', etc.* Unfortunately we are not yet able to carry this forward in such a way as to provide a complete account of the Herbartian theory of presentation.

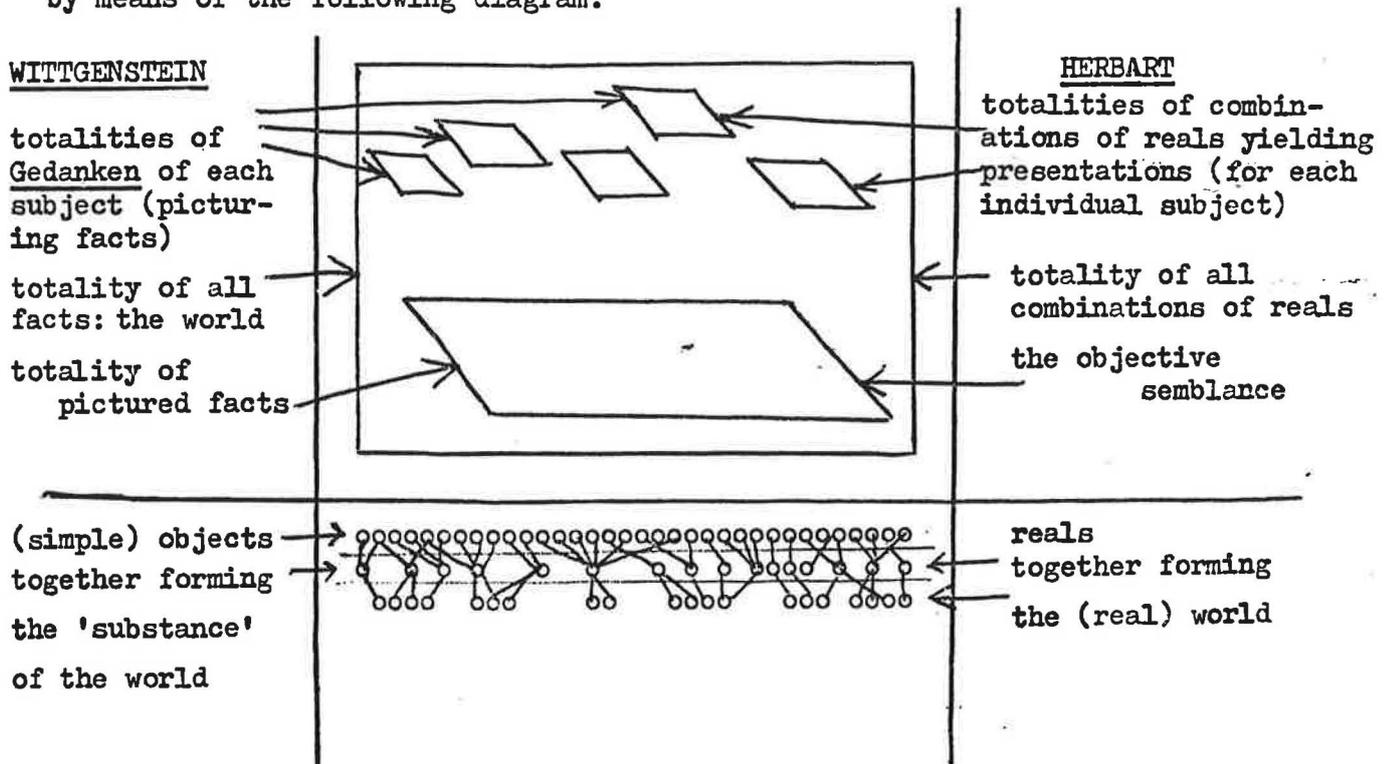
Instead we wish to sketch some of the relations between Herbart and Leibniz, relations which may prove more immediately relevant in a Tractarian context. As we shall see, a comparison between Herbart's atomism and Leibniz's monadology** yields an initial temptation to conceive Wittgenstein as through and through a Herbartian thinker. For Leibnizian monads are absolutely incapable of forming combinations: the monads are windowless. And secondly we are to imagine each monad as having been 'set going' (like a clock, in pre-established synchrony with all other clocks), and as thereafter being cognitively active: the monad is a subject which thinks. In all of these respects Herbart puts forward

*A complete version of these notes would need to include a discussion of Herbart's activity/content opposition as this affected both Husserl (in his 1891 and 1900/01) and, - through Herbart's theory of number - Frege: cf. 1884, p.iii.

**A comparison which is to be found frequently in the literature of 19th century Austrian philosophy.

an opposing view to that of Leibniz, one which seems, at each point, to draw him closer to the Tractatus. Thus Herbart's reals are capable of linearly combining with each other, and it is such linear combination alone which yields all material determination and all change (all 'Sosein und Geschehen', 6.41) and which constitutes the world as we experience it (the objective semblance). Further Herbart's soul is not a subject which thinks: like every other real it lies beyond the limits of the world of appearance in which we (apparently) live and think. Its exclusive function (as a hypothetical entity, within the theory) is to guarantee the unity which characterises the mental experiences of a given subject by serving as the common term in all of the serial combinations which constitute those mental experiences.

We can bring out the parallels between Herbart's and Wittgenstein's ontologies by means of the following diagram:



All of which suggests that the 'official' ontology of the Tractatus (that which is expressed in the course of paragraphs 1 to, say, 5.32) should be classified as essentially Herbartian in nature. But there is a second 'unofficial' ontology in the Tractatus, which can be gleaned from certain passages scattered through the paragraphs which remain: this is the ontology of solipsism. Something further which is first developed by Wittgenstein in these paragraphs is the concept of language - the logically adequate (formal?) language referred to above - as a mirror of the world. This is a concept which has highly pre-Kantian roots, and when we discover that the ^{same} mirroring relation is also applied by Wittgenstein to his ('unofficial') account of the relationship between the self, or microcosm, and the world, then it lies close at hand to seek an interpretation of this second ontology within a Leibnizian framework. For we shall remember that Leibniz's monads, though windowless, yet mirror the universe, each from its own particular perspective.

Thus we might say that within the official ontology it is the totality of facts which is taken as primary, that language is seen as ontologically derivative in relation to that totality*, and that finally the individual totalities of thoughts are in turn derivative of language, since it is exclusively in virtue of their linguistic (logical) articulation that they acquire their status as thoughts at all (and not, e.g., in virtue of their satisfying

*Language is 'derivative' in the sense that linguistic entities are all of them seen as being primarily particular facts, and only secondarily as being characterisable as 'linguistic'. Note the extent to which language is conceived ontologically by Wittgenstein (e.g. at 4.001).

some psychological criterion).

In the unofficial ontology, in contrast, it is my thoughts alone which are ontologically primary. However, in consequence of my understanding of a world-mirroring language (5.62), the world and all its objects are recovered - but they have an ontologically 'weaker' status: in the terminology of Ingarden they are merely intentional correlates of my linguistic acts. (See §§ 50-53 of my 1976). Thus the diagrammatic representation of the unofficial ontology is, as we should expect, identical with that of the official ontology - except that now different regions have acquired different ontological weights: in particular one specific thought-totality is picked out as enjoying a privileged ontological status in relation to the remaining thought-totalities and indeed to the totality of all remaining facts.

But all of this throws what is, admittedly, very little light on the claim that in the unofficial ontology it is my thoughts alone which are ontologically primary. We might come marginally closer to an understanding of this claim if we investigate the role which is played by the underlying atoms/monads in the two ontologies which we have distinguished. We remember that in the Herbartian ontology it becomes possible to distinguish individual mental experiences of the soul only when the latter is conceived in the light of its combinations with other reals outside it. Only in the context of such combinations does the soul 'have presentations' at all, for conceived in isolation it is an absolutely simple entity. Solipsism - the view that the individual soul alone exists - is thereby absolutely excluded within the Herbartian framework, for in the absence of other reals it becomes meaningless to ascribe to the soul any

'life' at all: pluralism is built into the very foundations of Herbart's thought. When we enter the Leibnizian framework, in contrast, we feel almost obligated, given the existence of a single self-contained, windowless, world-mirroring monad, to regard anything outside the self thus isolated as ontological flotsam. The world thereby shrinks to a point without extension, leaving the reality, coordinated with the totality of experiences of the self, (of course) unchanged.

