

# Logic and the *Sachverhalt*

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## 1. The Province of Logic

Those who conceive logic as a science have generally favoured one of two alternative conceptions as to what the subject-matter of this science ought to be. On the one hand is the nowadays somewhat old-fashioned-seeming view of logic as the science of judgment, or of thinking or reasoning activities in general. On the other hand is the view of logic as a science of ideal meanings, ‘thoughts’, or ‘propositions in themselves’. There is, however, a third alternative conception, which enjoyed only a brief flowering in the years leading up to the first World War, but whose lingering presence can be detected in the background of more recent ontologising trends in logic, as for example in the ‘situation semantics’ of Barwise and Perry. This third conception sees logic as a science of special objects called ‘*Sachverhalte*’ or ‘states of affairs’. A view of this sort is present in simplified form in the works of Meinong, but it received its definitive formulation in the writings of Adolf Reinach, a student of Husserl who is otherwise noteworthy for having anticipated, in a monograph of 1913, large chunks of what later became known as the theory of speech acts.<sup>(1)</sup>

The laws of logic, according to Reinach, are ‘nothing other than general principles expressing relations between states of affairs’.<sup>(2)</sup> The fundamental principles of traditional logic - for example that two contradictory judgments cannot both be correct - are, Reinach claims, derived and not primitive principles. For:

A judgment is correct if the state of affairs corresponding to it subsists; and two contradictory judgments cannot both be correct *because* two contradictory states of affairs cannot both subsist. The law relating to judgments thus obtains its foundation from the corresponding law relating to states of affairs.<sup>(3)</sup>

Our task here will be to establish how and why this *Sachverhalt*-based conception of logic arose within the circle of philosophers influenced by Brentano and Husserl. An attempt will then be made to draw some first implications for our contemporary understanding of logic and semantics from an examination of this hitherto neglected slice of philosophical history. Anticipating somewhat, we shall argue that an adequate science of logic would be one which would somehow manage to do justice to all three conceptions simultaneously. For on the one hand it seems that logic must have some relation to our empirical activities of thinking and inferring, and this primarily via the meanings or ‘thoughts’ which these activities instantiate. On the other hand however it seems that logic relates to thoughts and judgments only insofar as the latter are able to stand in that sort of relation to objects we call truth. If, now, we take

the *Sachverhalt* as that on the side of the objects to which true thoughts or judgments correspond, then *Sachverhalte*, too, must fall within the province of logic.

## 2. Prehistory of the *Sachverhalt*

Traces of the *Sachverhalt* concept are discoverable by hindsight already in Aristotle, above all in those passages where Aristotle speaks of the *pragma* as that on which the truth of the *logos* depends.<sup>(4)</sup> Aquinas, too, takes the ‘disposition of things’ as the cause of the truth of a judgment,<sup>(5)</sup> and similar views are present in the later middle ages, for example in the doctrine of the *complexe significabile* - of that which can be signified only as a complex - defended by Wodeham, Crathorn and Gregory of Rimini.<sup>(6)</sup>

Etymologically speaking, however, both ‘*Sachverhalt*’ and ‘state of affairs’ derive not from these sources but from juridical uses of the term ‘*status*’ in the sense of *status rerum* (state or constitution of things), as contrasted with the *status hominum* or state of a man (as slave, free, etc.). Thus the O.E.D. speaks of a ‘state of things’ or ‘state of affairs’ as ‘the way in which events or circumstances stand disposed (at a particular time or within a particular sphere).’

The term ‘*status rerum*’ is rooted especially in that branch of rhetorical theory which relates to the conduct of a trial. Here *status* is defined as the question which grows out of a given legal conflict. Thus for example Quintilian writes: ‘What I call *status* is called by others constitution, by others question, and by others that which one can infer from the question.’<sup>(7)</sup> ‘*Status*’ in this connection signifies also in an extended sense ‘the way things stand, the condition or peculiarity of a thing in regard to its circumstances, position, order’.<sup>(8)</sup> An important role seems to have been played here by Goclenius, who draws a clear opposition between ‘*status*’ and ‘*propositio*’ from the point of view of the science of law. The *status* is, he says, ‘the fulcrum about which turn both the representations of the prosecution and those of the defence.’<sup>(9)</sup> The court’s job is to determine which of these conflicting representations is true; in other words, it has to determine *how things stand* in regard to the matters raised therein.

The term ‘*Sachverhalt*’ makes its first technical appearance in the German philosophical literature in a work published in 1879 entitled *General Logic* by Julius Bergmann, a philosopher close to Hermann Lotze, who defended a doctrine referred to as ‘objective idealism’. The more usual sort of idealism current in Germany at the time when Bergmann was writing conceives the objects of experience and knowledge as being quite literally located ‘in the mind’ of the knowing subject. Windelband, for example, can define idealism in this sense as ‘the dissolution of being into processes of consciousness’.<sup>(10)</sup>

As far as judgment is concerned, the idealists embraced the so-called ‘combination theory’, according to which the process of judging is a process of combining or separating concepts or presentations. Positive judging is the putting together of a complex of concepts, usually a pair consisting of *subject* and *predicate*. Before the rise of idealism, it had been assumed as a matter of course that the resultant conceptual complex may reflect an exactly parallel combination of truth-making objects in the world. Ever since Aristotle it had been assumed also that the phenomenon of judgment could be properly understood only within a framework within which this wider background of ontology is taken into account. The idealists, however, broke with

both of these assumptions and substituted instead the thesis that the process of judging is to be understood entirely from the perspective of what takes place within the consciousness of the judging subject.

