

# Mach's "sensation", Gomperz's "feeling", and the positivist debate about the nature of the elementary constituents of experience A comparative study in an epistemological and psychological context

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Mach's "sensation", Gomperz's "feeling", and the positivist debate about the nature of the elementary constituents of experience

A comparative study in an epistemological and psychological context

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#### **Abstract**

In the present article, I compare Ernst Mach's and Heinrich Gomperz's contributions to the Germanspeaking positivist tradition by showing how, in trying to refound epistemology on the basis of one definite category of experiential element, namely, sensation (Empfindung) and feeling (Gefühl), respectively, they each epitomized one major trend of *Immanenzpositivismus*. I demonstrate that, besides Mach's "sensualist" conception of positivism – in light of which historians have tended thus far to interpret all German-speaking positivist research of that period - there also existed an "affectivist" conception of positivism, which originated in Avenarius's empiriocriticism and culminated in Gomperz's pathempiricism (Pathempirismus). Here I aim to provide a new perspective on the history of positivism by highlighting the role played in it by psychological concerns. First, I revisit the notion of Immanenzpositivismus, the form of positivism that prevailed in both Germany and Austria between the late 19th and early 20th centuries: in addition to addressing the definition of this philosophical school of thought, I discuss the issue of "pure experience", from which the positivists tried to reinterpret the foundations of knowledge. Second, I deal with Mach's sensation-based approach to Immanenzpositivismus by commenting on his ontological and typological analysis of the constitutive elements of experience and emphasizing the fact that his concept of *Empfindung* is a relatively ill-defined notion in light of contemporary psychological standards. Moreover, I show that, despite his pretense of confining his epistemological developments to the analysis of sensations, Mach did not deny the involvement of feelings in epistemology, as clearly evidenced by some passages of Erkenntnis und Irrtum. Third, I analyze Gomperz's feeling-based conception of *Immanenzpositivismus*, that is, pathempiricism, by highlighting how he strove to radically refound epistemology on the basis of the most recent advances of affective psychology. Focusing on the question of language sciences, I also discuss how he considered the role of feelings in the various forms of theoretical knowledge, the only field of investigation that he revisited in detail in his unfinished book, the *Weltanschauungslehre*. Fourth and last, I contrast Gomperz's with Mach's positivist model and argue that the former is more coherent and has a higher explanatory power than the latter. In conclusion, I insist on the importance of revisiting pathempiricism within the broader framework of affective epistemology.

#### Introduction

This paper aims to confront Ernst Mach's positivist thought with pathempiricism (*Pathempirismus*), the special form of positivism advocated by Heinrich Gomperz (1873-1942) in the first decade of the 20<sup>th</sup> century<sup>1</sup>. More specifically, I will show how both authors addressed the question of the elementary constituents of experience, a crucial issue for the German-speaking positivist philosophy of that period, by showing that they embodied two opposite epistemological tendencies. In his *Weltanschauungslehre*<sup>2</sup>, Gomperz assumed the provocative idea that epistemology should be refounded on the basis of the psychological concept of *feeling (Gefühl)*. Here, I will revisit the centrality of the issue of affectivity in the *Weltanschauungslehre* by analyzing the way in which Gomperz conceived the nature and the function of feelings within the framework of his

Gomperz remains a neglected figure in the history of Austrian philosophy and has given rise to a limited number of publications: Wolfhart Henckmann, "Bewußtsein und Realität bei Külpe und Gomperz": Zwei Alternativen in der philosophischen Grundlegung der Semasiologie", Zeitschrift für Semiotik, 4, 1988, 377-397; Karl-Friedrich Kiesow, "Aussageinhalt bei Gomperz, Bühler und Popper", in: Achim Eschbach (Ed.), Karl Bühler's Theory of Language. Amsterdam-Philadelphia: Viennese Heritage/Wiener Erbe, John Benjamins, 1988, pp. 349-367, "Das sprachphilosophische Werk von Heinrich Gomperz", in: Allgemeine Zeitschrift für Philosophie, 15, 1990, pp. 19-42; Clemens Knobloch, Geschichte der psychologischen Sprachauffassung in Deutschland von 1850 bis 1920. Berlin: De Gruyter, 1988, pp. 308-310; Martin Seiler, "Heinrich Gomperz (1873-1942), Philosophie und Semiotik", in: Ludwig Nagl/Elisabeth List/Jeff Bernard/Gloria Withalm (Eds.), Philosophie und Semiotik. Wien: ÖGS/ISSS, 1991, pp. 101-124; Martin Seiler/Friedrich Stadler (Eds), Heinrich Gomperz, Karl Popper und die österreichische Philosophie, Beiträge zum internationalen Forschungsgespräch des Instituts "Wiener Kreis" aus Anlaß des 50. Todestages von Heinrich Gomperz (1873-1942) und des 90. Geburtstages von Sir Karl Popper (\*1902), 8. bis 9. Oktober 1992 in Wien. Amsterdam-Atlanta: Rodopi, 1994; Malachi Hacohen, Karl Popper: The Formative Years. Politics and Philosophy in Interwar Vienna. Cambridge: Cambridge University Press, 2000, pp. 149-155; Friedrich Stadler, Der Wiener Kreis. Ursprung, Entwicklung und Wirkung des Logischen Empirismus im Kontext. Veröffentlichungen des Instituts Wiener Kreis. Wien: Springer, 2015, pp. 241-283, 531-534.

<sup>2</sup> Heinrich Gomperz, Weltanschauungslehre, Ein Versuch die Hauptprobleme der allgemeinen theoretischen Philosophie geschichtlich zu entwickeln und sachlich zu bearbeiten. Erster Band: Methodologie. Jena-Leipzig: Diederichs, 1905, ibid., Zweiter Band: Noologie, Erste Hälfte: Einleitung und Semasiologie. Jena-Leipzig: Diederichs, 1908. The 1908 book was in reality the first part of the second volume of the Weltanschauungslehre, the Noologie, whose second part, the so-called Alethologie, was never published. The Weltanschauungslehre was supposed to consist of two further (never published) volumes entitled "Ontologie" and "Kosmologie".

epistemological thought. I will demonstrate how different Gomperz's conception of positivism is from that advocated by Mach, who famously tried to elaborate his epistemological model on the basis of another category of experiential entity, *sensation (Empfindung)*. Here, my intention is to show that, in spite of belonging to the same philosophical school, namely, *Immanenzpositivismus*, Mach and Gomperz shared very different views about the nature of the mind and the foundations of knowledge. In addition to shedding new light on Machian thought and contributing to the rehabilitation of Gomperzian thought, I hope to reassess the positivist philosophy as it developed in German-speaking countries between the late 19<sup>th</sup> and early 20<sup>th</sup> centuries by insisting on the variety of its approaches and its close relatedness to psychological concerns.

