

Brentano's lectures on positivism (1893-1894) and his relationship to Ernst Mach

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Abstract: This paper is mainly about Brentano's commentaries on Ernst Mach in his lectures "Contemporary philosophical questions" which he held one year before he left Austria. I will first identify the main sources of Brentano's interests in Comte's and J. S. Mill's positivism during his Würzburg period. The second section provides a short overview of Brentano's 1893-1894 lectures and his criticism of Comte, Kirchhoff, and Mill. The next sections bear on Brentano's criticism of Mach's monism and Brentano's argument against the reduction of the mental based on his theory of intentionality. The last section is about Brentano's proposal to replace the identity relation in Mach's theory of elements by that of intentional correlation. I conclude with a remark on the history of philosophy in Austria.

In his article "My last wishes to Austria", written just before he left Vienna in 1895, Franz Brentano (1929c, p. 10) recalls that, as he was appointed in Vienna in 1874, the Austrian minister entrusted him the task to implement, in Austria, "the seeds of a genuine philosophy" at a time when most philosophy chairs in Austria were occupied by Herbart's disciples. This project stands out clearly in several lectures delivered by Brentano during his Vienna period (1874-1895), particularly in his inaugural address at the University of Vienna entitled "On the reasons for discouragement in the field of philosophy". Brentano (1929a) addresses the prejudice that philosophy had become an obsolete discipline with regard to the remarkable development of natural sciences, and his purpose was to interest the young Austrians in a new program based on the principles of an empirical philosophy. As Oskar Kraus (in Brentano, 1929, p. 157) rightly pointed out in his edition of this writing, the philosophical program that Brentano outlines in his inaugural address is based, if not directly on Comte's positive philosophy as such, at least on the outcome of his research on Comte's and Mill's positivism during his Würzburg period. This program has been systematically developed in Brentano's *Psychology from an empirical Standpoint* published a few months after his inaugural address. As Brentano makes it clear at the very beginning of this *work*, he advocates a philosophy of experience, which is akin to the task and method of natural sciences.

Brentano continued to attach much importance to positivism during the Vienna period and later in Florence as evidenced by the notes, which he dictated during the winter of 1905-1906 and published under the title *Über Ernst Machs 'Erkenntnis und Irrtum'*. Less known perhaps are Brentano's lectures "Contemporary philosophical questions" which he held in Vienna one year before he left Austria and in which he extensively discusses Mach's positivism. In these lectures, Brentano examines four versions of positivism, that of Auguste Comte, which he compares with Kirchhoff's descriptivism, and Mach's phenomenalism, which he compares with John Stuart Mill's empiricism. Brentano claims that the last two

versions of positivism represent a progress over the other two versions, namely because they are up to date with respect to the development of natural sciences, and because they recognize the philosophical value of the field of mental phenomena, i.e. descriptive psychology.

Brentano's correspondence with Husserl (1994) and Mach (Brentano, 1988) in 1895 testifies that, despite his reservations regarding the metaphysical positions advocated in these different versions of positivism, there remains, however, a "consensus on the method of research," namely with Brentano's methodological phenomenalism. What Brentano criticizes in Mach's monism, is the identification of physical and mental phenomena and he argues against Mach that the two classes of phenomena are irreducible to one another. Moreover, Brentano raises the question as to whether, with some modifications, it would not be possible to preserve the essential of Mach's theory of elements and he proposes to replace the identity relation between the two classes of phenomena by that of correlativity (*Correlativität*) through which he characterizes namely the intentional relation between a psychical phenomenon and its object.

1. Brentano's background and the sources of his interests in positivism

In 1869, Brentano held a series of public lectures on Comte and published, in the Catholic journal *Chilianeum*, an article entitled Auguste Comte and positive philosophy, which Brentano considered the first of a series of seven articles that he planned to write on Comte's philosophy (Brentano, 1869). Even if this project has never been carried out, the question arises as to why the young Brentano was so much interested in positivism and in Comte's philosophy in particular. As a first approximation, there are several aspects of Comte's philosophy in Brentano's paper on Comte, which were already at the heart of his philosophical preoccupations in the first years of his professorship in Würzburg. First, according to the fourth thesis in Brentano's habilitation in 1866, philosophy must adopt the method of natural sciences. The importance of this thesis in Brentano's philosophy is attested at several places in his writings and namely in his paper on Comte where he emphasizes the importance of using the inductive method in philosophy. Secondly, Brentano's criticism of speculative philosophy in his early Würzburg period is akin to that which Comte directed against metaphysical and theological explanations in his three states law. This stands out clearly in Brentano's habilitation talk from 1866 in which he harshly criticises Schelling's speculative philosophy (Brentano, 1929d).