37 There have been recent attempts in the literature (see e.g. Bartley, 1974, 1974a) to exploit educational theory in general and Herbartian pedagogy in particular as aids to the understanding of Wittgenstein's philosophical development. It therefore seems incumbent upon us that we turn our attention briefly to this aspect of Herbart's thought. We must note, first of all, the extent to which one-sided and over-simplistic preconceptions have coloured the estimation of Herbart in very many spheres. Thus when psychologists have turned to Herbart they have sought to extract his 'properly psychological' thought from what they regard as alien metaphysics, and the picture which thereby results is often one of Herbart merely as an associationistic thinker. We have seen, however, that it is precisely the juxtaposition of metaphysical (better: ontological) aspects (atoms, in combination, yielding an objective world of determination and change) with psychological aspects (atoms, in combination, yielding perceptions of objects in that objective world) which lends his thought its interest. For this ^{very} juxtaposition of ontology and psychology* came to characterise so much of sub-

*or the related juxtaposition of ontology and logico-semantics (4.1121)

sequent 'Austrian' philosophy (see e.g. Meinong, ed. 1904 and Findlay, 1963, p.7).

It is precisely such a one-sided, psychological picture of Herbart to which appeal is made by Bartley when he puts forward an account of

the development of Wittgenstein's thought...as that of an amateur child psychologist turning - partly as a result of his experience in schoolteaching - from an essentially associationist psychology to a configurationism or contextualism close to that of the Gestaltists.

(1974a, p.309).

Before turning to correct the picture of Herbart in all of this - when we shall find that there is a case to be made for regarding Herbart himself as having defended a 'configurationism or contextualism close to that of the Gestaltists' - it will be well if we indicate two further, independent simplifications, the correction of each of which does something to undermine Bartley's - surely baseless - conception of a sudden break in Wittgenstein's thinking.

There is, first of all, no evidence of any interest in child psychology on Wittgenstein's part before the publication of the Tractatus. There is however ample evidence of an interest in theoretical psychology during this period, (indeed, I hope to show in a future paper that already within the Tractatus we can discern certain core ideas of Gestalt psychology - at least in the embryo form in which this had been anticipated by Ehrenfels, acknowledged father of the discipline, in his 1890). And secondly, a key role is assigned by Bartley to the psychologist Karl Böhler, whose theories are related to those of the Austrian school reform movement (in which Wittgenstein was peripherally involved) on the one hand and Wittgenstein's later, 'contextualist' philosophy on the other. Because of his preconception of a radical change in Wittgenstein's

thought, however, Bartley fails to draw certain important conclusions from the fact that already before the war Bühler had done important work in the study of 'senseless thought', work which served as a foundation for his later theorising in the field of child psychology. (Cf. Bartley, 1974, p.105).

During the first decade of this century Bühler had been a leading member of the influential Würzburg school of experimental psychology, and as such he had sprung to fame amongst experimental psychologists through the controversy in which he had engaged with Wundt, after the latter had savagely criticised the Würzburg experimental methods (which rested crucially on a rigorous process of introspection). Along with August Messer, Bühler had done much to improve the philosophical foundations of Würzburgian psychology by importing concepts derived from the work of Edmund Husserl, especially from the latter's Logical Investigations. (As with G. Husserl's account of legal facts discussed above and with Reinach's Sachverhalt ontology [discussed in A and B] so here we can discern important parallels between the work of Bühler and the Tractatus. Parallels of this sort can be accounted for, it seems, only on the basis of a recognition of the extent to which the latter is a work enjoying manifold relations to the Meinong-Husserl-Stumpf philosophical ontology.) Anticipations of Tractarian ideas in the works of the Würzburg school (discussed in § 8 below) have a quite specific philosophical relevance since if it can be shown in detail that it is possible to read the Tractatus against this background - the background of Külpe, Marbe, Messer, the early Bühler and (especially) Selz - then it becomes clear that, at least from one/ point of view, the account of thinking which is inherent in it is by no means so inadequate as has subsequently been supposed - not least by Wittgenstein himself. First of all, however, we must return to Herbart.

According to Bartley, Herbart's theory of the mind is a 'bucket or tub theory' (1974a, p.309). Thus whilst recognising that Herbartian ideas may themselves be active, he claims that

they lead their lives in passive storehouse minds. To a Herbartian, whose aim above all is moral education, teaching consists in feeding students those ideas which it has been decided should dominate their lives. (Loc.cit.)

He goes on to stress the emphasis on rote-learning, on discipline, on non-originate teaching and strict adherence to 'method books' in Habsburg educational practice. It is not clear to me the extent to which this account involves a running together of Herbartian theory with the Austrian State Policy of which the theory was employed as an instrument.* Suffice it to say, in defence of Herbart, that from the pedagogical point of view the schools of Austria were, as Bartley himself admits, the envy of Europe.

What is more important is that we should examine Bartley's account of the Herbartian conception of the mind, for here it is clear that talk of 'passive storehouses' is quite inappropriate. For whilst the mind (the totality of ideas or presentations) within the Herbartian framework is indeed 'passive' from one point of view, yet, in virtue of the activity of the ideas themselves it comes to enjoy a highly complex organisation, and Herbart's accounts of this organisation are often reminiscent of Freud who may, indeed, have been influenced by them. Moreover this complex organisation yields an analogue of self-determination and self-will in the developed mind (discussed by Stout, 1888, pp.43-50), — the 'storehouse' is not therefore 'passive'.

*Thus one of the consequences of Herbartian theory is that rote-learning should actually be abandoned, in favour of techniques of learning by assoc-

All ideas arise, we saw, in virtue of combinations of reals (combinations, in fact, of external^{and} / bodily reals with the soul). The ideas attract and repulse each other, coalescing or forming complexes or inhibiting each other according to the extent to which their natures are alien or compatible. It is this generative and inhibitive activity which constitutes the stream of mental experiences with which we are all of us familiar. Herbart now demonstrates how, in virtue of the mutual conflict of incompatible ideas, the idea-totality of a given subject / comes to be divided into two sub-totalities, those of which we are conscious and those which are, at any given time, below the 'threshold' of consciousness. Ideas can securely cross this threshold, in effect, only to the extent that they can form alliances with other ideas, already present in consciousness, (from which we can draw certain immediate pedagogical consequences; for example that the teacher should offer new idea-material to the pupil only when this new material has been somehow made accessible to the latter through chains of compatible ideas concluding in ideas with which he is already familiar.)

How, now, do these remarks relate to Wittgenstein? It was stated above (p.31) that Herbart, like Wittgenstein, had developed a two-tier account of the combination of reals (combination which yields the mental experience of each subject on the one hand, and the objective semblance on the other). So far we have discussed only simple ('linear') combination within the Herbartian framework, and we have seen something of how such linear combinations give rise to serial orderings (e.g. of space and time). At this point

however we must proceed to give an account of the second tier of 'combination', a type of higher-order bonding-together which comes into being exclusively within the mental sphere. Indeed its function within Herbart's theory is precisely to explain the order in that sphere, without appeal to any subject which thinks, nor to any mythological faculties of reason or understanding. In the Tractatus, of course, this order is explained also by appeal to a second tier of combination, yielding the space of Tatsachen, the logical order of which characterises also each sub-space of mental Tatsachen or thoughts, as well as the sub-space of linguistic Tatsachen. We might therefore anticipate that, just as the lower type of combination in Herbart corresponds to Sachverhalt configuration in the Tractatus, so also Herbart's higher type of mental combination might correspond to something recognisable as Wittgensteinian Tatsachen. We find however that logically complex judgments are conceived, by Herbart, in terms of just the same kind of attractive combination amongst ideas which accounts for mental experiences of simpler types. A radically new kind of organisation amongst mental entities is encountered, in fact, only when we move up to a much higher level, to a level which corresponds in Wittgensteinian terms not to individual thoughts but to complete forms of life.