## 1. The German-speaking paradigm of *Immanenzpositivismus*: a brief reassessment

# 1.1. Some terminological and conceptual clarifications

Mach and Gomperz are considered two typical representatives of what Karl Acham called "Immanenzpositivismus", the peculiar form of positivism that developed in German-speaking countries between the late third of the 19<sup>th</sup> century and the early 1910s. Immanenzpositivismus has sometimes been branded as "older positivism" by modern historians, in contrast to the so-called neo-positivism of the 1920-30s<sup>4</sup>, while, ironically, contemporaries commonly referred to it as "modern positivism", in contrast to earlier positivist tendencies. Past and present commentators have often spoken of Immanenzpositivismus as "empiriocriticism" or "the philosophy of pure

<sup>3</sup> Karl Acham, "Immanenzpositivismus", in: Joachim Ritter/Karlfried Gründer (Eds.), *Historisches Wörterbuch der Philosophie, Band 4.* Basel-Stuttgart: Schwabe, 1976, pp. 238-240. The term "Immenzpositivismus" is sometimes said to have been coined by Schlick, who, although using cognate expressions such as "Immanenzgedanken", "Immanenzphilosophie", or "Immanenzstandpunkt", does not seem to have used it. See in particular: Moritz Schlick, *Allgemeine Erkenntnislehre.* Berlin: Springer, 1925 (second edition).

<sup>4</sup> Hartmut Przybylski. "Positivismus", in: Ibid., Bd. 7, 1989, pp. 1118-1122.

<sup>5</sup> Alois Riehl, "Logik und Erkenntnistheorie", in: Paul Hinneberg (Ed.), *Die Kultur der Gegenwart, Teil 1, Abteilung 6, Systematische Philosophie.* Leipzig-Berlin: Teubner, 1921, pp. 68-97.

experience"<sup>6</sup>, two expressions that, strictly speaking, refer to Avenarius' specific conception of positivism<sup>7</sup>. Finally, it is worth noting that, in his *Wörterbuch der philosophischen Begriffe*, Eisler distinguished "idealist positivism", as instantiated by contemporary German-speaking philosophers, from "realist positivism"<sup>8</sup>, as epitomized by Auguste Comte<sup>9</sup>.

It is difficult to say exactly what *Immanenzpositivismus* is <sup>10</sup>; in fact, the definitions proposed in dictionaries and manuals of philosophy are inaccurate. Here, suffice it to say that, in the late 19<sup>th</sup>-and early 20<sup>th</sup>- century German-speaking context, a "positivist" was a philosopher who espoused the six following founding principles: a) a "*Monismus des Geschehens*", also referred to as "neutral" or "epistemological" monism, according to which the mental and the physical are only by-products of primitively ontologically undifferentiated phenomena; b) a radically immanentist conception of knowledge, the latter being identified, in the final analysis, with what is effectively experienced in consciousness; c) the idea of a clear-cut distinction between science and metaphysics, and a strong antimetaphysical stance; d) an overt hostility to traditional philosophical concepts such as cause, substance, matter, or the self; e) the centrality of the notion of economy of thought; and f) an evolutionary conception of thought and theoretical knowledge<sup>11</sup>. Mach and Gomperz were "genuine positivists" who clearly met the six above-mentioned criteria, but there were many contemporary philosophers who met them only partially, and who can be called, according to Eisler's expression, "half positivists"<sup>12</sup>.

<sup>6</sup> Riehl, *ibid.*; Traugott Konstantin Oesterreich, "Die philosophische Strömungen der Gegenwart", in: *Ibid.*, pp. 352-395; Acham, "Immanenzpositivismus"; *op. cit.*; Wolfgang Röd, "Empiriokritizismus und Konventionalismus", in: Pierfrancesco Basile/Wolfgang Röd (Eds.), *Geschichte der Philosophie, Band 11, Die Philosophie des ausgehenden 19. und des 20. Jahrhunderts, 1, Pragmatismus und analytische Philosophie.* München: Beck, 2014, pp. 39-55.

<sup>7</sup> Richard Avenarius, Kritik der reinen Erfahrung, 2 vol. Leipzig: Reisland, 1888-1890. On the uses of the term "Empiriokritizismus", see: Chiara Russo Krauss, Il sistema dell'esperienza pura. Struttura e genesi dell'empiriocriticismo di Richard Avenarius. Firenze: Le Cáriti Editore, 2013.

<sup>8</sup> Rudolf Eisler, "Positivismus", *Wörterbuch der philosophischen Begriffe, historisch-quellenmässig bearbeitet, Band* 2. Berlin: Mittler, 1910 (third edition), pp. 1031-1041.

<sup>9</sup> Auguste Comte, Cours de philosophie positive, 6 vol. Paris : Bachelier, 1830-1842.

<sup>10</sup> Acham, "Immanenzpositivismus", op. cit.; Przybylski, "Positivismus", op. cit.

<sup>11</sup> Eisler, "Positivismus", op. cit.; Riehl, "Logik und Erkenntnistheorie", op. cit.; Jürgen Blühdorn/Joachim Ritter (Eds.), Positivismus im 19. Jahrhundert. Beiträge zu seiner geschichtlichen und systematischen Beudeutung. Frankfurt/Main: Klostermann, 1971; Acham, Ibid.; Przybylski, Ibid.

<sup>12</sup> Eisler, Ibid.