A third important factor lies in Brentano's philosophy of history, which is known as the theory of the four phases in the history of philosophy and which is, in many respects, compatible with Comte's three states law (Brentano, 1998). Brentano claims that there are regularities in the course of the history of philosophy since the pre-Socratics and one can observe, within each of the three major philosophical periods, four phases or moments: the first stage is ascending while the three following phases mark its gradual decline. Brentano considers that his time belongs to a state of decline as shown by the place assigned to

German idealism in his theory. Brentano's evaluation raises the important issue as to what is likely to take over from this phase, which Brentano describes as one of extreme decline. We find a clear answer to this question in his paper on Comte where Brentano says that his time is ready for "a positive treatment of philosophy" (Brentano, 1869, p. 133) Brentano saw in the positivist treatment of philosophy the signs of an ascending stage in the history of philosophy after the decline of idealistic systems.

But the most important factor lies in the importance he attached to British empiricism and to J. Stuart Mill's philosophy in particular. J. S. Mill's book *Auguste Comte and positivism* drew Brentano's attention to Comte's philosophy and it stands out clearly from Brentano's paper on Comte that his own interpretation owes much to Mill's work (Mill, 1969). This is confirmed by a letter from Brentano to Mill (February 1872) in which he acknowledges his debt to Mill's scientific contribution and thanks him for having drawn his attention to Comte's philosophy and to have awakened in him a new hope for the future of philosophy. Brentano complained to Mill of the deplorable state of philosophy in Germany and of his intention to undertake a reform of philosophy based on that of natural sciences along positivist lines. He was pleased to see that his ideas were, in many respects, similar to those of Mill, particularly with regard to the method and, as we shall see, to Mill's doctrine of permanent possibilities of sensation¹.

In his article on Comte, Brentano (1869) examines several aspects of Comte's *Cours de philosophie positive* which had a direct impact on Brentano's philosophical program in his *Psychology* from 1874. The first aspect pertains to the nature of phenomena. The notion of phenomenon such as Comte uses it in his work is particularly important for Brentano in light of its central role in Brentano's *Psychology* where mental and physical phenomena constitute the object of psychology (psychic phenomena) and natural sciences (the physical phenomena) respectively. That is why P. Simons, and more recently Tim Crane (2014), attribute to Brentano a form of methodological phenomenalism whose origin is in Comte. Secondly, Brentano considers that, with some modifications, Comte's three states law is compatible with his own theory of the four phases that I mentioned above. Brentano further agrees with Comte that natural sciences are solely concerned with the discovery, through the observation of individual cases, of relations of similarity and succession between phenomena, which fall under general laws. The main task of science is therefore to look for general laws that govern these relations and to reduce them to the lowest possible number.

Finally, Comte has had a lasting influence on Brentano's classification of sciences. Brentano's main reservation regarding Comte's classification is clearly formulated at the

¹ Moreover, in the summer of 1872, Brentano made a trip to England in order to meet J. Stuart Mill and several British philosophers. Unfortunately, this encounter with J. S. Mill never took place, but we know that he met H. Spencer and several influential British philosophers (Fisette, 2014a).

very end of his paper where he criticizes Comte for not admitting, in his own classification, two disciplines which constitute the two main axes of Brentano's philosophy, i.e., metaphysics and psychology. Brentano opposes to Comte's classification that proposed by Aristotle and he refers to Aristotle's *De Anima* where psychology is considered the philosophical science *par excellence*. However, Brentano claims that the recognition of the status of science to psychology does not compromise the value of Comte's theory of the three states, nor the principles of his classification. On the contrary, says Brentano, it confirms them.²

2. Brentano's lectures "Contemporary philosophical questions": an overview

The main part of Brentano's 1893-1894 lectures "Contemporary philosophical questions" bears on positivism and monism in Comte, Kirchhoff, Mach, and J. S. Mill (p. 29376 et sq.).

