

## **A philosopher in the lab.**

### **Carl Stumpf on philosophy and experimental science**

#### **1. Introduction**

Born in 1848, Carl Stumpf was appointed professor of philosophy in 1873, in Würzburg, at the age of 25. He ended his career as Professor of philosophy and Director of the Institute of psychology in Berlin. Although he officially retired from teaching in 1923 [Stumpf 1924, 411], by the end of his life, in 1936, Stumpf was still at work on his *Erkenntnislehre*, which was published posthumously in 1939-40. His scientific production is quite conspicuous. Stumpf's interests range from philosophy [1891, 1906a, 1906b, 1910, 1939-40] and history of philosophy [1869, 1919a], to experimental investigation into the field of psychology [1873, 1899a, 1907c, 1916, 1917, 1918], with particular attention to acoustic and musical phenomena [1883, 1890, 1898, 1911b], which he also considered from a historical point of view [1897]. Besides, he wrote on many other scientific topics such as mathematics [1938; see also 2008], physical acoustics [1899b], phonetics [1926], ethnomusicology [1901, 1911a, 2012], child psychology [1900], animal psychology [1907b], psychology of genius [1909], and so on<sup>1</sup>.

This undoubtedly heterogeneous body of writings has led to different interpretations of his personality. Early scholars argue that he brought a phenomenological attitude into experimental psychology, stemming from Brentano's philosophy, thus fostering the development of the Gestalt theory [Spiegelberg 1960,

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<sup>1</sup> For a complete bibliography of Stumpf's writings see Fiset 2015a.

54]. Historians of psychology sometimes claim that Stumpf progressively abandoned philosophy in favor of experimental psychology [Sprung 2006, 15], while others (more properly) recognize his uninterrupted philosophical commitment [Ash 1995, 30]. In contrast to the tendency to consider him an orthodox follower of Brentano in philosophy [Schuhmann 1996, 128; 2001, 71], recent interpretations argue for the originality of his thought [Fisette 2006].

Stumpf's lifelong work in experimental psychology is part of an interesting epistemological program. His experimental activity is not accompanied by any loss of interest for philosophical issues. Rather, he aims at the progressive, harmonic and mutual development of natural sciences, *Geisteswissenschaften*<sup>2</sup> and philosophy. Originally combining phenomenology with experimentation, descriptive psychology with metaphysics, his program still deserves our attention<sup>3</sup>.

In this essay I consider the relationship between philosophy and experimental sciences from the point of view of Stumpf's epistemology. I first introduce Stumpf's own comments concerning his double commitment as an experimentalist and a philosopher (§2). I then proceed to illustrate his classification of sciences (§3) and his definition of phenomenology and philosophy (§4). Finally, I discuss his views concerning the mutual relationship between philosophy and natural science (§5).

## 2. A philosopher in the lab

In a page of his *Autobiography*, written in 1924, Stumpf retrospectively considers his experimental work. It is worth quoting the passage at length:

I was well aware, of course, that such absorption in all the details of a field of sensation stood

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<sup>2</sup> I shall leave the term *Gesiteswissenschaften* in German, because no English translation fully covers its meaning.

<sup>3</sup> On Stumpf's philosophy and its present-day importance see Fisette 2015; Fréchette 2010. For a criticism, Rath 1994, 215.

in sharp contrast to the general conception of the mission of the philosopher, although Fechner had been a famous example of this type. When I considered the hopeless condition, as it appeared, perhaps, in Überweg's review of recent philosophy – ever new systems without any connection with one another, each bent on originality, at least on a new terminology, none of them with any power of conviction – when I compared this with the evolution of physics, what a vast difference! Might it not be possible for a specialist in philosophy to work together with other specialists, at least in some particular field? If this were done by others in other fields, might there not result finally a beneficial relationship between philosophy and the single sciences?

Thus the time in Würzburg marks for me the beginning of a new line of work to which I have remained faithful to the present day, which, however, has made me an outsider to the great majority of my colleagues. My work of observation and experimentation has absorbed my time and strength even more than is the case with most experimental psychologists. Although I fully appreciate the saying of Aristotle that theory is the sweetest of all, I must confess that it was always a joy and a comfort to pass from theory to observation, from meditation to facts, from my writing-desk to the laboratory; and, thus, in the end, my writing-desk was neglected and has not produced a single textbook or compendium, which indeed ought to have been its first duty, even at the time when I was an instructor. However, I never intended to spend so much of my lifetime on acoustics and musical psychological studies as I did later on. I had counted on a few years. But it was, after all, not musical science but philosophy that always remained mistress of the house, who, it is true, granted most generously great privileges to her helpmate [1924, 396-397].