#### 1.2. The issue of experience in Immanenzpositivismus

As the name indicates, *Immanenzpositivismus* ascribes a central role to the issue of immanence, which is the core tenet of its theory of experience. Positivists like Mach and Gomperz advocated an all-encompassing conception of experience (*Erfahrung*), which they regarded as the manifestation of all forms of knowledge as they can be effectively apprehended in consciousness. By equating experience with the fact of being conscious, they assumed a purely immanentist view of knowledge: knowledge does not correspond to anything outside what we experience consciously and it is only in conscious experience that it is likely to find its justification. As a "philosophy of pure experience", *Immanenzpositivismus* aims to identify the primitive experiential facts that theoretical knowledge consists of by rejecting as metaphysical, and thus ungrounded, all assumptions that cannot be justified on the basis of an analysis of the conscious givenness<sup>13</sup>.

The great merit of the German and Austrian positivists of that time was to have renewed the concept of experience by going beyond the traditional conceptions regarding the origin and the nature of knowledge (empiricism, rationalism, intellectualism, criticism, etc.). For instance, they criticized the idea that there may be a form of knowledge coming "from outside" and one originating or retrieved "from inside", because, in their view, there is basically neither an external nor an internal side of experience, but only one level of immanence. For the same reason, they refused any primitive distinction between *Anschauung* (perceptual experience) and conceptual thought. Moreover, they rejected the idea that psychological and physical phenomena may be ontologically different, the difference between the two being, according to them, a question of "point of view", not of nature: the given appears to us as a manifestation of our own consciousness when apprehended in immediate experience (point of view of psychology) and as existing independently from us in the external world when apprehended in mediate experience (point of

<sup>13</sup> On the nature of "pure experience", see: Russo Krauss, *Il sistema dell'esperienza pura, op. cit.*, especially pp. 48-56.

view of natural sciences)<sup>14</sup>. When all is said and done, the theorists of *Immanenzpositivismus* rejected the possibility of founding the philosophical inquiry on distinctions such as "exteriority" and "interiority", "intuition" and "concept", "sensibility" and "thinking", "inner sense" and "outer sense", "subjective experience" and "objective experience", etc. They did not deny the phenomenal reality and the epistemological importance of such distinctions, but they refused to consider them as pre-established categories of experience that epistemology should begin with. Here, we have to do deal with, not with primitive, but with secondary experiential data, which, instead of being postulated, should be explained through the analysis of pure experience.

Ultimately, *Immanenzpositivismus* raises the question of what experience is actually made of; that is, what are the elementary constituents that reality pertains to and to which knowledge should be referred? In Acham's words: "only sensations and representations are given as 'elements', or complexes of elements, of all what is real". The idea that, for *Immanenzpositivismus*, experience basically boils down to the question of sensations (*Empfindungen*)<sup>16</sup> and representations (*Vorstellungen*)<sup>17</sup>, the mind's cognitive elements, is accepted by virtually all modern commentators. My intention is to show that such an assumption is, in reality, mistaken, and that historians have neglected the question of *feelings* (*Gefühle*)<sup>18</sup>, the elements that underpin the affective dimension of experience<sup>19</sup>.

<sup>14</sup> On the notion of "immediate" ("inner") and "mediate (outer) experience" (or "perception") in the German-speaking psychology and philosophy, see: David Romand, "La théorie herbartienne de la représentation : une dialectique de l'acte et du contenu", in: Anton Hügli/Janette Friedrich/Guillaume Fréchette (Eds.), *Intentionalität und Subjektivität – Intentionnalité et subjectivité, Studia Philosophica*, 75, 2016, pp. 175-188.

<sup>15</sup> Acham, op. cit., p. 239. All translations are mine.

<sup>16</sup> For a historical and conceptual survey of the concept of *Empfindung*, see: Eisler, "Empfindung", in: *Wörterbuch, op. cit., Band 1*, pp. 271-281.

<sup>17</sup> In line with a number scholars of his time, Mach used "Vorstellung" in its restrictive sense, referring to internally generated mental contents, that is, sensory data or complexes or sensory data as they are reproduced in consciousness. For the double (generic and restrictive) acceptation of the term "Vorstellung" in the German-speaking psychological tradition and a historical-theoretical survey of the corresponding concept, see: Eisler, "Vorstellung", in: Ibid., Band 3., pp. 1690-1699. See also: Romand, "La théorie herbartienne de la représentation", op. cit.

<sup>18</sup> Eisler, "Gefühl", in: *Ibid., Band 1*, pp. 391-400; David Romand, "Külpe's affective psychology: The making of a science of feeling (1887-1910)", in: Chiara Russo Krauss (ed.), *La scienza del pensiero. Il realismo filosofico di Oswald Külpe, Discipline Filosofiche, 27*, 2, pp. 177-204.

<sup>19</sup> On the difference between cognitive and affective processes in a German-speaking context, see: David Romand, "Theodor Waitz's theory of feelings and the rise of affective sciences in the mid-19<sup>th</sup> century", *History of Psychology*, 18, 4, 385-400, "Külpe's affective psychologie: The making of a science of feeling (1887-1910)", *op. cit.* 

# 2. Mach's sensation-based epistemology

# 2.1. Mach's concept of "element"

Mach called "elements" (Elemente) simple entities of which experience, that is, "the ultimate components (Bestandteile) that have not been likely to be analyzed further thus far"<sup>20</sup>. As the irreducible (established) constituents of reality, they correspond to the only ontological properties that scientific investigation has to cope with. In the various editions of Die Analyse der Empfindungen, Mach repeatedly identified elements with sensations (Empfindungen), that is, "colors", "sounds", "pressures", "spaces", "times", etc., and many other properties that occur in consciousness together with a definite quality. Although basically defined as manifestations of conscious experience, sensations are not supposed to be originally primitive mental states. In accordance with his monistic claims, Mach regarded them as something ontologically "neutral", neither mental nor material, neither psychological nor physical. When perceived in relation to the subject, sensations are experienced as the immediate data of consciousness, whereas they are spontaneously experienced as qualities of the objects of the external world when they are perceived as something occurring independently from the subject<sup>21</sup>. According to this view, subjectivity and objectivity, interiority and exteriority, far from being inherent to the nature of the constituents of experience, are properties that are secondarily added to them.

