Chapter Six

Kasimir Twardowski

On Content and Object

1. *Twardowski and Polish Philosophy*

The influence of Kasimir Twardowski on modern Polish philosophy is all-pervasive, and almost all important Polish philosophers in the early decades of the present century went through the hard training of his courses in Lvov. Twardowski instilled in his students a passion for clarity and rigour. He taught them to regard philosophy as a collaborative effort, a matter of disciplined discussion and argument, and he encouraged them to work together with scientists from other disciplines, above all with psychologists, and also with mathematicians, so that the Lvov school of philosophy would gradually evolve into the Warsaw school of logic.[1]

Kasimir Skrzypna-Twardowski, Ritter von Ogończyk, was born in Vienna in 1866, the son of a high official in the Austro-Hungarian Ministry of Finance. He was educated at the Theresianum, where, as in all Austrian grammar schools, a course in philosophy (which is to say, psychology plus logic) was compulsory in the final year.[2] One of the small number of officially approved textbooks for this course for much of the second half of the nineteenth century (and in many cases also later) was the *Philosophische Propädeutik* of Robert Zimmermann, first published in Vienna in 1853. Zimmermann's work,

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1. Woleński 1989 is now the standard history of the Lvov-Warsaw school. On Twardowski's teaching see Skolimowski (1967, pp. 26f.), who refers to Twardowski's 'Spartan drill'; see also Czeżowski 1939/46, esp. p. 16, and Czeżowski 1960. On Twardowski's intellectual development see Dąmbska 1978 and Twardowski 1991.

2. The teachers at the Theresianum at this time included Alois Höfler, later collaborator of Meinong and editor of Bolzano's works. The records of the Theresianum, however, suggest that Twardowski did not attend any of Höfler's courses.

the logical sections of which are little more than lightly disguised summaries of Bolzano's *Wissenschaftslehre* prepared at Bolzano's own request, may have been instrumental in bringing about a renaissance of Bolzanianism in Austria in a period when Bolzano's own writings were officially suppressed. Certainly Bolzanian ideas affected not only Twardowski and Höfler, but also Meinong, Benno Kerry, J. K. Kreibig, Hugo Bergmann, Heinrich Gomperz, and perhaps even Georg Lukács, and the disciples of Brentano were affected by Bolzanianism to such an extent that Brentano is reported to have been dismayed at the extent to which, one after another, they were taking up with a 'logical objectivism' that was for him anathema.[3]

From 1885 to 1889 Twardowski studied philosophy at the University of Vienna, receiving his doctoral degree in 1891 for a dissertation entitled *Idea and Perception. An Epistemological Study of Descartes*. While Twardowski studied especially under Franz Brentano, his official supervisor was in fact Zimmermann, Brentano having been obliged to resign his chair in 1880. During this time Twardowski made the acquaintance of Meinong, who had been Privatdozent in the University since 1878, and Twardowski played a not unimportant role in the development of Meinong's thinking in the direction of a general 'theory of objects'.[4] At around this time Twardowski also helped to found the Vienna Philosophical Society (he would later go on to found the first Polish Philosophical Society in Lvov in 1904). On completing his studies, he was awarded a one year travel scholarship, which he used principally as a means of becoming acquainted with new work in psychology. In 1892, he studied in Munich, attending courses by Stumpf, and visited also Leipzig, where Wundt had instituted the world's first laboratory of experimental psychology in 1879. (Twardowski would himself go on to establish the first laboratory of experimental psychology in Poland in 1907.)

In 1894 Twardowski received the *venia legendi* in Vienna for a monograph, much inspired by Brentanian doctrines, *On the Doctrine of the Content*

3. See e.g. Brentano 1946, p. 94; on Bolzano and Zimmermann see the material reproduced in Winter (ed.) 1975. A parallel current of logical objectivism was fostered in Germany at about the same time by Hermann Lotze, whose students included *inter alia* Marty, Stumpf, Frege and Windelband. Cf. Morscher 1972. On the work in value-theory inspired by Lotze among his German disciplines see Kraus 1937.

4. See Meinong 1899, Grossmann 1974, pp. 48-53, 106-11.

and Object of Presentations, and it is this work, translated into English only in 1977, which established his credentials as one of the most important promoters and extrapolators of Brentano's philosophy. The principal message of the work may be summarized as follows. Where Brentano had spoken indiscriminately of the 'contents' and 'objects' of mental acts, as though content and object were identical,[5] Twardowski argued in favour of a strict distinction between the two – a distinction parallel, in many ways, to Frege's distinction between sense and referent, though translated into the psychological mode. Where Brentano had seen content and object as effectively one and the same, Twardowski regarded the content as a mental 'picture' or 'image' of the object of the act. Every act, according to Twardowski, has both a content and an object, though the object of an act need not in every case exist. Even non-existent objects are seen by Twardowski as enjoying properties of their own, a doctrine later transmuted by Meinong and Mally into the 'principle of the independence of being from being-so'.

In the period 1894/95, Twardowski lectured in Vienna as *Privatdozent*. He was then, at the age of 29, appointed professor of philosophy in Lvov, still at this time an Austrian town. This meant that, like the Jagellonian University in Cracow, its university enjoyed a rather liberal and tolerant atmosphere. Thus Poles were allowed to study and to be taught by their own lecturers and professors, where 'in the other parts of partitioned Poland they were engaged in a most savage struggle for national and economic survival.' (Jordan 1945, p. 39) Twardowski retired in 1930, though he continued to hold lectures in Lvov until his death in 1938. After 1894, he published no further major work. He dedicated himself, rather, to teaching, and to the job of establishing a modern and outward-looking tradition of exact and rigorous philosophy in Poland. His success in this can be seen in the fact that by the inter-war period his students held professorships in philosophy departments in all Polish universities with the single exception of the Catholic University in Lublin. Moreover, Twardowski's influence extended not merely to philosophers, above all to phenomenologists such as Roman Ingarden and Leopold Blaustein, and to the members of what might be called the 'analytic school' of Polish philosophy; it can be seen also in

5. Cf. e.g. Brentano 1924, vol. II, p. 39n, Eng. p. 202n. On the history of 'content-theories' see Sajama and Kamppinen 1987.

the teaching and writing of a series of eminent non-philosophers who had attended his courses in Lvov.[6]

It has been suggested that Twardowski's teaching was in some sense philosophically neutral, that the unity of his school was rooted in a common training in methods and habits of work, rather than in the handing down of any shared doctrines. Jordan, for example, asserts that the members of Twardowski's school were not linked by any 'common body of philosophical assumptions and beliefs'. Twardowski led his students, rather, 'to undertake painstaking analysis of specific problems which were rich in conceptual and terminological distinctions, and directed rather to the clarification than to the solution of the problems involved.' (1963, pp. 7f.)

Certainly, Twardowski held no truck with the system-building 'philosophical' philosophies of the past. His work was inspired, rather, by a 'scientific' attitude of precise and careful description – so that, as Jordan puts it, the philosophy he taught was in some ways 'a pedestrian affair, an elaborate and highly specialized technique of thinking, which, being closer than ever before to the hard ground of everyday experience and common sense, could not be followed [by] philosophically untrained amateurs.' (1963, p. 8) It would be wrong, however, to ignore the fact that Twardowski remained throughout his life firmly attached to a quite specific *metaphysical* conception of philosophy, and his attitude in this respect reveals itself in a general metaphysical orientation of the philosophers who came under his influence. This applies even to those – like Ajdukiewicz – who were at certain times attracted by the positivism or reductionism of the Vienna circle.[7] It applies to Kotarbiński, as we shall see, and it applies also to Łukasiewicz and to philosophers such as Drewnowski and Zawirski who developed a conception of metaphysics as a hypothetical-deductive science to which the axiomatic method should be applied.[8]

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6. On Twardowski's influence see, again, Woleński 1989, Ch. 1, Part 2, and also Skolimowski 1967, ch. II.

7. See e.g. Ajdukiewicz 1978, p. 348 and Küng 1989.

8. See e.g. Jordan 1945, p. 38. A similar conception is represented in the work of contemporary Polish philosophers such as Perzanowski.

What, then, was the metaphysics to which Twardowski himself subscribed? The answer to this question is clear from a perusal of his works: it is the metaphysics of Brentano. As Łuszczewska-Rohmanowa puts it, 'Twardowski saw as his exclusive task the realization of the ideas of Brentano on Polish soil, ideas with which he himself in a way grew up and which he held to be indubitably correct.'[9] Twardowski's influence upon the *content* of modern Polish philosophy can accordingly best be understood in terms of certain Brentanian ideas and attitudes which Twardowski conveyed to his Polish disciples. This influence reveals itself, more precisely, in the fact that modern Polish philosophy is marked on the one hand by an attitude of metaphysical realism and on the other hand by a concern with the notion of truth as correspondence, both of which Twardowski had inherited – with some Bolzanian admixtures – from the early Brentano. Thus while Meinong's theory of objects is a more widely known example of a generalized ontology built up on the basis of descriptive psychological analyses of the different kinds of mental acts, it was in fact Twardowski, of all the Brentanians, who was the first to develop a generalized ontology in this sense. As Ingarden puts it, Twardowski's *Content and Object* is, 'so far as I know, the first consistently constructed theory of objects manifesting a certain theoretical unity since the times of scholasticism and of the "ontology" of Christian Wolff'.[10]

In some cases a direct interest in Brentano and his school was inherited from Twardowski by his students. This is especially true of Ingarden, but it holds also of Leśniewski, as we shall see, and Łukasiewicz, too, was subject to the influence of Brentano's ideas. He studied not only with Twardowski but also with Stumpf in Berlin and with Meinong in Graz, and among his earliest papers are a number of short reviews of works by Husserl, Höfler, Stumpf and Meinong.

It would be wrong to suggest that specifically Brentanian doctrines were taken over whole by Twardowski's students. Yet the implicit or explicit concern with metaphysics, and especially with realistic metaphysics and with truth as correspondence, is a constantly recurring feature of their work.

9. Łuszczewska-Rohmahnowa 1967, p. 155, as quoted in Schnelle, p. 90.