This passage contains at least four important statements: Stumpf affirms that the philosopher should be also a scientist, a specialist in some field (1); he confesses his particular bent to experimental activities as compared to armchair reflection (2). However, he admits he has sometimes exaggerated: experimental work had taken him more time than he had planned (3). Finally, he declares that he had never really abandoned philosophy, which remained the “mistress of the house” throughout his whole career (4). I shall now comment on these issues, with respect to their importance for our present concerns.

(1) No doubt that Franz Brentano and Hermann Lotze represented two outstanding teachers of philosophy to Stumpf. Yet, he went through an excellent scientific training as well. During the time he spent in Göttingen, he was deeply influenced by famous physicist Wilhelm Weber who, “besides Brentano and Lotze, developed and formed” his manner of “scientific thinking” [1924, 392]. Stumpf remarks that a philosopher with a good scientific training, at that time was as rare as a “white raven” [1924, 393]. Quite remarkably, Weber’s name is quoted here along with Brentano and Lotze. Obviously, Brentano’s and Lotze’s influence over Stumpf was more far-reaching than Weber’s; nevertheless, this mention must be taken seriously. Weber’s lesson instilled in Stumpf a genuine scientific spirit, which very few philosophers of his time were endowed with. On the one hand, this made him an “outsider”, as he used to say. On the other hand, this double competence paved his way to Berlin, where the Faculty needed a true experimentalist to establish the Institute of Psychology, and at the same time wanted a man with deep philosophical knowledge to direct it. Wilhelm Dilthey was particularly influential in this recruitment [Sprung 2006, 124 ff.]. By the way, Brentano never approved Stumpf’s decision to move to Berlin, and this led to some bitterness between them<sup>4</sup>. In sum, Stumpf was by all means an acknowledged specialist in the field of experimental psychology, with particular skills in the study of sound and music perception and in ethnomusicology<sup>5</sup>.

(2) Albeit his personal inclination for experimental practice, Stumpf was not merely a technical experimentalist, blind to theory. As a director of the Institute in Berlin, he let his assistants teach the experimental approach, while he was in charge

[...] of the theoretical meetings, in which we discussed psychological problems *a propos* of

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<sup>4</sup> See Stumpf’s remarks to a planned edition of his correspondence with Brentano and other documents ed. by G. Fréchette, in Fiset and Martinelli 2015, 491-528 (esp. 494 ff., 504-507).

<sup>5</sup> Stumpf says that his choice of music psychology depended on the fact that this topic was less likely than others to raise contrasts with Brentano [1919b, 145]. Nevertheless, the two philosophers ended up contending about the concept of tonal fusion [Martinelli 2013].

various recent treatises, and emphasized, in the spirit of Brentano, not only the need of psychological observation but also the necessity of logical thinking. I laid particular stress on these meetings because I regard the experimental method – at least of the external sort – by no means as the cure-all for psychology [1924, 404].

In short, Stumpf was not fond of having to do with experimental devices, but appreciated experimentation as a sophisticated intellectual exercise, aiming at the discovery of psychological laws. For him, the experimental method cannot do without inductive reasoning and “logical thinking” about the conditions of the experiment. This approach undoubtedly influenced the Gestaltists. As is well known, Wolfgang Köhler, Max Wertheimer, Kurt Koffka, Kurt Lewin, Erich von Hornbostel, Johannes von Allesch, Adhémar Gelb (and furthermore, among others, Robert Musil), were all, at least partially, trained at the Berlin Institute. Scholars have repeatedly investigated the particular intellectual atmosphere pervading this scientific institution, the role played by Stumpf in this context and the unusual degree of intellectual independence of his students and assistants who, for the most part, didn’t adhere to his doctrines but rather carried out autonomous research<sup>6</sup>. After all, that was perfectly compliant with the intentions of the director, who never aimed at establishing a school of thought:

I have never endeavored to found a school in the strict sense; and have found it almost pleasanter, certainly more interesting, to have my students reach different conclusions than to have them merely corroborate my theorems. I derive all the more joy and gratitude from the loyalty of the young people who, in the same scientific spirit, but by their own independent plans, continue the work of research [Stumpf 1924, 441].

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<sup>6</sup>For a comprehensive analysis of the development of the Gestaltists at the Berlin Institute and the role played by Stumpf see Ash 1995, 2002. See also Toccafondi 2009. The case of Musil is analyzed in Bonacchi 2008, 2015. As to the Gestaltists’ sharp criticism of Stumpf see e.g. Köhler 1913, 78.