The manuscript is divided into two parts. In the first part, Brentano compares Comte's positive philosophy with Kirchhoff's descriptivism, (p. 29378 f.) while in the second part (p. 29410 f.), Brentano compares J. S. Mill's philosophy with Mach's phenomenalism. I will first very briefly summarize Brentano's analysis of the three first versions of positivism before examining, more extensively, Brentano's position vis-a-vis Mach's phenomenalism.

First of all, these four versions of Positivism have several points in common, beginning with the importance they attach to the description of phenomena. Brentano is in agreement with this aspect of descriptivism which favours the "how" question over the "why" question in the sense that the description of phenomena is prior to, and a necessary condition to their explanation. This trait can also be found in Brentano's lectures on descriptive psychology, in which he distinguishes, within psychology, genetic or physiological psychology from descriptive psychology and in which he emphasizes the primacy of description and analysis of psychical phenomena over the causal explanations by genetic psychology. Descriptivism is mainly associated in these lectures with the school of Kirchhoff in physics and with the task assigned to mechanics to describe the movements in nature in the simplest possible way (p. 29381). The requirement of simplicity in description is also found in Comte, who assigns to sciences to fix the laws which govern the relations between phenomena and to reduce them to the smallest possible number. In Mach, it corresponds to the principle of economy of thought (Mach, 1903).

What Brentano criticizes in his lectures is the unknowable nature of causes and the rejection of explanations based on the primary causes of observed phenomena. Brentano admits that Comte, for example, does not exclude the existence of causes, but he believes that Comte and Kirchhoff are unjustified to affirm that an advanced science renounces the search for causes (p. 29403). Brentano argues that natural sciences are not limited to what

² I have argued elsewhere that all these elements are part of Brentano's program of a psychology as a science, which he develops during his Vienna period (Fisette, 2014a; see Münch, 1989).

is given directly in experience and that the concept of cause can not be wholly excluded from the natural sciences as most positivists believe. Brentano claims that explanations in sciences are irreducible to descriptions and they in fact require causality:

Daß vielmehr 1. die Annahme der Existenz von Bewegungen <von bewegter Materie> zur Erklärung der psychischen Phänomene schon etwas anderes als Beschreibung von Bewegungen ist und 2. im besonderen nur unter zu Hilfenahme des Causalbegriffes begründet werden könnte (p. 29408-29409).

Brentano rejects these two versions of positivism advocated by Kirchhoff and Comte because, according to him, every advanced science does not renounce explanations which resort to causality and the first two versions of positivism are therefore lagging behind the development of sciences. Brentano then wonders whether, in view of these objections, one should rule out any form of positivism or consider other versions even if they are to be critically complemented. He opted for the second option and proposed to examine the versions proposed by J. S. Mill (1865) and E. Mach (1914, 1891, 1892). I shall first say a word about J. S. Mill's permanent possibility of sensation, and then turn to the position of Mach in the next sections.

Brentano maintains that, for all four versions of positivism, the objects of experience are, in one way or another, reducible to one's own mental phenomena and to percepts in the case of sensory perception. For if phenomena are somehow related to experience, then they are necessarily related to mental states (sensory perception). In other words: *esse est percipii*. It follows that "only our own psychical phenomena deserve the name of facts of experience" (p. 29411). Through this doctrine, J. S. Mill seeks to account for the way in which one can believe in the existence of a spatial outer world from the data of sensory experience (p. 29423). According to Mill, our representation of the external world contains, in addition to the sensations which are momentary and fleeting, a multiplicity of possibilities of sensations which come to us, in part, from past experiences or observations and which indicate that under certain circumstances, one can experience it again. Mill further claims that sensations change while these possibilities persist or are permanent (1865, p. 237-238). Brentano argues that Mill's philosophy marks an improvement over those of Comte and Kirchhoff not only because he takes into account the domain of mental phenomena but also because he admits the possibility of the knowledge of causes and causal laws.³