A conception of the mind as a contourless 'bucket or tub', into which enter myriad series of reals (resulting, e.g. from sense-perception or from physiological disturbances) seems to preclude an answer to the question: how is disciplined thought possible? It seems that mental experience would be

confined exclusively to sensual and emotional elements accompanied, at most, by a kind of inner babbling, resulting from what Herbart calls 'the uncontrolled play of the psychological mechanism' and which, as Stout reports, 'is to be found in the most striking form in children and uneducated persons' (1888, p.32). If ordered thought is to be possible, then there must be certain connections amongst some of the ideas or presentations in the mind - corresponding, on the level of content, to (e.g.) logical connections - which are not subject to transient disturbances by the entry of new ideas, but which rather serve as a conceptual network in terms of which those new ideas, deriving, e.g., from sensory experience, acquire their meaning for the subject in question.

The totalities of ideas connected together in this way Herbart called presentation-masses. As Stout expressed it:

The uncontrolled play of the psychological mechanism gives place to disciplined thinking, in so far as presentation-masses come into being which are reinstated and maintained in consciousness without lasting or important modification from extraneous conditions, because their mode of reproduction is determined mainly and ultimately by the internal connexion of their components. (1888, p.32).

Such presentation- or idea-masses arise when, through long association with a large number of similar ideas (ideas which have a tendency to fuse together and thereby to attract further, related ideas to a slowly growing whole) a large number of complex interweaving connections is established which bind together, in a variety of mutually supporting ways, a complete and relatively self-sufficient idea-fabric. It is the presence of such presentation-masses in the mind which determines, for example, the ideas which shall be inhibited at the threshold of consciousness. And it is the individual presentation-mass which determines, to a large extent, the combinations of new ideas which

enter the mind, and therefore also the aspects in which the objects presented by those ideas are given. Thus one and the same object will be perceived differently by subjects with different presentation-masses, since ideas of those objects will enter each mind in such a way as to fit into quite differently structured surrounding contexts of compatible ideas. And what applies to the perception of objects applies also to the understanding of language and to the grasping of concepts.

A Worcestershire peasant, a Yarmouth fisherman, a London policeman, a West-end gourmet, a member of the Fishery board, an evolutionist philosopher, and a primary school boy have all concepts of crab; but could these concepts be actualised, the results would be startlingly unlike...How then are we to know what a crab is, how decide which of these queer concepts is legitimately entitled to the name it claims? (Adams, 1897, p. 182)

As Frege, or Wittgenstein might have put it:

Only in the nexus of a presentation-mass does a name have meaning. Indeed context-principles of this form occur quite frequently in the writings of Herbart's followers (see, e.g. Adams, 1897, p.180) - and perhaps also the contextualism of the Viennese philosopher Wilhelm Jerusalem (see Appendix III, below) may have to be understood in this light. (We may mention also the contextualist writings of W. Schapp, see e.g. his 1953 and Schmidt, 1967).

*This is not to suggest however that there is typically only one presentation mass executing its organisatory function in the developed human mind. Rather:

In the course of a varied experience many distinct masses are formed connected with special localities and occupations, such as the church, the theatre, the office, the garden, the chess-board, and the like. (Stout, op.cit., p.33).

§8. Between Meinong's Grazer Schule, Ehrenfels, Husserl and Stumpf on the one hand and the Gestalt psychology proper of Wertheimer, Köhler and Koffka on the other, there arose a school of experimental psychologists in Southern Germany which exerted a wide influence on the thought of the period, not only in the German-speaking world but also in England and in America (especially in Titchener's institute at Cornell). This was the Würzburg school, founded by Oswald Külpe, someone whom we have already met as a correspondent of Alexander in Manchester. Würzburg psychology was perhaps the most determined attempt to carry through in an experimental way the Herbartian programme according to which it is the ideas of the mind which must form the direct subject-matter of the science of psychology. Before Külpe experimental psychologists had found a great deal of success in applying their accepted methods to perception, to feelings and emotions, ^{and} to simple association of ideas, but the higher mental processes, of thinking, reasoning, judging, remembering, had not proved amenable to any standard laboratory treatment. Külpe and his followers developed, in the first decade of this century, a series of ingenious methods by means of which such higher mental processes could be brought within the scope of experimental investigation, but they were methods which caused a great deal of controversy throughout the closely-knit world of experimental psychology because of their revolutionary and - to those used to cruder associationistic techniques - highly dubious character.

In the first work of the Würzburg group, published in 1901 by Mayer and Orth, the central experiment was set up as follows: each of a small group of highly trained, highly articulate subjects was given a stimulus word and asked to describe everything which occurred in his mind in response to

the word. Sometimes images occurred, (e.g. to the word 'cat' an image of some specific cat), sometimes acts of will occurred (e.g. in response to a stimulus word for some desirable object). Sometimes the subjects reported that images of words additional to the stimulus word were present in the mind. But it was discovered also that a further group of contents of consciousness were repeatedly found to be present. As the experimenters themselves report:

In the course of our experiments we were, again and again, involuntarily brought up against the fact of the existence of this third group. The subject frequently reported that they experienced certain events of consciousness which they could quite clearly designate neither as definite images nor yet as volitions. For example, the subject Mayer made the observation that, in reference to the auditory stimulus-word "metre" a peculiar event of consciousness intervened which could not be characterized more exactly, and which was succeeded by the spoken response "trochee". In other cases, the subjects could give a closer account of these psychic facts. For example, Orth observed that the stimulus word "mustard" released such a peculiar event of consciousness, which he thought he could characterize as "Memory of a common figure of speech". Thereafter the reaction "grain" (Korn) followed. In all such cases, the subject could, nevertheless, not detect the slightest trace of the presence in consciousness of "presentations" (Vorstellungen) by which they specified the psychic fact more exactly in their reports. All these events of consciousness, in spite of their obviously, often totally, different quality, we class together under the name Bewusstseinslagen - states of consciousness. The replies of the observers show that these states of consciousness are sometimes marked by feeling, but are, however, sometimes without any feeling tone. (Mayer and Orth, 1901, p.6).*

Bewusstseinslagen, then, are imageless thoughts, sometimes with, sometimes without an attached feeling tone.

The second major product of the Würzburg school was by the psychologist K. Marbe, also^{published} in 1901. It bore the title: Experimental Psychological Investigations of Judgment: An Introduction to Logic.** Marbe set himself the task of finding out what it was which distinguished those mental acts which are acts of judgment *as trans. in Humphrey, 1951, p.33. ** Surely we can discern an implicit reference to works - and titles - such as this at Tractatus 4.1121.

from mental acts of other types. (We might say that he was searching for the psychological correlate of Frege's 'judgment stroke'). He therefore set his subjects various tasks, such as comparing different weights, determining the lightest of three greys, or simple arithmetical tasks, each resulting in the need to make a determinate judgment. The subjects were then instructed to report as precisely as possible everything which took place in their minds during the making of this judgment.

Marbe's conclusion was rather unexpected: he concluded that there are absolutely no concomitant events of which it could be said that they lend to judgment its character. That is, that there are judgments, recognised on all sides as such, with nothing in consciousness to indicate why they are judgments.

The results of these early papers were therefore, as K ulpe himself pointed out (1922, p.309), largely negative: they consisted in the discovery that the conventional descriptive terms of experimental psychology were not adequate to account for the higher intellectual processes. (See Humphrey, 1951, p.36).

The next, by now more positive, product of the W urzburg school appeared in 1906 by Messer, a psychologist who played an important role as link man between Husserl's phenomenology and experimental psychology. Messer's 224 page paper is entitled "Experimental Investigations into the Psychology of Thought". His programme consisted in developing thought-experiments of such a wide range that the supply of examples of Bewusstseinslagen thereby achieved would be sufficiently large and heterogeneous to make possible a classification (and eventually also a theory) of such states of consciousness, states which had hitherto been regarded as being not further analysable. Fourteen different sets of experiments were

conducted, including: supply a co-ordinate object to the stimulus-word (e.g. to the stimulus 'hand', the response 'foot'); supply a coordinate idea (e.g. stimulus 'table', response 'furniture'); characterise the idea denoted by the stimulus (e.g. flood - 'a great mass of water in movement'); give a relation between (two) stimulus-words; express a personal preference between two famous men, things, states, etc.; given a noun and adjective, make a judgment including both; given a proposition, take up some attitude with respect to it; and so on. (See Humphrey, p.38 for a complete list). The first result of Messer's experiments was a confirmation of the original conclusion of Mayer and Orth, i.e. that there are very many psychic states which involve no images, which are not—except, perhaps, in retrospect - verbalisable, and which yet play a determining role in the course of our thinking. Thus Külpe, who served as a long-suffering subject for nearly all of the Würzburg experiments, in giving to the stimulus-word 'horse-fly' the response 'dragon-fly', could report that the superordinate idea 'vermin' - though not, be it noted, the word - was 'clearly present' as a Bewusstseinslage as the response was given. (Humphrey, p.39). This possibility, that there are imageless meaning-elements corresponding to words which are present in the mind even in the absence of the words themselves, will have an important role to play in our subsequent arguments concerning the Tractatus.