Perhaps for this reason, the Berlin group respected him, as it is clear from the celebratory writing on Stumpf's 75th birthday, a special issue of the Gestaltists' official review, *Psychologische Forschung* [Wertheimer 1923].

(3) Stumpf undoubtedly invested much more time in experimental activities than he had intended to. It ought to be noted that he originally meant to write four volumes of his *Tonpsychologie*. Only two volumes were actually published [1883, 1890], and the residual topics were dealt with in some other, less monumental publications [1898, 1911a]. Stumpf probably understood that the whole project, in its complete form, would have required too much time. He was sometimes overwhelmed by the many duties of his intense academic life, especially in Berlin. No surprise, then, that he completed his major philosophical work, *Erkenntnislehre* [Stumpf 1939-40], after his retirement, thus compensating for the (relative) lack of philosophical production. Commenting on his studies on vowel sounds in his *Autobiography*, he writes: “[t]he experimental results fascinated me to such an extent that I could not give up the investigation until this important field of phenomenology had been satisfactorily cleared up” [1924, 414]. Once again, the attraction that experimental research exerted over him shows through in his words.

Occasionally, Stumpf's work was rather dispersive. When he was asked to investigate the case of ‘kluge Hans’ [Stumpf 1907b], a horse that was said to perform elementary calculations, he couldn't resist the temptation.

I fully realized the extraordinary difficulties involved; the excitement aroused in the city and even in foreign countries by the daily reports of the strange case in the newspapers; the curiosity of the crowds which sought admission; the peculiarities of Mr. von Osten; the unfavorable locality; etc. *The irresistible desire to determine the facts induced me to undertake the investigation, and we finally succeeded in revealing the facts [...]* [1924, 407, emphasis added].

On other occasions he showed the same enthusiasm for the ascertainment of facts, despite fakes and mystifications, almost with a ‘detective’ attitude [see Stumpf 1904].

(4) All this said, philosophy always remained the “mistress of the house” in Stumpf’s laboratory. In other terms, he affirms that experimental work has great importance for philosophy - it is not an alternative to philosophy: it is *instrumental* to it. In the *Preface* to the second volume of *Tonpsychologie*, published seven years after the first one, Stumpf explains the reasons of this delay. Even in the late 19th century, he remarks, a professor of philosophy is not allowed to be always busy with “whistles, plates and forks”. Yet, against those who believe that experimental work debases the eternal mission of philosophy, that is, to elevate the human spirit, he argues that experimental work in psychology always “turns to the purposes of metaphysics and ethics”, and adds: “[t]hese disciplines lie at our heart” [1890, v-vi]. To avoid any misunderstanding, Stumpf makes it clear that even during his long-lasting experimental activities he never actually abandoned or rejected philosophy. Patient and minute work in marginal fields of research also contributes to higher scopes<sup>7</sup>. The discovery of factual truths in the field of experimental psychology turns out to be an advancement in philosophy. I shall come back on this point in the next section.

Stumpf ascribed the same instrumental value to other fields of his scientific work, including comparative musicology<sup>8</sup>. In 1900, he founded the *Berliner Phonogrammarchiv* (now on the UNESCO World Heritage list), a collection of Edison cylinders whose direction was later taken up by Erich von Hornbostel. The study of exotic music traditionally relied upon the amateurish, approximate transcriptions made

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<sup>7</sup> Brentano [1907, 69] affirms the same principle in one of his writings concerning sensory psychology: “*Die Methode verlangt, dass man vom Einfacheren zum Complicirteren fortschreite. Auch winkt der Arbeit hier der reichste Lohn, da jeder Fortschritt in der Erkenntnis des Elementarsten, selbst wenn klein und unscheinbar in sich selbst, seiner Kraft nach immer ganz unverhältnissmässig gross sein wird*”.

