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# Lotze's Conception of Metaphysics and Science: A Middle Position in the Materialism Controversy

Charlotte Morel

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**Abstract:** The materialism controversy, which tore the middle 19<sup>th</sup> century intellectual German society apart, involved scientists, theologians, philosophers, teachers, and even more. Hermann Lotze, who at first was not willing to engage in this dispute, was soon appealed to as an arbiter based upon his previous epistemological writings concerning life sciences, psychology and natural science in general. Since he appeared to defend both a mechanistic point of view in natural science and spiritualism in metaphysics, representatives of both these extreme positions thought he could help backing up their own views during the controversy. Yet, as Lotze himself described it, the controversy was for his times, generally speaking, only “useless torture”. This paper aims at showing that Lotze's specific role in the controversy corresponds to what we will assume to be a clear theoretical need of the time: i.e., a critical assessment of how to connect natural science with metaphysics.

**Keywords:** Lotze, Materialism, Spiritualism, Natural Science, Metaphysics.

## Introduction

From today's perspective, the “materialism controversy” could easily look like a forgotten moment in German and European intellectual life, and having forgotten it we can easily convince ourselves that its role had only been a minor one. Yet, such reasoning reverses the cause and its consequences, as is clear from the already existing studies on the “*Materialismusstreit*”<sup>1</sup>. Historical inquiry based on contemporary accounts confirms the view that the materialism controversy was—with regard to its length, extent, as well as intellectual impact—“one of the most important intellectual disputes of the second half of the nineteenth century”<sup>2</sup>. As an anonymous account puts it, the “idols of materialism” were the “true golden calf of this century”<sup>3</sup>, or, as a more neutral assessment would say, materialism had become at that time a “total social phenomenon”, the critical and polemical reactions being commensurate with its effective impact.

More exactly, what needs to be considered is the determining influence of science as a total social fact: it is characteristic of the materialism of that time that it evolved into a “scientific materialism”<sup>4</sup>. In its final phase, the “materialism controversy” partly merges with the “Darwin controversy”<sup>5</sup>, yet we must not confuse the two:

the former significantly pre-dates the latter and has its own characteristics. From the 1840s, a fundamental divide emerges among natural scientists about what it means to explain natural, and especially vital, phenomena<sup>6</sup>—and the crisis erupts in September 1854 on the occasion of an institutional event for the German scientific community: the 31<sup>st</sup> meeting of the Congress of German Naturalists and Physicians (*Gesellschaft deutscher Naturforscher und Ärzte*) in Göttingen.

In 1856, when the controversy is at its height, Lotze describes it as having proved to be “useless torture”<sup>7</sup>: it has trapped us between a kind of positivism willfully blind to anything but facts and what spiritualists take to be an approach that, by adhering to a position based on faith, it stays beyond any possible proof or refutation.

In his book *Late German Idealism: Lotze and Trendelenburg*, Frederick Beiser relates how Lotze tried, in vain, not to get personally involved in the controversy, whereas main protagonists from both sides were asking him to do so—sometimes in a rather intrusive or even provocative manner.<sup>8</sup> For instance, he never escaped the cruel nickname given to him by Carl Vogt in one of the central controversy texts: among the champions of a “metaphysical physiology” of “substantial soul” in Göttingen, Rudolph Wagner (director of the Physiology Institute) is referred to as the “mystical believer”, and Lotze as the “speculative Struwwelpeter”<sup>9</sup>. This reference to the well-known character of German children's literature suggests that, though Lotze's philosophy of science and nature appears to be an impartial and original one, it is in fact waving a red flag in an attempt to frighten people away from anything that could go against the bourgeois moral order. With this nickname, Vogt puts Lotze on the same level as Wagner, both seeking to infantilize society by appealing to “superstitions” such as “soul” and “freedom”. From Vogt's perspective, one could say that the former's spiritualism very opportunely provides the theoretical backing to the latter's ultra-conservatism.<sup>10</sup> In addition, Wagner tries to elicit support from his former protégé,<sup>11</sup> for example by showing particular indelicacy during the inaugural plenary conference of the 1854 conference mentioned above (the event that triggered a considerable controversy and marked the beginning of the crisis). In his very controversial talk, Wagner does not name Lotze directly, but still refers to him as “this quick-witted scientist who sits here among us”, and then recalls the following excerpt from Lotze's *Medical Psychology*:

The great extension that these materialistic reasonings have won in the progressive decline of general education, and surely will continue to win, requires us, without the hope of meaningful success, to test out their salient arguments.<sup>12</sup>

I shall return to this passage later in my conclusion. It is out of question that Lotze did issue polemical statements against materialism. In his *Medical Psychology*, for example, in addition to discussing several passages from Vogt's first popular work, the *Physiological Letters*, he even makes a very cutting remark against the author (who will later not hesitate to make several references to it):

'As the function of the muscles is contraction, as that of the kidneys is to secrete urine, in the same way the brain conceives thoughts, strivings, feelings'. I doubt whether all the thoughts of men should arise in this uropoetic way; only this expression itself could lead us to the suspicion that it is possible.<sup>13</sup>

Nevertheless, Wagner and Lotze do not take issue with materialism in the same way. Lotze, in particular, clearly distances himself from the principle of "double-entry bookkeeping" to which Wagner appeals in order to make a *de jure* separation between, on the one hand, issues and answers related to scientific knowledge and, on the other hand, those related to religious belief when dealing with contentious questions such as the creation of humanity or the existence of the soul. He also rejects Wagner's thesis of the "divisibility of soul"<sup>14</sup>. Heinrich Czolbe, who wrote in 1855 an influential text on sensualism and materialism, confessed that Lotze's anti-vitalist stance heavily influenced him and, in so doing, he suggested that if Lotze had been consistent with this anti-vitalist approach, he himself would have joined the materialist stance!<sup>15</sup> As for Vogt, once the controversy had begun, he denounced Lotze as Wagner's henchman.<sup>16</sup> Accordingly, we can easily understand Lotze's scientific despair and personal despondency due to his being held hostage by both sides in a controversy he wished to avoid.

The materialism controversy, however, had such a great impact that Frederick Beiser can state that "it was this debate that, for better or worse, gave [Lotze] his place in German intellectual history"<sup>17</sup>—a judgement we could subscribe to when considering, as Beiser does, Lotze's famous "anthropological" work: the three volumes of *Microcosmos*, which indeed had a great success in Europe. Conceived as a response to the irreconcilable claims raised by both materialists and spiritualists in the context of the "materialism controversy"<sup>18</sup>, *Microcosmos* sets out to present to a broader readership an overall vision of human beings by considering their psycho-physical nature, their achievements as both thinking beings and living beings, and lastly their goals as spiritual beings. Nevertheless, we should remember that Lotze could have never participated in the controversy as an arbiter without his fellow scholars having already recognized him, based on his early writings, as the right person for the job.

This being said, how is it possible that in 1854 Lotze came to occupy (even against his will) this peculiar position in the "materialism controversy"?