Other Bewusstseinslagen distinguished by the Würzburg group included the consciousness of a rule - not the explicit thinking of the rule itself, but rather the awareness of the existence of the rule as something which one knows can be followed in giving circumstances and which thereby sanctions the passage in thought from one situation to another without any explicit reflection about

the relation between the two situations. They include also the consciousness that something is real, that it is lasting a long time, that it is over more quickly than expected, that it is the same as what came before, that it is compatible with some other thing, that it makes sense, that it is on the tip of the tongue, that it will be difficult, that we need not do it, that we are ready for it, that we can do it if we try, and so on. (See Findlay, 1955, p.184 quoting from Titchener, 1909/10, p.506).

What now, is the relevance of these investigations to our understanding of the Tractatus? Once again the reader must be satisfied with little more than hints, until the full philosophical consequences (if any) of the parallels set forth here and in A have been assembled together. Let us recall, first of all, the letter which Russell wrote to Wittgenstein asking for a clarification of the nature of thoughts (Gedanken) in the Tractatus. Russell had asked Wittgenstein what were the constituents of the thought and what was their relation to the fact pictured by the thought. Wittgenstein's reply (1974, p.72) was as follows:

I don't know what the constituents of a thought are but I know that it must have such constituents which correspond to the words of language. Again the kind of relation of the constituents of thought and of the pictured fact is irrelevant. It would be a matter of psychology to find it out.

And again:

Does a Gedanke consist of words? No! But of psychical constituents that have the same sort of relation to reality as words. What those constituents are I don't know. (My emphasis, here and above).

As Shwayder concludes (1954, p.77):

Wittgenstein's "Gedanken" are not other-worldly "senses" of sentences, but the significant sentences themselves. In addition...Wittgenstein certainly thinks that Thoughts are psychological complexes...(p.128:) [an] interpretation which will shock many readers and is in need of justification.

Further justification adduced by Shwayder includes the discussions of psychology in the Notebooks (Wittgenstein, 1961, esp.e.g.pp.49,77,80,82,85,96) and the fact that

Wittgenstein in his later writings continually returns to the criticism of the view that there has to be a mental process or entity of some kind behind all intellectual activities, and he does this with the energy of one actuated by the devil of self-criticism (Shwayder, op.cit., p.129).

The next and - in virtue of the controversy which it sparked with Wundt and the associationist school - probably the most notorious work of the Würzburg school was carried out by Karl Bühler, a philosopher-psychologist whom we have already met in our discussion of Bartley's account of Wittgenstein's development above. We said there that Bühler had already, before the conception of the Tractatus, published important work in the theory of 'imageless thought' of a kind which may have relevance to the ideas of Wittgenstein in this period. For Bühler's aim, in his Würzburg work, was precisely to determine "what are the constituent parts (Bestandstücke) of our thought experiences" (quoted by Humphrey,p.57, from Bühler, 1907). The first part of Bühler's work was entitled "Ueber Gedanken", and in it Bühler set himself the task of producing a unified theory of thinking which would have none of the character of mysterious-beast taxonomy which had been a feature of the earlier Würzburg work on Bewusstseinslagen. To this end involving complex thinking acts, acts he employed experiments/which would reveal the mental processes which have, in simpler cases, become mechanised by repetition and thereby rendered unconscious. Thus questions were put, to which the subject was to answer 'Yes' or 'No' before giving the fullest possible report of his experiences. These questions included:

When Eucken speaks of a world-historical apperception, do you know what he means?

Can you get to Berlin from here in seven hours?

Was Eucken right when he said: Even the limits of knowledge could not come to consciousness, unless Man somehow or other transcended them?
 Can the atomic theory of physics ever be proved untrue by any discoveries?
 The smaller the woman's foot, the larger the bill for the shoes?

(Quoted by Humphrey, op.cit., p.56).

Bühler's conclusion from these experiments was, first of all, that images which may be present in our consciousness when we think are utterly irrelevant to the course of that thinking as such; in this he resembles Frege on the one hand, and Reinach and the Wittgenstein of (Shwayder's) Tractatus on the other.* Thus in addressing himself to the question as to how the function of carrying thought-content is distributed as between images and thoughts Bühler writes:

A glance at the protocols will tell us: anything so fragmentary, so sporadic, so thoroughly at the mercy of chance when it enters consciousness as the images in our thought experiences, cannot be regarded as the carrier of the close-fitting and continuous thought-content... The thoughts alone can be regarded as the real constituent parts of our thought-experiences. (Bühler, 1907, p. 317 as trans. by Humphrey, pp.57f).

Bühler is pointing here to a quite specific psychic realm, a realm with its own articulations, articulations which include that type of determinate content which had been hitherto disclosed by the Würzburgers in their studies of Bewusstseinslagen, but which include also definite references to the objects of which we are thinking.

There are, says Bühler, Gedanken [i.e. thought-units] in which the object of thought is clearly defined in consciousness without any image, or even without any consciousness of [a] rule or of [a] relation. ... We must conclude that thinking may contain an imageless modification of consciousness corresponding to the meaning of the thought. Whatever the meaning, it may appear in experience without an image. We may, in fact, "think" an object

*See Reinach 1911 and my discussion in D; all of these thinkers affirmed the irrelevance of intuitive imagery to thought; Frege however combined this with an inadequate platonistic conception of 'thoughts' ^{as entities existing} in an 'eternal realm' quite alien, e.g., to the author of the Tractatus.

in the external world or an inference involving physical object without any "mental" intermediary. (Humphrey's summary, op.cit.,

It was not just a terminological advance, then, which was involved in investigation of the thought-units which make up our thinking activity. Yet there are still certain questions which were left unanswered by Bühler, questions such as the manner in which thought-units are bound together, in consciousness, and the nature of the relationship between the world of thought and the world of external reality about which we think. Both of these questions were tackled in a fashion which is of great interest to our own present concerns by the last senior member of the line of Külpe's psychological pupils, Otto Selz. Selz (with Bühler) joined Külpe only after the latter had moved from Würzburg to take the chair of Philosophy in Bonn. It must be stressed that before joining Külpe Selz had worked in Munich with the Munich school of phenomenologists, including Reinach and Pfänder, both of whom had made important contributions to the early pre-Tractarian Sachverhalt literature (see my A). Selz indeed published a paper on Meinongean ontology in the Lipps Festschrift which contained also Reinach's ground-breaking "Zur Theorie des negativen Urteils" (1911). In 1913 Selz published the first volume of a study of the laws of the ordered course of thought (Über die Gesetze des geordneten Denkverlaufs). This work contained one terminological and two consequent conceptual advances on the analysis which had been put forward by Bühler. The terminological advance was clearly coloured by his acquaintance with the Munich phenomenologists and their Sachverhalt-ontologies, for on p.131 of Selz's work we find:

Stumpf führte den Ausdruck "Sachverhalt" ein. Wir gebrauchen statt dessen den Ausdruck "Sachverhältnis", um durch das Wort "Verhältnis" die eigentümliche Natur der Sachverhältnisse als ein sich zueinander in einer bestimmten Weise Verhalten von bestimmten Gegenständen zum

Ausdruck zu bringen.*

And the similarity of this passage to , for example, Tractatus 2.03:

Im Sachverhalt verhalten sich die Gegenstände in bestimmter Art und Weise zueinander**

lends additional support to our arguments in A sketching possible parallels between Selz and the Munich Sachverhalt-ontologists on the one hand and Wittgenstein's Tractarian Sachverhalt-ontology on the other. Selz proceeds, after a discussion of Reinach's 1911, to the following detailed characterisation of his "Sachverhältnisse":

Sachverhältnisse sind das in einer bestimmten Beziehung Stehen bestimmter Gegenstände. In allen Sachverhältnissen können wir die Gegenstände, die in der Beziehung stehen, und die in verschiedenen Sachverhältnissen der gleichen Art verschieden sind, und die Beziehung, in der sie stehen, die in allen Sachverhältnissen der gleichen Art dieselbe Beziehung ist, unterscheiden. Sachverhältnisse sind aber kein Aggregat aus den Gegenständen und der Beziehung, in der sie stehen, und setzen sich auch nicht aus ihnen zusammen wie ein Ganzes aus seinen Teilen, sondern das in einer bestimmten Beziehung Stehen ist nicht nur eine in ein Nebeneinander anderer Gegebenheiten nicht restlos auflösbare, also in diesem Sinne einheitliche Gegebenheit, sondern eine einheitliche Gegebenheit besonderer Art, und zwar ist es keine selbständige Gegebenheit, vielmehr sind Sachverhältnisse Mitgegebenheiten, die in der Natur anderer Gegenstände, bzw. einer gegebenen Gegenstandsordnung begründet sind. (p.142, Selz's emphasis).