10. Ingarden 1938, p. 258, quoted in Schnelle, p. 99.

Investigations in the ontology of truth, or of those relations between sentences and objects which are constitutive of truth, have been quite peculiarly prominent features of Polish philosophical writings from Twardowski to the present day, and have coloured especially the Polish reception of the philosophy of Wittgenstein.[11] Even the early work of Tarski, too, can illuminatingly be viewed in this light, though Tarski did not himself study with Twardowski.[12]

At all events, though, it cannot be denied that an interest in the philosophy of truth has been a highly conspicuous moment of modern Polish philosophy. The idea of realism, on the other hand, may initially be thought to have played a less prominent role. On closer inspection, however, we see that the realist attitude which Twardowski promulgated has in fact been taken for granted by Polish philosophers as something almost universally shared. Realism, even Aristotelian realism, is an unquestioned presupposition of Leśniewski's work, and of that of his principal successors. It governs the work of Ingarden, dictating even the latter's interest in the phenomena of aesthetics.[13] It has been of repeated concern to Ajdukiewicz, and it has coloured also the work on epistemology of Kotarbiński and his pupils.[14] And in each case, Twardowski has played a role in determining both the terminology and the thinking of the philosophers in question.

2. *On the Absolute Theory of Truth*

Twardowski shared with the early Brentano and with Marty the thesis of the independence of the two dimensions of reality and existence:

> An object is said to be something real or not real, regardless of whether or not it exists, just as one can talk about the simplicity or complexity of an object, without asking whether or not it exists. That in which the reality of an object consists cannot

11. From a wide selection of more recent works one might mention: Borkowski 1985, Perzanowski 1985, Suszko 1968, Stonert 1964 and Wolniewicz 1985.

12. Cf. Tarski 1956, p. 155, n. 2, and Woleński and Simons 1989.

13. See the Preface to his 1931; see also Ingarden's critical writings on Husserl's idealism, above all his 1929, and compare Haefliger 1990.

14. Jordan 1945, p. 35.

> be expressed in words; but most philosophers seem to agree nowadays that objects like piercing tone, tree, grief, motion, are something real, while objects like lack, absence, possibility, etc. are to count as *not* real.[15] Now, just as a real object may at one time exist and at another time not exist, so, too, can something non-real now exist, now not exist.[16]

Moreover, at the time of his *On Content and Object* Twardowski accepted the Brentanian existential theory of judgment according to which the truth of a (positive) judgment is to be identified, simply, with the existence of the relevant object.[17] The divergence between Brentano and Twardowski turns on the fact that what is real may change, and this implies on Brentano's account that there may occur changes in the truth-values of corresponding judgments.[18] As Brentano puts it, the truth of a judgment about what is real 'is conditioned by the existence, the coming into being, or the passing away, of the reality to which the judgment pertains.' Hence: 'Without itself undergoing any change, the judgment will gain or lose its truth if the reality in question is created or destroyed.' (1889a, § 55) Truth, accordingly, is not a timeless property of judgments – a conclusion which is taken by Brentano to imply that God, too, if he is omniscient, must exist in time, since the knowledge of which judgments are true and which false must change from moment to moment.[19]

Twardowski, in contrast, rejects any thesis of this sort. In his paper "On 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. Brentano's acceptance of the thesis that truth can change and judgment remain the same follows, Twardowski argues, from a confusion of

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15. Twardowski refers here to Marty 1884, pp. 171ff.

16. Twardowski 1894, p. 36, Eng. pp. 33f.; trans. here and in what follows amended slightly.

17. Łukasiewicz and Czeżowski both defined truth in this way in papers in 1900–1920. Łukasiewicz however adopted a Fregean definition in his "Two-Valued Logic" of 1921.

18. This thesis was considered already by Aristotle. See *Cat*. $4^{a}10$–$4^{b}19$, $14^{b}12$–23. Cf. also *De anima*, $428^{b}7$f., and Aquinas, *De veritate*, q. 1, a. 5 and 6 and q. 14, a. 12.

19. See his 1976, pp. 105f., Eng. pp. 87f. On the issue of relative vs. absolute truth see also Kokoszyńska 1936, 1951 and Künne 1987.

judgments on the one hand with their *statements* or *expressions* on the other. For a judgment is not always expressed fully by any given verbal statement. A full expression of the judgment made on some given occasion by means of the words 'it's raining' might be something like: 'at 8 o'clock p.m. Eastern Central European Time on 25 August 1675 according to the Gregorian calendar it's raining on the High Castle Hill in Lemberg'. Twardowski's argument here – which again reveals the influence of Bolzano's *Wissenschaftslehre* – is to be found in different forms also in the work of Frege, Russell and the early Wittgenstein.[20]

Nowadays, of course, the idea that there is an opposition between the grammatical structure of a sentence and the logical structure of the corresponding proposition has become a commonplace of analytic philosophy. Twardowski's own formulation of this opposition is expressed, certainly, in terms of the psychological notion of judgment, rather than in terms of the properly logical notion of proposition. Moreover, his attentions are directed, here as elsewhere, to the understanding of the mental acts involved in judging and of the ontological correlates of such acts. He is not, like Frege, Russell or Wittgenstein, concerned with the building up of an ideal or artificial language in which thought and expression would somehow coincide. True to the Brentanist heritage, his efforts are directed rather to the events and processes that are involved in actual judgings. For all this, however, Twardowski's emphasis on the notion of absolute truth can be seen to have pointed his students in the direction of a truth-functional conception of logic in the modern sense and in the direction of a semantic conception of truth,[21] though further steps would have to be taken before Polish philosophers and logicians could establish those sophisticated results, above all pertaining to the logic of propositions, which we now take for granted.

Twardowski replaced Brentano's own version of the correspondence theory – which conceives truth, for empirical judgments, as a transient relation between an episode of judging and some object of presentation – with a new

20. See Bolzano 1837, § 125; Frege 1918, pp. 101f.; Russell 1905, pp. 45, where Russell criticizes the assumption that 'denoting phrases stand for genuine constituents of the propositions in whose verbal expressions they occur'; and 4.002 of the *Tractatus.*

21. On the early influence of Twardowski's views in this respect see Kotarbiński 1913 and Leśniewski 1913a.

theory which sees truth as a *timeless relation* whose first term is a judgment conceived in abstraction from the factual conditions of its utterance or expression. Interestingly, this opposition can be seen to have played a role in Łukasiewicz's development of the idea of a many-valued logic. For Łukasiewicz took the view that truth, for empirical judgments, is absolute only in so far as such judgments are directed to the present and the past; in so far as judgments are directed to the future, their truth is relative.[22]

22. See e.g. his 1922/23, pp. 126. This latter idea led some to accuse him of having run together the two separate notions of timeless and time-dependent truth. See Borkowski 1981.

3. *The Theory of the General Object*

Brentano and Twardowski differ further in their conception of general presentations like *lion*, *lexeme*, *hepatitis*, etc., such as are involved, for example, when we judge that the lion is carnivorous, that lexemes are listed in dictionaries, that hepatitis is an inflammation of the liver, and so on. General presentations are not, Twardowski argues, to be understood as relating to concepts or other immanent *entia rationis*, and nor are they to be understood as presentations of a set or list of individual objects falling under the relevant concept (as if a general presentation were some sort of summation of a number of individual presentations). This is seen above all in the fact that, with the aid of a general presentation, we can make judgments which 'accomplish more than what the individual judgments about the successively presented objects can achieve in their totality.' Thus the judgment *the lion is carnivorous* has a different 'logical value' from the judgments *Leo is carnivorous*, *Simba is carnivorous*, etc., taken together.[23] General presentations refer, rather, to special *general objects*, i.e. to what results when those marks or features common to all the objects of the relevant individual presentations are ordered and combined in presentation in such a way that they are, like the objects of individual presentations, unified as a whole. The general lion, as Twardowski conceives it, shares with any particular lion the features common to all lions, including the feature *is a lion*.[24]

As Twardowski suggests, a discipline like geometry is concerned precisely with general objects of the given sort, and the same thesis may be extended also to the other sciences. Thus the biologist is interested not in this or that particular gene or chromosome, but rather in the gene in general and its relation to the chromosome in general. The linguist is interested not in any particular consignment of speech, but in the phoneme in general, the morpheme in general, the lexeme in general, as well as in, say, the distinctive features

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23. 1894, pp. 103, Eng. pp. 98. Cf. Husserl, 1900/01, Investigation II, §16; Heyer 1985, 1987.

24. See Twardowski 1894, pp. 105, Eng. pp. 100. We might say also that the general lion shares the *form* of any actual lion. This idea was further developed by Meinong, with his doctrine of the incomplete object. Cf. Meinong 1915, §25 and Grossmann 1974, pp. 175ff., 206ff. See also the interestingly parallel work on general objects of G. F. Stout, as presented in Schaar 1991.

labial, *dental*, *velar*, etc., and in the combinations of, and interrelations between, these various general objects on different levels.[25] Not the least virtue of Twardowski's theory is, therefore, that it is able to do justice to the predominance of general names ('quark', 'electron', 'molecule', etc.) in the language of science.

Certainly it is true that one may, in conceiving of an individual object, conceive also those constituent features which it shares with others. In an individual presentation, however, one normally pays no attention to these shared constituents as such. Could we not, then, regard the general presentation as an individual presentation whose object has been picked out as a 'representative' from the range of available instances and is now presented in such a way that one pays attention precisely to the constituent marks it shares with other members of this range? The general presentation of the lion, on this view, would differ *in its object* not at all from some individual presentation of a lion: it would differ only in the mode of givenness of this object. A view of this sort is often attributed to Berkeley (see the "Introduction" to the *Principles*). Twardowski, however, rejects it out of hand. Taken literally, as he points out, the thesis that the object of a given general presentation was in fact some representative individual object would imply that the same judgments must hold of the relevant general object as hold of this individual – so that the general triangle, for example, might turn out to be two inches high.