<sup>8</sup> Stumpf also believed that the history of philosophy, that represents another part of his activity [1869, 1919a], is instrumental to philosophy: “only the most exact historical truth can also be at command of philosophical truth” [1907a, 167].

by missionary fathers or musically-educated travelers. By contrast, phonographic recordings promote objectivity and allow preservation. Stumpf's empirical researches in the field of ethnomusicology are therefore part of a consciously pursued scientific program [Martinelli, 2014]. In the first volume of *Tonpsychologie*, the "comparison of peoples and times" is one of the auxiliary methods of psychology [1883, vi]. Two years later, in 1885, in a pioneering study on the music of North American Indians, Stumpf stresses the value of comparative musicology not only for ethnology and the history of humankind, but also for general psychology and philosophy, and particularly for aesthetics [1886, 89]. In a study of the music by a Siamese (Thailand) ensemble, he argues that comparative musicology represents a fruitful task for the psychologist or the philosopher who is ready to abandon the "parlor of scholars" [*Gelehrtenstube*] and the old-fashioned method of self-observation, and wishes to "widen his horizon by means of an objective study of human thinking and feeling in other times and spaces" [1901, 167]<sup>9</sup>.

### 3. Natural sciences, *Geisteswissenschaften*, and 'neutral' sciences

Stumpf tackles the problem of the classification of sciences on the basis of the fundamental philosophical distinction between *phenomena* and *psychic functions*. He calls "phenomena" the sense-data (also when they are remembered rather than actually sensed), together with the relations that hold between them. "Psychic functions" is the name assigned to all mental activities, states and experiences: e.g., perceiving, developing concepts, judging, feeling emotions, desires, and so on [1906a, 105-106]. Although they always occur together, phenomena and functions can and must be carefully distinguished [1906a, 111]. Phenomena and mental functions are always logically separable; each of them may vary independently, i.e. without a correspondent

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<sup>9</sup> Stumpf also recorded songs of war prisoners from all over the world during the First World War [Stumpf 1924, 410; see Christensen 2000; Simon 2000].



variation of the other. They differ at the utmost degree: no assertion pertaining to phenomena is applicable also to psychic functions. Thus, reality is “double-sided”, i.e. it has an ultimately dualistic aspect that cannot be overcome in any way [1906a, 115]<sup>10</sup>.

In Stumpf’s view, the distinction between natural sciences and *Geisteswissenschaften* originates from the above mentioned dichotomy. “The contraposition of the physical with the mental, no matter how they are defined, has always been the basis of the distinction of natural sciences from *Geisteswissenschaften*” [1906b, 10]<sup>11</sup>. Accordingly, all natural sciences are rooted in phenomena, while *Geisteswissenschaften* stem from the study of mental functions.

The separation of natural sciences and mental sciences [*Geisteswissenschaften*] is based on the fundamental differences of sense data [*Erscheinungen*] and psychic functions, or of the respective contents of external (sensuous) and internal (psychological) perception. Phenomena and functions are directly presented to us in closest connection, but they are essentially different. Observation of the functions is the foundation of the mental sciences, which, however, are no more tied to their point of departure than are the natural sciences. Just as the latter proceed to the construction of the material outer world, so the former seek to understand the nature of psychic forces in general and the resulting actions and phenomena in terms of that

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<sup>10</sup> This distinction clearly roots in Brentano’s doctrine of internal and external perception. Starting from 1883, however, Stumpf ascribed no epistemological preeminence to internal perception [Stumpf 1883, 22; see Martinelli 2003, 86], thus radically diverging from Brentano. This innovation was soon noticed by Meinong in his review of Stumpf’s book [Meinong 1885, 130] and by Brentano himself, who expressed his disappointment in a letter to Marty of 1885 [quoted in Fisette and Martinelli 2015, 495]. As late as 1948, i.e. 12 years after Stumpf’s death, Alfred Kastil still engaged in a criticism of this deviation from Brentanian orthodoxy [Kastil 1948]. A further analysis of this theme would obviously take us too far apart from our present concerns. For a discussion of Stumpf’s dualism see e.g. Martinelli 2011, 68.

<sup>11</sup> Notwithstanding he accepts the Kantian term *Erscheinung*, Stumpf does not think of a contraposition of phenomena and ‘things in themselves’. Phenomena are not ‘merely’ phenomena, but a part of what is immediately given: “The whole of the immediately given is *real*. Thence we gain the general concept of reality, that we then extend to other things” [1906a, 111].

inner life which alone is given to our observation. Psychology occupies the same place among the mental sciences as physics among the sciences of nature [1924, 424].

Natural sciences, then, are not *directly* based upon phenomena. This would open the way to Mach's phenomenalism, reducing everything to basic phenomenal data or 'sensations' [*Empfindungen*]<sup>12</sup>. Stumpf, who totally disagrees with this view, is rather a constructivist. In the first place, one must distinguish between a mere sensation and an "object" [*Gegenstand*], which is the result of a conceptual construction, trained by ordinary experience. This is a prerequisite to any kind of scientific construction [1906b, 10]. Furthermore, true scientific objects are not the *phenomena* as such: rather, Stumpf defines them as "bearers" of variations, occurring in space and time according to the laws of physics [1906b, 16]. Finally, even the external world, in Stumpf's view, is a hypothetical structure. Regularities and exceptions in the continuous variation of our sensations and presentations can be explained only by means of this hypothesis, repeatedly confirmed by any act of experience [1906b, 12].