3. Mach's psychophysical identity and his theory of elements

Brentano's position towards positivism is not very different from that which he adopted during the Würzburg period with regard to Comte and J. S. Mill. As it is clearly stated in his

³ In his *Psychology*, Brentano refers to Mill's doctrine in relation to his definition of natural sciences as a science of physical phenomena, and proposed a definition of the object of natural sciences along Comtian lines; in this context, he compares his concept of force to Mill's permanent possibilities of sensation (2009, p. 76).

letter to Mach that I mentioned earlier, there is an “agreement on the method of research,” in that both share methodological phenomenalism. However, Brentano unequivocally rejects phenomenalism associated with a kind of neutral monism, according to which the world is made of neither matter nor spirit, but of a neutral stuff, which can be treated according to the context, interests and the direction of research as mental or material. Neutral monism also refers to a metaphysical position which affirms that the uniqueness of reality and its neutrality with respect to whether it is physical or psychical. Mach thus defends an anti-metaphysical position insofar as he believes that everything which goes beyond what is immediately given is metaphysical and any science which does not conform to pure description is merely dealing with *Scheinprobleme*. As Brentano explains:

Mach erklärt darum die räumliche Außenwelt und alles was man von Bewegungsvorgängen in ihr anzunehmen pflegt verwerfen zu müssen, weil diese Annahmen innerlich absurd seien. Die Forscher, meint er, schienen allerdings in | der Verfolgung wissenschaftlicher Probleme in rechtmäßiger Weise zu ihnen zu gelangen. Aber dennoch sei es unvernünftig daran zu glauben (p. 29429-29430).

Mach's position rests on his doctrine of elements and involves a rejection of metaphysical assertions on the realities of the external world, and Mach's monism has the consequence of reducing the world and all that it contains to functional relations and combinations between sensations.

Brentano advocates instead a form of critical realism according to which the only access one has to the external world is by means of phenomena through which they are given to us; but these objects exist independently of being perceived. And this form of critical realism is compatible with methodological phenomenalism. Moreover, Brentano also denies Mach's thesis according to which the task of science is merely to describe and not to explain phenomena and argues, as he did against Kirchhoff and Comte, that “it is unfair to claim that advanced sciences renounces the search for causes” (p. 29403).

Brentano focuses on two important points in his analysis of Mach: the non-reality of a spatial world and the identity of the two classes of phenomena. Brentano claims that Mach's phenomenalism and his proof of the absurdity of a spatial external world are grounded on the identity of the mental and the physical in sensations, which Mach clearly stated at the very beginning of *The Analysis of sensations*: “I see no opposition of physical and psychical, but simple identity as regards these elements. In the sensory sphere of my consciousness everything is at once physical and psychical” (*Mach, 1914*, p. 44; see p. 310). And this identity is based, in turn, on Mach's theory of elements and functional dependencies of sensory elements on one another.

Mach's theory of elements is a system of general principles on the immediate data of experience. The basic idea is to consider the psychological or physical objects as a complex of elements, which are bound together by functional relations of dependence of different kinds. The essential difference between these classes of relations, and namely, between the relation to a physical object and that to a mental state, for example, depends on whether the

elements overlap the sensory surfaces or the periphery of our senses. To be more precise, the boundary that delineates what belongs to the physical and to the mental depends on what he calls “a spatial delimitation *U* of our own body” or the flesh. For, since the sensory world belongs simultaneously to the physical and to the psychical world, the difference between physics and the physiology of senses, for instance, depends primarily on the fact that the latter only takes into account our own body (i.e. our nervous system). The function *U* makes it possible both to present the functional relations between the elements and to distinguish the physical from the psychological in a non-substantialist way.

The three more important classes of relation structuring the elements are the following:

- 1a. Relations of physical dependence: relations between items A, B, C, etc. *outside of U*;
- 1b. Neurophysiological relations of dependence: relations between the elements K, L, M, etc. *inside of U*;
2. Psychophysiological relations: relations between elements *inside and outside of U*, i.e., relations between 1a and 1b;
3. Relations of psychological dependence: relation between elements a, b, c, etc. to which correspond mental states or mental phenomena such as presentation, feeling, judgment, etc.