There are, however, psychological considerations which serve to explain the attractiveness of the representative individual view. Certainly, 'nobody can conceive intuitively of a "general" triangle, a triangle which is neither right-angled, nor acute-angled, nor obtuse-angled, and which has no colour and no determinate size'.[26] And neither may the conception of a general triangle be entirely free of intuitive (sensory, pictorial) components: 'There is', Twardowski argues, 'a psychological law – already advanced by Aristotle – that one can never have a non-intuitive presentation unless it is accompanied by one (or several) intuitive ones.'[27] General presentations are, as Twardowski points

25. Compare the similar views of Peirce, as outlined in Smith 1992, Parts 1 and 3.

26. 1894, pp. 106, Eng., pp. 101f.

27. 1894, pp. 107, Eng., pp. 102. Cf. *De anima* 431^{a}16. This law was accepted also by Brentano, as we saw in Chapter Two, as also by Husserl: see e.g. LU VI § 27.

out, non-intuitive to such a degree that many hold them to be simply 'non-executable'. Hence they deny their existence, just as they have denied the existence of presentations, such as that of a round square, or of a white horse that is black, whose objects have contradictory characteristics. Twardowski holds, however, that we can, however, form a non-intuitive presentation of such a general triangle (we can conceive it, make judgments about it), just as we can form a non-intuitive presentation of a square that is round or of a rational square root of 2. This is achieved via what he calls an 'indirect presentation'.[28]

To say that an object is presented indirectly is to say that its presentation comes about through the intermediary of a certain 'auxiliary presentation' of some known object standing in specific relations to the object meant. Consider, for example, my presentation of the height of the Zugspitze. I do not know what this height is; yet I can, for all that, make judgments about it. In order to present to myself this object I must, on Twardowski's view, form an auxiliary presentation of the Zugspitze itself, and of a certain relation. This presentation is 'auxiliary' in the sense that I do not *mean* the Zugspitze, but rather a second and as it were unknown term, determined simply as the terminus of the given relation. Something similar holds when I present to myself, say, the number 1000. Here there is no possibility of a direct intuitive presentation. Hence I must form an auxiliary presentation of another object which stands to this number in a certain relation. Typically, I form the intuitive presentation of the relevant *numeral* '1000', and the indirect presentation of the number itself is then determined uniquely via the relation of sign to thing signified. It is ultimately on this relation, as Twardowski points out, that there rests that kind of thinking which Leibniz called 'symbolic'.[29]

But consider my presentation of a country without mountains. Here the term *mountains* is linked to the indirectly presented term *country* by the relation

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28. 1894, pp. 106, Eng. pp. 100. Twardowski is here following Benno Kerry (1885/86) on the 'psychic processing' of intuitive presentations, who was in turn influenced by Cantor and Bolzano, as also by the doctrine of the indirect presentation of attributes put forward by Meinong (1882, pp. 84, 96) and by Höfler's theory of 'psychic work' (Kerry 1885/86, pp. 437 and Höfler 1890, §§ 15, 26 and 1895). The idea of 'psychic processing' is present also in Husserl's early works and also underlies the so-called 'production theory' of Meinong's psychologist disciples in Graz (see Chapter Eight, Section 3, below).

29. Twardowski 1894, pp. 99, 108, Eng., pp. 94, 103. Cf. e.g. *Discours de métaphysique*, " 24ff; Husserl 1979, p. 21 and Kerry 1885/86, pp. 447f.

of privation. And as this case makes clear, we sometimes find it necessary, in order to form a presentation of a given object, to present to ourselves in auxiliary fashion other objects quite explicitly denied as pertaining to the object in question. A still more glaring case of this sort is provided by our presentation of objects with contradictory characteristics. Thus my presentation of a white horse that is black may, once again, be a case of merely symbolic thinking. It may, however, utilize the intuitive presentation of, say, a white horse, but in such a way that the object of this presentation is transformed. This occurs, Twardowski suggests, by means of the simultaneous presentation of certain judgments (for example to the effect that the white horse is black), judgments which are false and presented as such. It is obvious how a view along these lines can be adapted in such a way as to provide an account of what takes place psychologically when we read a work of fiction. Thus we might think in terms of a succession not of judged but of merely presented judgments accompanying the objectual presentations formed in the course of a given reading, a succession whose course is determined precisely by the succession of sentences laid down by the author of the text.[30]

There are, on Twardowski's view, a number of important similarities between general objects and objects with contradictory characteristics. The former may, indeed, be counted as special cases of the latter (if it is true that there is something contradictory about a triangular figure that is neither equilateral nor isosceles nor scalene). Both general objects and contradictory objects are capable of being presented only non-intuitively and indirectly. And both, according to Twardowski, are such that, in and of themselves, they do not exist. The general object is however in one sense better off than the contradictory object: one can allow (in Scotist vein) that 'it exists in the sense that it can be detected in the objects of the corresponding individual presentations, albeit in a form which is somehow modified by the individual characteristics of these individual presentations.' (1894, p. 106, Eng., p. 101) The general object is as it were held in readiness in concretized form within

30. Cf. Ingarden's theory of quasi-judgments in §§ 25f. of his 1931 and compare Chapter Four, Section 9, above.

each individual instance – an idea developed more fully by Meinong with his doctrine of 'implective existence'.[31]

What are the consequences of all of this (including the Aristotelian 'psychological law' mentioned earlier) for our understanding of what is involved in the presentation of a general object? Here, again, we have two alternatives: either we can provide an account in terms of a merely 'symbolic' thinking of the general object – which consists in the employment as auxiliary of an intuitive presentation of the relevant general name; or we can provide an account in terms of the use of an intuitive auxiliary presentation of some individual object standing in for the relevant general object as representative or proxy. Thus for example we might conceive *man in general* via the presentation of some individual man or of a series of individual men. As in the case of our presentation of the white horse that is black, so also here, Twardowski argues, we transform the intuitive presentation by means of accompanying judgments. Here, however, the effect of such judgments is to suspend the individuality of our chosen object: 'These presented judgments concern the particular size, colour of skin, in short, everything that when taken together constitutes the *individuality* of the individual man. This individuality is not really denied – the judgments are only *presented* judgments in the modifying sense of the word – it is merely presented as denied.' (1894, p. 108, Eng., p. 104)

Twardowski's notion of general object is by no means new. General or arbitrary or variable objects have been long accepted in practice by the majority of mathematicians, though admittedly their occasional theoretical reflections on the nature of such objects have rarely seemed clear. Among philosophers, too, the notion of the general object has a long history, and is at least as old as Plato. Different forms of the general object theory were accepted as a matter of course by the majority of philosophers up to and including Locke. Since then, however, the notion of the general object has fallen from favour, and in both contemporary philosophy and contemporary work in the foundations of mathematics the relevant doctrines are almost always overlooked. The revival of the view in Austria at the turn of the century has had little effect in either of these two fields, except in the negative sense that it provoked philosophers such

31. 1915, ' 29. Cf. Grossmann 1974, pp. 206–20. On the relations of this view to the Aristotelian-scholastic doctrine of immanent realism see my 1992, and Chapter Two above.

as Kotarbiński to develop explicitly 'reistic' or 'concretist' ontologies in which the supposed evils of the general object theory would be avoided.

The Twardowski–Meinong theory has, however, made its mark in the field of probability theory, where it has particular advantages. Here again we must mention in particular Łukasiewicz, whose seminal ideas in probability theory were worked out in Graz in 1909. As Łukasiewicz points out, definite events 'cannot be probable at all, since they are either *necessary* or *impossible*, either *real* or *unreal*.' Hence: 'Propositions which in the probability calculus are considered probable must be formulated not for any *definite* case, but for any arbitrary case *x*.' This theory of probabilities is, as he himself tells us, 'objective': it sees probability as a certain property of propositions determined by the relationships which these propositions bear to the objective world. This does not, however, mean that 'arbitrary events' or 'arbitrary cases' would themselves exist objectively: 'probability is a concept invented by the *human mind* for the purpose of scientific treatment of those facts which cannot be interpreted by general judgments'. Thus the arbitrary or indefinite objects are in Łukasiewicz's eyes introduced by the probability theorist purely as instrumental aids in the formulation of certain special sorts of facts,[32] an idea which recalls Meinong's conception of incomplete objects as auxiliary '*Hilfsgegenstände*', mediating between the relevant complete (real, spatio-temporal) objects and the knowing subject.[33] Ideas similar to those of Meinong and of Łukasiewicz are defended also by W. E. Johnson. Thus consider, for example, the following analysis by Johnson of what it is that changes when, e.g., a continuant (a substance) gets hotter:

> On the one hand, it cannot be the continuant itself, nor any of its properties, since these are asserted to be constant throughout the period of time to which the process of change is referred. Neither can it be the manifestations, dated at time-points, which can be said to change, since these merely replace one another from instant to instant. The clue to the problem is to be found in the theory of the determinable. The character of each dated

32. Łukasiewicz 1913, pp. 40, 47 and compare also Lukasiewicz's discussion of the 'objective' in his 1910, dealt with at length by Simons in his 1989.

33. Meinong's ideas are defended also in an influential book on *The Philosophical Foundations of the Probability Calculus* by the mathematician E. Czuber – the same Czuber who was so scornfully castigated by Frege for the treatment of 'indeterminate numbers' which Czuber put forward in his work on the calculus of 1898. See Frege 1898/99, p. 160 and compare Fine 1983, p. 70 and Santambrogio 1992.