In *Die Analyse der Empfindungen*, Mach distinguished in reality between three "groups of elements", which he defined on the basis of definite phenomenological and functional properties<sup>22</sup>. First, Mach identified the group of sensory data *(Sinnesempfindungen)*, that is, basically, sensations

<sup>20</sup> Mach, "Analyse", op. cit., pp. 14-15.

<sup>21</sup> See in particular: Ibid., pp. 23-24, 40, 46-49; Mach, "Erkenntnis und Irrtum", op. cit., pp. 14-22, 28.

<sup>22</sup> Mach, "Die Analyse der Empfindungen und das Verhältnis des Physichen zum Psychischen", in: Gereon Wolters (Ed.), *Ernst-Mach-Studienausgabe, Band 1* (reprint of the 1911 eleventh edition). Berlin: Xenomoi, 2008, pp. 17-18, 20-24, 38-40.

as they are effectively mediated by the so-called objective senses, vision and hearing. These elements, which he referred to with the symbols "A, B, C", correspond to the more or less vivid impressions apprehended in *Anschauung*, the perceptual experience. Second, Mach referred to as "K, L, M" what contemporary psychologists often called "subjective sensations", that is, bodily or organic sensations. Mach called the third group of elements " $\alpha$ ,  $\beta$ ,  $\gamma$ ", which, according to him, encompasses all reproduced sensations, which he called "representations" (*Vorstellungen*)<sup>23</sup>, and evanescent and purely subjective states such as feelings, volitions, desires, etc. Each of these three groups of elements has to do with, respectively, the world, the body, and the self. The fact of establishing functional relationships between them results in, according to Mach, the differentiation of various forms of practical or theoretical experiences. As Gereon Wolters explained in his introduction to *Die Analyse der Empfindungen* in the first volume of the *Ernst-Mach Studienausgabe*:

"So, sensory physiology studies regular relations between world-elements (Weltelemente) and body-elements (Leibelemente), while physical sciences concern regular interrelations between word-elements. If we focus on intrapsychical elements (innerpsychische Elemente) only, we are dealing with psychology."<sup>24</sup>

Here, Mach explicitly assumed the view that sensations are inherently heterogeneous and that this heterogeneousness underpins the phenomenal and semantic variety of experience, an assumption that, in all likelihood, directly contradicts his monistic views on the primitive indeterminacy of elements and the ontological unicity of the givenness. According to this view, not all elements are likely to be contemplated from the physical point of view; only the so-called word-elements (*Weltelemente*) and, to a lesser extent, body-elements (*Leibelemente*) are endowed with an objective

<sup>23</sup> See note 17.

<sup>24</sup> Wolters (Ed.), "Einleitung", in: Ernst-Mach-Studienausgabe, op. cit., p. XVII.

value. By contrast, intrapsychical elements (*innerpsychische Elemente*) are properties that cannot be objectivized, that is, purely mental states, that have no other function than that of subjectivizing the complexes of sensations.

# 2.2. The psychological definition of sensation

Neither in *Die Analyse der Empfindungen* nor in *Erkenntnis und Irrtum*<sup>25</sup> did Mach propose a clear definition of sensation. Although he directly handled the issue of sensations as an experimentalist, his approach was basically that of a psychophysiologist and clearly not that of a psychologist or an epistemologist. Significantly enough, he did not discuss the ontological status of sensation compared to the other kinds of mental states and, in particular, he did not try to differentiate the two concepts of *Empfindung* and *Gefühl*. Moreover, he was particularly unclear about what the phenomenological and functional properties of sensations may be. Finally, except for his above-mentioned developments on the three "groups" of elements, he did not propose any clear typological analysis of sensations.

Mach conceived sensations in a very general way, as the sensory qualities that consciousness pertains to, and, in fact, "*Empfindung*" was for him synonymous with "mental state". This psychological definition of *Empfindung* appears particularly vague and confused, especially when compared with the developments on sensation encountered in contemporary manuals of psychology<sup>26</sup>. Here, Mach is indebted to the empiricist and associationist psychology that prevailed in German-speaking countries in the first two thirds of the 19<sup>th</sup> century and, even more strikingly, to the 18th-century sensualist tradition<sup>27</sup>. Mach's tendency to refer to (relatively) out-of-date psychological views is obvious when considering the developments on association, reproduction,

<sup>25</sup> Ernst Mach, "Erkenntnis und Irrtum", in: Elisabeth Nemeth/Friedrich Stadler (Eds.), *Ernst-Mach-Studienausgabe, Band 2* (reprint of the 1906 second edition). Berlin: Xenomoi, 2011.

<sup>26</sup> Eisler, "Empfindung", *op. cit.*; Eduard von Hartmann, "Die moderne Psychologie. Eine kritische Geschichte der deutschen Psychologie in der zweiten Hälfte des neunzehnten Jahrhunderts", *Ausgewählte Werke von Eduard von Hartmann, Band 13.* Leipzig: Haacke, 1900, pp. 174-279.

<sup>27</sup> Eisler, "Sensualismus", in: Wörterbuch, op. cit., Band 3, pp. 1324-1325.

memory, the formation of concepts, or the process of abstraction expounded in *Erkenntnis und*\*Irrtum<sup>28</sup>.

# 2.3. The place of feelings in Mach's epistemology

Feeling (*Gefühl*) was only a second-rate issue in Mach's sensation-based theory of knowledge. As previously mentioned, Mach regarded affective processes, that is, basically pleasure and displeasure, as belonging to the third group of elements, what Wolters calls the "innerpsychische Elemente"<sup>29</sup>. In fact, he explicitly assumed the view that feelings are, not mental states of their own kind, as the vast majority of contemporary psychologists and philosophers maintained, but peculiar forms of sensations<sup>30</sup>. Mach endorsed what Titchener called the "sensationalist theory of feelings"<sup>31</sup>, the view according to which affective states are basically nothing but more or less undefined sensory data.