The combination-theory, which had once been accepted by idealists but indeed by almost all philosophers,<sup>(11)</sup> shows its most positive side in Leibniz's experiments in the direction of a combinatorial logic. Towards the end of the 19th century, however, in part as a result of its association with the immanentistic views of the idealists, the theory began to be recognized as problematic. Above all, it appeared to be incapable of coping with existential and impersonal judgments like 'cheetahs exist', 'it's raining', and so on, in relation to which, because the judgments in question seem to have only one single member, combination or unification is excluded. Moreover, even in those cases where judging might be held to involve a combination of concepts or presentations, the need was felt for some further moment of affirmation or conviction - some 'consciousness of validity' in the idealists' terminology, or 'assertive force' in the language of Frege - in order that the theory should be able to cope with hypothetical and other logically compound judgments in which complex concepts or presentations seem to be present as proper parts without themselves being judged.

At the same time, however, it began to become clear that to do justice to the truth of judgments it would be necessary to recognise once more some objective standard, transcendent to the judgment, against which its truth could be measured. If judging involves a combination of concepts, then it must involve also the conviction that there is some transcendent something on the side of the object corresponding to the conceptual unity thereby produced. Moreover, the truth of a judgment must involve there actually being some transcendent something of this sort. Attempts were therefore made to come to terms with such objectual correlates, to establish what, exactly, the objectual something is, which gets 'posited as a unity' in our acts of judging.

The objective idealism of Lotze and Bergmann, now, is part of this move to break out of the confines of immanentistic idealism and to free logic from its bondage to the mental. Bergmann's *Sachverhalt* has precisely the role of the objective component, the *res*, with which the *intellectus* has to stand in *adaequatio*. Knowledge he conceives as that thinking 'whose thought content is in harmony with the *Sachverhalt*, and is therefore true'.<sup>(12)</sup> Bergmann's usage of '*Sachverhalt*' finds a partial echo in Lotze's own *Logic* of 1880, where Lotze introduces his treatment of judgment by distinguishing, in addition to purely immanent relations between presentations also 'material relations' ('*sachliche Verhältnisse*') between what he calls the 'contents' of presentations. It is only 'because one already presupposes such a material relation as obtaining,' Lotze writes, 'that one can picture it in a sentence [*in einem Satze abbilden*].'<sup>(13)</sup>

Both Lotze and Bergmann are here feeling their way towards a view of the objective standard or target of judgment as transcendent to the mind of the judging subject. In Lotze himself this culminates in a Platonistic view of the objects of judgment along lines more familiar from the work of Bolzano and Frege. (The latter, we might say, make a Platonic object out of the conceptual complex of the idealists.) But it was not only by Frege that Lotzean ideas on the objects of judgment were developed. Lotze's lectures were attended also by the two Brentanists Carl Stumpf and Anton Marty, both of whom will have a role to play in the story that follows. It was in fact Stumpf's employment of the term '*Sachverhalt*' in his logic lectures

of 1888 which sparked the various *Sachverhalt-ontologies* put forward by the followers of Brentano around the turn of the century.

### 3. Brentanian Immanentism

Brentano, too, embraces elements of the immanentistic doctrine of the idealists. He goes beyond them, however, in his thesis that all acts are directed towards objects. This is Brentano's much-mooted 'principle of the intentionality of the mental'. Rarely, however, has this principle been properly understood. Note, first of all, that it does not assert that all acts are directed towards objects *in their own right*. Some borrow their directedness from other acts on which they are founded. It is in fact 'presentations', for Brentano, which do the job of securing directedness to objects in every case.<sup>(14)</sup> A presentation is any act in which the subject is conscious of an object without taking up any position with regard to it. Such an act may be either intuitive or conceptual. That is, we can have an object before our mind either in sensory experience (and in variant forms thereof in imagination), or conceptually - for example when we think of the concepts colour or pain in general. Presentations may be either (relatively) simple or (relatively) complex, a distinction recalling the British empiricists' doctrine of simple and complex ideas. A simple presentation is for example that of a red sensum; a complex presentation that of an array of differently coloured squares.<sup>(15)</sup> Here, as in every other case, the presentation *is* a relation to an object.

On the basis of a presentation, now, new sorts of relations to objects of these sorts are built up. Above all, such objects can be *accepted* (in positive judgments) or *rejected* (in negative judgments). To the simple manner of being related to an object in presentation, in other words, there may come to be added one of two diametrically opposed modes of relating to this object, which we call 'acceptance' and 'rejection' respectively. A judgment is, somewhat crudely put, either the belief or the disbelief in the existence of an object given in presentation. This is the famous existential theory of judgment defended by Brentano. Its importance consists not least in the fact that it is the first influential alternative to the combination theory, a theory that had for so long remained unchallenged.