Accordingly, natural sciences ultimately rest upon phenomena, but are the outcome of further elaboration: their objects are merely *inferred* from phenomena. By contrast, *Geisteswissenschaften* deal directly with mental functions, although they also include higher-order constructs. Psychology is the science of elementary mental functions, whereas the other *Geisteswissenschaften* deal with complex mental functions [1906b, 21]. In opposition to Husserl's misunderstanding of psychology as a science of facts, [*Tatsachenwissenschaft*: Husserl 1911, 12 f.] Stumpf claims [1939, 194] that psychology fundamentally aims at finding the *general laws* of the psychical world, not merely at recording mental occurrences.

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<sup>12</sup> Mach 1906. Stumpf often argues against Mach's phenomenalism: see, e.g., Stumpf 1896, 84-85.

Stumpf's basic dichotomy between natural sciences and *Geisteswissenschaften* is enriched by many other supplementary factors<sup>13</sup>. In this context, special attention should be paid to a third group of sciences, that he calls "neutral sciences". As previously stated, neither natural sciences nor psychology *directly* investigate phenomena; yet, that investigation represents a very important scientific task. At this stage, Stumpf introduces three neutral sciences, devoted to the study of phenomena: phenomenology, eidology and the theory of relations [1906b, 26, 32, 37]. Their differences lie in their specific subjects. Phenomenology deals with *sensory phenomena*; eidology with what Stumpf calls "formations" [*Gebilde*], that is, concepts, forms, states of affairs [*Sachverhalte*], i.e. any content of thought [1906b, 32-33]; the general theory of relations [*allgemeine Verhältnislehre*] deals with relations, such as similarity, sameness, part and whole, etc. [1906b, 37].

#### 4. Phenomenology and philosophy

Given its experimental nature, in this context Stumpf's phenomenology is particularly relevant in this context. Radically diverging from Husserl, he attributes to phenomenology the task of investigating sensory phenomena as such<sup>14</sup>. Colors, sounds, sensory qualities of all kinds are ruled by structural laws. The investigation into mixed sensory qualities, or into relations such as similarity, increase, fusion, etc. also belongs to phenomenology [1906b, 27]. Further examples of phenomenological problems are: the existence of basic phenomena, the relationship between sensations and judgments [see Stumpf 1883], the fundamental "attributes" of sensations (quality, brightness, intensity) [1917], and the difference between sensation and presentation [1918].

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<sup>13</sup> Stumpf 1906a, *passim*. In the present essay I shall not consider all of these factors and rather concentrate upon the consequences of Stumpf's general point of view on the relationship between philosophy and science.

<sup>14</sup> For a comparison with Husserl, see Rollinger 2008, Fissette 2009, 2015b.

Phenomenology is mainly pursued by physicists, physiologists, and psychologists. In the past, physicists used to deal with phenomenological problems, too. Most remarkably, they all work experimentally: Stumpf's phenomenology is an experimental discipline. For instance, he considers some works by Ewald Hering and Hermann von Helmholtz, who analytically investigated the fields of optics and acoustics, highly influential in phenomenology [Stumpf 1907a, 186].

In this sense, phenomenology also forms the core of many of Stumpf's own experimental activities: "I also have devoted most of my time to phenomenological preparatory work, but my real aim has always been to understand the functions" [1924, 424-425]. Accordingly, in his *Autobiography*, Stumpf presents many of his experimental works as pertaining to the field of phenomenology [1924, 425-429]: it is within this scope that he introduces his early books on the origin of space perception [1873], his writing on the attributes of visual perception [1917], plus a series of minor articles concerning specific problems of sensory phenomena [1899b; Stumpf and Meyer 1898; Stumpf and Schaefer 1901], and many others. Furthermore, he considers his study on vowel sounds a phenomenological field of investigation [1924, 414]. Since they touch upon phenomenological issues, the two volumes of *Tonpsychologie* are mentioned here, too [1883, 1890]. Yet, they are mainly devoted to the theory of sense-judgments (i.e. psychic functions) concerning sounds, so that they more properly belong to descriptive psychology<sup>15</sup>.