Starting with this question, I will proceed in two steps. In this first part I will present Lotze's key ideas in his *Medical Psychology* (1852); I will also consider *Seele and*

*Seelenleben* (a text published in Wagner's encyclopedia of physiology in 1846)<sup>19</sup> in order:

- To show what Lotze's earliest views were regarding the materialist approach; and

- To discuss further how the materialists' attempts to consider Lotze as an opponent or to gain him as an ally in the controversy finally resulted in some misinterpretations that he had fully anticipated.

In this respect, my aim here is to show how Lotze's criticism of the materialist thinkers of his time focuses on epistemological issues. This will lead me, in the second part, to address Lotze's claims from the perspective of a topic that proves decisive in his overall philosophical work: i.e., the connection between metaphysics and natural science. On his account, neither materialists nor spiritualists carried out a frank and rigorous critical assessment of this matter, as should they have done given the issues at stake in the "materialism controversy". That such an enquiry is absolutely necessary for Lotze will turn out to be a key element in the interpretation of the sentence I quoted above: if the "materialism controversy" is "useless torture", it is to the extent that "we inflict [it] on ourselves through premature interruption of the investigation"<sup>20</sup>. This "premature interruption" would now therefore mean ignoring the issue of how to connect natural science with metaphysics.

We could refer here to a remark by Reinhardt Pester and offer a justification of it in this perspective: according to Lotze, the materialism controversy remained unfruitful precisely because the main protagonists turned out to lack any sense of "the necessity for a division of labor"<sup>21</sup> between philosophy and natural science. Here we will have to elaborate on what this "division of labor" exactly means, because the metaphor itself can be misleading. As with the debate with Wagner about the relations between faith and science, Lotze firmly rejects the idea of using "double-entry bookkeeping" (*doppelte Buchhaltung*) in regard to metaphysics and natural science, i.e., the idea of considering certain common issues from two separate perspectives. According to him, this would amount to legitimating a *partition* and no longer just a *distribution of tasks* when dealing with theoretical issues related to nature, especially those that concern the relationship between soul and body. My aim is to show that the option defended by Lotze consists in a "progressive" connection—similar to the way he combines two directions in his own metaphysical system. In the end, what he achieves by elaborating on the need to clarify the relationship between metaphysics and natural science will shed light on the philosophical meaning of his own *ideal-realist* approach.

## 1. The epistemological critique of materialism

In 1854, the protagonists of the materialism controversy were familiar with Lotze's anti-materialistic views. With his critique of "vital force", these had been a common thread running through his writings until then, which were devoted to medicine (pathology and physiology: 1842, 1851), psychology, and their philosophical basis.<sup>22</sup> On Lotze's account, if materialists as well as spiritualists dis-

torted what he wrote in order to present his thoughts as theirs, the cause was of methodological nature.

### 1.1. The desire for unity and its epistemological critique

It is interesting here to consider how Lotze structures the first chapter of his *Medical Psychology*, for there he outlines and describes an error which is shared by the two opposite positions he rejects. Both materialism and “identity-philosophies” lead to the “identification of body and soul”<sup>23</sup>. No matter how different the two positions are, both are tempted to yield to an excessive desire for unity in explaining the world. According to Lotze, such a desire can be methodologically misleading, this is why he speaks of a “yearning for the unity of the world”<sup>24</sup>.

Behind every objection generally raised against separating the soul from the body as a characteristic principle, one finds [...] an anxious dread of the formal mistake of the ambivalence that is justified by it between *the spiritual and the corporeal in the world in general*. [...] Longing for the unity of the world exercises such a great violence, that any attempt to distinguish both of the kingdoms of being within it will be feared as the most inadmissible depravation of the entire world-view.<sup>25</sup>

This applies perfectly to materialism: what it claims in this respect amounting to the “total sacrifice of an autonomous spiritual being” in the name of “the much longed-for unity of the world”<sup>26</sup>.

Why does Lotze think that the “yearning for unity” misses the point, thereby becoming “misleading” or “false” (*falsch*)? In both materialism and identity-philosophy, he notes, the unity is meant to apply to “phenomena” and their substrata, not to the ruling “principles” of natural science itself.

Science absolutely does not have in general a particular obligation to work towards the unity [of a principle of appearances], but only in relation to the directions in which a commonality not only of the final but also of the nearest foundation for a group of appearances is necessary or probable from higher and more general grounds. [...]

We have grounds for supposing that all natural events are based on the same laws of statics and mechanics, but not the least grounds to suspect that everywhere there will be the same forces and substances that work according to these rules. [...]

We must therefore demand unity of the highest laws, since the connection of the world to a rational whole is an indispensable precondition of our spirit; we can demand a unity of the nearer laws or of the substrata upon which these effects rest in only if a series of particular analogies made it likely; we must suppose the difference of the same substrata as soon as the divergence of all appearances so imperiously demands it, as in the case of our spiritual life.<sup>27</sup>

It might be relevant here to draw a parallel between this passage and the *Appendix to the transcendental Dialectic* in the *Critique of Pure Reason*, where reason aims at forming the “systematic whole of knowledge”, and this “systematic unity” is indeed to be looked for at the level of principles, not at the level of the objects of knowledge.<sup>28</sup> The principles of the systematic unity of the use of the understanding settle “lines of direction” along

which “all its rules converge at one point, which [...] is only an idea (*focus imaginarius*) – i.e., a point from which the concepts of the understanding do not really proceed”, so that this also results in “the deception, as if these lines of direction were shot out from an object lying outside the field of possible empirical cognition”<sup>29</sup>. Scientists who try to find a “misleading unity” and turn a unique substance into a methodological and epistemological principle are precisely under this illusion, and end up mistaking ‘objects’ for ‘principles’<sup>30</sup>.

From this perspective, Lotze’s critique of materialism (as well as of identity-philosophies) is indeed a methodological one: his demand being that on these subjects we do not settle for the “fading form of a general *methodological demand* of any scientific investigation”, which characterizes those thinkers who naively follow their desire to reach “as much unity as possible” but, at the same time, fail to take on the epistemological task that enables us to distinguish the elements in (or the structure of) what is properly a science.

### 1.2 Materialism and naturalism

Still in the same text, the methodological and epistemological critique of materialism reveals a second essential aspect: the materialism that Lotze is confronting at that time is a *naturalistic* one. Lotze first defines it (a), then he critically assesses the very nature of this “enthusiasm for natural science” and immediately denounces it as “misleading” (“*missverständlich*”) (b).