'Object', in the Brentanian context, is to be understood simply as: 'correlate of presentation',<sup>(16)</sup> a notion embracing in particular simple and complex data of sense. Thus when Brentano talks of 'objects', he is not referring to putative transcendent targets of mental acts. As we can see by reflecting on the acts involved in reading fiction or on those cases where our acts rest on mistaken presuppositions of existence, the thesis that all mental acts are directed to objects in this sense, to objects external to the mind, is clearly false.<sup>(17)</sup> Brentano is referring, rather, to immanent 'objects of thought', and in fact no distinction is drawn in Brentano's treatment in the *Psychology* between 'content', and 'object' in this sense. That which is thought of has, he insists, a merely derivative being. The act of thought is something real (a real event or process); but the object of thought has being only to the extent that the act which thinks it has being. The object of thought is according to its nature something non-real which dwells in [*innewohnt*] a real substance (a thinker).<sup>(18)</sup>

Confusion on this matter has reigned in the secondary literature on Brentano above all because his own statement of the intentionality principle in the oft-quoted passage from

the *Psychology* (pp. 88f.) is not entirely clear. Brentano himself however appends a footnote to this passage in which he states explicitly that for him the intentionality relation holds always between an act and an object immanent to the mind. He points out that ‘Aristotle himself had spoken of this mental in-existence’, and he goes on to elaborate Aristotle’s theory according to which ‘the object which is thought is in the thinking intellect.’ This same thesis is to be found also in Brentano’s more detailed formulations of his views in the *Descriptive Psychology*, where ‘immanent objects’ are explicitly assigned to what Brentano calls the ‘parts of the soul in the strict or literal sense’.<sup>(19)</sup>

Even on the immanentistic reading, however, Brentano’s intentionality principle is not without its problems. It faces difficulties especially in dealing with negative existential judgments such as ‘God does not exist’, which seem, on the face of it, both to have and to lack an object. It was as part of an attempt to solve these difficulties that Brentano and his immediate successors began to reconsider the original thesis that acts of judgment get their objects (contents, matters) from underlying acts of presentation.

#### 4. From Objects to *Sachverhalte*

The concept of object, for the Brentanists, arises when one moves from the psychology of presentation to the investigation of its objectual correlate. The concept of a state of affairs arises, similarly, when one moves from the psychology of judgment to the investigation of the ontological correlates of judging acts. Given Brentano’s existential theory of judgment, it turns out that such ontological correlates are initially seen by his followers as of the forms: *the existence of A* and *the non-existence of A*, but other types of judgment-correlate were also recognised: *the subsistence of A*, *the possibility of A*, *the necessity of A*, *the probability of A*, *the being B of A*, and so on.

As Stumpf himself later recorded, the term ‘*Sachverhalt*’ was introduced by him in 1888 to stand for a ‘specific content of a judgment’,

which is to be distinguished from the content of a presentation (the matter) and is expressed linguistically in ‘that-clauses’ or in substantivised infinitives.<sup>(20)</sup>

A copy of Stumpf’s notes to his logic lectures of 1888 has survived in the Husserl Archive in Louvain, where we read:

From the matter of the judgment we distinguish its content, the *Sachverhalt* that is expressed in the judgment. For example ‘God is’ has for its matter God, for its content: the existence of God. ‘There is no God’ has the same matter but its content is: non-existence of God. (MS Q 13, p. 4)

Together with concepts and sets or aggregates, the *Sachverhalt* is assigned by Stumpf to the category of what he calls ‘formations’ (*Gebilde*). These are to be distinguished first of all from what Stumpf calls ‘functions’, i.e. from our mental acts themselves. But they are to be distinguished also from ‘appearances’, i.e. from sense data as classically conceived, and Stumpf is in fact here still operating within the broadly empiricist framework within which it is

sense data which serve as the typical examples of objects of presentation. The latter, as Stumpf conceives them, are given to us as independent of the activities of mind. As organised or collected, however - for example as they occur in the context of an aggregate or set - they are taken up into consciousness in such a way that they are given to us as existing only as immanent to the relevant (in this case aggregating) act. A Stumpfian state of affairs, similarly, can exist only as the 'immanent content' of an actually occurring judgment. Hence it cannot 'be given directly and thus be real of itself alone, independently of any function.' *Sachverhalte*, like other Stumpfian formations, 'are factual only as contents of functions.'<sup>(21)</sup> They

are not to be found anywhere separated off ... in some 'supersensible realm' as entities existing in and of themselves. They do not exist as dead preparations or petrifications, but only in the context of the living being of the mind.<sup>(22)</sup>

## 5. Content and Object

Brentano and Stumpf have hereby reached a new sort of sophistication as concerns the objects of our cognitive acts. And this has allowed them successfully to break away from the combination theory of judgment. Their shared immanentism meant however that they were still unable to achieve clarity as to the relations between mental acts and objects in the world, and this precluded also a conception of the ways in which judgments may come to be made true by such objects.<sup>(23)</sup> Their immanentism precluded also a conception of the contents of judgment and of the meanings of sentences of a sort that would be fruitful for the purposes of modern logic. It is in this respect Kasimir Twardowski, another student of Brentano's, who makes the crucial break with the core thesis of the immanentistic position. In his *On the Content and Object of Presentations* of 1894,<sup>(24)</sup> Twardowski puts forward a series of arguments in defence of a distinction between the contents of presenting acts on the one hand, and their objects, on the other. The object of presentation he conceives broadly as a transcendent target of the act. The content he conceives as something like a mental 'picture' or 'image' of the object. Every act has, he claims, both a content and an object, though the object of an act need not in every case exist. Even non-existent objects are, however, seen by Twardowski as having properties of their own, a doctrine later transmuted by Meinong into the 'principle of the independence of being from being-so' and in this form taken as the basis of Meinong's theory of non-existent objects.<sup>(25)</sup>