Together with the other two mentioned neutral sciences, phenomenology is considered by Stumpf a "pre-science" [*Vorwissenschaft*]. This means that phenomenology is the basis for further processing, carried out by all sciences, of both

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<sup>15</sup> Stumpf identifies descriptive psychology with Husserl's first phenomenology, as developed e.g. in *Logische Untersuchungen*. See Fisetto 2009a.

types. He also introduces *metaphysics* as a neutral “post-science” [*Nachwissenschaft*]<sup>16</sup>. Metaphysics aims at collecting and elaborating the outcomes of all sciences – so that one could even even call it *metapsychics* [1906b, 42]. Metaphysics deals with the connection linking the objects of all sciences: psychic functions, phenomena, formations, relations, and physical objects. This acceptance of metaphysics clearly distinguishes Stumpf’s position from coeval positivism. But he advocates a renewed metaphysics, that is not “built a priori” – a “metaphysics of experience”, based upon scientific results [1906b, 43].

Metaphysics is a part of philosophy. What, then, about philosophy as a whole? Stumpf considers philosophy the science of the “most universal objects” [*allgemeinste Gegenstände*] [1906b, 86]<sup>17</sup>. These objects correspond to the different philosophical disciplines. For instance, “ethics, aesthetics and logic” are “practical sciences”, that “lead to Good, Beauty and Truth – in other words, they teach to distinguish, and to realize in one’s interiority, the right and wrong as to one’s will, taste, and scientific judgment” [1906b, 88]. The heterogeneous nature of the most universal objects raises a supplementary question: what does the unity of philosophy consist of? The answer is quite clear:

That’s for sure: what keeps these so divergent areas of philosophical research together, is neither metaphysics nor theory of knowledge, nor finally the universal ideas of the values. Rather, this role is played by the psychological researches, that those disciplines need in an equally strong manner [1906b, 90].

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<sup>16</sup> This complex epistemological structure could be simplified introducing the concept of *reality*. If one considers only real objects, the classification of sciences is the following: natural sciences, *Geisteswissenschaften* and metaphysics [Stumpf 1906b, 44].

<sup>17</sup> In Stumpf’s *Autobiography*, philosophy is defined as “the science of the most common laws of the psychical, and of the real, in general (or conversely)” [1924, 414]. This definition partially overlaps with Stumpf’s own definition of metaphysics.

It is true that some psychological researches – “especially those that pertain not to psychology in a strict sense, but rather to phenomenology, and that should be fruitfully pursued by means of experiments” [1906b, 90] seem to lose all contacts with the fundamental philosophical questions. However, as previously seen, phenomenological research contributes to philosophy, too; and, in any case, psychology as a whole provides the link connecting all philosophical disciplines.

At the same time, psychology and philosophy still differ radically: for instance, while the inquiry into the origin of concepts is a psychological problem, the search for the origin of truth is purely philosophical [1891, 501; 1939 (I), 6-7]. In any case, as Stumpf claims in opposition to the Kantian account of space and time, form and matter, the categories, and so on, philosophical ideas should always “pass the exam” of psychology: in fact, nothing can be “*true from the point of view of the theory of knowledge [erkenntnistheoretisch]*” and, at the same time, “*psychologically false*” [1891, 482].

In order to meet these requirements, psychology “must not forget – absorbed in experimental detail – the nobler phenomena of mental life which cannot be investigated in this manner and the great general questions” [1924, 414]. For instance, Stumpf devotes his opening lecture at the Third International Congress of Psychology in Munich to a classical metaphysical problem: the relationship between body and mind [1896]<sup>18</sup>. Albeit the astonishing number of hypotheses formulated by philosophers and scientists on this theme, progress has been made only recently: “[r]esearches on mind and body have extraordinarily gained in precision since the times of Descartes and

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<sup>18</sup> As President of the organizing committee, Stumpf proposed to name the conference “Congress for *experimental* psychology”, since experimentation has an “eminent value for the formation of psychological thought – on the condition that it puts together the manual activity with thought” [1896, 68]. The word *experimental* was finally omitted in order to promote interdisciplinarity; however, contributions from cognate disciplines should include the exact ascertainment of some factual truths, since “we want to measure and count whenever it is possible” [1896, 70-71].