(a) According to the way in which § 3 (dedicated to the “objections of materialists” in the *Medical Psychology*) begins, materialist systems

have appeared again and again in all times, but [...] the sudden progress of the natural sciences has particularly emboldened [them], in the most recent times, to come forward with ever greater extension and with growing confidence.<sup>31</sup>

To what does this lead? Lotze argues that: “It is necessary for these theories not only to avoid the existence of a psychological principle of its own” (according to the broad definition of materialism), “but also, above all, to entirely absorb psychology into natural science.”<sup>32</sup> As is characterized by Kurt Bayertz in several of his texts, this modern form of materialism can be defined as a naturalistic materialism.<sup>33</sup>

(b) While materialists show enthusiasm for what they hold as “a truly magnificent circle of scientific education”, Lotze takes it to be “completely false” (“*überaus falsche Begeisterung*”)<sup>34</sup>. Let us ask ourselves why, for this clearly represents a common thread in this section devoted to the “materialists’ objections”.<sup>35</sup> In what exactly does the “falsity” consist? I will examine three passages, and try to bring them together with additional critical comments.

(1) First of all, if one agrees with Lotze that the explanatory power of science is, as one might put it, only a *prospective* one, then one could say that materialism uses a “strange methodology”:

[The] tactic [of the materialists] consists simply in referring to an unsighted clutter of facts, whose unclarity is supposed to a certain extent to guarantee for us that it conceals within it yet a great deal of information, while nevertheless the impossibility of that which we hope to find in it allows itself to be established at the outset. If anyone supposes that it is impossible that a steam engine without a conductor should choose its routes and should at determined times travel now here and now there, someone else could with equal justification be surprised by the naive audacity of this claim, and could respond to him that he should investigate the whole collection of wheels, pistons, balances, nails, and screws; could there still be in this fullness and this manifold of tools a great deal that we certainly still do not understand how to trace back to determinate mechanical principles? We will thus decline this well-meaning invitation to follow modern neurophysiology in all of its dreams, and we must rather presuppose a definite conviction concerning that which is physically possible or impossible, in order to avoid the unnecessary detours of science.<sup>36</sup>

When materialism presupposes, as a starting point, an overall explanatory power of physiology with regard to psychic phenomena, it somehow manages to put natural science in the paradoxical and questionable position of becoming a new “sanctuary of ignorance”<sup>37</sup>: there is no need to reconsider the principles that are behind what we cannot explain today, because we know we will be able to explain it tomorrow. Lotze’s critique appears to reach far beyond the immediate scope of his time and to target an easy option that could well prove to be sophisticated and that is usually found in scientist approaches—no matter what they are, and whether acknowledged as such or only latent. In 19<sup>th</sup> century society, the rise of materialism somehow corresponds to a “transfer of powers” from religion to natural science: to some extent, and according to certain people, science began to replace religion as a social authority.<sup>38</sup> Must this mean that the function of a “sanctuary of ignorance”, too, may begin to shift from the one to the other?

(2) Above all, Lotze bases his own spiritualism upon a principle that he will always remain faithful to, and which concerns the phenomenal order, i.e., an immediate intuition of physical and psychic *phenomena* as being absolutely irreducible to one another.<sup>39</sup> This thesis represents one of the three “facts of consciousness” (along with the “unity of consciousness” and the “consciousness of freedom”) upon which Lotze grounds his discussion of the idea of a spiritual *substance* and its necessity. Should we accept a *substance* dualism beyond this dualism at the level of *phenomena*?<sup>40</sup> In this respect, it must be noticed that at the very beginning of his 1846 article “Soul and mental life”, Lotze shows a philosophical allegiance to Descartes’ claim about “the total impossibility of comparing thinking and extension” by considering it as “the first decisive beginnings of scientific psychology”<sup>41</sup>. In his *Medical Psychology*, Lotze regularly refers to the principle of a “chasm that opens up” between “both circles of events”<sup>42</sup>. Accordingly, “falseness” in the materialist and naturalist’s “scientific enthusiasm” also consists in extending, whether deliberately or not, this sophism of a “μετάβασις εἰς ἄλλο γένος” from one order of phenomena to the other:

tion of nearly every newly appearing work of a certain general tendency, only had the intention to recommend these most general rules of all judgment, [and] logical and methodical precision, which natural science has to thank for the relative surety of its progress, we would embrace it without hesitation. Yet it mostly has rather another meaning, that of wishing to elevate the concrete laws of an unensouled nature, indeed the substrate and powers themselves that are at work there, into generally valid principles of all investigation, and into means of explanation that are everywhere applicable.<sup>43</sup>

To the difference between these two orders of phenomena corresponds, then, a difference between two explanatory principles, and this brings us back to what we drew attention to in the previous section (see p. 92, notably the quotation)<sup>44</sup>.

This methodological issue is a constant element in Lotze’s overall critique of materialism. We find it again, for instance, in the 1859 review of a book by Karl Snell—and this time during the controversy:

The usual materialism [...] places [...] itself far beyond the question how in principle this μετάβασις εἰς ἄλλο γένος, the transformation of the final mechanical elements of motion into the first psychical element of thought, is possible.<sup>45</sup>

Even when people try to speculate on such point, as Snell does (though he does not share the materialist contention), they all share the same limit, which thus remains essentially unclear: again, it is “in some unproveable way that here the physical is supposed to be transposed into the psychical”<sup>46</sup>.

At a minimal level, materialists put forward a “fading form of a general *methodological demand* of any scientific investigation while demanding unity regarding the explanatory principles of phenomena, and thereby then end up “homogenizing” the phenomena themselves. On the contrary, in his *Medical Psychology*, Lotze presents us with the logical and methodological possibility of dualism.<sup>47</sup> In the second part of the paper, I will focus on how he finally argues in favor of the spiritualist position. But for now the important point is to stress how he opposes the materialists’ claim to the effect that their contention is, methodologically speaking, a perfectly valid one: “Should we now not truly guess the secret of their reconcilability, it is nevertheless certain that still less will that person come to terms with the appearances, who does not know at all the evident secret of their separability”<sup>48</sup>.

(3) At a minimal level, the key assumptions of both spiritualism and materialism can be identified with the two claims of substantial soul and of matter as substantial reality respectively.

But even these minimal definitional assumptions reveal an asymmetry, or at least an illusory one. The claim of a substantial soul taken as a theoretical principle is not observation-based, i.e., it cannot be directly inferred from the phenomena, whereas common sense *and* most materialists make the opposite claim about *matter*.<sup>49</sup> Materialism is often combined with an empiricist approach (sometimes even a radical one), and their mistake can be described as follows. They claim methodological superiority, based upon the conviction that the concept of matter possesses immediate clarity. This is why Lotze plays his

If the demand for a preservation of the fundamental principles of natural science, which we now repeatedly find in the introduc-

trump card in the controversy by challenging this alleged immediate clarity of the concept of matter.<sup>50</sup>

Is it then an agreed-upon fact, prior to all other investigations, that all of the intuitions of the most general sensual experience, the concepts of matter, the assumptions concerning the manner in which forces work, as they have gradually been built up in physics in the course of time from analogies, hypotheses, and suspicions, of which most have not been able to be theoretically confirmed-- is it certain, that all of this is gospel [...]?<sup>51</sup>