The distinction between content and object is initially drawn by Twardowski for presentations only. The act of judgment has a special *content* of its own, but in *On the Content and Object of Presentation* this act is still seen as inheriting its *object* from the relevant underlying presentation. Three years later, however, in a letter to Meinong, Twardowski suggests that one should recognise also a special object of the judging act, in addition to the judgment-content.<sup>(26)</sup> He thereby effected a generalisation of the content-object distinction to the sphere of judging acts, in a way which yields a schema of the following sort:

presenting act	content of presentation	object of presentation
judging act	judgment-content	state of affairs

One consequence of Brentano's immanentism is that judgments are conceived as real events in a way that leaves no room for any view of truth and falsity as timeless properties of judgments. This conclusion Brentano takes to imply that God, too, if he is omniscient, must exist in time, since the knowledge of which judgments are true and false must change from moment to moment.<sup>(27)</sup> Here, too, Twardowski moves in the direction of a view more adequate to the purposes of modern logic. In his paper "On So-Called Relative Truth" of 1902, he argues forcefully in favour of a conception of truth as something absolute, a conception which would rule out the possibility that the truth of a judgment might change from occasion to occasion or from subject to subject.<sup>(28)</sup> Brentano's acceptance of the thesis that truth can change and judgment remain the same follows, Twardowski argues, from a confusion of *judgments* on the one hand with their *statements* or *expressions* on the other. Twardowski's argument here - which again reveals the influence of Bolzano<sup>(29)</sup> - is to be found in different forms in the work of Frege and Russell, as also in the *Tractatus*, for example in Wittgenstein's remark to the effect that language 'disguises thought. So much so, that from the outward form of the clothing it is impossible to infer the form of the thought beneath it' (4.002). In Twardowski's formulation, however, this argument is part of an attempt to come to an understanding of the mental acts involved in judging and of the ontological correlates of such acts. Thus Twardowski is not, like Frege, Russell or Wittgenstein, attracted by the more ambitious task of building an ideal or artificial language in which thought and its expression would coincide. True to the Brentanist heritage, his efforts are directed to the things and processes that are involved in actual judgments, not to the construction of abstract models thereof. For all this, however, Twardowski's emphasis on the notion of absolute truth can be shown to have pointed his students in the direction of a truth-functional conception of logic in the modern sense. Further steps would however have to be taken before there could come into being among Twardowski's students in Poland a fully-fledged logic of propositions of the sort we now take for granted.<sup>(30)</sup>

## 6. *Sachverhalt* and Proposition

Meinong, too, in his *On Assumptions*, defends an opposition between two sorts of entity: objects and objectives, distinguishing not only between positive and negative objectives of being (*that A is, that A is not*), but also between positive and negative objectives of so-being (*that A is B, that A is not B*), as also between objectives constituted by objects and 'objectives of higher order' constituted by further objectives of lower order. Truth, possibility and also probability are, according to Meinong, attributes not of objects but of objectives,<sup>(31)</sup> and as already intimated, it is objectives which provide the subject matter for the science of logic as Meinong conceives it.<sup>(32)</sup> As Reinach remarks, however, there is a fundamental objection which must be raised against Meinong, namely 'that his concept of objective runs together the two completely different concepts of proposition (in the logical sense) and state of affairs.'<sup>(33)</sup>

Clarity in respect of the distinctions between *Sachverhalt* and proposition, as also between both of these and the immanent contents of judgment was first attained by Husserl in his *Logical Investigations* of 1900/01.<sup>(34)</sup> Here *Sachverhalt* and proposition are squeezed apart, and a conception of *Sachverhalte* as objectual *truth-makers* explicitly defended.<sup>(35)</sup> Husserl argued for a view of *Sachverhalte* as objectual judgment-correlates analogous to objects as the transcendent targets of presentations. Moreover, he saw that *Sachverhalte* can serve as

correlates not only of acts of judging but also of special kinds of nominal acts (for example when we say *that S is p* 'is welcome', 'is probable', 'has as consequence that ...', etc.).<sup>(36)</sup>

In the second volume of the *Logical Investigations*, Husserl distinguishes further between the immanent content of a judging act and the *Sachverhalt* as transcendent target.<sup>(37)</sup> On the side of the act itself he distinguishes not only the immanent *content* but also what he calls the *quality* of the act - what makes it an act of *judgment, doubt, assumption*, etc. - a moment of the act which may vary even though its immanent content remains fixed.<sup>(38)</sup> This immanent content, now, is understood not in terms of 'images' or 'pictures' but rather as a more basic sort of component of the act in virtue of which the latter is experienced by the subject as directed to an object or state of affairs. The immanent content is

that element in an act which first gives it a relation to something objectual, and this relation in such complete determinateness that it does not merely precisely define the object meant, but also the precise way in which it is meant.