Spinoza” [1896, 92]. Among the factors that favored this development, Stumpf lists “the philosophical analysis of the concepts of substance and causality, the discovery of the law of energy, the emergence of psychophysics, the triumphal diffusion of evolutionism, the progress in the anatomy and the physiology of sense-organs, and most significantly in the localization of mental activities” [1896, 92-93]. Philosophy (the analysis of categories), physics (the law of conservation of energy), psychology (psychophysics), biology (evolutionism), anatomy and physiology: the progress of these disciplines is a fundamental condition for the advancement in the matter. Another circumstance, then, shortens the distance between philosophers and psychologists: “[w]hy shouldn’t even philosophy make use of experiment, whenever this is possible?” [1906b, 89]<sup>19</sup>. For instance, concepts undergo a real development in time, a continuous adjustment to the advancements of scientific knowledge. For this reason, “one can make experiments also with concepts, confronting with phenomena either the one or the other” [1896, 93].

In sum, natural sciences and *Geisteswissenschaften* need a preliminary ‘phenomenological’ work, an experimental analysis of sensory data. This neutral work is pursued by natural scientists and psychologists, who adopt an experimental approach, as Stumpf himself did in many of his works. Natural sciences and *Geisteswissenschaften*, including psychology, elaborate their materials and deduce laws concerning their own subject matters. On this basis, philosophy proceeds to a general reassessment of knowledge, aiming at the most universal objects and their unity. Internal coherence among the various philosophical disciplines is ultimately granted by psychology. This could suggest that Stumpf supports a close relationship of philosophy with *Geisteswissenschaften*. In the next section, I shall show that this is only partially

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<sup>19</sup> Stumpf is among the few philosophers of the nineteenth century that endorse such a position. Although in a different sense, there is nowadays a trend towards ‘experimental philosophy’: see e.g. Knobe and Nichols 2008.

true. Notwithstanding the close relationship between philosophy and psychology, he goes indeed so far as to give priority to the natural sciences over *Geisteswissenschaften*.

## 5. Natural sciences and philosophy

As previously described, Stumpf suggests that the philosopher is perfectly legitimate in doing experimental psychology, or experimental phenomenology, because these works are also fundamentally useful for the ascertainment of philosophical truths. Moreover, he elaborates a more radical version of this approach. He does not simply concede that the philosopher *is allowed* to practice science; rather, he claims that the philosopher *should* do that. With this, Stumpf so to speak counterattacks and charges his “armchair” colleagues of ignoring or misunderstanding some important aspects of their discipline. In this, he does not merely propose a strong connection between philosophy and experimental *psychology*; rather, he advocates a cooperation of philosophy with *natural science* in general.

Stumpf devotes his inaugural speech as Rector of the University of Berlin to the *Rebirth of philosophy* [1907a]. His first polemic target is idealism. With their incapacity to understand science and to cope with it, idealists have totally missed their goals and have ended up causing a materialist, anti-philosophical reaction [1907a, 164]. In order to overcome all these tendencies, the original obstacle should be removed. First and foremost, philosophy should go hand in hand with natural sciences. Stumpf mentions Gustav Theodor Fechner and his teacher Rudolph Hermann Lotze as recent examples of this attitude [1907a, 165]<sup>20</sup>. These thinkers were philosophers and scientists at the same time: Fechner was a physicist and Lotze a physician. Moreover, Fechner and Lotze took *psychology* seriously, thus going beyond Kant’s notorious doubts about the possibility of a scientific psychology. It might appear surprising that Franz Brentano is not

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<sup>20</sup> Stumpf also mentions Leibniz, whose philosophy appears to him much more current than that of the idealists [see also Stumpf 1923, xxv].



mentioned among the promoters of this renewal of philosophy. Yet Brentano, who was not a scientist, fails to meet the requirements of the argumentation under discussion. True, Brentano had won Stumpf to philosophy with his thesis that philosophy shares its methodology with natural science: “*Vera philosophiae methodus nulla alia nisi scientiae naturalis est*”<sup>21</sup> [Brentano 1929, 136-137]. But Stumpf later developed different ideas about scientific methodology and, what is more, started a scientific practice of his own<sup>22</sup>. Be that as it may, Stumpf concludes that psychology, “practiced in the spirit of the natural science” [Stumpf 1907a, 166], is one of the sources of the ongoing rebirth of philosophy. Another one is a more rigorous attitude in the history of philosophy. Whereas the idealists polemically referred to their immediate predecessors, history of philosophy makes the true thought of, e.g., Leibniz or Aristotle, available to us.