We said that this change of terminology corresponded to a two-fold change of approach. Selz had asked himself how the thought-units of the broad type discussed by Bühler could unite themselves in a single mental content (or 'Komplex') as he called it. They unite themselves, Selz asserted, precisely in constituting Sachverhältnisse, sui generis relational wholes, of a type

*Stumpf introduced the term "Sachverhalt". Instead of this we use "Sachverhältnis", in order to express, by means of the word "Verhältnis" (relation), the peculiar nature of the state of affairs as a standing of determinate objects in determinate relations to one another.

**In the state of affairs objects stand in a determinate relation to one another.

quite different from the wholes formed when, say, the associationists' images are merely arranged together, side by side. And Selz could appeal to what was by then a very large literature on the logic of Sachverhalte to explain how his thoughts, as mental Sachverhältnisse, could correspond to the logician's idealised judgments and propositions. (See Meinong 1910, Husserl 1900/01, Reinach 1911, and later Honecker, 1921). But Selz could appeal also to this same literature in order to gather support for his second conceptual advance. For Selz had noticed that it is Sachverhältnisse also which constitute the world of physical reality, to which our thoughts (normally) relate. Thus what had been no more than a metaphorical parallel between Sachlagen and Bewusstseinslagen, the metaphor determining the coinage of the latter term by Orth and Mayer, has become, at the hands of Selz, a structural identity: Sachverhältnisse occur both in the sphere of thought, where they correspond to judgments in propositional form, and in the sphere of external reality, where they correspond to states of affairs which make such judgments true. Indeed, Selz argues, without relational wholes of the former kind, pre-formed structures into which of the order which is revealed in our thoughts. Unfortunately it would take us too far afield to discuss the details of this aspect of Selz's work.

There is, however, one further notion to which appeal is made by Selz which merits our attention. In our discussion of Wittgenstein and Herbart we pointed to the fact that both philosophers introduced a two-tier theory of the combination of objects, but that Wittgenstein alone, with his distinction between 'atomic' and 'molecular' facts, had produced an account which could promise to be adequate to the logical structure of our thinking. Selz, too, appeals to such

a two-tier account, one which, for a work published in 1913, has striking parallels to the Tractatus account of the two tiers of atomic and molecular statal combination. According to Selz there are not only simple relational wholes (einfache Sachverhältnisse) but also composite relational wholes (zusammengesetzte Sachverhältnisse):

Unter einem zusammengesetzten Sachverhältnis ist eine Verbindung von Sachverhältnissen zu verstehen, die dadurch gekennzeichnet ist, dass die in dem Sachverhaltsverband enthaltenen Sachverhältnisse Sachverhaltensglieder oder Beziehungen gemeinsam haben, oder dass Sachverhältnisse Glieder anderer Sachverhältnisse sind. (p.143)*

Simple and composite relational wholes therefore correspond, as Selz points out, to simple and composite judgments, as distinguished, for example, in the Logik of Wundt. Selz recognises also that composite Sachverhältnisse are not simply aggregates of constituent simple Sachverhältnisse, any more than the latter could be conceived simply as aggregates of their constituent objects and relations; rather

[die] Zusammengesetzte Sachverhältnisse sind....ebenso wie einfache Sachverhältnisse unzerlegbare Einheiten, die sich aus einer eigentümlichen Verbindung von einfachen Sachverhältnissen, also des in einer bestimmten Beziehung Stehens von bestimmten Gegenständen konstituieren. (p.145).

This completes our (provisional) sketch of relations between the Tractatus and the experimental psychology and phenomenology of thinking. It is perhaps worthwhile to note, in echo of our methodological preamble above, that we are not here claiming any direct influence by Selz (or Bühler, or Reinach) on the early Wittgenstein. But nor, either, is our argument simply of the form: great

*This same two-tier account can also be found, of course, in Meinong's theory of Objektive (cf. the distinction between Objektive über Objekte and Objektive über Objektive), echoes of which can be found in turn in the first dozen pages of Wittgenstein's Notebooks (1914-16).

minds think (in German) alike. Rather we wish to issue reminders of the fact that Wittgenstein was, in his early years, working on the fringes of a logical and psychological community which took for granted concepts and problems - and terminology - quite alien to most recent commentators on the Tractatus. And the thinkers responsible for shaping this conceptual framework - besides, e.g. Kant, Helmholtz and Wundt, - were centrally Herbart, Brentano, Lipps, Meinong, Husserl, Stumpf, and KUlpe, and their followers in Austria, Germany, and Cambridge.

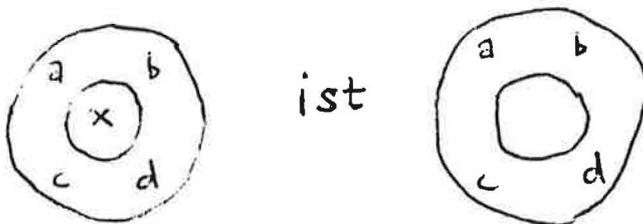
§9. We might appeal, finally, to what is perhaps an important piece of circumstantial evidence justifying an eventual allignment of the Tractatus closer to Austrian (Meinong) ontology/on the one hand and to the experimental psychology of thinking (KUlpe) on the other. During his internment as a prisoner-of-war in Monte Cassino when, it seems, the ontology of the Tractatus was receiving its final shaping, Wittgenstein struck up a friendship with a schoolteacher, a certain Dr Ludwig Hñnsel, later to become Professor at a Viennese grammar school. Wittgenstein and Hñnsel for long after remained close friends. It seems to have been Hñnsel who convinced Wittgenstein that he should take up schoolteaching like Hñnsel himself; and Hñnsel made regular visits to Wittgenstein in the villages where he taught in the years following the War. Bartley asserts that Hñnsel, whom he describes, somewhat dismissively, as a puritanical Roman Catholic, played a role akin to that of spiritual adviser and father confessor to Wittgenstein throughout his life, but no mention is made of a possible influence by or through Hñnsel on Wittgenstein's philosophy. Instead we are referred by Bartley to a work by Hñnsel entitled Die Jugend und die leibliche Liebe (Youth and Carnal Love) (1938) which Bartley describes as a polemical tract against masturbation. (1974, p.14f).

Not having yet seen a copy of this tract I cannot judge the veracity of Bartley's description; — we have to remember that there was an important tradition of eminently intellectually respectable psychosexual literature in Austria, ranging from Freud and Weininger (a favourite of Wittgenstein's throughout his life), to Ehrenfels' works on polygamy and eugenics. But it seems possible that Bartley is less than fair in his treatment of Hñnsel. For there is another, not unimpressive work by Hñnsel, published much later — significantly enough in the Ehrenfels memorial volume (1960) — a paper entitled "Der Gegenstand des Begriffs und die Logik", in which Hñnsel reveals a fine sense of the histories of philosophy and psychology, a recognition (which echoes Honecker's 1921) of the importance of ontology for the study of logic (cf. the reference to Denk- und Gegenstandslogik on p.176), and a far from superficial understanding of the Tractatus.*

What is most crucial for us in this article is that Hñnsel lists his influences. On p.161 he writes:

My own road began with Meinong. For essential stimulation I have to thank Alois Höfler and F. Weinhandl [a successor of Meinong as head of

*The work includes also what is, in effect, a discussion of Frege's Begriffsschrift, in which the following diagram



is employed to illustrate the Fregean notion of saturation. Given a functional expression 'f', with which are associated the characteristics (Merkmale) a, b, c, and d, then the first pair of circles symbolises some (complete) object x, the second pair the (incomplete) function f(), and the whole diagram the (complete) proposition 'f(x)'.

the Graz Institute of Experimental Psychology] and a stronger - also a more personal - effect was had upon me by Ludwig Wittgenstein.(My trans.)