The content of the act

not only determines that it grasps the relevant object but also *as what* it grasps it, the features, relations, categorial forms, that it itself attributes to it.<sup>(39)</sup>

Husserl now goes further still. He utilises the Aristotelian idea of a universal species becoming instantiated in its individual instances as a means of drawing a distinction between this immanent content of an act on the one hand and what he calls its 'ideal content' on the other. This ideal content is the immanent content taken *in specie* (as the objects treated by the geometer are the ideal species of the lines and shapes given in reality). And where an immanent content can be brought to expression linguistically, then the corresponding ideal content is called by Husserl the *meaning* of the given expression.<sup>(40)</sup>

Husserl's theory of linguistic meaning and of the structures of meanings is thus part and parcel of his theory of acts and of the structures of acts, and his handling of the relations between language, act and meaning manifests a sophistication of a sort previously unknown among the Brentanists. Broadly speaking, we can say that the orthodox Brentanians had insufficient appreciation of the dimension of *logical syntax* - a price they paid, in part, for their radical rejection of the combinatorial aspects of the old 'combination theory' of judgment and truth. Thus they lacked any recognition of the fact that acts of judgment are distinguished from acts of presentation not only by the presence of a moment of assertion or belief, but also - on the level of what we might call 'mental grammar' - by a special ('propositional') *form*. A judgment must, in other words, have a certain special sort of inner complexity, which expresses itself linguistically in the form of the sentence and is reflected ontologically in the form of the *Sachverhalt*. The expression of a judgment must for example admit of tense and aspect modifications and also of modification by logical operators such as negation, conjunction, etc., as well as by operators such as 'it is the case that', 'it is possible that', 'it is necessary that', 'I think that', and so on.

Certainly Frege is responsible for some of the most important advances in our understanding of logico-grammatical form. It is ironical, however, that in his conception of sentences as special

sorts of names, Frege is, as far as his treatment of the logico-grammatical peculiarities of judgment and sentence is concerned, no further advanced than was Brentano. Here, again, one has to look to Bolzano in order to find truly coherent anticipations of the idea of propositional form.<sup>(41)</sup> But the idea of a science of 'logical grammar', of a formal theory of the categories of linguistic units (and of their mental counterparts) and of the categorial laws governing the combination of such units, was first conceived by Husserl in his IVth Logical Investigation. This work influenced in turn the development of the theory of grammatical categories by Leniewski and his successors in Poland.<sup>(42)</sup>

Husserl's theory has built into its very foundations the idea of a parallelism of structure between (1) immanent contents on the level of our empirically executed acts and (2) ideal contents on the level of logic. He is thereby able to account in a very natural way for the fact that the laws of logic apply to actual thinkings, speakings and inferences, while at the same time doing justice to the necessity which accrues to such laws by virtue of the fact that they relate primarily to certain ideal or universal species and only secondarily to the immanent contents by which these species may come to be instantiated. Frege and his successors in the analytic tradition, in contrast, because they turned aside from questions of what Brentano and Husserl called 'descriptive psychology', thereby left themselves in a position where they were unable to do justice to the relations between ideal contents and the cognitive activities through which these become actualised or instantiated. The applicability of logic to empirical thinkings and inferences is thus rendered in their work all but inexplicable - an outcome which further reinforced the initial aversion to psychology on the part of philosophers of the analytic sort, and thereby also lent encouragement to those mathematical logicians who have wanted to conceive propositions as little more than nodes of abstract formal theories. Brentano, on the other hand, and the more orthodox Brentanians, tended to the opposite, psychological extreme: because they feared the 'Platonism' of ideal contents, their treatment of logic was less than successful, and therefore so also was their treatment of the specifically logical properties of our judging acts.

Husserl goes beyond his Brentanist predecessors also in his treatment of ontology. Setting out from Meinong's idea of a 'theory of objects', Husserl initiates a new discipline of 'formal ontology', within which the formal concept of *Sachverhalt* - 'formal' because it can be applied to all matters without restriction - comes to be ranked alongside the formal concept of *object*. It is more than anything else this Husserlian discipline of formal ontology, as developed by Husserl's disciples in Munich, which led to Reinach's conception of logic as a science of states of affairs.

## **7. Logic and the *Sachverhalt***

Simplifying somewhat, we can conceive Husserl's *Sachverhalt* as the creature of a naturalistic ontology: the *Sachverhalt* is a truth-making segment of reality that is 'thrown into relief' through an act of judgment.<sup>(43)</sup> Thus the Husserlian *Sachverhalt* is dependent upon consciousness for its demarcation, but it is independent in the sense that what gets demarcated - we might call it the matter of the *Sachverhalt*- exists independently of the act which brings this demarcation about. Only in the rarest of cases - where the matter is per accidens of a purely psychic sort - is the *Sachverhalt* a creature immanent to the mind in the sense of

Stumpf. Certainly there are Platonistic elements in Husserl's logic and ontology, but these relate not to *Sachverhalte*, but to propositions, i.e. to the ideal species of the contents of sentence-using acts. Reinach, in contrast, defends a Platonistic ontology of *Sachverhalte*. In this he is inspired in part by Meinong and Bolzano, and in part also by Marty who had defended a view of *Sachverhalte* or 'judgment-contents' as 'that which grounds objectively the correctness of our judging'.<sup>(44)</sup> He goes further than all three, however, in embracing a clear distinction between propositional *meanings* on the onehand and *Sachverhalte* on the other. The totality of *Sachverhalte* Reinach conceives as an eternal realm comprehending the correlates of all possible judgments, whether positive or negative, true or false, necessary or contingent, atomic or complex. Objects, it is true, may come and go, but *Sachverhalte* are immutable (a view which is of course almost exactly the reverse of that embraced by Wittgenstein in the *Tractatus*). Reinach is in this way in a position to conceive *Sachverhalte* as the locus of existence of the past and of the future, that is, as truth-makers for our present judgments about objects which have ceased to exist or have yet to come into existence. He is by this means able also to guarantee the timelessness of truth and falsehood.