> manifestation is determinate, and a change implies always that the determinate character of the one manifestation at one instant is replaced at a subsequent instant by a manifestation having a different determinate character under the same determinable. Thus we speak of temperature or colour or size or shape, etc., as changing or remaining constant during a certain period of time; it is therefore the manifestation – not of a *determinate* – but of a *determinable* that may be said to change. (Johnson 1924, vol. III, p. 85)

Why, then, has the theory of general objects been so extensively neglected in recent philosophy? This is first of all for reasons having to do with the hegemony of empiricism and positivism and of the widespread assumption that science proper has nothing to do with general objects – in spite of what one finds when one examines the language used in almost all forms of scientific text. The general object theory has suffered further from a lack of clarity on the part of its original proponents and from the undeniable successes of the Fregean treatment of generality through the device of quantification, a device which dispenses entirely with the need for general objects and general names. One consequence of the success of the quantifier-variable notation as a means of expressing generality is that it has led to the acceptance as canonical of a logical language within which generality (meaning, content) is confined entirely to the level of predicates and of other syntactic forms of higher type – a view which goes hand in hand with Russell's view that the only proper names are 'this' or 'that' or meaningless analogues thereof. Hence proponents of contemporary theories of the logic of science, with their almost exclusive reliance on standard predicate logic as a tool of analysis, find themselves called upon to translate actual scientific usage by *force majeure* into a language in which all generality is carried by predicate expressions and in which names must designate in every case what is singular.[34]

Twardowski himself points to certain linguistic reasons for the neglect of general objects. For language 'often uses the same name as the designation for the general object as well as for the corresponding individual objects', so that philosophers have too readily assumed that 'a general name is, as it were, the summary designation of all objects which are designated separately by means of the corresponding individual names.' (1894, p. 107, Eng., p. 102)

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34. The language of Leśniewski's Ontology, on the other hand, allows some generality to be expressed at the level of names in virtue of the fact that names, for Leśniewski, may be multiply designating. See Ch. 8 of Küng 1967 and Simons 1982.

There are also psychological reasons for this neglect. As has already been pointed out, general presentations standardly involve a certain auxiliary intuitive presentation of something individual, and not just one, but many individual presentations may serve in bringing about the non-intuitive presentation of a given general object. Moreover, these intuitive presentations will enjoy a greater vivacity than the non-intuitive general presentation to which they give rise. Hence it is no surprise that it may appear to some 'as if it is the individual objects of the psychologically dependent auxiliary presentations which are in reality what is presented through the general presentation ... and this is the psychological cause of the error which consists in ascribing several, even infinitely many, objects to a general presentation.' (1894, p. 109, Eng., p. 103.)

Moreover, the theory of general objects is not without its ontological problems, too. Thus, as we have seen, general objects as conceived by Twardowski – as also by Meinong and Łukasiewicz – suffer in comparison with at least some individual objects in that they lack the property of existence (though this need not, in Twardowski's eyes, imply that they would lack all other properties, too). Further, as Husserl argues in his second Logical Investigation (' 11), Twardowski's general objects are subject to all the defects of Locke's general triangle – not least the defect of inconsistency – a criticism which was used also by Leśniewski as the basis for an attack on Twardowski's doctrine, Leśniewski turning the argument also against Husserl himself.[35] Leśniewski can accuse Twardowski of inconsistency, however, only because he himself subscribes to a principle – which he calls the *metaphysical* or *ontological* principle of excluded middle – to the effect that *for each property it holds that every object either possesses it or does not possess it*.[36] Clearly, to

35. Thus Leśniewski tells us that his argument applies to 'the "general objects" appearing in various systems, whether as "concepts" in the sense of ancient or "medieval" "realism", or as Locke's "general ideas", or as Professor Twardowski's "objects of general presentations", or as Husserl's "ideal" objects existing "outside of time"' (1913, p. 319, cited according to p. 46, n. 36 of the translation of Leśniewski 1927/31). Cf. also the summary in Kotarbiński 1920.

36. This is contrasted with the logical principle of excluded middle which asserts that *at least one of two contradictory propositions must be true*, a principle which Leśniewski, in his early works, rejects. Łukasiewicz, too, draws a distinction in his study of Aristotle of 1910 between the *ontological principle of contradiction* (the same attribute cannot at the same time belong and not belong to the same subject and in the same respect – *Met*., $1005^{b}19$f.), the *logical principle of contradiction* (contradictory statements cannot at the same time be true – *Met*., $1011^{b}13$f.), and the *psychological principle of contradiction* (it is impossible for anyone to believe the same thing to be and not to be (*Met*., $1005^{b}23$f.). Leśniewski appears here to have adopted Łukasiewicz's terminology: see 1913, pp. 316f.

adopt this principle is to impose a requirement on objects to the effect that they are in every case fully determinate. Yet general objects are precisely indeterminate in regard to those properties which are possessed by some but not all of their individual instances or values.

The theory of general objects has been resuscitated in recent years by Kit Fine in his theory of what he calls 'arbitrary objects'.[37] Interestingly Fine, too, employs a distinction between two versions of the law of excluded middle, and like Twardowski, Meinong and Łukasiewicz he is concerned to stress that general objects do not exist in any 'ontologically significant sense'. He is concerned, rather, to show that it is possible to develop a consistent and non-trivial formal theory in which such objects play a central role, and in such a way as to throw light for example on the systematic uses of general objects that are involved in even the most simple processes of reasoning. His work offers further an intuitively convincing semantic theory of the 'let'-clauses by means of which (as Fine sees it) mathematicians cause arbitrary objects to be called into being in their works.[38] The theory rests essentially on the insight that there may be certain relations of dependence between the arbitrary objects which such clauses cause to be introduced. Thus when the mathematician says, 'Let *a* be a real number and *b* an integer greater than *a*', then both *a* and *b* are arbitrary numbers. There is however a relation of dependence between them, in the sense that the variability of the latter is constrained by that of the former. While Twardowski and Meinong had a philosophically clear and sophisticated theory of general objects, we find nowhere in their writings the working out of the thesis that there are dependence relations among such objects. It turns out, however, that it is precisely this suggestion which is most crucial in the understanding of how the realm of general objects is structured and of how such objects may be manipulated, both inside and outside mathematics.

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37. See Fine 1983, 1985, and compare Santambrogio 1987. Santambrogio, in some respects more faithful to Twardowski, begins not, like Fine, with a relation between the arbitrary object and the individuals which are its 'values', but rather with the notion of *indefinite description* and with the assumption that to every indefinite description there corresponds some one 'generic object'. One can then define a partial order relation among generic objects according to their relative 'degree of definiteness' (as *bald Polish logician*, for example, is more definite than *logician*). This enables Santambrogio to mimic certain aspects of the old doctrine of *species infimae*, and to define what it is for an object to be individual in terms of the generic objects of which it is in some sense composed. In this respect he comes close to the work on 'guise theory' of H.-N. Castañeda (1974, 1977).

38. Compare, on this, Husserl 1894a, §§ 7f.

4. *Sachverhalt vs. Judgment-Content: Immanence and Idealism*

Unity or integrity is, Twardowski argues in his *Content and Object* of 1894, a formal moment of every object given in presentation: 'in being one, a unified whole, every object sets itself off against all others, as different from all others, and hence as the one it is, as self-identical.' (1894, p. 88, Eng. p. 86) There is an anticipation here of what Husserl and the Berlin Gestalt psychologists later dealt with under the heading of the 'figure-ground' structure of perception.[39] As Twardowski conceives it, the unity of objects of presentation extends even to general presentations. In his work of 1894, however, Twardowski insists that a judgment does not have a special objectual correlate of its own, even though it has a special content. What is judged in the strict sense is in every case the object itself, i.e. the object of presentation. Both judging and presenting

> relate to an 'object which is presumed to be independent of thinking.' When the object is presented and when it is judged, in both cases there occurs a third item, besides the mental act and its object, which is, as it were, a sign of the object: its mental 'picture' ['image', '*Bild*'] when it is presented, and its existence when it is judged. One says of the mental 'picture' of an object and of its existence that the former is presented, the latter is judged. The proper object of the presenting and judging, however, is neither the mental picture of the object nor its existence, but the object itself. (1894, p. 9, Eng. p. 7)

In drawing the distinction between content and object for acts of presentation, Twardowski had broken not only with his teacher Brentano – whose immanence theory he criticizes – but also with philosophical idealists in Germany who had – with greater and lesser degrees of clarity – identified the objects of cognitive experiences with the corresponding immanent contents of consciousness. Objects, for the idealist, in so far as they are experienced and known, are quite literally located 'in the mind' of the knowing subject. Being or existence, too, is seen as belonging entirely to the sphere of consciousness. Windelband defines idealism as 'the dissolution of being into processes of consciousness' (1900, p. 463n.). And Schuppe, in his *Epistemological Logic*, defines existence variously, as *perceivability*, as *presence to mind as content of*

39. Husserl, LU III § 8, and Köhler 1947, pp. 120f.

consciousness, as *real factual impression*, and so on.[40] The just-quoted passage from Twardowski suggests, however, that he, too, is still affected by this idealist theory, in so far as judgment is concerned. For the passage seems to tell us that for Twardowski, too, 'existence' (or '*the existence of the object*') would refer, somehow, to something immanent in consciousness. It is as if the object would be taken up into consciousness in this form when judged, just as it is taken up into consciousness in the form of an image when presented.

Older than German idealism, though intimately associated therewith, is the traditional, Aristotelian 'combination of ideas' theory of judgment against which Brentano's existential theory had been directed. The total process of judging, according to the traditional theory, is exhausted entirely by what takes place in consciousness. The positive judgment is a conscious combining or connecting of certain concepts or presentations; or it is a consciousness of their connectedness or connectibility within a single consciousness. The negative judgment, similarly, is a conscious separating or dividing of concepts or presentations, or a consciousness of their separation or separability. Here, too, then, there is talk of a kind of 'unification'. Positive judging is a unifying or synthesizing of a plurality of separate concepts – above all of subject-concepts and predicate-concepts – in a way which generates a 'unitary positing' ('*Ineinssetzung*') of a certain kind. This implies, however, that a positive judging is not essentially distinguished from the entertaining of a complex of concepts or the having of a complex presentation. This view, which had once been accepted as a matter of course by almost all philosophers,[41] began gradually, and especially towards the end of the nineteenth century, to be recognized as problematic. How, for example, is it to account for existential and impersonal judgments like 'cheetahs exist', 'it's raining', and so on, for which, because the judgments in question seem to have only one single member, a synthesis or unification would seem to be excluded?[42] How does it cope with

40. Schuppe 1878, pp. 49f., 79f., 167.

41. See e.g. Aristotle, *De anima* III, 6 ($430^{a}27$f.) also: *Met*., 1051^{b}, *De int*. $16^{a}10$ff.; Wolff, *Philosophia rationalis sive Logica* (1728), ' 40; Kant, *Logik* (1800), § 19; Herbart, *Lehrbuch zur Einleitung in die Philosophie* (1813), §§ 52f.