Stumpf notes that philosophy has two main tasks: a theoretical and an ethical one. In the first place, philosophy should unify the most universal concepts, thus granting “a conclusion to our knowledge”; secondly, philosophy should “elevate us [...] over the terrestrial atmosphere and the nothingness of everyday life”, enabling us to recognize our duties [1907a, 168]. There are two main ways of pursuing these goals: “philosophy of experience” [*Erfahrungsphilosophie*] and “a priori philosophy”. No doubt that Stumpf’s preference goes to *philosophy of experience*, which moves from the outcomes of sciences and endeavors to maintain a close relationship with them. “The philosophy of experience – he asserts – grows out of the single sciences and attempts to maintain the closest connection with them, to speak their language as far as possible, and to follow their methods [...]” [1907a, 169]. Rather than claiming for absolute systems, this kind of philosophy proceeds step by step and strives for *relative* conclusions. Even if

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<sup>21</sup> “The true method of philosophy is none other than that of natural science”.

<sup>22</sup> Confronting Brentano’s views on scientific psychology and science in general with those of Stumpf would require a separate analysis. See Rollinger 1999, Fisetto 2009a, Martinelli 2013.

provisional, any relative conclusion always represents an important result. In his late years, Stumpf still maintains this point:

Philosophy should get rid of the habit of appearing on the scene while claiming the need for a complete and self-contained system that can answer all questions. Its scientific character, rather, is proved just from the fact that philosophy always leaves open many more questions than those it provides answers for [1939-40 (I), 123].

Philosophy of experience favors collective work, interactive discussion, and respect for the work of others. The execrable habit of starting every time from the very beginning, typical of many philosophers, should be finally overcome. Philosophy, then, should take the best from scientific methodology and incorporate it into its praxis.

Anyway, Stumpf does not support any kind of fusion (or confusion) between philosophy and science: along with the pseudo-science of the idealists, the positivistic removal of philosophy is his second polemic target. He does maintain that philosophy should be “oriented to the natural sciences and based upon them”<sup>23</sup>. However, he also insists that it would be “the ruin of philosophy” to put it completely into the hands of natural science [1907a, 188]. Philosophy has a distinctive value and autonomy that differentiate it from any science (including psychology). Philosophy should seriously cope with scientific results, but its objects and aims lie beyond those of the scientific disciplines.

Remarkably, Stumpf has natural sciences in mind. True, *Geisteswissenschaften* may also assist the philosopher. Yet he warmly recommends a “comprehensive training in the field of the natural sciences” to all those who aim at “a satisfactory world view” [1907a, 179] rather than at an insight into specific philosophical disciplines like, e.g., philosophy of law, or aesthetics. Stumpf does not insinuate that *Geisteswissenschaften* are inferior to natural sciences in applying a rigorous methodology. The difference,

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<sup>23</sup> He speaks of a “*naturwissenschaftlich orientierten und fundamentierten Philosophie*” [Stumpf 1907a, 188].

rather, lies in the fact that *Geisteswissenschaften* have a *formal* value in suggesting methodological rigor and precision to the philosopher; but natural sciences, in addition, provide important *material* notions that are enormously valuable for our understanding of the world [1907a, 180-181]. In Stumpf's view, then, scientific activity is far from being somehow opposed to philosophy: rather, the familiarity with it promotes an attitude of strength and conveys material notions, which are the necessary ingredients for a renewed philosophy.

In short, Stumpf occupies a unique position within the development of German philosophy in the late nineteenth and early twentieth century. While he affirms a close relationship between philosophy and psychology, he avoids reductionism and psychologism. Philosophy is autonomous from both natural sciences and *Geisteswissenschaften*; nevertheless, it is bound to flourish on condition that it maintains of a closer relationship with natural sciences and it keeps to their methods whenever possible. To be sure, Stumpf did not pursue the goal of a scientific philosophy as strongly as the Viennese Neo-positivists or the 'Berlin Group' around Reichenbach did: however, he contributed to give shape to the figure of a scientist-philosopher and cultivated this ideal in more than one generation of young scientists, mainly psychologists<sup>24</sup>. Far enough from positivistic reductionism, but also from any form of foundationalism, Stumpf neither aimed at reducing philosophy to science, nor at "grounding" science through some privileged form of philosophical insight. He firmly believed that philosophy should learn a lot from natural science (practices, habits, methods), so much more than natural science from philosophy, and always based his work on this principle.

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<sup>24</sup> No surprise that, for instance, Wolfgang Köhler and Kurt Lewin have taken part in the activities of the so-called Berlin Group lead by Hans Reichenbach. Together with Lewin, Köhler had cooperated with Reichenbach and planned to start a journal for exact science. See Ash 1995, 261; Milkov 2013, 9-10. As to the Gestaltists' relationship to the Vienna Circle, see Kluck 2008.



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