Perhaps we can understand the motives which led Reinach to this somewhat peculiar view of logic and the *Sachverhalt* if we reflect on the fact that, the subject matter of logic having once been expelled from the psyche, it became quite generally necessary for logicians to provide some alternative account of what this subject matter ought to be. Frege himself, along with Bolzano and Husserl, had looked to ideal meanings, but ideal meanings have something mythological about them and they bring with them the problem of how they can be 'grasped' by mortal thinking subjects. As we know, many philosophers in the tradition of Frege looked in this connection to sentences, and to the 'institution of a common language', as an alternative to the Platonism of ideal meanings, though it is not clear why, given the diversity and changeability of human languages, this appeal does not face objections parallel to those which earlier confronted psychologism. Reinach, in contrast, looked neither to ideal meanings nor to their expressions in language, but (as he saw it) out into the world, to the objectual correlates of judging acts. Many entities of this sort are, he insisted, unproblematically accessible, for example in perfectly ordinary acts of *seeing that*. A *Sachverhalt*-based foundation of logic can however serve as an alternative to psychologism only if it can guarantee the objectivity and necessity of logical laws. It was to this end that Reinach saw himself as being forced to conceive his *Sachverhalte* in a Platonistic (and therefore non-naturalistic) way, i.e. to grant them a special status of the sort that was granted to propositions by Bolzano, Frege and Husserl.

Platonism, here, means that *Sachverhalte* are transcendent not only to the mind but also to the world of spatio-temporal objects. It means that they are entirely independent of all mental activities; that they are such as to play no role in causal relations; and that they exist outside of time and space. In all of these respects Reinachian *Sachverhalte* resemble sets as standardly conceived. Like sets, *Sachverhalte* are built up (*inter alia*) out of ordinary objects in a way that somehow suspends the mutability of the latter.

The realm of *Sachverhalte* is, according to Reinach, complete, in the sense that there is a *Sachverhalt* precisely coordinated to every possible judgment. One reason for accepting a completeness of this sort on Reinach's part is that it allows him to uphold the correspondence

theory of truth in its full generality. It allows for each variety of judgment an appropriate variety of truth-making states of affairs. This applies, in particular, to negative judgments, which are correlated with negative states of affairs. And while it may be possible to conceive a positive state of affairs like *this rose is red* as some sort of real complex (of the rose and its redness), no such view is possible for negative states of affairs like *this rose is not yellow* or *unicorns do not exist*, which cannot be counted as denizens of reality in any sense. The thesis of completeness in this way lends additional support to the remaining Platonistic elements of the Reinachian ontology.

Wittgenstein's *Tractatus*, of course, contains a *Sachverhalt*-based correspondence theory of truth which dispenses with Reinachian Platonism and is at least in this respect more convincing. What Wittgenstein lacks, however, is an ontology of *Sachverhalte* of the sort that would allow him also to provide an account of the ways in which such entities are related to our everyday thinkings and other cognitive activities (for example to those acts of seeing that in which our judgments get verified). Reinach, in contrast, because his *Sachverhalte* may involve ordinary objects of experience, is able to show how our mental acts and states may relate, in different ways, to *Sachverhalte* as their objects, and how they may therefore stand in relations parallel to the logical relations which obtain (according to Reinach) among these *Sachverhalte* themselves. One of Reinach's most original contributions is in fact his account of the different sorts of acts in which *Sachverhalte* are grasped and of the various kinds of attitudes which have *Sachverhalte* as their objects, and of how such acts and attitudes relate to each other and to the acts and attitudes which have judgments and propositions as their objects.

## 8. Real Semantics

It has become a commonplace that Bolzano, Frege and Husserl, by banishing thoughts from the mind, created the preconditions for the development of logic in the modern sense. By defending a view of thoughts or propositions as ideal or abstract entities, they made possible a conception of propositions as entities capable of being manipulated in different ways in formal theories. Just as Cantor had shown mathematicians of an earlier generation how to manipulate sets or classes conceived in abstraction from their members and from the manner of their generation, so logicians were able to become accustomed, by degrees, to manipulating propositional objects in abstraction from their contents and from their psychological roots in acts of judgment.

Now, however, we can see that the achievements of Bolzano, Frege and Husserl were part and parcel of a larger historical process, in which Lotze and Bergmann, but also Brentano, Stumpf, Marty, Meinong and above all Twardowski and his students in Poland, played a crucial role. We can see also that, as was clear to the author of the *Tractatus*, the squeezing apart of the two notions of proposition and *Sachverhalt* was no less important an achievement in the overcoming of psychologism than was the separation of judgment both from complex concepts on the one hand and from ideal propositions on the other.