42. Cf. from a huge literature, Schuppe 1878, ch. XII; Sigwart 1888; Marty 1884, 1895; Cornelius 1894; Reinach 1989, pp. 347ff. (= Reinach 1911, § 12 of trans.).

hypothetical and other judgment-forms, in which complex concepts or presentations seem to be present as proper parts, without however being judged? How, most importantly, can a conception of judgment as a purely immanent process be made compatible with the needs of the correspondence theory? This last problem had begun to seem urgent only with the gradual rediscovery and rehabilitation of realism in the last decades of the nineteenth century – for the idealist philosophers had been able to conceive correspondence as a relation between different parts of mind.[43]

In the light of these and related problems even proponents of the traditional theory such as Sigwart and Lotze began seriously to doubt that the essence of the judgment could be exhausted by the idea of a unification or 'unitary positing' of different concepts or presentations. As Sigwart puts it, 'there is contained at the same time in every completed judgment as such also the consciousness of the objective validity of this unitary positing.'[44] If one wants to understand judgment, therefore, it is not enough to say that in judgment one brings specific concepts together and entertains them as a unity; one must also, if one is to make a judgment, affirm or believe that there is something on the side of the object corresponding to the conceptual unity that has been produced thereby. The theory of conceptual unities must be supplemented, at the very least, by what in Fregean terms would be called a theory of assertive force. But must there not also, if the demands of the correspondence theory are to be met, be some attempt to come to terms with the objectual correlates of judgment themselves? Should the attempt not be made to establish what, exactly, this objectual something is, which gets 'posited as a unity' in the act of judging and to which 'objective validity' is ascribed?

Sigwart, while recognizing clearly the role of this consciousness of objective validity in distinguishing acts of judgment from mere combinings and separatings of presentations, presents no coherent account of how we could move from this recognition to an adequate relational understanding of what it is for a judgment to be true. Brentano, on the other hand, while conscious of the necessity of regarding the positing of existence as part of the essence of

43. See e.g. Schuppe 1878, pp. 649f.

44. Sigwart 1873, I, p. 77. See also Lotze 1880, pp. 57f.; Ueberweg 1882, p. 189; Marty 1884, p. 162. This idea, too, is present already in Abelard: see, again, Nuchelmans 1982, pp. 200f.

judgment – and in a position to state how this would lead to a coherent account of truth – still operated within a framework which did not clearly differentiate between content and object; he was therefore unable to grasp explicitly the need for a unitary correlate of the given kind on the side of the object.[45] Twardowski, however, does take the decisive step of recognizing a special *object* of the judging act, in addition to the judgment-content. In a letter to Meinong of 1897, he sketches a view according to which, not only in the case of presentations but also in the case of judgments, there would be something unitary both on the side of the act itself and on the side of the object. More precisely, Twardowski announces his plan of working out a 'theory of judgment' – a theory which would bring about a 'unification of the Brentano–Meinong–Höfler theory with that of Sigwart' – on the basis of the idea that it is possible to distinguish in relation to every judgment between:

- the *act* (affirmation or denial)
- the *content* (the existing, being present, subsisting)
- the *object* (the judged state of affairs, either an absolute datum, or a relation, or both together).[46]

As example Twardowski gives the judgment 'two times two are four'. Here we distinguish the *act* of judging – a certain affirmation; the *judgment-content* – the existence (subsistence) of a certain equality; and the *object* of the judgment, which is now referred to as a *'Sachverhalt'* or 'state of affairs'. The content of the act is in contrast referred to as the *existence* or *non-existence* of the *Sachverhalt*, according to whether the judgment is itself positive or negative, a phraseology which will recall Wittgenstein's treatment of positive and negative facts in the *Tractatus*.[47]

45. Meinong, too, while drawing a clear distinction between object and objective, drew no unequivocal distinction among objectives between judgment-content on the one hand and judged objectual correlate on the other, and a similar unclarity is present also in the work of Stumpf and Marty. See Smith 1989a and the references there given.

46. Meinong 1965, pp. 143f.

47. See 2, 2.06, 2.062, 2.11, 2.201, 4.1, 4.21, 4.3 and the valuable discussion in Dietrich 1974, § 2.

5. *Process and Product*

Twardowski's own ideas on *Sachverhalte* were never published, and it was in fact only his earlier *Content and Object* which exerted any influence outside the sphere of his most immediate disciples. It was this work, especially, which impressed Meinong, and it caught the attention of Husserl, who prepared a draft review of Twardowski's book in 1896.[48] Husserl, like Meinong, seems to have been impressed above all by Twardowski's account of modifying adjectives, by his treatment – based on the work of Brentano and Stumpf – of the dependence relations among the marks of a concept,[49] and by Twardowski's working out of the opposition between the formal and material moments of objects given in presentation.[50] On the other hand, however, Husserl is critical of the psychologism running through Twardowski's work, and Husserl's arguments against psychologism in fact receive a first run-through in his review of Twardowski.

Twardowski himself was sparked by Husserl's critique of psychologism in the *Logical Investigations* to revise his earlier position. Thus in the paper "On Conceptual Presentations" of 1903, he calls into question his own earlier view of concepts, judgments and theories as purely psychological in nature. From talking of 'contents' of judgments, Twardowski moves to talking instead of 'propositions', advancing a view of propositions as entities relatively isolated from the domain of transient psychological phenomena.

Twardowski's reconsideration of his earlier views in the light of Husserl's criticisms took a further turn in his paper on "Actions and Products" of 1912. Here Twardowski draws back from the tentative Platonism of his 1903 paper to adopt an original form of naturalism, a view according to which not Platonic

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48. See Husserl 1894/96. The important paper "Intentionale Gegenstände" (1894a, 1990/91) was also a part of Husserl attempt to come to terms with Twardowski, and it is in this paper that Husserl first puts forward his doctrine – comparable in some ways to Russell's theory of descriptions – of intentional objects of presentation: see Mulligan 1985 and Schuhmann 1990/91.

49. Twardowski 1894, pp. 51, 65, Eng. pp. 49, 61; see also Höfler 1890, § 15.

50. Twardowski's ideas here anticipate many of the most important distinctions made by Husserl in his own third Logical Investigation on the theory of parts and wholes, though Husserl is more sensitive than Twardowski to the dangers resulting from a view of formal relations as 'real moments' of the things. See Husserl 1979, p. 354; LU III ' 22.

abstracta would serve as guarantors of the objectivity of meaning, but rather enduring concrete signs. Here, too, his work can be seen to have had echoes in subsequent Polish philosophy.

Twardowski's aim in this paper is to demonstrate how not merely judgments but all classes of mental phenomena may, in given circumstances, give rise to specific kinds of *products* of their own, products which enjoy a certain durability and transcendence from the domain of transient acts.[51] Twardowski distinguishes two kinds of process and associated product: the *mental* on the one hand, and the *physical* on the other. Thus 'thinking', 'deciding', 'wishing' designate mental processes; 'thought', 'decision', 'wish' the corresponding products; 'moving', 'falling', 'jumping' designate physical processes, 'movement', 'fall', 'jump' the corresponding products.

Among physical processes we can distinguish as special cases what Twardowski calls *psychophysical* processes: these are physical processes, but in contrast, say, to fallings or rotatings, they are shaped and affected by concurrent mental processes in such a way that the latter have a determining effect also on the ultimate products. 'Screaming', 'lying' and 'promising' designate psychophysical processes in this sense, 'scream', 'lie' and 'promise' the psychophysical products to which they give rise.[52]

Twardowski distinguishes further, among psychophysical products, between what might be called *original* products on the one hand and *substitutive* or *artificial* products on the other. It is as if we can distinguish, for each type of psychophysical product, a type of mental process that is appropriate to govern, shape and motivate the process as a whole. Original products are those whose production has been governed by a mental process of the appropriate type. Substitutive products, on the other hand, are those whose mental process is inappropriate, falls short of completeness, or is in some other way defective or entirely absent. Examples of such substitutive products are familiar from the theory of speech acts – they occur wherever sincerity conditions fail to be met, for example where I verbally promise to do X in the absence of any relevant underlying intentions. Twardowski himself refers to the

51. On the Husserlian influence on this paper see Schnelle, p. 117 and Ingarden 1938, p. 261.

52. Twardowski 1912, p. 15.

example of the posture and gestures of an actor, which seem to express emotions:

> an imagined emotion is a product which is a substitute for a genuine emotion, and the posture [of the artist in the drama] is likewise an artificial product, since it is not a real expression of emotion, but merely its assumed, pretended image. (1912, p. 23)

We can distinguish further among physical products between the durable and the non-durable. Examples of the latter – jumps, gestures, screams, etc. – have been mentioned already. Examples of the former would be, say, hoofprints and stalagmites, but also drawings, writings, buildings, sculptures, and so on. Thoughts as such are not durable in this sense (so that when we say, for example, that the thoughts of the sage lived on, then what we mean is more properly that his actions caused dispositions to be inculcated in others which led them repeatedly to produce thoughts in some way similar to those which he himself had produced). Such durable physical products are, in Twardowski's terms, '*expressions*' of the mental processes which produced them, and also of the corresponding mental products. Thus: the sentence expresses the thought, the drawing expresses the image, the building expresses the plan, and so on.

It is at this point that Twardowski introduces his new, non-Platonistic conception of meaning:

> Psychophysical products which express certain mental products are also termed 'signs' of those mental products, and the mental products themselves are termed their respective 'meanings'.[53] Thus any mental product which bears to a psychophysical product the relation of being expressed by the latter is a meaning. We accordingly speak of the meaning of a cry, the meaning of a drawing, the meaning of a gesture, the meaning of a blush, etc. (1912, pp. 19f.)

A non-durable product may accordingly 'survive' by finding expression in a durable product to whose emergence it has in appropriate ways contributed. This occurs, most obviously and most systematically, when a mental product is the meaning of that sort of durable psychophysical product which is a linguistic sign. The sign then survives as a 'durable partial cause' of the emergence of similar non-durable mental products in the future.