Although feelings are not supposed to be instrumental in Mach's epistemology, some excerpts of *Erkenntnis und Irrtum* tend to prove the contrary: a) in the chapter "Gedankenexperimente": "when turning back to the domain in question after a long rest, one can notice that most of what has not been conceptually fixed, *the subtle feeling for the meaning of accessory circumstances (des feine Gefühle für die Bedeutung der Nebenumstände)*, the skill of the hand, must be, as a rule, acquired anew"<sup>32</sup>; b) in the chapter "Das physische Experiment und dessen Leitmotive": "A continuity of *expectation (Erwartung)*, with regard to experimental outcomes, corresponds to a continuity of the variations of circumstances"<sup>33</sup>; and c) in the chapter "Hypothese": "Representations that we have built on the basis of observations arouse *expectations* 

<sup>28</sup> Mach, "Erkenntnis und Irrtum", op. cit.

<sup>29</sup> Wolters (Ed.), Ernst-Mach-Studienausgabe, op. cit., "Einleitung".

<sup>30</sup> Mach, "Analyse", op. cit., pp. 27-28.

<sup>31</sup> Edward Bradford Titchener, *Lectures on the Elementary Psychology of Feeling and Attention*. New York: Macmillan, 1908.

<sup>32</sup> Mach, "Erkenntnis und Irrtum", op. cit., p. 196 (my emphasis).

<sup>33</sup> Ibid., p. 226 (my emphasis).

(Erwartungen), manifest themselves actively (wirken aktiv) and constructively, urge (drängen) new observations and new experiments<sup>34</sup>. Here, and in many other places, Mach identified a variety of abstract and intuitive mental states involved in the acquisition and maintenance of theoretical knowledge (feeling of meaning, feeling of search, feeling of expectation), implicitly admitting the centrality of affective states in epistemology.

## 3. Gomperz's feeling-based epistemology

#### 3.1. The basic tenets of pathempiricism

The idea, suggested by Mach in *Erkenntnis und Irrtum*, that the analysis of affective states may be instrumental in understanding the origin and the modalities of knowledge, was the core of Heinrich Gomperz's own version of *Immanenzpositivismus*, the so-called pathempiricism (*Pathempirismus*), which, as the name indicates, was an attempt to develop an affectivity-based theory of experience. As Gomperz emphasized: "pathempiricism is the line of thought that strives to solve cosmotheoretical problems by identifying feelings underpinning our concepts of form, and thus on the basis of psychological investigations"

It is worth noting that for Gomperz, the question of "the elementary constituents of experience" does not boil down to the issue of feelings (Gefühle), but also concerns representations (Vorstellungen) – an expression that should be taken here in its generic sense, as a synonym of "content of consciousness" As he explained, pathempiricism basically consists of investigating how feelings relate to representations: "(...) the use of the pathempiricist method is based on the assumption that representations and feelings always occur, not only simultaneously, but also by

<sup>34</sup> Ibid., p. 256 (my emphasis).

<sup>35</sup> Gomperz, Weltanschauungslehre, Erster Band, op. cit., p. 305.

<sup>36</sup> See note 17 and Eisler, "Vorstellung", op. cit.

interacting associatively with each other".<sup>37</sup> By being interrelated at a given moment with definite representations, feelings induce what Gomperz called their "characterization" (Charakterisierung) or "differentiation" (Differenzierung); they give, in other words, a specific experiential significance to phenomenologically and semantically neutral contents of consciousness<sup>38</sup>. "Changes in the association of feelings" are, in Gomperz's view, so many changes in the way of apprehending representations, and therefore the ultimate source of what he called "the forms of experiential consciousness" (die Formen des Erfahrungsbewußtseins), "the forms of experience" (Erfahrungsformen), or "the ways of experiencing" (Erlebnisweisen)<sup>39</sup>.

The *Weltanschauungslehre* was supposed to be the complete exposition of Gomperz's pathempiricist doctrine, which was itself supposed to constitute a philosophical system<sup>40</sup>. It was expected to consist of four volumes: a methodology *(Methodologie)*, a noology *(Noologie)*, an ontology *(Ontologie)*, and a cosmology *(Kosmologie)*<sup>41</sup>. The fact is that the project remained largely unachieved, and of the four volumes in question, only the *Methodologie*<sup>42</sup> and the first part of the *Noologie*<sup>43</sup> were effectively published, in 1905 and 1908, respectively<sup>44</sup>.

In his *Methodologie*, Gomperz devotes much space to demonstrate that it is only on the basis of the psychological concept of feeling that one can hope to fully account for the so-called preliminary concepts (*Vorbegriffe*), namely, substance, identity, relation, and form – the four major categories that, in his view, underlie all kinds of theoretical knowledge. According to him,

<sup>37</sup> Ibid., p. 378.

<sup>38</sup> In the *Methodologie*, Gomperz identifies four types of "characterizations", namely, "endopathy", "adjection", "determination", and "concomitance", whose analysis is beyond the scope of the present article. Cf. Gomperz, *Weltanchauunsglehre, Erster Band, op. cit.*, pp. 378-394. Here it is worth emphasizing that the capacity of feelings to modify the experiential significance of representations depends not only on the modalities of interactions between the two categories of affective states, but also and above all, as we will see in the next section, on the qualitative property of each kind of affective state.

<sup>39</sup> e.g. Gomperz, Weltanschauungslehre, Erster Band, op. cit., pp. 285, 303, 378-379.

<sup>40</sup> Gomperz, Weltanschauungsehre, Erster Band, op. cit., pp. 2-43, 395-412. See also: Seiler/Stadler, Heinrich Gomperz, op. cit.

<sup>41</sup> Gomperz, Weltanschauungslehre, Erster Band, op. cit., pp. 395-412.

<sup>42</sup> Gomperz, Weltanschauungslehre, Erster Band, op. cit.

<sup>43</sup> Gomperz, Weltanschauungslehre, Zweiter Band, op. cit.

<sup>44</sup> The reason that Gomperz abandoned his pathempiricist project is probably to be found in the fact that he changed his mind about epistemology after 1908, within the context of a growing disinterest of German-speaking philosophers in psychology and the rise of logicist concerns, especially among the Austrian *milieu* that he belonged to. For some clues about this question, see: Seiler/Stadler, *Heinrich Gomperz*, op. cit. and Stadler, *Der Wiener Kreis*, op. cit.

pathempiricism, as a feeling-based explanatory system, appears to be the dialectical overcoming of the four preceding evolutionary stages of philosophical thought ("animism", "metaphysics", "ideology", "criticism") and their historical-theoretical culmination. Although not denying the role played by representations, he basically regarded affective processes as the core of all epistemological and, more generally speaking, philosophical forms of knowledge.