In this respect, Lotze's rejection of the principles of materialism goes far beyond occasional clarifications. Let us have a look into *Microcosmos*, the great work that will keep Lotze busy for the next decade. In the first volume Lotze essentially aims at making a large audience aware that scientific basic concepts need clarification. It turns out that materialists employ such concepts, at best, in a naive way by simply assuming that they possess immediate clarity. Or, second option, they neglect this issue consciously and just try to cover epistemological deficiencies by rhetorical means, due to the fact that, compared with their real aims that are of practical nature, this point is of no real importance to them. The first chapters of *Microcosmos* provide such clarification in a way that is both systematic (in terms of scope) and "popular" (albeit demanding in the way in which it is presented).<sup>52</sup>

Such clarification is especially needed when it comes to the concept of matter. At the time of the materialism controversy, atomism, too, was a very debated topic among both natural scientists and philosophers. This led to a general critical assessment of what matter genuinely is, and of what philosophy should borrow from the latest physicalist assumptions in this regard—or how it could stand critically in relation to this scientific background.<sup>53</sup> In particular, in 1855 Lotze published a detailed review of Fechner's *On the physical and philosophical doctrine of atoms*.<sup>54</sup> But already in his earlier *Medical Psychology*, even if he was not striving for an overall clarification of the idea of matter yet, at least he intended to show how deceptive it would be to assume immediate clarity here, as was usual.

Therefore:

[...] we must withdraw, from the false enthusiasm for the exactness of natural-scientific representations, their ultimate ground, by means of the recollection that matter itself is by no means a given and fixed principle, nor an object of perception, but only the creation of a very arbitrary hypothesis.<sup>55</sup>

In fact the concept of matter has a form of clarity, but according to Lotze, we should become aware that this is only a pragmatic clarity. The words he uses in the relevant passage are interesting because they seem to convey a pragmatist view of natural science. Lotze clearly distinguishes it from the perspective of metaphysical knowledge (even if it the latter still represents the ultimate end of the former):

The natural sciences have developed a tremendous number of perceptions of an external sort regarding the appearance of matter. [...] Thus the representation of it becomes such a familiar one, such a practically applicable one, and within the usual circle of natural-scientific reflections it leads so adequately to

the right results, that the uncritical confidence, with which common opinion everywhere makes use of it, cannot disconcert us. But as no one in daily life doubts the value and utility of the gold coins we use—though upon closer consideration many people prove to have very confused representations of the origin and location of this value [*Wert*]"—so too does matter become ever more obscure to us when we don't consider its value in the calculations [*Rechnungswert*] of physical mechanics, and ask what it might indeed be in itself.<sup>56</sup>

From this perspective, insofar as natural science is based on the concept of matter, it "lays down a completely bogus principle, in itself false, as its foundation, but nevertheless, through an ingenious combination of other sources of assistance, it understands how to make it very useful for a great number of investigations"<sup>57</sup>. As for the concept of matter, Lotze very often goes into detail when discussing physicalist and chemical models of his time.<sup>58</sup> Accordingly, when it comes to clarifying the primary concepts of natural science we must not separate philosophy from scientific discussion. Now, in order not to misunderstand Lotze's idealism, we should always keep in mind his twofold assumption about matter: if from the point of view of a scientific theory of nature "matter" should be considered as an "arbitrary assumption", from the metaphysical standpoint it is assumed to be a "being", though a "secondary" one (in comparison to the spirit).<sup>59</sup>

If matter has no essential clarity, then the same holds for interactions between material entities. Contrary to another frequent methodological assumption on the part of materialists, "the working of matter upon matter, which we usually embrace as clear and obvious, suffers comprehensively from the very inconceivability, which we treat, entirely in error, as a particular mistake in the assumption of an interaction between body and soul"<sup>60</sup>. Such a claim made by Lotze undermines the approach of a materialist-based naturalistic psychology such as that of Heinrich Czolbe.

In his successive replies to those who discuss his writings on this issue, Lotze shows how tired he is of seeing his methodological and epistemological warnings simply being ignored.<sup>61</sup> In his view, they represent the heart of the debate as well as the only solid basis able to provide a common ground for discussion. It is worth noting that, when facing such opponents, Lotze also adopts an epistemological stance with respect to the problem of the soul: i.e., he considers it as an *assumption*. According to Lotze, this assumption is actually required to explain a central observational fact which lies at the very basis of psychology as the science of psychic activity: unity of consciousness. This issue is a common thread in his discussion with Heinrich Czolbe.<sup>62</sup> In his *Medical Psychology* Lotze had already stressed the "unity of consciousness" as one of the three facts of consciousness, which he then considered as "grounds of the formation of the concept of soul."<sup>63</sup> For him, this will become a cornerstone in the materialism controversy:

until materialism takes this totally uneliminable fact into consideration, we will be unable to believe that it has succeeded in refuting its opponents.<sup>64</sup>

Besides, "we would find an area conducive to debate" only if materialism was able to clarify what this phenom-

enal “unity” of our representations is and what the “unity of all experiences” means<sup>65</sup>. The kind of materialism that Lotze is facing there (in this case Czolbe’s, but we could certainly find other examples) actually *intends* to account for the psychic activity of consciousness, and claims to do so by considering brain states and how neural pathways are anatomically “centralized” in the brain. But Lotze emphasizes, once again, that movement and spatial phenomena, on the one hand, and psychic phenomena, on the other hand, have nothing in common; this time he goes a step further by *bringing psychic phenomenon back to the unity of consciousness*. States of mind are not only mental states: they are mental states referred to the representation of an “ego”, of “the ego as one” (“*dem einen Ich*”)<sup>66</sup>. It is very interesting to see how Lotze develops here what proves to be a Kantian line of reasoning<sup>67</sup>, although he will always carefully avoid any use of Kant’s “transcendental” vocabulary. This “old issue of the possible unity in consciousness” is referred to the “unity of all experiences”, and what Lotze calls “thought” (*Denken*)<sup>68</sup> stands for an act of “inner connection (*Zusammenhang*) of the manifold”<sup>69</sup>. “Thinking consists not only in a hunt for images, not in a succession of representations, which are only intuitively attached to or separated from one another”: “So we need [...] a subject that in the unity of its consciousness not only unites, and at the same time keeps separate, both of the elements of comparison, but that is also conscious of the nature and dimension of its own movement in the transition from the one to the other”.<sup>70</sup>

I will not discuss further this implicit presence of Kant’s thought here—it would turn out to be quite a complex issue if we also considered Lotze’s (at least apparent) claim of a “substantial” soul as a basis of this very unity of consciousness.<sup>71</sup> Here my aim was simply to show, in accord with my general purpose in this first part, how Lotze points to a series of epistemological problems involved in what materialists claim: though quite paradoxical, both the “Kantian” line of reasoning and the (apparent) claim of substantial soul have here primarily *this* function. In his critique of sensualism, Lotze rejects what one could call “intuitivism” based on an *aprioristic* claim as regards to knowledge—even if he uses other terms for it.<sup>72</sup> At the same time, Lotze reproaches Czolbe for mixing up elements pertaining to theory of knowledge (sensualism) with those of metaphysics (materialism).<sup>73</sup> As for the claim of substantial soul, it is here understood as an epistemological necessity on the basis of a psychic observational fact<sup>74</sup>: for this reason, rather than speaking of “substance”, we should rather speak of “substratum”, which would make the epistemological approach much more explicit. Against materialists, Lotze emphasizes that even physicists do not hesitate to introduce, hypothetically, such “substrata” both as principle and “support” of psychic phenomena. As Lotze says, this also applies to psychic phenomena:

The passion with which we make natural science the prime answer in the treatment of every question does not anyway prevent those who espouse it from acting completely against the analogies and rules of this science in their reflections [...] [Most of the time], due to an ambiguous *parti-pris* for physical intuition one does not at all provide oneself with the means by which this intuition itself obtains its results. When electrical and magnetic

phenomena were first observed, when warmth and light began to become the object of investigation in a more exact way, one did not shy away from assuming, for the explanation of these phenomena that are so divergent from the others, entirely specific substrata. Now we know of course how often, against these assumptions, the objection of arbitrariness and multiplication of principles is made; nevertheless the mind is yet to come that will again be able to come by all of the results obtained along this path without such an assumption, only from the properties of ponderable bodies.<sup>75</sup>

Taking a step back, we suggest that the idea of substance is used here as a *category*, even if Lotze does not express it that way; in doing so, we refrain from immediately interpreting Lotze’s “substantialism” as a metaphysical option.<sup>76</sup> In Kant’s table of categories, the relationship of inherence and subsistence is prior to the relationship of community or reciprocity, with causality between them. If we consider now what Lotze is trying to achieve in his scientific psychology, we must stress that his attempt to ground scientificity in the study of psychic causality relies on the concept of psycho-physical interaction (*psycho-physischen Wechselwirkungen*). For Lotze, a scientific psychology is a “physiological psychology”, and consequently interaction between psychic and physical has to be the key concept.<sup>77</sup> But, to continue with our Kantian guiding thread here, this is a concept that we can frame only by using the category of interaction or community. Yet, if we assume this Kantian interpretation, then the conclusion is that, in order to build a scientific psychology, we would need substance as a categorial idea, just as we need interaction and community. I would tend to see this as one of the possible reasons why the category of substance is then also used *beyond* what Kant himself allowed in his first *Critique* regarding the notions of soul and psychic causality.<sup>78</sup>

## 2. Connecting science and metaphysics: the *sui generis* answer of Lotze’s “ideal-realism”

The aim of Part I was to provide us with the correct basis on which we can consider how natural science and metaphysics are connected in Lotze’s thought, and how the issue of materialism played a part in his subsequent conceptions.

Reading the first chapter of *Medical Psychology* we can see how Lotze’s spiritualism comes into it in more than one way, or, rather, that there are two lines of reasoning in the use of the psychic principle, so that only the *metaphysical* line of reasoning deserves to be described as a form of “spiritualism”. Nevertheless, Lotze’s purpose is to *connect* these approaches, certainly not to confine each of them to a separate area. To that extent, we can definitely assert that spiritualism falls within the boundaries of Lotze’s science of psychology.

Let us discuss dualism. Dualism means something entirely different according to whether it is about phenomena (psychic or physical ones) or about tracing them back to what sustains them metaphysically. Let us consider first the following question; based only on what we have argued so far, should we not expect Lotze to raise the claim of a body-soul/matter-spirit dualism? As we have already seen, dualism between physical and psychic phe-

nomena turns out to be Lotze's first epistemological principle; and as far as psychic phenomena are concerned, we have also seen that Lotze's line of reasoning is to refer phenomena to a substratum. Why, then, are physical phenomena likewise *not* referred to a substratum—i.e., to a second substratum that would be independent of the first? To put it otherwise: why does Lotze not adopt a Cartesian form of metaphysics here?<sup>79</sup> In the theoretical context of 19th century physics/philosophical physics, matter would then replace extension as the required substance. In Lotze's view, by contrast, spirit is "the original existence" (*ursprüngliche Existenz*), while matter is simply "a secondary being that cannot naturally have its roots anywhere else than in the spirit itself"<sup>80</sup>. At the beginning of the section on "spiritualist approaches" (with which Lotze explicitly sides), there is a remark that could help us find a better orientation in this problem. As Lotze himself presents his ideas while setting out the issue of materialism and anti-materialism in psychology:

*Up to this point* we have granted independent reality to matter; we have satisfied ourselves with juxtaposing the soul to it as an equally independent but differently constituted reality. [...] Although in this we will preserve for individual investigations of psychology this manner of intuiting as the one that is alone clear and comfortable, we must still return here, for a moment, to the principles of the matter, in order to justify the applicable and transparent representations of a physico-psychical mechanism as the abridged expression of what is truly going on ["des wahren Verhaltens"].<sup>81</sup>

On the one hand, Lotze acknowledges what I have just suggested: by taking into consideration only the epistemological approach that he sets out at the beginning of *Medical Psychology*, his account there could actually accommodate not only dualist spiritualism but other metaphysical options as well. On the other hand, what Lotze says at the end of this passage is crucial, because the consideration of science as a *pragmatic* expression of *metaphysical* truth implies a distinction between the respective statements. The final position Lotze is seeking is a subtle one insofar as, in spite of this distinction, he rejects the very idea of a "double entry bookkeeping" between science and metaphysics. *Prima facie* we could easily think that science and metaphysics do not have any common claim. Yet, because of this rejection of a "double entry bookkeeping" we should rather say that science and metaphysics do not speak the same language: that science is an "abbreviation" (*Abbreiviatur*) means that it can "say the same thing" as metaphysics, but this also presupposes that one is able to identify the connecting principle of both systems. According to Lotze, the aim of scientific knowledge in itself is to explore the interactions between natural elements from a *mechanist* point of view, and *as such*, it should be considered as the "abbreviation", the "abridged expression" of a higher level. But this means that there is no *true realism* apart from this mechanist "expression" of interaction in nature.