Each variable takes its value only when it takes place in a physical or psychophysiological relation. For instance, the elements A, B, C refer to physical objects, physical properties, psychological objects, or sensations only insofar as they take place in a relation of physical dependence (i.e. relations 1a and 1b), a psychophysiological dependence (relation 2), or psychological dependence (relation 3). To quote Mach again:

A color is a physical object as soon as we consider its dependence, for instance, upon its luminous source, upon other colors, upon temperatures, upon spaces, and so forth. When we consider, however, its dependence upon the retina (the elements K, L, M, etc.), it is a psychological object, a sensation. Not the subject matter, but the direction of our investigation, is different in the two domains (1914, p. 17-18).

This holds *a fortiori* for the subject, which Mach understands as a complex of functional relations of a certain kind. It follows that the subject matter of all sciences is the same, i.e. the elements and functional relations between them, whereas their differences rest on one's stance toward them and in the interests and orientation of the research.

4. Argument de Brentano contre la thèse de l'identité: intentionnalité

As I said, Mach's doctrine of elements amounts to identifying what Brentano considers two irreducible classes of phenomena. It therefore does not account satisfactorily for the duality in the percept or in one's state of mind such as an emotion between the feeling and what is felt, or between perceiving and what is perceived. According to Brentano, to this duality correspond two classes of phenomena, which are bearers of heterogeneous and irreducible properties, and this identification is therefore absurd (Brentano, 1988, p. 28; 67f.). For this

identification would amount to identifying „das Sehen der Farbe und die Farbe und das Hören des Schalls und der Schall u.s.w. identisch seien. Wie keine Empfindung ohne immanentes räumliches Objekt, so könne also auch kein Räumliches anders denn als Objekt unseres Bewußtseins bestehen“ (p. 29433).

In his *Psychology*, Brentano had already considered a similar hypothesis which he attributed to Alexander Bain and J. Stuart Mill in the context of the distinction between primary and secondary objects and it consists merely in identifying primary and secondary objects. Brentano's main argument against this identification rests on the view that the essential properties of the class of mental phenomena are not attributable to the other class and vice versa (2009, p. 94-95). There is thus irreducibility of the object seen to the vision of the object, and as Brentano explains in *Sinnespsychology*, when one says that the primary and secondary objects appear simultaneously to consciousness, "appearing simultaneously does not mean appearing as the same" (1907, p. 96).

Brentano's argument against this identification is systematically developed in the first chapter of the second book of his *Psychology* where he discusses several criteria for the delineation of the mental from the physical. Concretely, in the case of the color green, the vision of green is a psychical phenomenon, which is about the color green, while the seen color, which Brentano conceived of in 1874 as an immanent object of presentations, belongs to the class of physical phenomena (p. 29439). The following quote from Brentano's lectures summarizes Brentano's position on that issue:

Sensing (*das Empfinden*) always has the general characteristic feature of a mental phenomenon, which is characterized as an intentional relation to an immanent object. It can be found similarly in memorising, desiring, enjoying, recognizing, negating, etc. However, what is felt [in sensing] has the general character of a physical phenomenon, which consists in the fact that the phenomenon is localized (p. 29441).

Brentano concludes that Mach's proof of the "absurdity of the assumption of a spatial outside world on the basis of the identity of the mental and the physical in sensations is a complete failure" (29443).

5. Identity versus correlation

Now, if one accepts with Brentano the irreducible character of these two classes of phenomena, the question arises as to whether, with some modifications, it might be possible to preserve the core of Mach's conception (p. 29444). Brentano responds positively, provided that one replaces the identity relation between the two classes of phenomena by that of correlativity (*Correlativität*), which Brentano (1982) has introduced in his lectures on descriptive psychology held in Vienna in the late 1880s. In these lectures, Brentano advocates a relational theory of intentionality, which relates mental states to its objects: "As in every relation, two correlates can be found here. The one correlate is the act of consciousness, the other is that <thing> which it is directed upon. Seeing and what is