From this we can assume - what should be checkable in the records of Graz and Vienna Universities - that since HÄnsel lists Meinong first, it was already as a student, before meeting Wittgenstein and discussing with him the ideas of the Tractatus that HÄnsel had acquired his knowledge of Meinong's ideas. But HÄnsel now goes on, in the same passage, to point out that, in retrospect, he sees that the thoughts he had achieved through Meinong's, Höfler's and Wittgenstein's influence, he might also have found first of all in the works of Oswald KULpe and Edmund Husserl.*

In the light of these remarks it might be expedient to issue the following challenge. In the Preface to the Tractatus Wittgenstein writes:

...what I have written here makes no claim to novelty in detail, and the reason why I give no sources is that it is a matter of indifference to me whether the thoughts that I have had have been anticipated by someone else.

I will only mention that I am indebted to Frege's great works and to the writings of my friend Mr Bertrand Russell for a large part of the stimulation of my thoughts. (p.3)

What follows is a matter of interpretation, but it seems that we can infer from Wittgenstein's words that there were other thinkers involved in the stimulation of his thoughts, thinkers of whom Wittgenstein was aware, even if only obliquely.

*Besides these names HÄnsel lists also E.Cassirer and N.Hartmann, and finally a work which I have not yet seen bearing an intriguingly Tractarian title: Die Struktur des logischen Gegenstandes, by O.Hazay, Berlin, 1915.

The challenge, then, is to suggest candidates for such a role outside the group of German and Austrian thinkers - especially Herbart, Brentano, Meinong, Stumpf, Husserl, Külpe, Lipps and the Munich Sachverhalt ontologists - who have distinguished themselves in the course of these investigations.

Barry Smith

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February 1978

APPENDIX IV: Some Connections between Austro-German-Cambridge Philosophy and Early Experimental Psychology

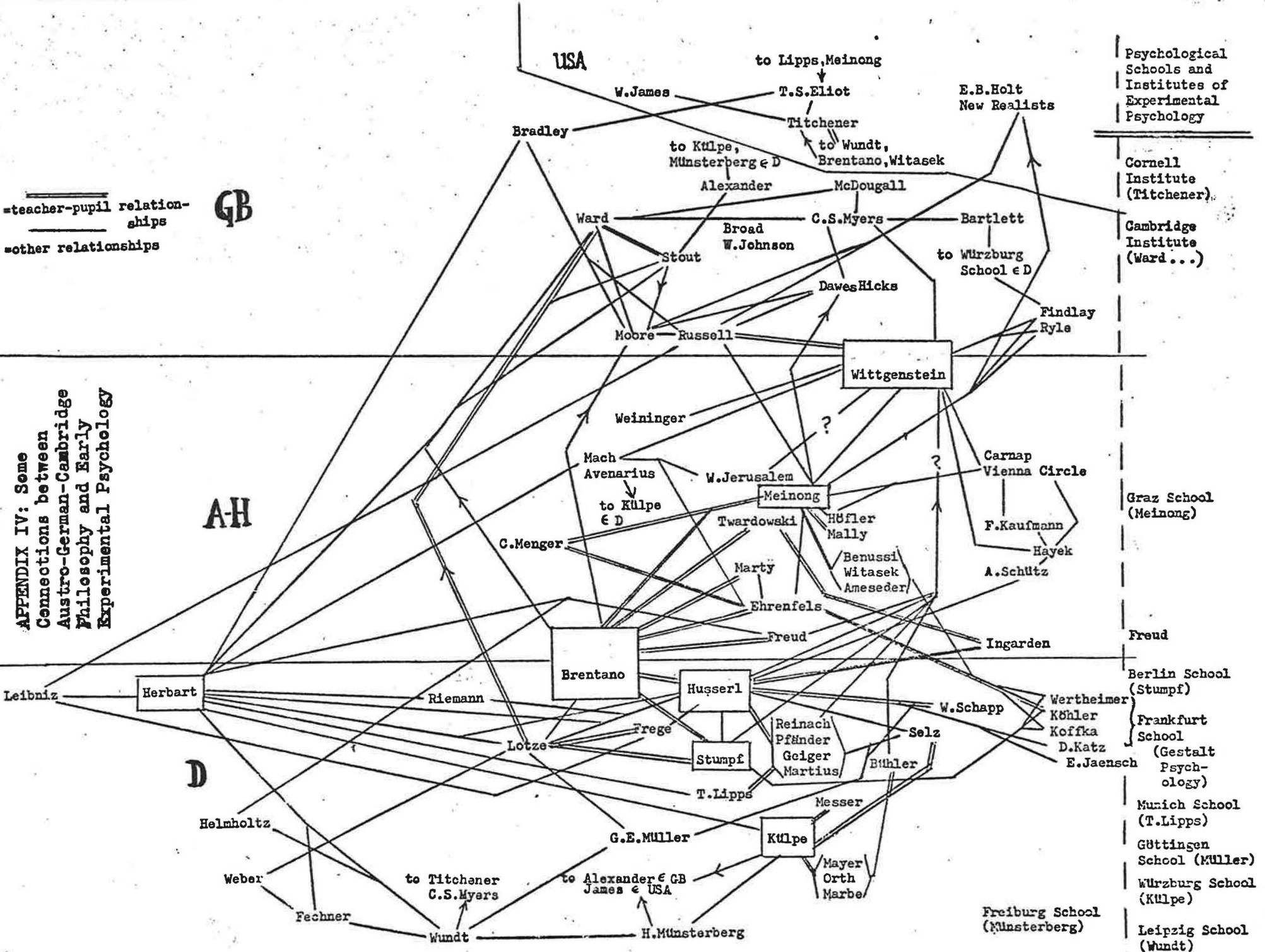
—teacher-pupil relationships
—other relationships

GB

AH

D

USA



Psychological Schools and Institutes of Experimental Psychology

Cornell Institute (Titchener)

Cambridge Institute (Ward...)

Graz School (Meinong)

Freud

Berlin School (Stumpf)

Frankfurt School (Gestalt Psychology)

Munich School (T. Lipps)

Göttingen School (Müller)

Würzburg School (Kūlpe)

Freiburg School (Münsterberg)

Leipzig School (Wundt)

Addenda to the Bibliography of Pre-Tractarian Occurrences of the term 'Sachverhalt'

(see pp.14-16 of Smith, A.)

- 1893 HUSSERL, E. "A.Voigts 'elementare Logik' und meine Darstellungen zur Logik des logischen Calculs", Vierteljahrschrift für wissenschaftliche Philosophie, 17, pp.111-20, cf.p.112.
- 1893a HUSSERL, E. "Antwort auf die vorstehende 'Erwiderung' des Herrn Voigt", ibid., pp.508-11, cf. pp.508 and 510.
- 1908 GOMPERZ, H. Weltanschauungslehre, vol.II/1, Jena.
- 1910 HEINRICH, E. Untersuchungen zur Lehre vom Begriff, Dissertation (under Husserl), Göttingen.
- 1911 SELZ, O. "Existenz als Gegenstandsbestimmtheit", Münchener Philosophische Abhandlungen, (Festschrift for T. Lipps), ed. A.Pfänder, Leipzig, pp. 255-93.
- ? 1912 DRIESCH, H. Ordnungslehre, 1st ed. (I have examined only the 2nd ed.1923).
- 1912 KÜLPE, O. Die Realisierung. Ein Beitrag zur Grundlegung der Realwissenschaften, I, Leipzig: Hirzel, cf.p.11:
- Wir sehen davon ab, dass es Gegenstände verschiedener Ordnung geben kann, je nachdem ob dasjenige, was eine Beschaffenheit oder Beziehung hat, als Gegenstand betrachtet wird, oder diese Beschaffenheit oder Beziehung oder gar noch weitere Derivata als Gegenstände gelten. Die allgemeinsten Sachverhalte, die auf Grund dieser Bestimmungen möglich sind, lassen sich als ein Sein oder Bestehen von Gegenständen, Beschaffenheiten und Beziehungen, als ein Haben von Beschaffenheiten und Beziehungen und als ein Stehen in Beziehungen bezeichnen. (Cf. the quotation from Selz 1913 on p.⁵⁷ above).
- 1913 HUSSERL, E. Ideen zu einer reinen Phänomenologie und phänomenologischen Erstes Buch, Halle: Niemeyer, as repr. from Jahrbuch für Philosophie und phänomenologische Forschung, 1, 1-323.
- 1913 REINACH, A. "Die apriorischen Grundlagen des bürgerlichen Rechts", in Jahrbuch für Philosophie und phänomenologische Forschung, 1, pp.685-847, repr. in Reinach 1921 and as a book: Zur Phänomenologie des Rechts, Munich: Kösel, 1953.
- 1915 MEINONG, A. Über Möglichkeit und Wahrscheinlichkeit, Leipzig: Barth, pp. 153, 157f, 255.