Soon after the passage we just commented upon, Lotze distinguishes between two modes of "our knowledge of things", which he dubs *cognitio rei* and *cognitio circa rem*: indeed, this knowledge "in part concerns the fundamental nature of the object, in part the manifoldness of the relations that it can encounter externally"<sup>82</sup>. This is

why the latter form of knowledge is relational and mediate, whereas the former is intuitive and immediate.<sup>83</sup> By introducing this distinction, Lotze aims to separate out two forms of knowledge respectively, construed as knowledge "of both the objects that concern us, matter and spirit". Only the knowledge of spirit has intuitive clarity, whereas, as we have seen, the idea of matter has only a pragmatic clarity. When other authors will take over this distinction from Lotze, it is clearly with reference to this passage. Consequently, a connection is made to the two modes of knowledge matching natural science and human sciences respectively (and to that extent it intersects with Dilthey's distinction: explanation/understanding (*erklären/verstehen*)).<sup>84</sup> The discussion, then, is still an epistemological one. If we examine this passage intertextually, with respect to the previous quotation (Mps, pp. 55-56) and the following one (which I will now discuss: Mps, pp. 24-25), then we will see how it is all about making the transition from psychology to metaphysics. Knowledge *circa rem*, which corresponds to scientific activity as we currently understand it, is meant to be an "abridged expression of what is truly going on". If we add the idea of the *cognitio rei* to this ontological plan in order to reach what "is truly going on", then it turns out that the "principle" Lotze asks us to "return to" (cf. above, quotation from MPs, p. 57) is none other than *spirit*. Now a metaphysical claim is raised in addition to the epistemological claim of a twofold knowledge, knowledge of spirit vs. knowledge of matter: this claim about the nature of reality thus happening to match spiritualism. This could already be inferred from the third passage from Lotze's book we had to deal with above. As we should remember, when we first discussed the spiritualist approach (see MPs, p. 55), we found Lotze asserting that "up to this point" he had been adhering to metaphysical neutrality (for such a neutrality is required when one has to confine oneself to the epistemic level). Now we can state that he was being inaccurate: §2 ("On true and false unity") has already furnished such a parallel view of metaphysics and science, which underscores their respective statements.

And we do not doubt in the least, that, like all differences of being, so too that between body and soul has only a limited validity, and disappears in the unity of the high ground of the world. Just as little do we wish to condemn attempts to investigate more closely the manner of this confluence of appearances in this unity; but we cannot hope to achieve results soon enough and sound enough to be able to make them the foundation of our science, which to begin with has a different purpose. What is identical in its roots can grow apart in its branches. Now in the formation of a root the law of the angle may already be prefigured, by which the boughs of a plant grow away from one another. If we were to have at our disposal a botany that were to discern the relations of formation of the roots with such a sharp eye as to see this predestination, our knowledge of the branchings would indeed attain to a completely different degree of certainty than the one it possesses. Should we presuppose a metaphysics that is sharp and productive enough not only to grasp the truth of the concepts of the first elements, but also to make them fruitful, knowledge of the nature of a still unseparated absolute would powerfully support us in the judgment of laws, in accordance with which the spiritual and corporeal worlds relate to one another following the separation of both of these branches. But what help is it to dream of things that do not exist? We are not at all at the beginning of things, not positioned at

the root of reality, but rather, with all of our reflections, we are sitting in its outermost branches, which tortuously entwine us. Nothing can remain to us but, first, to separate the branches that we encounter separately, and to follow each out as far as possible in its progress, in order to arrive at a hint of the direction in which it may melt together with the others in a common root. In satisfying this essential methodical demand [...], [never mind] how and where the spiritual and corporeal worlds might flow together, our investigation is valid only for the relations that prevail between the two of them where they do *not* coincide.<sup>85</sup>

This excerpt is of paramount importance for the present issue. The metaphor of root and branches seems like a variation on Descartes' "tree of philosophy". In both cases we are provided with a systematic connection between metaphysics and physics, but these have different places: in Lotze, physics is not the trunk anymore, it has become one of the branches. A little further along in the text, Lotze presents us with the idea of a "general metaphysical dynamics", to which psychology and physics would be "subordinated" as two "branches"<sup>86</sup>. Kant, too, makes use of this metaphor in regard to the third principle with which "reason prepares the field for the understanding"<sup>87</sup> ("principles of systematic unity"<sup>88</sup>, "maxims of speculative reason"<sup>89</sup>): i.e. the "law of the affinity of all concepts":

The third law unites the first two, prescribing even in the case of the highest manifoldness a sameness of kind through the graduated transition from one species to others, which shows a *kind of affinity of various branches, insofar as they have all sprouted from the one stem.*<sup>90</sup>

In Kant, this principle of affinity applies to the phenomenal field and to the understanding, which we use to obtain any knowledge in this field—and in particular, scientific knowledge (in fact, the problem which Kant is dealing with here is how to classify phenomena into *species*): it is, therefore, an epistemological principle. In Lotze, if I try to apply this very same principle to both *matter* and *spirit*, insofar as one can wonder whether they are two distinct "fundamental genera" of being, then the principle shifts to a different register: that is, we are presented with this very shift from the scientific study of natural phenomena, to metaphysics.<sup>91</sup>

Consequently, Lotze's approach to dualism cannot be dissociated from the problem of connecting science to metaphysics without subordinating either one to the other. The "branching"-metaphor clearly emphasizes the phenomenal dualism of "physical" and "psychic" being paired with a metaphysical monism. At the same time, the possibility of a "physiological psychology" is becoming established. As with every science, it must proceed *circa rem*, and insofar as it concerns "the relationships between both worlds", its reasoning must indeed be based on a dualist approach (psycho- vs. physical). Yet, metaphysically we would have to postulate a unity between both sides of being so as to make their interaction possible. The important point is that the interaction itself be investigated *circa rem*: psychology can become a scientific psychology as *psycho-physics* (with their unity, rather than duality, to be emphasized). In other words, metaphysics remains separate from psychology as a science,

but it is also positively required as the latter's foundation.<sup>92</sup>

In line with such a perspective, in § 3 of *Medical Psychology*, which is devoted to "the objections of materialism", Lotze asks for the development of a "philosophical science of nature", "though", he goes on to say, "our times hardly favor it"<sup>93</sup>. As he conceives it, such a science would be significantly different from the idealist "philosophy of nature" (*Naturphilosophie*) that had been mainly responsible for the rejection of *any* philosophy of nature among natural scientists.<sup>94</sup> From Lotze's perspective, philosophy of nature in Schelling's sense has, so to speak, made the mistake of projecting the intuitive mode of knowledge, i.e., the *cognitio rei*, onto the investigation of natural phenomena and their relationships.<sup>95</sup> In Lotze's view, two things are clear in the end: if philosophers who hold "theories of identity" have incorrectly introduced too much metaphysics into natural science, materialists somehow do not have enough of it. Though they seem to reject metaphysics altogether (even where metaphysics should be allowed namely, *as a basis for* natural science), one could contend that materialists smuggle it in either without acknowledging it, or even by doing so unconsciously.

On Lotze's account, materialism is in fact a

fragmentary and naturalistic metaphysics, which luxuriously proliferates wherever people believe they have freed themselves from all metaphysics, and to be standing firm upon the soil of experience and natural-scientific intuition.<sup>96</sup>

It is when facing such a "denial of metaphysics" that "a metaphysics that expressly wishes to be one [...] will always accomplish more and even be more beneficial in its one-sidedness than the former fragmentary and naturalistic metaphysics". Above all, this "philosophical science of nature", which Lotze is already working out in these chapters, has the virtue of critically assessing the connection between metaphysics and natural science in itself, whereas materialists fail to do so. Indeed, the rejection of metaphysics can be a laudable philosophical option too: yet, it still has to be justified and the whole issue cannot be ignored.