It is noteworthy in this light that Tarski's 1935 essay on the concept of truth, the single most important work arising out of the Lemberg-Warsaw school founded by Twardowski and his

students, rests precisely on a discovery of how it is possible to manipulate formally not only sentences or propositions but also certain special sorts of object-structures in the world to which these sentences or propositions correspond. Tarski attempts, we might say, to capture mathematically the highest common factor running through the family of correspondence-theoretic views of truth, a factor which can be expressed in the form of a thesis to the effect that

a true sentence is one which says that things are so and so, and things are so and so.

This thesis derives in the end from Aristotle. But it is taken by Tarski from his teacher Kotarbiski, who had derived it in turn from Twardowski's work on the *Sachverhalt* and on the so-called 'absolute' theory of truth.<sup>(45)</sup>

Logical or 'model-theoretic' semantics since 1935 has departed considerably from those aspects of Tarski's work which reflected his original concern to find formal means of manipulating *ways things stand* in parallel to sentences or propositions. Model theorists have sought instead to exploit the mathematical resources which Tarski and others put at their disposal, and this has meant that their work has been confined to the construction and manipulation of abstract set-theoretic structures that have little or no relation to the actual world of what happens and is the case. Logic itself has hereby to a regrettable extent come to be freed of its relation to truth as classically conceived. More recent work, above all on the part of the situation semanticists, seems however to be pointing once more in the direction of a semantics that would be compatible with a *Sachverhalt* ontology of a more realistic sort, and to this extent there may perhaps be life yet in a conception of logic along Reinachian lines. Both Reinach and the situation semanticists suggest that we should shake ourselves free from the one-sided textbook conception of logic as a science of *propositions* conceived in abstraction from their realisations in the minds of thinking subjects and from their objectual correlates in the world. Logic should be seen, rather, not as a science of other-worldly 'bearers of truth', but as a discipline engaging whatever it is that can stand in *truth-relations*. And when matters are conceived in this light, then the temptation to embrace a special realm of propositions is much more easily resisted.

## Notes

1. See A. Reinach, "The A Priori Foundations of the Civil Law", *Aletheia* 3 (1983), 1-142 and the papers collected in K. Mulligan, ed., *Speech Act and Sachverhalt. Reinach and the Foundations of Realist Phenomenology* (Dordrecht/Boston/Lancaster: Nijhoff, 1987).
2. A. Reinach, "On the Theory of the Negative Judgment", as trans. in B. Smith, ed., *Parts and Moments. Studies in Logic and Formal Ontology* (Munich: Philosophia, 1982), 315-377, p. 339.
3. *Op. cit.*, p. 376, n. 40.
4. Cf. P. M. Simons, "Aristotle's Concept of State of Affairs", in O. Gigon and M. Fischer, eds., *Antike Rechts- und Sozialphilosophie* (Frankfurt/Bern: Lang, 1988), 97-112.
5. '*Dispositio rei est causa veritatis in opinione et oratione*' (*In Metaphysicam*, IX, 11, n. 1897).

6. See K. H. Tachau, *Vision and Certitude in the Age of Ockham. Optics, Epistemology and the Foundations of Semantics. 1250-1345* (Leiden: E. J. Brill, 1988).

7. *Institutio oratoris*, 3, 6, 2.

8. *Lexicon Totius Latinitatis*, IV, 478f.

9. *Lexicon philosophicum* (1613), 1081.

10. W. Windelband, *Geschichte der Philosophie* (Tübingen and Leipzig, 1900), p. 463n.

11. See e.g. Aristotle, *De anima* 430 a 27f., *Met.* 1027 b, 1051 b, *De int.* 16 a 9ff.; Wolff, *Philosophia rationalis sive Logica* (1728), § 40; Kant, *Logik* (1800), § 19. Even Frege's *Begriffsschrift* (I, § 2) retains elements of this conception of judgment in that Frege still sees his 'content-stroke' as preceding a sign which signifies a mere 'Vorstellungsverbindung' or 'combination of presentations'.

12. *Allgemeine Logik*, I. *Reine Logik* (Berlin: Mittler, 1879), pp. 2-5, 19, 38.

13. R. H. Lotze, *Logik*, 2nd ed. (Leipzig: S. Hirzel, 1880), pp. 57f.

14. For Husserl, in contrast, judgments, too, are 'objectifying acts' in the sense that they have objects (*Sachverhalte*) of their own. See my "Materials Towards a History of Speech Act Theory", in A. Eschbach, ed., *Karl Bühler's Theory of Language* (Amsterdam: John Benjamins, 1987), 125-52.

15. See Brentano, *Psychology from an Empirical Standpoint* (London: Routledge and Kegan Paul, 1973), pp. 79f., 88f.

16. For Frege, in contrast, an object is defined linguistically, as the correlate of a name.

17. This thesis has nonetheless repeatedly been ascribed to Brentano, most recently by Dummett in his *Ursprünge der analytischen Philosophie* (Frankfurt: Suhrkamp, 1988), esp. ch. 5 on "The Legacy of Brentano".

18. See Brentano, *The True and the Evident* (London: Routledge and Kegan Paul, 1961), p. 27.

19. *Deskriptive Psychologie* (Hamburg: Meiner, 1982), esp. pp. 10-27. This volume consists of notes to lectures given by Brentano in Vienna around 1890, i.e. before his subsequent turn to 'reism'.