APPENDIX II. A Short Glossary of Meinongean Terminology in the Tractatus

↳ = probably obtained by back-translation of Russell's English translations of Meinong's original German terms.

↳↳ = corresponds to a marginal note in the margin of one or other of the two copies of the Tractatus annotated by Ryle, now deposited in the library of Lineacre College, Oxford. Ryle's notes usually consist of either 'AM' (for Alexius Meinong) or 'AM?', with indications in the text, but sometimes he gives references to passages in Meinong's works, and sometimes he includes short comments.

↳↳ Annahme 4.063, (cf. Russell, Principles (1903) § 477).

↳↳ bestehen, das Bestehen; bestehen aus, Bestandteil

Dimension 5.475 see Farbenraum

existieren, die Existenz

↳↳ Exponent ?

↳↳ der Fall sein

↳↳ formale Eigenschaften 4.122

↳↳ Farbenraum 2.0131

cf. Meinong 1903, § 5 Die Farbenraum und seine Dimensionen:

Wie jeder eigentliche Körper, so ist auch die Farbkörper im Raume und partizipiert an dessen Eigenschaften; den hier in Betracht kommenden Raum aber ganz ausdrücklich als Farbenraum zu bezeichnen und als das eigentliche Objekt apriorischer Farbenerkenntnis dem Farbkörper als dem Objekt der einschlägigen, im Prinzip empirischen Feststellungen ganz grundsätzlich gegenüberzustellen, könnte, wenn ich recht sehe, über manche Schwierigkeit hinweghelfen. Insbesondere möchte dadurch die Gefahr, wenn nicht beseitigt, so doch einigermaßen ferngerückt sein, die Dimensionen des Farbenraumes von speziellen Bestimmungen am Farbkörper nicht ausreichend auseinander zu halten...(p.12) Cf. also p39:

Unser Wissen vom Farbenraume ist von Natur ebenso apriorisch wie unser Wissen vom eigentlichen Raume: es ist Farbengeometrie. Unser Wissen vom Farbkörper ist von Natur empirisch und insofern Farbenpsychologie. (Compare, e.g., 6.35).

Cf. also Meinong 1907, p.11. In relation to the text of 2.0131 Ryle points to the following reference to Meinong's Über Annahmen (1910), p.135:

Kann ich also allgemein ein Objekt erfassen, ohne ein Objekt A mitzuerfassen? Die Verwandtschaft mit der anderen Frage, ob man an Rot denken kann, ohne an Ausdehnung, und ob etwa an Farbe, ohne an eine bestimmte Farbe zu denken, liegt auf der Hand.

and to similar passages in 1907, pp.15, 16, 32.

(4) Gegenstand

Gerüst ?

Geschehen 6.41

bb interne Relation 4.123

4 bb Komplex

Konfiguration

Möglichkeit See Wahrscheinlichkeitssätze

negative Tatsache

bb neben 4.111 Ryle compares Wittgenstein's

Das Wort "Philosophie" muss etwas bedeuten, was über oder unter, aber nicht neben den Naturwissenschaften steht.

with Meinong's

Was den Besten aller Zeiten als letztes und vor allem würdiges Ziel ihres Wissenstriebes vorgeschwebt hat, jenes Erfassen des Weltganzen nach seinem Wesen und seinen letzten Gründen, das kann doch nur Sache einer umfassenden Wissenschaft [Metaphysik, Philosophie, Gegenstandstheorie] sein neben den Einzelwissenschaften. (Meinong, ed., 1904, p.4, Meinong's own emphasis).

4 Nichtbestehen

Notwendigkeit see Wahrscheinlichkeitssätze below.

bb nur-möglich 2.0121 Cf. Meinong 1915 pp.99f:

Es ist der Fall, von dem der so populäre Satz gilt: was tatsächlich - man sagt gewöhnlich "wirklich" - ist, das ist auch möglich. Es ist eine gleich den sonstigen implizierten Möglichkeiten meist praktisch ziemlich unwichtige Möglichkeit, die hinter der Tatsächlichkeit in besonderem Masse als blosses Beiwerk zurücktritt. Ein solches Objektiv ist eben "auch" möglich, und das ist eine ganz andere Sachlage, als wenn etwas gar nicht tatsächlich, also "nur" möglich ist. Auf Wendungen dieser Art kann man sich berufen, wenn man Möglichkeiten, die bloss

in Tatsächlichkeiten impliziert sind, solchen, die gleichsam Eigenberechtigung haben, gegenüber mit etwas barbarischer, aber, wie mir scheint, deutlicher Ausdrucksweise als "Auchmöglichkeiten" benennt, denen man die eigenberechtigten Möglichkeiten als "Nurmöglichkeiten" an die Seite gestellt werden können. Von den Nurmöglichkeiten ist im Sinne des Komplementengesetzes zu behaupten, dass jede mit der Nurmöglichkeit des Gegenteils zusammenbesteht.

Cf. also op.cit. pp.222f; Findlay, 1963 pp.206ff; Griffin, 1964, p.39n. Meinong's usage seems also to have influenced Ingarden in his opposition between auch-intentionale and rein intentionale Gegenstände in 1964/65.

Operation The parallels between Meinong's theory of operations, which is presented in the 6th chapter of his Über Annahmen, and Wittgenstein's theory of operations in the Tractatus have been insufficiently stressed. (As have also the parallels with Husserl's early theory of operations* developed at the time of his Philosophie der Arithmetik (1891): see especially Husserl 1970). Meinong writes:

Soviel scheint mir zunächst sicher, dass man das hypothetische Urteil erleben kann, diese aus Annahmen und Urteilen zusammengesetzte Operation, ohne über dieses Annahmen und Urteilen hinauszugehen, und sonach auch, ohne jene Bedeutung mitzuerfassen. Weiter scheint mir nun, dass dieselbe Operation auch zu Erfassen ihrer Bedeutung dient, sobald man von ihr nur sozusagen den erforderlichen Gebrauch macht. ...[Fundierung kennen wir] bisher nur als Objektfundierung, d.h. als Fundierung von Objekten durch Objekte; könnte es nun nicht auch eine Objektivfundierung geben, bei der hier zunächst nur an Fundierung durch Objektiv gedacht ist? Genauer also: könnte die im obigen beschriebene Operation an Vorder- und Nachobjektiv nicht die produzierende Tätigkeit sein, die etwa ein neues Vorstellungs- oder Begriffsgebilde ergibt, das ein Superius erfasst, dessen Inferiora in ähnlicher Weise Objektiv sind, wie solches etwa bei einem Kollektiv von Objektiven der Fall ist.

(p.208.)