In conclusion, then, I have to go back to the quotation I began with: when stating in the same sentence how little regard Lotze has for the materialist stance of his time and how influential it became all the same, he ascribes this to the "continuous decline in general culture"<sup>97</sup>. I am rather inclined to think that not only does this diagnosis still apply to us today, but that it applies, most of all, to the ability to discuss the very connection between metaphysics and science.

#### Notes:

<sup>1</sup> Frederick Gregory, *Scientific Materialism in the Nineteenth Century Germany*, Dordrecht/ Boston, Reidel, 1977; Annette Wittkau-Horgby, *Materialismus: Entstehung und Wirkung in den Wissenschaften des 19. Jahrhunderts*, Göttingen, Vandenhoeck & Ruprecht, 1998; *Materialismus und Spiritualismus. Philosophie und Wissenschaften nach 1848*, eds. A. Arndt, W. Jaeschke, Hamburg, Meiner, 2000; *Weltanschauung, Philosophie und Naturwissenschaft im 19. Jahrhundert*, eds. K. Bayertz, M. Gerhard, W. Jaeschke, Hamburg, Meiner, 2007, vol. 1: *Der Materialismus-Streit* [hereafter: *WPN-I*]; *Der Materialismus-Streit. Texte von L. Büchner, H. Czulbe, L. Feuerbach, I. H. Fichte, J. Frauenstädt, J.*

Froschammer, J. Henle, J. Moleschott, M. J. Schleiden, C. Vogt und R. Wagner, eds. K. Bayertz, M. Gerhard, W. Jaeschke, Hamburg, Meiner, 2012; Frederick Beiser, *After Hegel. German Philosophy 1840-1900*, Princeton, Princeton Univ. Press, 2014 [hereafter: Beiser, *After Hegel*]; chap. 2: “The Materialism Controversy”, pp. 53-96; Léo Freuler: *La crise de la philosophie au XIX<sup>e</sup> siècle*, Paris, Vrin, 1997, chap. 3, pp. 55-86: “Le matérialisme naturaliste ou vulgaire et la naturwissenschaftliche Weltanschauung”; *L’Allemagne et la querelle du matérialisme (1848-1866). Une crise oubliée?*, ed. Ch. Morel, Paris, Garnier, 2017 [hereafter: Morel]. This last book contains a very detailed chronology of the texts involved in the controversy.

<sup>2</sup> Beiser, *After Hegel*, p. 53.

<sup>3</sup> Anonyme, “Correspondenz. Aus Berlin, *Deutsches Museum*”, n°47, November 20, 1856, p. 779.

<sup>4</sup> Cf. in particular: Kurt Bayertz, “Was ist moderner Materialismus?”, in *WPN-1*, pp. 50-70; *id.*, “Dépasser la philosophie par la science. Le matérialisme naturaliste en Allemagne au XIX<sup>e</sup> siècle”, in Morel, pp. 67-82.

<sup>5</sup> Regarding the “Darwinism controversy” cf. *Weltanschauung, Philosophie und Naturwissenschaft im 19. Jahrhundert*, eds. K. Bayertz, M. Gerhard, W. Jaeschke, Hamburg, Meiner, 2007, vol. 2: *Der Darwinismus-Streit*; from the same editors: *Der Darwinismus-Streit. Texte von L. Büchner, B. von Carneri, F. Fabri, G. von Gyzicki, E. Haeckel, E. von Hartmann, F. A. Lange, R. Stoeckl und K. Zittel*, Hamburg, Meiner, 2012.—We can take the impact of the actual materialism controversy as lasting until the end of the 1860s (based on the number of books or articles which still focus exclusively without regard to Darwinism: cf. Morel, chronology, pp. 217-243).

<sup>6</sup> Cf. Morel, pp. 9-21.

<sup>7</sup> Cf. Lotze, advertisement/abstract of the first volume of *Mikrokosmos*, 1856, in Lotze, *Kleine Schriften* [hereafter: KS, followed by volume number], III, Leipzig, Hirzel, 1891, p. 305.

<sup>8</sup> Frederick Beiser, *Late German Idealism: Trendelenburg and Lotze*, Oxford University Press, 2013, p. 239. [Hereafter: *Late German Idealism*]. He also gives more information on how Lotze takes a clear stand against materialism before the controversy actually broke out: *ibid.*, p. 214.

<sup>9</sup> “Spekulierender Struwwelpeter”: Carl Vogt, *Köhlerglaube und Wissenschaft. Eine Streitschrift gegen Hofrath Rudolph Wagner in Göttingen*, Giessen, Ricker’sche Buchhandlung, 1855, p. 91.

<sup>10</sup> Cf. Beiser, *Late German Idealism*, p. 244. The very tough punishments that “Struwwelpeter” undergoes in the eponymous children’s book are supposed to serve as a warning against bad behavior.

<sup>11</sup> Wagner had Lotze write several contributions in his collective *Concise Dictionary of Physiology (Handwörterbuch der Physiologie, mit Rücksicht auf physiologische Pathologie*, éd. Rudolf Wagner, 4 vol., Braunschweig, 1842-1853): “Leben, Lebenskraft” in the first volume (1842, p. IX-LVII; Lotze, KS I, pp. 139-200); “Instinct” in the second volume (1844; Lotze, KS I, pp. 221-250); “Seele und Seelenleben” in volume III.1 (1846; KS II, pp. 1-204).

<sup>12</sup> *Amtlicher Bericht über die 31. Versammlung Deutscher Naturforscher und Ärzte zu Göttingen im September 1854*, Göttingen, Vandenhoeck & Ruprecht, 1860, p. 19; and on the same page: “a man, who honors us today with his presence in this audience and whom I was lucky enough to count as a student in years past”; Lotze, *Medizinische Psychologie, oder Physiologie der Seele* [hereafter: MPs], Leipzig, Weidmannsche Buchhandlung, 1852, p. 30.—All quotations from Lotze have been translated from German to English through the agency of Translat.me; I thank the traducer for his fast and accurate work.