## 3.2. Gomperz's concept of feeling

Of note, the concept of *Gefühl*, as used by Gomperz in his *Weltanschauungslehre*, is not a fuzzy philosophical notion, but a well-defined issue that directly echoes the contemporary psychological studies carried out in German-speaking countries<sup>45</sup>. At the end of the *Methodologie*, Gomperz devotes no fewer than 50 pages to the psychology of feelings: not only does he have an excellent knowledge of the literature in the field, but his theoretical contribution can be regarded as that of an authentic affective psychologist<sup>46</sup>.

In line with the vast majority of German-speaking psychologists of his time, he regarded feelings as belonging to a definite category of mental states, ontologically distinct from representations and sensations<sup>47</sup>. As phenomena of a non-sensory nature, they constitute, according to him, not "the content" (*Inhalt*), as representations do, but "the form (*Form*)" of experiential consciousness<sup>48</sup>.

Gomperz also proved to be in line with the German-speaking psychological community in that he identified feelings with metacognitive factors, that is, conscious properties that when added to representational contents alter their experiential significance<sup>49</sup>. The question of metacognition is

<sup>45</sup> Romand, "Theodor Waitz's theory of feelings", op. cit. and "Külpe's affective psychology", op. cit.

<sup>46</sup> Gomperz, Weltanschauungslehre, Erster Band, op. cit, pp. 344-394.

<sup>47</sup> Ibid., pp. 344-378.

<sup>48</sup> *Ibid.*, p. 379-380.

<sup>49</sup> *Ibid.*, pp. 378-394. On the metacognitive function of feelings in German-speaking psychology and epistemology, see: David Romand, "La théorie herbartienne de la représentation", *op. cit*, "Sentiments épistémiques et épistémologie affective chez Theodor Lipps", in: David Romand/Serge Tchougounnikov (Eds.), *Theodor Lipps. Philosophie, psychologie, esthétique.* Dijon: Editions Universitaires de Dijon (forthcoming).

at the heart of the theoretical developments on feelings proposed by Gomperz in the *Methodologie*. According to him, affectivity is a "reaction" (*Reaktion*) against representations, a psychical process by which means representations, as stated earlier, are "characterized" or "determined" in a definite way.

Another crucial dimension of Gomperz's theory of feelings consists of identifying them with well-defined epistemic entities. Unlike many contemporary psychologists<sup>50</sup>, but in line with the most recent advances in the phenomenology of feelings, especially the contributions by Avenarius<sup>51</sup>, Petzoldt<sup>52</sup>, Lipps<sup>53</sup>, and, to some extent, Wundt<sup>54</sup> – four authors who are much discussed in the Weltanschauungslehre – he argued that affective life, far from boiling down to pleasure and displeasure, consists of countless elementary qualitatively determined properties. Besides "hedonic" or "emotional feelings" (hedonische/affkektive/emotionelle Gefühle), he distinguished "intellectual" feelings also called "non-hedonic" or "non-emotional feelings" (intellektuelle/nicht-affektive/nicht-emotionelle Gefühle), which are characterized by the fact of expressing "an abstract form of cognizance"<sup>55</sup>. In other words, affective states correspond for him, as a rule, to what modern scholars call "cognitive" or "epistemic" feelings<sup>56</sup>. Here Gomperz's originality lies not in the fact of discussing the question of epistemic feelings per se – which, as I demonstrated elsewhere<sup>57</sup>, was a very common issue at the beginning of the 20th century – but in the fact of identifying the feelings in question with a class of affective processes sui generis and a pivotal and ubiquitous dimension of conscious life.

Gomperz's developments on metacognition and the epistemic nature of feelings are

<sup>50</sup> Romand, "Külpe's affective psychology", op. cit.

<sup>51</sup> Avenarius, Kritik, op. cit.

<sup>52</sup> Joseph Petzoldt, Einführung in die Philosophe der reinen Erfahrung, Erster Band: Die Bestimmheit der Seele. Leipzig: Teubner, 1900.

<sup>53</sup> Theodor Lipps, *Vom Fühlen, Denken und Wollen. Eine psychologische Skizze.* Leipzig: Barth, 1902. See also: Romand, "Sentiments épistémiques", *op. cit.* 

<sup>54</sup> Wilhelm Wundt, *Grundriss der Psychologie*. Leipzig: Engelmann,1896, *Grundzüge der physiologischen Psychologie, Band 2*. Leipzig: Engelmann, 1902 (fifth edition).

<sup>55</sup> The issue of epistemic feelings in German-speaking psychology and epistemology is discussed at length in: Romand, "Sentiments épistémiques", *op. cit*.

<sup>56</sup> Romand, "Theodor Waitz's theory of feelings", op. cit. and "Sentiments épistémiques", op. cit.

<sup>57</sup> *Ibid*.

essential to remember to understand the role ascribed to affectivity in pathempiricism.

# 3.3. The epistemological significance of feelings in the Weltanschauungslehre

According to Gomperz, an essential epistemological function of feelings is to determine the phenomenological forms of consciousness, that is, basically to differentiate the way the self relates to itself and the way it relates to the external world. Although not discussed at length, since the planned volume devoted to "ontology" was never written, this issue is the subject of interesting developments in the *Weltanschauungslehre*<sup>58</sup>. Gomperz identified various categories of affective states, e.g. "the feelings of objectivity" and "subjectivity", "the feelings of immediacy" and "mediacy", "the feelings of activity" and "passivity", "the idiopathic" and "the endopathic feelings", etc., which he regarded as the foundation of the difference between perception and internal states, the self and the apprehension of objects, receptivity and spontancity, self-awareness and awareness of others, etc. Nevertheless, it is first and foremost in consideration of language that Gomperz discussed in detail the role of feelings, seeing that the *Noologie* was the only volume of the *Weltanschauungslehre* that was (partially) implemented.