20. C. Stumpf, "Erscheinungen und psychische Funktionen", *Abhandlungen der Königlichen Preussischen Akademie der Wissenschaften*, phil.-hist. Kl., 4 (1907), pp. 29f.

21. "Erscheinungen und psychische Funktionen", p. 30.

22. C. Stumpf, "Zur Einteilung der Wissenschaften", *Abhandlungen der Königlichen Preussischen Akademie der Wissenschaften*, phil.-hist. Kl., 5 (1907), p. 34.

23. Brentano himself indeed eventually embraced a so-called 'evidence theory' of truth, according to which truth is an entirely immanent matter. See *The True and the Evident*, Parts 3 and 4.

24. K. Twardowski, *On the Content and Object of Presentations* (The Hague: Nijhoff, 1977).
25. The principle was in fact first formulated as such by Ernst Mally. See K. Lambert, *Meinong and the Principle of Independence* (Cambridge: Cambridge University Press, 1983), p. 18.
26. Meinong, *Philosophenbriefe* (Graz: Akademische Druck- und Verlagsanstalt, 1965), pp. 143f.
27. See Brentano, *Philosophical Investigations of Space, Time and the Continuum* (London and Sydney: Croom Helm, 1987), pp. 87f.
28. K. Twardowski, "Über sogenannte relative Wahrheiten", as repr. in D. Pearce and J. Woleski, eds., *Logischer Rationalismus. Philosophische Schriften der Lemberg-Warschauer Schule* (Berlin: Athenäum, 1988), 38-58.
29. *Theory of Science* (Oxford: Blackwell, 1972), § 125.
30. On the influence of Twardowski's views in this respect see J. Woleski, *Logic and Philosophy in the Lvov-Warsaw School* (Dordrecht/Boston/Lancaster: Kluwer, 1988).
31. This view makes itself felt in the early writings of ukasiewicz, who studied for a time with Meinong in Graz. See e.g. his "Logical Foundations of Probability Theory", as trans. in Jan ukasiewicz, *Selected Works* (Amsterdam: North-Holland Publishing Company, 1970), 16-63, esp. p. 37, and also the abstract "On the Principle of the Excluded Middle", *History and Philosophy of Logic*, 8 (1987), 67-69.
32. See *On Assumptions* (Berkeley: University of California Press, 1983), p. 129.
33. "On the Theory of the Negative Judgment", p. 374.
34. This is to ignore the in some respects interestingly parallel story that is to be told in relation to the English term 'fact'. See K. R. Olson, *An Essay on Facts* (Stanford: Center for the Study of Language and Information, 1987).
35. Russell, similarly, distinguishes in addition to the immanent content of a belief (which is for him a certain wholly determinate mental event), the 'objective' or 'actual fact that makes the belief true'. See *The Analysis of Mind* (London: George Allen and Unwin, 1921), pp. 14f. On the notion of 'making true' in general, see K. Mulligan, P. M. Simons, and B. Smith, "Truth-Makers", *Philosophy and Phenomenological Research*, 44 (1984), 287-321.
36. Husserl saw also that *Sachverhalte* can serve as the correlates of certain non-judgmental acts of wishing, questioning, doubting, etc., and in this he provided the first impetus to Reinach's subsequent work on speech acts. See, again, my "Materials Towards a History of Speech Act Theory".
37. *Logical Investigations* (London: Routledge and Kegan Paul, 1970), VI, §§ 28, 33, 39.
38. *Logical Investigations*, V, § 20. The role of Husserl's 'quality' corresponds, of course, to that of Frege's 'force'.
39. *Logical Investigations*, V, § 20.

40. *Logical Investigations*, VI, §§ 16f., 20.

41. *Theory of Science*, § 127.

42. See above all Ajdukiewicz's essay of 1935 on "Syntactic Connexion", trans. in S. McCall, ed., *Polish Logic* (Oxford: Clarendon Press, 1967), 207-31. Compare also G. Gobber, "Alle origini della grammatica categoriale: Husserl, Lesniewski, Ajdukiewicz", *Rivista di Filosofia neo-scolastica*, 77 (1985), 258-95.

43. A reading of Husserl's theory along these lines is developed especially by Johannes Daubert, *éminence grise* of the school of Munich phenomenologists to which Reinach belonged. See K. Schuhmann and B. Smith, "Questions: An Essay in Daubertian Phenomenology", *Philosophy and Phenomenological Research*, 47 (1987), 353-84.

44. The Martian *Sachverhalt* must therefore be something whose existence is independent of consciousness. Moreover, it is clear that, on Marty's conception, there can be *Sachverhalte* corresponding only to judgments which are true. See *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie* (Halle: Niemeyer, 1908), p. 295.

45. See J. Wolenski and P. M. Simons, "De Veritate. Austro-Polish Contributions to the Theory of Truth from Brentano to Tarski", in K. Szaniawski, ed., *The Vienna Circle and the Lvov-Warsaw School* (Dordrecht/Boston/Lancaster: Kluwer, forthcoming), pp. 36ff., and compare T. Kotarbinski, *Gnosiology. The Scientific Approach to the Theory of Knowledge* (Oxford: Pergamon Press, 1966), pp. 106f.