The thought or meaning, on this account, is not a durable item of worldly (or extra-worldly) furniture. It exists, rather, only so long as there exists some

53. Twardowski refers here to the theory of signs and meanings put forward by the Meinongian E. Martinak in his 1901.

mental process which produces it. Even when no relevant mental process is taking place, however, the meaning may still be said to exist potentially, or as we might also say: dispositionally, in the corresponding sign. This is because, providing certain background conditions are met, the sign as cause thereafter enjoys an enduring capacity to bring about in reliable fashion the relevant transient meaning as effect. This, as Twardowski points out, explains our tendency to assert that the meaning is somehow 'included' or 'embodied' in the sign, and to speak of a 'fixing' in the sign of a non-durable mental product in a way that is in some respects analogous to the fixing of a sound by means of a phonograph record. (1912, pp. 21f.) It explains also our commonsense assumption that our thoughts grow in complexity in tandem with our acquisition of successively more sophisticated rules of language. Systematic complexity in the world of signs may contribute to – is quite literally a cause of – a parallel systematic complexity in the 'subjective' realm of meanings. For this reason, too, there can normally be no problem of our knowing which thoughts we want to express but in such a way that we would have no comprehension at all of the words we would need to express them. To have a thought is already to have a presentation of the signs used to express it, accompanied by a disposition to express those signs.

The sign is not, then, inert, but has the mental product as it were held in readiness within it. Yet the successive meanings evoked by a given sign in different subjects and at different times are not identical. We can, however – since we all (as speakers of a given language) enjoy a roughly similar bodily constitution and apparatus of perception, roughly similar education, needs, wants, etc. – assume that the causal histories which lead to the production of such successive meanings will be to a large degree similar. This will thereby hold also of these meanings themselves, given that similarity of process leads, *ceteris paribus*, to similarity of product. All of the various products evoked by a given sign will, in Twardowski's words, 'reveal a number of common characteristics ... That is why we also say that a given statement evokes in various persons *the same* thought, whereas in fact it evokes as many thoughts as there are persons involved'. (1912, pp. 22f.)

Communication and mutual understanding is possible, on this account, not because our words and sentences relate to Platonic meaning-entities capable of being entertained simultaneously by different subjects, but because our

words are able to evoke in others mental processes which are in relevant respects similar to those mental processes which they were used to express – and our understanding of what is written involves merely a deferred evocation of this sort.[54]

Twardowski, like Brentano, is a psychological realist: he holds that there are mental acts, and that these mental acts have determinate forms and natures which are given in experience and are able to be grasped theoretically by the descriptive psychologist. There are, as it were, *natural kinds*, in the folk-psychological realm of mental acts, and the natural kinds in the world of signs – which are more public, and in some ways better understood – can then be exploited in coming to grips scientifically with these mental natural kinds and also with their associated products.[55] Naturally, we shall have to distinguish carefully here between those uses of language which are, in our earlier terminology, *original* and those which are merely *substitutive* or *artificial*.[56] Thus there will be cases where a linguistic expression is merely a sham expression of the corresponding act, cases of dissimulation, cases where language 'goes on holiday' in different ways and leaves behind the world of (fulfilled, authentic) acts.

It follows that we are quite right to suppose that we may learn what a person thinks by listening, with due care – for example in taking account of his tone of voice, facial expression, etc., in order to rule out substitutive cases – to what he has to say. And we are justified, too, in supposing that we may conceive of different persons' thoughts as causally associated with particular signs in a way that allows us to 'disregard the differences among them'. The term 'meaning', accordingly, is ambiguous on Twardowski's view. On the one hand it means a specific mental product, tied to a given empirically occurring

54. As we saw, the notion of 'evocation' was exploited by Marty as the basis of his theory of the workings of language and the idea was taken over also by Karl Bühler in his *Theory of Language* of 1934, which recognizes however 'expression' and 'representation' as two further primary intentions involved in language use. It is present also in Kotarbiński's theory of imitation: see Chapter Seven, Section 3, below.

55. See Brentano 1924, vol. I, pp. 51ff., Eng. pp. 37ff.

56. As is almost always the case where we are dealing with natural kinds, we shall have to deal here with both standard and non-standard instances of the relevant kinds. See Marty's theory of '*innere Sprachform*' discussed in Chapter Four, Section 9, above.

mental process in some given subject. On the other hand it means the 'meaning of a sign', and 'meaning conceived in this sense is no longer a specific mental product, but something we attain by the operation of abstraction performed on given products.' The 'meaning of a sign' is something like a natural kind of which the individual mental products are the instances (as, for Husserl, linguistic meanings are 'ideal species' of language-using acts).[57]

Even when allowance has been made for the presence of substitutive uses of language, however, there are difficult problems standing in the way of this conception of linguistic meaning, both on Husserl's account and on that of Twardowski:

(i) A sign may be, firstly and most trivially, ambiguous, so that it is associated with two or more parallel classes of similar mental products (with two disjoint natural kinds) on the part of those who use it.

(ii) Signs occurring naturally must occur in every case in some context or other. The same sign will yield different mental products in grammatically different sorts of contexts, and it will interact differently with different accompanying signs. Twardowski, we may say, in laying too much stress on what might be called the vertical relations between individual signs and associated mental processes, has ignored the horizontal relations among these signs themselves – relations in virtue of which the associated processes will condition each other mutually. Sometimes, as we have seen, one sign will, when used in combination with another, succeed in abolishing entirely the normally expected meaning of the latter, as in phrases like 'cancelled performance', 'forged banknote', 'missing link', and so on.

(iii) Mutual understanding is of course possible even in the absence of agreement in judgments. B may *understand* what A asserts even when B is not himself disposed to assert it, so that there is no judgment in B at all, and therefore also no straightforward similarity of A's and B's respective acts. Husserl solves this problem by recognizing that the *contents* of two acts may be in relevant respects similar even though their *qualities* conflict. The relation between the two respective processes may be understood from a Twardowskian

57. See Twardowski 1912, p. 23. Twardowski refers in this context to the discussion of 'ideal meanings' in Husserl's *Logical Investigations*, vol. II, B 452ff., Eng. pp. 616ff. (LU V § 30). See further LU VI §§ 16f., 20, and compare Mulligan and Smith 1986 and Smith 1987 for a more detailed treatment.

point of view as follows: B enjoys not a process of judgment, but a process of presentation of A's judgment; at the same time, however, in order to *understand* A, B must grasp what it is like to judge in the way that A is judging; he must, as it were, imagine himself *in A's place* and as judging as A is judging. Understanding another's judgment is therefore in these circumstances an empathetic process – a conclusion which might have been inferred from the importance of such processes in our understanding of, for example, works of narrative art.

(iv) Problems are raised further by indexical uses of language. Thus suppose A says to B, 'I am hungry'. The meaning evoked in B by A's use of 'I' is clearly distinct from that which B invokes in himself by his own use of what is, ostensibly, the same sign. It is not, however, as if there obtained no relation at all in such circumstances between the respective acts (and products) of A and B. Perhaps, again, the notion of empathy can be appealed to here. For it seems that whenever B understands A's 'I', then it is a part of B's experience that he presents himself as *in A's place*, and presents to himself an act as if in A which would be similar to his own straightforward act of meaning 'I'. The meaning of the second person, of 'here', 'now', and so on, might be dealt with along similar lines.[58]

58. See Mulligan and Smith 1986a.

For all its problems, however, the theory of meaning hinted at by Twardowski has a number of advantages as compared with both Platonism and those different sorts of reductionistic theories which would seek to understand language either in terms of specific sorts of overt human behaviour or in terms of publicly observable phenomena such as 'air-vibrations' or 'marks on paper'. Above all Twardowski's doctrine cuts finer, and more delicately, through the spatio-temporal world than do other, less careful treatments of 'thought' and 'content'. It is preferable to Platonism in that it appeals exclusively in its account of language use and of communication and understanding to perfectly ordinary spatio-temporal entities – speakers, readers, their acts and actions and various different sorts of products of these acts and actions. It is preferable to behaviourism or materialism, on the other hand, in that it is able to cope with the fact that we use language not only in writing or speaking but also in silent thinking – and also with the fact that language so used has a meaning not essentially different from the meaning it has when used overtly.

Twardowski's theory of process and product has implications beyond the philosophy of language, however. Thus it may be used to generate a new understanding of logic as the science which would investigate precisely the different kinds of products of those mental processes we call judgings, inferrings, deducings, etc., where psychology would be confined to the investigation of the given mental processes themselves. The theory can be applied also to actions and products outside the narrowly cognitive sphere. Thus it applies to the sciences of law and of social action in general, and Twardowski's work here is in some respects parallel to the work on the theory of speech acts and other social acts by Reinach, Austin, Searle and others. There, too, the important step came with the recognition that there are enduring entities of special sorts – for example contracts, claims, obligations – which are produced by certain psychophysical processes of speaking and writing and which are subject to special laws of their own.