Gomperz regarded noology – the domain of the pathempiricist system devoted to the study of thought – as consisting of two clear-cut fields of investigation: a) "semasiology" (Semasiologie), the theory of thought contents, and b) "alethiology" (Alethologie), the theory of thought values<sup>59</sup>. While alethiology has to do with the question of epistemic justification (the truth value of statements), semasiology is basically conceived as semiotics and semantics, and it appears to be more closely related to linguistic concerns than to epistemology, strictly speaking. This is the only part of the noology discussed in detail by Gomperz, in the second, and last, published book of his Weltanschauungslehre.

<sup>58</sup> Gomperz, Weltanschauungslehre, Erster Band, op. cit., pp. 158-178, 274-283, 300-304, Weltanschauungslehre, Zweiter Teil, op. cit., pp. 258-266.

<sup>59</sup> Gomperz, Weltanschauungslehre, Zweiter Band, op. cit., pp. 2-53.

Semasiology's core concept is the notion of statement (Aussage), which Gomperz defined as "[a] "linguistic form plus [a] thought" (Sprachform plus Gedanke)<sup>60</sup>. By "statement", he refers to all grammatically organized, meaningful linguistic entities, that is, "not only concepts and sentences, but also addresses, orders, wishes, proclamations, assumptions, questions, inferences, reasonings, and proofs (...)"<sup>61</sup>. According to Gomperz, every statement comprises three "primary elements"<sup>62</sup>(fig. 1): 1) "the statement sound" (Aussagelaut), that is, the linguistic form of the statement; 2) "the statement content" (Aussageinhalt), that is, the logical content or the sense (Sinn) of the statement; and 3) "the statement foundation" or "basis" (Aussagegrundlage), that is, facts (Tatsachen) that relate to the statement. Gomperz called "expression" (Ausdruck) the relation between the statement sound and the statement basis, and "apprehension" (Bezeichnung) the relation between the statement content and the statement basis. The complex formed by the statement content and the statement basis constitutes "the state of affairs" (Sachverhalt), of which the statement as a whole is the meaning (Bedeutung).

Among the three basic components of the statement identified by Gomperz, the statement sound and the statement basis are supposed to consist of representations and the statement content of feelings<sup>63</sup>. Although for him the question of the statement, and, more generally speaking, of language, do not boil down to the issue of affectivity, the concept of feeling proves to be the core of his semasiological analysis<sup>64</sup>, which basically has to do with the psychological foundations of the meaning of logical statements. By "logical statement", Gomperz referred to any kind of statement whose basis arouses "a general-typical total impression" (eine generell-typische Totalimpression),

<sup>60</sup> *Ibid.*, pp. 55-56, 65.

<sup>61</sup> Ibid., p. 75.

<sup>62</sup> *Ibid.*, pp. 61-78; see also: Henckmann, "Bewußtsein und Realität bei Külpe und Gomperz", *op. cit.*; Knobloch, *Geschichte der psychologischen Sprachauffassung, op. cit.*; Kiesow, "Aussageinhalt bei Gomperz, Bühler und Popper", *op. cit.* and "Das sprachphilosophische Werk von Heinrich Gomperz", *op. cit.*; Seiler, "Heinrich Gomperz (1873-1942), Philosophie und Semiotik", *op. cit.* 

<sup>63</sup> Gomperz, Weltanschauungslehre, Zweiter Band, op. cit., pp. 91, 206, 220.

<sup>64</sup> As a matter of fact, Gomperz explicitly championed "an approach of language based on affective psychology" (eine gefühlspsychologische Bearbeitung der Sprache). Cf. Ibid., p. 238.

that is, a state of consciousness that "emphasizes what is common from many individual cases" 65 and that occurs, not in one single individual, but "in several similar thinking beings" 66. Generaltypical total impressions, which correspond to the meaning of words (Wortbedeutung), originate in a definite category of affective processes, the so-called material logical feelings (logische Materialgefühle)<sup>67</sup>. Here we are dealing with all affective factors that, according to Gomperz, determine word stems and logical definitions, or, to put it differently, "the categorematic parts of the speech" (die kategorematischen Redeteile)<sup>68</sup>. Besides the material logical feelings, which constitute "the matter of linguistic consciousness", one should identify the formal logical feelings (die logischen Formalgefühle), which, as the name indicates, underpin the appearance of the "linguistic form" (Sprachform, sprachliche Form), the non-factual aspects of meaning<sup>69</sup>. What Gomperz called "formal logical feelings" consist of all affective processes that are specifically involved in the making of the morphosyntactic properties of language, that is, not only syncategorems, but also "the simple grammatical forms of word stems" and "the status and emphasis of simple words" 70. As he highlighted, the role of this category of logical feelings is to join together various general-typical total impressions and to specify their significance, thus contributing to the rise of global content of the logical statement and structuring it as one meaningful unit. Although at the beginning of the Noologie, Gomperz insists on the fact of not confounding logic with psychology and dismisses the label of "psychologism"<sup>71</sup>, the developments that he proposes in the third chapter of the Semasiologie appear to be an attempt to systematically revisit semiotics, semantics, and, more generally speaking, the logical determinations of language in light of affective psychology.

Moreover, as stated earlier, it should be kept in mind that the *Semasiologie* was also supposed to be a theory of epistemic justification. Although the corresponding book, the

65 *Ibid.*, p. 227.

<sup>66</sup> Ibid., p. 220.

<sup>67</sup> See in particular: Ibid., pp. 229-232, 236-237.

<sup>68</sup> Ibid., pp. 231-232.

<sup>69</sup> *Ibid.*, pp. 228-232.

<sup>70</sup> Ibid., pp. 230-232.

<sup>71</sup> *Ibid.*, pp. 6-43.

Alethologie, was never written, there is little doubt, considering the programmatic developments found here and there in the *Weltanschauungslehre*, that Gomperz's intention was also to refound the "hardcore" aspect of epistemology on the basis of the psychological concept of feelings.