Meinong distinguished not only the 'Wenn'-Operation, but also 'Aber'² and (presumably) 'Und'² Operations, and Operations 'die man durch "ja" oder "nein" ausdrückt'. Note that 'Wenn' here cannot be the 'Wenn' of material implication (though each of the other operations here

*discussed in detail in K. Mulligan's forthcoming Manchester dissertation.

mentioned can be correlated with one or other truth-functional operation of the type admitted in the Tractatus: the "Ja"-operation, for example, corresponds to the unary truth-function which is expressed in the table:

p	Ja(p)
T	T
F	F

According to the account of Wittgenstein's theory of operations given in the text above (see esp. pp. 30f) Wittgenstein could not have allowed any operations which, like Meinong's 'Wenn'-operation, involve what might be called meaning-content or entailment-content (this is the 'extensionalism' of the Tractatus). To admit such operations would be to risk the breakdown of the isomorphism-relation between picturing thought or proposition and pictured fact. A philosopher such as Meinong not committed to the isomorphism theory can, of course, admit non-extensional operations. To admit such operations into the Tractatus would, be it noted, immediately extend the realm of entities admissible as facts, since it would then become possible to include those 'facts' which, although belonging to the object-world toward which our thoughts are normally directed, yet involve intensional constituents: most importantly it would be possible to include legal facts (Brutus murdered Caesar, If Brutus murdered Caesar then he must be punished), facts which are - as, for example, Engisch has shown (1962, p.417)-absolutely unaccountable for within a purely extensionalist framework.

positive Tatsache

Sachverhalt See Smith, A and Appendix I above.

Satzverband

So-Sein 6.41

Tatsache

tatsächlich

sich verhalten See Sachverhalt

↳ Wahrscheinlichkeitssätze 5.1511:

Es gibt keinen besonderen Gegenstand, der den Wahrscheinlichkeits-
sätzen eigen wäre.

The major thesis of Meinong's mammoth work, Über Möglichkeit
und Wahrscheinlichkeit is precisely that there are such objects
which are the carriers of possibility- and probability-determinations.

See Findlay 1963, pp.209ff., and Poser, 1972.

↳ Wie und Was 3.221, 5.552, (cf.6.41, 6.432, 6.44)

Cf. e.g. Meinong, ed., 1904, p.135ff: §7: Koinzidierende Gegenstände.

Wassein und Wiesein.

zeitlicher Gegenstand

↳ Zufall

↳ zusammengesetzt

* * *

Note that clearly the designation of many of the above terms as 'Meinongean'
has to be taken with a pinch of salt. But even were it the case that this
terminological overlap could be shown to rest on absolutely no direct influence
of Meinong's works upon Wittgenstein this would not, by the arguments of §0
above, deprive these notes of all value.

APPENDIX III. W. Jerusalem and the Context Principle.

The following passages are taken from Jerusalem's book Die Urtheilsfunction.

Eine psychologische und erkenntnistheoretische Untersuchung, Braumüller, Vienna and Leipzig, 1895, Ch.I, §4 Logische und grammatische Bedeutung des Urtheilsproblems. It has a three-fold interest, (i) because of the light which it throws on the prevalence of principles such as that enunciated by Wittgenstein at 3.3 that

nur im Zusammenhange des Satzes hat ein Name bedeutung, which was in turn inspired by a virtually identical principle defended by Frege in his Grundlagen der Arithmetik (1884); (ii) in virtue of the fact that Jerusalem's Einleitung in die Philosophie (Vienna, 1897) was to be found in the library of Wittgenstein's father in Vienna; (iii) and also because Jerusalem, Professor of Philosophy in Vienna, a philosopher (distantly) allied to both Mach and Herbart, seems to have enjoyed a certain vogue in Austria at the beginning of the century (his Einleitung, for example, had gone into 10 editions by 1923).

- p.26 Das Wort hat...eine, ich möchte sagen, sinnliche, physiologische Selbstständigkeit, als die Articulationen, die zum Aussprechen desselben nötig sind, einen relativ abgeschlossenen Act bilden. Gegen die psychologische Selbstständigkeit, die man dem Bedeutungsgebiet eines Wortes zuzuschreiben pflegt, ja, die man sogar oft als selbstverständlich betrachtet, muss jedoch schon hier energisch Einspruch erhoben werden. Zu einem wirklichen Leben gelangt das Wort erst in demjenigen Gebilde, in welchem auch die Sprache selbst erst wirklich und lebendig wird, nämlich im Satze...Das Wort hat in der Sprache nur als Element des Satzes wirkliche Existenz, und nur der Zweig der Grammatik, der sich mit dem Satzbau beschäftigt, kann die Gesetze des wirklichen Sprachlebens enthüllen.
- p.28 Das Wort, sagten wir eben, gewinne erst im Satze wirkliches Leben und Sein. Der Glaube an die psychologische Selbstständigkeit der Wörter als Träger bestimmter Vorstellungen wird indessen durch mannigfache Umstände erzeugt und befestigt. ... die Sprache [wird] nur in Sätzen actuell [und man kann] ihr Leben und ihre Gesetze nur an dem erforschen und erkennen..., was von einem bestimmten Individuum als Ausdruck seines psychischen Geschehens in Sätzen verkörpert wird.
- p.30 Noch viel weniger als das Urtheil darf der Begriff eine von seinem

Zeichen unabhängige Existenz beanspruchen. Der Begriff entsteht erst infolge sprachlich gedachter Urtheile, seine Existenz ist durchaus abhängig von der eines conventionellen Zeichens. Das Wort ist nicht der Ausdruck, sondern ein Bestandtheil des Begriffes, welcher eben durch die Synthese von Wort- und Sinnesempfindung entsteht, und nur durch das Wort seine Einheit und Consistenz erhält.

Schwieriger scheint es, das Verhältniß zwischen Wort und Vorstellung zu bestimmen.../31/...Es ist gewiss nicht mit jeder Vorstellung ein Wort, aber auch keineswegs mit jedem Wort eine Vorstellung verbunden...

p.32 Wollte ich den Vorgang, der in meinem Bewusstsein durch das Wort "Tisch" erweckt wird, genau beschreiben, dann könnte dies nur in der Form von Sätzen geschehen, deren Subject Tisch wäre. Die Prädicate dieser Sätze liegen potentiell schon im Worte "Tisch", werden aber erst actuell, wenn ich meine ganze Wahrnehmung durch ein vollständiges Urtheil forme und gestalte. Die Forderung zu solcher Gestaltung und Gliederung ist aber schon in dem Worte "Tisch" enthalten, und so ist auch das Wort "Tisch", psychologisch betrachtet, nicht eine Vorstellung sondern ein Urtheilselement. [*] [Auch Substantive, die sinnlich wahrnehmbare Objecte bezeichnen,] erweisen sich...als...Urtheilselemente, die erst im Satze ihre wahre Mission erfüllen. Die Wörter sind wie behauene, für eine bestimmte Mauerstelle hergerichtete Steine, denen man es ansieht, auch wenn sie aus dem ganzen Gefüge /33/ losgelöst sind, dass sie in ein grösseres Ganze gehören und erst da ihre Bestimmung erfüllen. Solche Steine kann man ja auch mineralogisch und geometrisch bestimmen, als ob sie selbständige Existenz hätten, ihre wahre Bedeutung erkennt man jedoch erst, wenn man das Gefüge kennen lernt, in welchem sie ihren Platz einzunehmen bestimmt sind. Die wahre Bestimmung jedes Wortes ist es, eine Stelle in einem Urtheile einzunehmen, und wenn man sie genau untersucht, so entdeckt man, wie bei den Steinen, die behauenen Flächen und vermag dann anzugeben, welche Stelle im Urtheilsgefüge das Wort einzunehmen bestimmt ist.

Das Wort ist somit psychologisch nicht Vorstellung, sondern Urtheilselement. Sein Bedeutungsgebiet umfasst nicht die Vorstellungen, die es erweckt, sondern die Urtheile, in die es als Element eingehen kann. Diese Einsicht dürfte sich, sobald sie allgemein wird, auch für den Sprachunterricht und bei der Anlegung von Wörterbüchern fruchtbringend erweisen. Wir sehen also, dass die Untersuchung des Urtheilsacts sich auch für grammatische Fragen als bedeutungsvoll erweist.

*Jerusalem's own emphasis. Compare 2.0122: Es ist unmöglich, dass Worte in zwei verschiedenen Weisen auftreten, allein und im Satz.

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(Contains, besides references to works mentioned in the text, also source material developing further certain lines of investigation).

* against an item indicates that it is contained in my bibliography of pre-Tractarian occurrences of the term 'Sachverhalt' (see A, pp.14-16 and Appendix I above.)

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