seen, presenting and what is presented, [...] etc.” (1995, p. 23-24). Brentano maintains that what is specific to an intentional relation is that it includes a pair of correlates of which only one is real whereas the intentional correlate or the immanent object is not real (1995, p. 23 f.). To be more precise, the term correlation refers in this lecture to the bilateral relation of dependence between pairs like cause and effect, larger and smaller, etc. Brentano's proposal mainly pertains to this class of correlates which he calls intentional correlates (*intentionales Korrelat*) and which are involved in the relation between these two classes of phenomena. Examples of intentional correlates include the pairs presenting and presented, perceiving and perceived, sensing and sensed, judging and judged, loving and loved, etc. Brentano maintains that what is specific to this class of intentional relations lies in the fact that it includes a pair of correlates, of which “only one is real, while the other is not.” In short, Brentano considers in his lectures on positivism that this idea of correlation, broadly understood, is something similar but more appropriate to what Mach was looking for with his doctrine of elements.

The relation is that between subject and object. And this certainly has to do with what others like Mach (and Lotze, for example) explained by saying that it is clear from the outset that there can be no color without an act of seeing (Sehen). But they finally say nothing about space, magnitude, gestalt and movement. However, let us consider that we also have a presentation of these items as we have a presentation of colors and sounds (...) through sensation; then it seems that, to be consistent, one must also maintain, in the same way, that magnitudes, gestalt, movement, in short, all that is spatial, would never be able to exist (bestehen) if not as correlates of sensations and to entertain a subject-object relation with the latter. The opposite would be absurd. And we will have something essentially similar to what Mach wanted [with his doctrine of elements] (p. 29444-29445).

6. Final remarks

Brentano referred to his lectures on positivism in a letter to Mach from May 1895. This letter has a particular significance because it is addressed to the one who was called to succeed him in Vienna as Chair of history and theory of the inductive sciences, left vacant since Brentano's resignation in 1880. Brentano informed Mach about his lecture on positivism:

You probably do not know that, by happenstance, in the first part of the lecture I taught last winter on the theme of positivism and monism, I addressed your positions on that theme in detail. I considered Comte and Kirchhoff as the representatives of a thoughtless positivism, whereas I considered J. Stuart Mill and Mach as the representatives of an evolved positivism. However, I attempted to show why one form or another of positivism proves to be untenable. [...] I am and always have been convinced that consensus on mere wording—even if its significance is great—is of less import than consensus on research methods” (1988, p. 204).

This excerpt shows that despite his reservations with respect to positivism, his views regarding research methods, i.e. methodological phenomenism, remained similar to that he adopted upon his arrival in Vienna.

There are also reasons to believe that Brentano's students in Vienna shared his opinion about Mach. Indeed, in September 1894, Mach was invited to the congress of the Association of German physicists and naturalists held in Vienna and he gave a talk entitled "The principle of comparison in Physics". Alois Höfler, a student of Brentano and Meinong, invited Mach to discuss his talk at a meeting of the Philosophical Society of the University of Vienna. This discussion aroused so much interest that two further sessions were organized by Josef C. Kreibitz, another student of Brentano.⁴ These discussions have convinced several members of the Philosophical Society of the interest of Mach's candidature to occupy Brentano's chair. Mach began his teaching in Vienna in 1895 and we know the influence he had on the course of the history of philosophy in Austria (Stadler, 1997). But Brentano's contribution to this chapter is not to be overlooked.

Indeed, Brentano's program that I have mentioned earlier constitutes the philosophical program, which Brentano, despite his precarious academic situation in Vienna, sought to establish in Austria. This program represents the starting point and the basis of the philosophy of his students in Vienna, although Meinong, Ehrenfels, Twardowski, Hillebrand, and Husserl, for example, have departed significantly from Brentano's original program. However, this program constitutes one of the main axes in the history of philosophy in Austria and it also represents an important reference for the Austrian members of the Vienna Circle. In any case, it is clear that when Neurath (1935) claims, in his remarkable book on the development of the Vienna Circle, that the latter is nothing but a radicalization of the empiricist trends in Vienna, he not only had Mach and his followers in mind, but also Brentano and his successors in Austria.

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⁴ The young Husserl was also very much interested in Mach and he reviewed Mach's 1893 paper (see Fisette, 2015).

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