# 4. Mach's "sensualist" vs. Gomperz's "affectivist" positivism: a critical comparison

Taking everything into consideration, I would like to briefly compare the way in which Mach and Gomperz addressed the question of the elementary constituents of experience:

- 1. Mach's philosophy is mostly based on the concept of sensation, whereas Gomperz's pathempiricism is based on the concept of feeling: they can be said to be the representatives of, respectively, a *sensualist* and an *affectivist* positivist tradition of research.
- 2. Mach's notion of sensation is a relatively ill-defined concept that has only superficially to do with contemporary psychological research, whereas Gomperz's notion of feeling appears to be directly in keeping with recent advances in affective psychology. More generally speaking, Gomperzian affective positivism is more closely related to psychological concerns than is Machian sensualist positivism.
- 3. Mach remained relatively unclear about the nature and the function of the elementary sensory data he speaks about, and, in fact, the issue of the elementary components of experience plays a limited role in the explanations proposed in *Die Analyse der Empfindungen* and *Erkenntnis und Irrtum*. By contrast, in his *Weltanschauungslehre*, Gomperz proposed a systematic typological and functional analysis of affective processes and he analyzed in detail how these elements interact with each other and with

representations in order to give rise to experience and theoretical knowledge.

4. As a model of immanentist philosophy, Gomperz's feeling-based positivism appears to be theoretically more satisfactory and epistemologically more consistent than Mach's sensation-based positivism. Based on the notions of epistemic immediacy and metacognition, pathempiricism provides tantalizing explanations regarding the origin of the phenomenological forms of consciousness or the foundations of theoretical knowledge.

#### **Conclusion**

This paper has permitted me to revisit the history of positivism and to reappraise the place of affectivity in the Austrian philosophy of the late 19th and early 20th centuries. I showed that, besides the sensation-based approach epitomized by Mach, one should identify a feeling-based form of *Immanenzpositivismus*, of which Gomperz was the main representative. Of course, no clear-cut distinction can be made between the "sensualist" and the "affectivist" paradigm of positivism, and neither Mach nor Gomperz tried to ground his epistemological inquiry on only one category of experiential components. By reassessing the role ascribed to cognitive and affective processes in Mach and Gomperz, I hope to have contributed to paving the way to a new typological analysis of the positivist school and to have shown that the paradigm of *Immanenzpositivismus* should not be confounded with the research program elaborated by Mach, which represents only a particular tendency of the positivist school. Gomperz's philosophy can be shown not only to be as genuinely positivist as that of Mach, but also to be theoretically more convincing than the latter. Nevertheless, in my view, it is important not to confine pathempiricism to the issue of positivism and to resituate it within the broader framework of *affective epistemology*? The idea that feelings are instrumental

<sup>72</sup> Georg Brun/Dominique Kuenzle, "Introduction. A new role for emotions in epistemology?", in: Georg Brun/Ulvi Doğuoğlu/Dominique Kuenzle (Eds.), *Epistemology and Emotions*. Aldershot-Burlington: Ashgate, 2008, pp. 1-31.

in the acquisition and manifestation of knowledge was widely accepted by German-speaking philosophers at the beginning of the 20th century. The originality of the *Weltanschauungslehre* lies, not in the fact of admitting a link between affectivity and epistemology, but in the assumption that the latter should be reduced to affective psychology. Such a radical conception of affective epistemology is found again in Avenarius. And his disciple Petzoldt, but also in Lipps, who, in the first edition of his booklet *Vom Fühlen, Wollen und Denken*, tried to explain the differentiation of the forms of conscious experience and the origin of theoretical knowledge on the basis of the psychological concept of feeling. The views expounded in the *Weltanschauungslehre* are in reality much older, since they were clearly outlined by Beneke in his *Skizzen zur Naturlehre der Gefühle*, issued in 1825. My hypothesis is that the model of affective epistemology called "pathempiricism", far from being an idiosyncratic expression of Gomperz's *Weltanschauungslehre*, is a genuine research program that developed in Germany and Austria between the early 19th and early 20th centuries. Moreover, it may be fruitful to reassess pathempiricism in the light of modern philosophical thought by highlighting its close relatedness to recent advances in affective epistemology.

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<sup>73</sup> Romand, "Theodor Waitz's theory of feelings", op. cit. and "Sentiments épistémiques", op. cit.

<sup>74</sup> Avenarius, Kritik, op. cit.

<sup>75</sup> Petzoldt, Einführung, op. cit.

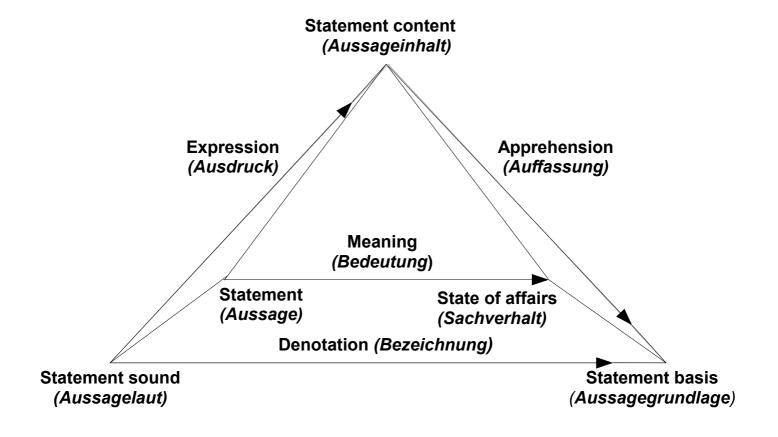
<sup>76</sup> Theodor Lipps, Vom Fühlen, op. cit.

<sup>77</sup> Romand, "Sentiments épistémiques", op. cit.

<sup>78</sup> Friedrich Eduard Beneke, Skizzen zur Naturlehre der Gefühle, in Verbindung mit einem erläuternden Abhandlung über die Bewußtwerdung der Seelenthätigkeiten herausgegeben. Göttingen: Vandenhoeck & Ruprecht, 1825.

<sup>79</sup> Brun/Doğuoğlu/Kuenzle (Eds.), Epistemology and Emotions., op. cit.

<sup>80</sup> Kornblith (Ed.), *Epistemology: Internalism and Externalism*, Malden-Oxford: Blackwell, 2001; Goldberg (Ed.), *Internalism and Externalism in Semantics and Epistemology*, Oxford-New York: Oxford University Press, 2007.



**Figure 1:** Gomperz's psychological model of the statement (adapted from an original figure by Gomperz, 1908, p. 77)