Clearly, too, the doctrine of durable psychophysical products and of the systematic ways in which such products may invoke mental processes in others may have implications for our understanding of the nature of works of art and of aesthetic experience. The influence of Twardowski's theory of actions and products may indeed be detected in the work of his – somewhat estranged –

pupil Ingarden, the phenomenological philosopher who has made the most important contributions to the theory of art.[59]

The distinction of process and product can be applied also to the understanding of science, in a way which will recall ideas subsequently taken up by members of the Lvov-Warsaw school. The disciplines of science were initially conceived by Twardowski in psychologistic fashion, as collections of judging acts or of dispositions to such acts. His paper of 1912, however, suggests a view of scientific disciplines in terms of the durable products of judging acts,[60] a notion which finds echoes in Leśniewski's view of his own logical systems as collections of concretely existing marks.[61]

Twardowski's mature ontology is, certainly, in the spirit of Leśniewski, Kotarbiński, and their followers in the sense that his concessions to Husserlian anti-psychologism do not involve him in embracing essences, ideal meanings, or other Platonic entities. Twardowski is, however, at odds with some of his successors in the Warsaw school in his strictures – very much in the spirit of Husserl – as to the dangers of exclusive or merely mechanical use of symbolic methods in the solution of philosophical and other sorts of problems. Thus, as we have seen, Twardowski distinguished between 'artificial' or 'substitutive' psychophysical products on the one hand and 'original' products on the other. Logic, too, involves the use of artificial products, products resting not on judgments actually made, but on judgments merely imagined. This occurs for example when the logician wishes to give an example of an inference which is formally correct but involves propositions which are in fact false. It occurs most pervasively, of course, where the logician uses symbols of an 'artificial'

59. The sub-title of Ingarden's 1931: *Investigations on the Border Area of Ontology, Logic and Literary Theory*, clearly recalls the sub-title of Twardowski's paper of 1912 – "Comments on the Border Area of Psychology, Grammar and Logic" – which recalls in turn the title of Marty's "Subjectless Sentences: On the Relation of Grammar to Logic and Psychology" of 1884. Twardowski's view that psychophysical products form the subject-matter of the cultural sciences then find its echo in Kotarbiński's account of institutional objects in his *Elementy*, e.g. at pp. 489f. See Chapter Seven, Section 4, below.

60. Cf. Schnelle, pp. 114, 124.

61. See e.g. Leśniewski 1929, pp. 36f., 62; 1930, pp. 115f.; 1931, pp. 115f.

language, i.e. a language in the formulae of which no actual judgments would or could be expressed.[62]

Of course, much of logic (as also of mathematics) requires in practice the blind manipulation of symbols in order to obtain its results. As Twardowski points out in his paper "Symbolomania and Pragmatophobia" of 1921, however, if such manipulation is to be justified, then it must be established not merely that our symbolism is in conformity with the concepts and objects that we wish to represent, but also that this conformity is preserved through the successive stages of manipulation, so that we do not, in our manipulations, depart from the world of things.[63] Otherwise, the formalist logician's

> tendency to place symbols above things may result in bending things to comply with symbols, that is, making statements about things according to what follows from symbol-based assumptions and operations, regardless of what things tell us about themselves, or even contrary to what they tell us about themselves. (Twardowski 1921, p. 5)

Mental processes ought, as it were, by guiding the successive stages in the process of production, to ensure that a meaning of an appropriate kind is capable of being bestowed upon its products and thereby also ensure that these products do not depart from the world of things. Some psychophysical products are produced in the absence of an adequate accompanying mental process (or of any mental process at all). This is the case, for example, when we lie, or otherwise dissimulate. Hence natural languages, too, may be used 'substitutively' in Twardowski's sense. But it is the case also when the logician or mathematician, by operating on the basis of more or less arbitrarily selected hypotheses, succeeds merely in churning out formulae whose value is at best aesthetic.[64]

It might be supposed that Twardowski's critical article of 1921 was directed against certain apparent excesses of his apostate pupil Leśniewski. Against this, however, it must be said that Leśniewski started using symbolism

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62. Twardowski 1912, p. 24.

63. Husserl defended a similar thesis for the case of arithmetic in his 1891. See also ' 9, esp. (f) and (g), of Husserl's *Crisis* (1962).

64. Cf. Leśniewski's criticisms of certain practices of mathematicians in his 1927/31, Ch. 2.

in his lectures only in 1920, and in his published work only much later. Certainly there are a number of respects in which Leśniewski might be accused of having gone beyond the bounds of what would normally count as intuitively acceptable (of what would be capable of 'original' judgment in Twardowski's terms). Thus, taken together with the fact that Ronald Reagan and certain red things exist, it is a consequence of the axioms of Leśniewski's mereology that there is a single object which is the sum of Ronald Reagan and all red things in the universe. Leaving such cases aside, however, we can say that the spirit underlying Leśniewski's approach to his systems is very much in line with Twardowski's anti-formalistic exhortations. Thus Leśniewski was from the start suspicious of purely formalistic conceptions of logical systems, and he held that the business of the logician is above all that of producing formal theories which would be true to the world of things.[65] If, however, the axioms and theorems of a formal theory are to be true, then it must follow that they are capable of expressing judgments which are 'original' in Twardowski's sense. Hence Leśniewski was careful, in constructing his theories, to begin always with formulations of his ideas in ordinary language which would be both generally intelligible and generally acceptable as true. He was careful also, in formulating his 'directives' for the manipulation of the resultant formulae, that they should lead always, and evidently, from truth to truth. Hence, even though some of the more complex formulae yielded by the application of these directives might be non-original from Twardowski's point of view, the manner in which they have been generated ensures, in Leśniewski's eyes, that they are at least in principle capable of expressing original judgments if the power of our mind were only sufficiently great. This is consistent with Leśniewski's view that languages, both natural and artificial, are *tools* which may be used to take our thoughts further than they would otherwise be capable of going.

But such thoughts, if they are to be true, must in some sense be *caused* by the things in reality that make them true. In the introduction to his "On the foundations of mathematics", Leśniewski speaks of the 'states of intellectual torment when faced with reality' and of 'states flowing from an irrefutable, intuitive necessity of believing in the "truth" of certain assumptions, and in the

65. See e.g. Leśniewski 1929, p. 78; Lejewski 1958, p. 123.

"correctness" of certain arguments'.[66] He clearly held that logic, mathematics and science should begin with such 'intuitive necessities', and he rejected the idea that 'non-intuitive' or merely manipulative methods might lead to the solution of problems where intuitive methods had failed. On the other hand, however, he did not have a theory of 'intuition' and of the way in which our judgments about reality may be evoked (or caused) by this reality itself. As he wrote in his *Foundations of a General Theory of Manifolds*, published in Moscow in 1916:

> The psychological source of my axioms are my 'intuitions', which simply means that I believe in the truthfulness of my axioms, but I am unable to say why I believe in this, because I am not an expert on the theory of causality. (Cf. CW I, p. 130)

6. *From Psychology to Logic*

As already noted, it was among Twardowski's students in Poland that some of the most crucial elements of the modern, truth-functional conception of logic were developed. It is one major thesis of this work that these developments can be properly understood only as part of a larger shift from an immanentistic (or psychologistic) conception of judgment prevalent in the nineteenth century to the later ontological (or objectivistic) conception of propositions and states of affairs. This shift was effected on the one hand in the work of Frege. But it was effected independently in the work of Brentano's disciples, involving in their case a complex and hard-fought struggle for both ontological and psychological clarification. It will therefore be useful, in concluding our treatment of Twardowski, to lay out the steps which led, on the one hand to Husserlian formal ontology, and on the other hand to Polish theories of propositions and truth, concentrating particularly on the contributions made to both developments by Bolzano, Brentano, Marty, Twardowski and their followers.

(i) Brentano, in 1874, effected what is almost certainly the first clear psychological differentiation of *judgment* and *presentation*. Certainly Bolzano and others had earlier done much of what was necessary to effect a clear *logical* distinction between the two (or rather between what Bolzano referred to as

66. Leśniewski 1927/31, p. 8. It seems to be crucial to Leśniewski's position here that mental acts can stand in causal relations, an idea which was fundamental also to Brentano's account of deductive inference (see Rogge 1935), and was stressed in turn by Marty in his *Investigations of General Grammar*.

'propositions in themselves' and 'presentations in themselves'). Bolzano's account of the underlying psychology is however far from clear, and in this he is no more than conforming to the standards of his psychologist and non-psychologist predecessors.[67] Contemporaries of Brentano such as Schröder and Peano pointed out the difference between concepts and propositions in their work, but hung on to the parallels in their symbolisms. Frege's *Begriffsschrift* (' 2), too, still retains elements of the traditional conception of judgment as a matter of the 'combination of ideas', though this is outweighed by a sophisticated theory of that moment of assertion or affirmation which is characteristic of the judgment as Frege conceives it. Note that Frege's moment of assertion, in contrast to the 'affirmation and denial' of the Brentanian theory, is always positive, and the view that negation belongs properly to what Frege called the judgeable content, rather than to the quality of the act of judging itself, a view accepted also by Husserl and Reinach,[68] has at least since Whitehead and Russell established itself quite generally among logicians.[69]

(ii) Stumpf, in lectures of 1888, notes of which are preserved in the Husserl Archives in Louvain, called attention to the need to recognize, in addition to the content of a presentation, also a special *judgment*-content, to which he gave the name '*Sachverhalt*'. Hence the latter is, for Stumpf, a special kind of *content* and not, as it later became, a special kind of transcendent *object* (though neither he nor his mentor Brentano would at this stage have recognized a distinction here). This explains why, given the parallels between the Brentanian immanent content and the Bolzanian ideal content or 'proposition in itself', the theories of *Sachverhalt* put forward by Stumpf and Marty should have been so readily associated with the Bolzanian theory.[70]

(iii) Twardowski, in 1894, following on from Bolzano, Zimmermann, Kerry and Höfler,[71] pointed out the need to distinguish the object of an act from

67. See ' 19 of the *Wissenschaftslehre* and compare e.g. Hume, *Treatise*, Bk. I, Pt. III, Sec. 7; Kant, *KrV*, B 93.

68. Cf. Husserl, LU V § 20; Reinach 1989, p. 125ff. (=1911, § 14 of trans.).

69. But contrast Łukasiewicz 1921.

70. See e.g. H. Bergmann 1909, Morscher 1972.

71. See Twardowski, 1894, p. 17n, Eng. p. 15n.

its (immanent) content. The act of judgment is seen by Twardowski, at this stage, as having a special content of its own, but as inheriting its object from the relevant underlying presentation.

(iv) Three years later, Twardowski went further and pointed to the need to recognize a special unitary judgment-*object*; he thereby effected a generalization of the content-object distinction to include also the sphere of judging acts. Here, too, Twardowski's move was not without its predecessors. It is however clear, that the recognition of a psychological and a logical distinction between presenting and judging has been to a large extent independent of the marking of a corresponding distinction on the side of the object. Not everyone took this separate, ontological step, and some (e.g. Frege and Russell) took it half-heartedly.[72] With the appearance of Husserl's *Logical Investigations* at the turn of the century, however, the acceptance of the *Sachverhalt* as objectual judgment-correlate found wide acceptance not only among philosophers in Germany but also among psychologists and mathematicians such as Oswald Külpe, Otto Selz and Hermann Weyl.[73]

When Twardowski introduces the *Sachverhalt* 'as a relation, an absolute datum, or both together', he seems to take it for granted that this notion can be understood without further ado in terms of ontological categories which are already to hand. Husserl, in contrast, argues that the *Sachverhalt* constitutes a *sui generis* category of its own, enjoying a universality of scope no less absolute than that of *object*. The former is instantiated wherever true judgments can be made, the latter wherever there is the possibility of any sort of unity of reference in an act of presentation (so that the ontological universality of *object* and *Sachverhalt* would parallel the linguistic universality of name and sentence – which would parallel in turn the psychological universality of presentation and judgment). Husserl hereby initiates also a new understanding of the discipline of ontology itself, within which the formal concept of *Sachverhalt* would be ranked alongside the formal concept of *object*, each subjected to a theoretical investigation in its own right. This Husserlian discipline of formal ontology was

72. Simons in his 1985 argues that this holds of the early Wittgenstein, too, for whom no clear distinction is drawn between *Sachverhalt* and a mere complex of objects. On the whole issue see my 1989a and 1992a.

73. See Husserl's sixth Logical Investigation, §§ 28, 33, 39. For an instance of Husserl's early and still tentative use of '*Sachverhalt*' see also Husserl 1894a, p. 337 and compare Husserl 1990/91, e.g. p. 143.

developed further by his disciples in Munich, and their work led in turn to a taxonomy of the different types of *Sachverhalte* corresponding, not only to the different types of empirical judgment but also to those other types of mental act – questionings, commandings, desirings, etc. – which are related to the act of judging.[74]

(v) Another distinction anticipated in some degree by Bolzano is that between the immanent and ideal content of a mental act. The immanent content is defined by Husserl in the *Logical Investigations* as that *in the act* which lends it directedness to an object, whether this be an object in the narrower sense or, as when we are dealing with acts of judgment, a state of affairs.[75] The content is, in Husserl's own words,

> 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 an 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. (1900/01, p. B 415, Eng. p. 589.)

Husserl distinguishes still further between this immanent content and what he calls the ideal content, which is just the immanent content taken *in specie*. Where an immanent content is expressed linguistically, then the corresponding ideal content is called by Husserl the *meaning* of the given expression. Husserl's theory of linguistic meaning and of the structures of meanings is thus part and parcel of his theory of acts. The 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. Husserl is thereby able to account in a very natural way for the fact that the laws of logic apply to actual thinkings, speakings, assumings and

74. Perhaps the most important pre-Tractarian contribution to the literature on *Sachverhalt* is the essay "On the Theory of the Negative Judgment" by Adolf Reinach, a leading member of the Munich group whose lectures in Göttingen were attended *inter alia* by Ingarden and Ajdukiewicz. Cf. Mulligan (ed.) 1987.

75. LU V § 20. Here Husserl extrapolates from Brentano, who had defined the content of an act of judgment as the totality of presentations on which it rests, its quality as the affirmation or rejection of this content. See Stumpf 1924, p. 107. For 'content' Husserl also uses 'matter'. Recall Frege's doctrine of judgment, as also the distinction propounded by Searle between (propositional) content and mode. See e.g. Searle 1983, ch. 1.

inferrings,[76] and his theory may be said to represent a synthesis of logical objectivism on the one hand and act-psychology on the other. The ideal content of an act of presentation might be called a concept; the ideal content of an act of judgment might be called a proposition. Bolzano used the terms 'presentation in itself' and 'proposition in itself' (as opposed to 'subjective presentation' and 'thought' or 'judgment'); Frege spoke of '*Gedanke*' and '*Sinn*', but was unwilling to allow as being of scientific significance the corresponding 'subjective' mental episodes.[77] The significance of this opposition and the importance of the parallelism between the two sorts of content were thus not clearly recognized by Frege, and by those in the analytic tradition who followed the Fregean line, in virtue of the fact that, in leaving aside questions of psychology, they thereby left themselves in a position where they were unable to do justice to the relations between ideal contents and our thinking acts themselves. The applicability of logic to empirical thinkings and inferrings is thus rendered all but inexplicable – an outcome which further reinforced the initial aversion to psychology. Brentano, on the other hand, and more orthodox Brentanians such as Marty and Kraus, tended to the opposite error: 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 mental acts. Interestingly, the more subtle intermediate position worked out by Husserl, Twardowski and others at the turn of the century anticipates much contemporary work on logic and meaning in the field of cognitive science, where the earlier aversion of analytic philosophers to psychology has been abandoned.

The significance of the move to a concept of proposition as ideal or abstract entity, whether in Husserl's, in Bolzano's, or in Frege's sense, will be clear. Above all, it made possible a conception of propositions as entities capable of being *manipulated* in different ways in formal theories – a conception which is not the least important effect of the anti-psychologistic movement in logic at the turn of the century.[78] In just the way that Cantor had

76. See Willard 1984, ch. 1.

77. See Bolzano's *Wissenschaftslehre*, §§ 19, 49 and Frege 1892.

78. Meinong's theory of assumptions (1902/1910), too, deserves mention in this connection, since it reinforced that detachment of propositional content from assertive force which was so crucial to early developments in propositional

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 the new generation of logicians were able to become accustomed, by degrees, to manipulating propositional objects in abstraction from their psychological roots in acts of judgment.

(vi) Another dimension of importance is that of *logical grammar*. Here the crucial move consisted in the 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 grammar, by a special ('sentential', 'propositional') *form*, just as the *Sachverhalt* is distinguished in its ontological form not only from objects in the narrow sense but also from properties, relations, and so on. That which gets affirmed or asserted in a judgment must have a certain inner complexity, must, as one says, be 'propositionally articulated'. This is marked by the fact that the linguistic expression of a judgment must contain a verb – with all that this implies in the way of tense and aspect modifications. It must be capable also of modification by logical operators such as negation, conjunction, etc., as well as by modal operators such as 'it is possible that', 'it is necessary that', and so on.[79]

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,[80] he is, as far as the logico-grammatical treatment of the peculiarities of judgment is concerned, no further advanced than was Brentano. Here, again, one has to look to Bolzano in order to find more coherent anticipations of the idea of propositional form in the modern period,[81] but the idea of a logical grammar, of a formal theory of the *categories* of linguistic units and of the categorial laws governing the combination of such units, was first put forward by Husserl in his fourth

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logic (and to later developments in the field of natural deduction on the part of Gentzen and others). See Mulligan 1988, pp. 127ff.

79. On the theory of propositional articulation from a Husserlian point of view, see Mulligan and Smith 1986, § 2, and compare Reinach 1989, pp. 120ff. (= 1911, § 11 of trans.)

80. 1892, p. 63 of trans.

81. *Wissenschaftslehre*, § 127.

Logical Investigation. This work influenced in turn the development of the theory of semantic (later 'syntactic') categories by Leśniewski and his successors in Poland.[82]

Husserl, be it noted, pursues his logical grammar not by reading off empirically existing categories from known languages (whether natural or artificial), but by building up his theory on the basis of more abstract considerations relating, for example, to the oppositions between simple and complex, categorematic and syncategorematic, defective and non-defective uses of language. His treatment of the more specific opposition between name and sentence is to be found elsewhere, in the fourth chapter of his fifth Logical Investigation, where he deals with the different modes of intentionality associated with different forms of language use. Leśniewski's theory, in contrast, takes as its starting point the pre-established opposition between name and sentence, and the same applies also to the logical grammar hinted at by Wittgenstein in the *Tractatus*, for example at 3.141.

(vii) One further distinction, here mentioned only in passing, is that between an episodic *act* of judgment and an enduring *state* of conviction or belief. Brentano did not see the need to draw this distinction and the same holds for his more immediate disciples, including Twardowski, as also for the British empiricist psychologists who inspired him. Thus Brentano's term 'judgment' comprehends indiscriminately both episodic assertions and enduring attitudes of belief or disbelief, and his term 'presentation', too, is subject to a similar ambiguity. It is this ambiguity which allows Brentano to regard the two sorts of phenomena as united together in perception, which he defines as a judgment founded on an intuitive presentation as its basis. A perception, on this view, is the intuitive having of an object, combined with an attitude of belief or acceptance of this object as existing.[83] For one might otherwise be disposed to rule out any intimate union of judgment and intuitive presentation in view of the quite different temporal structures which seem to be characteristic of each. The judgment, as we might normally suppose, is an episodic *act*, intuitive presentation, on the other hand, is a *process* stretching out through time.

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82. See above all Ajdukiewicz 1935, a presentation of Leśniewskian ideas with the aid of Ajdukiewicz's own fractional notation, and compare Gobber 1985 and Schmit 1992.

83. 1924, vol. II, p. 48, Eng. p. 209.

Almost all logicians of the nineteenth century were, however, prepared to identify *judging* with *holding true*, an error that is manifested also in the modern analytic philosophical terminology of 'propositional attitudes', as also in the related notion of 'entertaining' a proposition. Where, therefore, we have talked above of Brentano's or Twardowski's theory of 'acts', we ought more properly to have retained a more neutral terminology of 'phenomenon' or mental 'process' or 'activity'. True clarity in this respect seems to have been first achieved by Reinach in his "Theory of the Negative Judgment" of 1911. Interestingly, Reinach argues that the Frege-Husserl theory of assertion as a single positive moment of 'force' or 'quality' common to all judgments is correct for episodic judging *acts*. When we move over to deal with enduring *states* of conviction, then he holds that the Brentanian theory of affirmation and denial is more appropriate, since states of disbelief are equipollent with states of belief, both being capable of being applied to both positive and negative judgment-contents.

All the above developments are of more than merely historical significance: each represents a hard-won conceptual clarification with a systematic importance in its own right. With the passage of time, however, many philosophers have come gradually to take for granted the distinctions in question, with the consequence that they have ceased to reflect on why it is that they are important, and so have succumbed, by degrees, to the temptation to ignore them in their explicit deliberations.