<sup>13</sup> *Ibid.*, pp. 43-44. I have not found this exact passage by Vogt to date. Another passage with the same meaning is frequently quoted from the 12<sup>th</sup> piece in the *Physiological Letters*: “All those capacities that we understand by the phrase psychic activities (*Seelenthätigkeiten*) are but functions of the brain substance; or, to express myself a bit crudely here, [...] thoughts stand in the same relation to the brain as gall does to the liver or urine to the kidneys.” (Carl Vogt, *Physiologische Briefe für gebildete aller Stände*, vol. 2, Stuttgart/Tübingen, Cotta, 1846, p. 206; trad. Frederick Gregory in *Scientific Materialism in Nineteenth Century Germany*, Dordrecht/ Boston, Reidel, 1977, p. 64). In the French version of this work Vogt comments at length on the controversy which the sentence triggered; he quotes other materialists who supported it, especially Moleschott (*Lettres physiologiques, par le professeur Carl Vogt*, Paris, Reinwald, 1875, p. 348); see also the excerpt from *Kraft und Stoff* where Ludwig Büchner points out that Lotze should have discussed Vogt’s sentence from the perspective of his own statements about physical-psychic correlation and not just made a sarcastic remark (*Kraft und Stoff. Empirisch-naturphilosophische Studien. In allgemein verständlicher Darstellung*, Frankfurt am Main, Meidinger, 1856<sup>4</sup>, “Der Gedanke”, p. 141).—However, Wagner is the first to make use of the

offensive adjective “uropoetic”, and thus to add fuel to the fire. In his answer to Vogt’s *Physiological Letters*, he had already quoted a longer excerpt of Lotze’s text including the same passage and then added: “Will Vogt never be satisfied? Will he finally abandon these urinous thoughts? Indeed not, as we see from his most recent articles.” (Wagner, “Über Theilbarkeit der Seelen und materialistische Psychologie”, *Allgemeine Zeitung* (Augsburg), n° 327 (Beilage), 22 1852, p. 5226).

<sup>14</sup> On the first point cf. Reinhardt Pester, *Hermann Lotze. Wege seines Denkens und Forschens. Ein Kapitel deutscher Philosophie- und Wissenschaftsgeschichte im 19.ten Jahrhundert* [hereafter: Pester], Würzburg, Königshausen & Neumann, 1997, p. 211; Hans Degen, “Vor hundert Jahren: die Naturforscherversammlung zu Göttingen und der Materialismusstreit”, *Naturwissenschaftliche Rundschau*, Stuttgart, Heft 7, 1954, p. 273. In Lotze: see MPs, pp. 36-37; and even earlier in a book review (“Recension von Ottomar Domrich, ‘Die psychischen Zustände, ihre organische Vermittelung und ihre Wirkung in Erzeugung körperlicher Krankheiten’, Jena 1849” [1850], KS II, p. 451).—About “divisibility of soul” cf. Wagner, “Physiologische Briefe. XIII”, *Allgemeine Zeitung* (Augsburg), n° 61 (Beilage), March 1, 1852, pp. 969-971; “Über Theilbarkeit der Seelen und materialistischen Psychologie”, *ibid.*, n° 327 (Beilage), November 22, 1852, pp. 5225-5226. Vogt vehemently attacks this thesis by answering with a verbal assault at the end of his *Pictures from animals’ life*, which also came out in 1852 (Vogt, *Bilder aus dem Thierleben*, Frankfurt am Main, Literarische Anstalt, Rütten, 1852, pp. 451-452).

<sup>15</sup> This is according to F. Beiser: *Late German Idealism*, p. 246. We could read Czolbe’s statement in his answer to Lotze in this sense: see *Entstehung des Selbstbewußtseins. Eine Antwort an Herrn Professor Lotze*, Leipzig, Costenoble, 1856, p. 27. But in fact it was Lotze who finally provoked a radical change of mind in his former opponent: in 1865 Czolbe retracted his former materialist stance. (*Die Grenzen und der Ursprung der menschlichen Erkenntnis im Gegensatz zu Kant und Hegel*, Leipzig, Costenoble, 1865; cf. Beiser, *After Hegel*, p. 88-89).

<sup>16</sup> Cf. Beiser, *Late German Idealism*, p. 244.

<sup>17</sup> *Ibid.*, p. 239.

<sup>18</sup> *Ibid.*; and p. 252. As a matter of fact, *Microcosmos* enjoyed abiding success until the 1920s. It is impossible, however, to restrict Lotze’s place in “German intellectual history” to this work alone and to the topics discussed therein. Another very remarkable element which accounts for Lotze’s philosophical influence is his interpretation of Plato’s ideas in his 1874 *Logic (Logik. Drei Bücher vom Denken, vom Untersuchen und vom Erkennen*, Leipzig, Hirzel, 1874, III, 2, “Die Ideenwelt”, pp.498-512), where he distinguishes between four meanings of “reality” or “effectivity” (*Wirklichkeit*), including in particular the concept of “validity” or “being valid” (*Geltung, gelten*: pp. 499-503, 507, 509). From a broader perspective, Lotze’s ideal-realism is not primarily “anthropology-based”: on the contrary, one could state that the working out of a philosophical anthropology only becomes relevant against the metaphysical backdrop of ideal-realism, which was first developed from an epistemological perspective. As such, the speculative aspects have played a significant part, in Lotze’s system, in trying to connect “idealist” and “realist” lines of thought in 19<sup>th</sup> century German philosophy.

<sup>19</sup> See below, fn. 22. About Lotze’s *Medizinische Psychologie* and its place within the psychology of his time see Beiser, *Late German Idealism*, pp. 211-229; William Woodward, *Hermann Lotze. An Intellectual Biography*, Cambridge, Cambridge Univ. Press, 2015, chap. 8, pp. 202-227 [hereafter: Woodward]; Pester, pp. 187-199.

<sup>20</sup> Cf. fn. 7.

<sup>21</sup> Pester, p. 225.

<sup>22</sup> That is, the three contributions to Wagner’s *Handbuch der Physiologie*, see above, fn. 11. The first one had been especially important, and Wagner placed it in the introductory part of the volume because of his general theoretical meaning and the importance of the issue at that time for the scientific debate about what the guiding principles of a scientific explanation of living phenomena should be: *Allgemeine Pathologie* (1842); *Allgemeine Physiologie* (1851); *Medizinische Psychologie*, 1852, cf. above, fn. 12.

<sup>23</sup> MPs, p. 65.

<sup>24</sup> This point is underlined at the beginning of the three first paragraphs: MPs, “On true and false unity”, p. 22; “The materialists’ objections”, p.30; “The identity of the real and the ideal”, p. 45. See also p. 27.

<sup>25</sup> MPs, p. 22. Lotze’s emphasis.

<sup>26</sup> “Selbstanzeige der *Medizinischen Psychologie oder Physiologie der Seele*, Leipzig 1852” [hereafter: SA MPs], 1852; KS III, pp. 4-5. According to Lotze, this “passion” is even stronger in the case of materialism than in identity-philosophies: “The ambiguous methodological demand for a unity of the principle has been expressed in no theories more passionately than in the materialist ones [...]” (MPs, p. 30). Identity-

philosophies, at least, see this unity in the constant combination of “ideal and real” (SA MPs, p. 5)

<sup>27</sup> MPs, pp. 28-29. On this line of reasoning cf. Denis Seron, “Lotze et la psychologie physiologique”, in *Lotze et son héritage. Son influence et son impact sur la philosophie du XIX<sup>e</sup> siècle*, ed. Federico Boccaccini, Bruxelles/Bern, Peter Lang, pp. 25-26.

<sup>28</sup> Kant, *Critique of Pure Reason*, “Appendix to the transcendental Dialectic”, ed. P. Guyer, A. W. Wood, Cambridge, Cambridge University Press [hereafter: Cambridge], 1998, p. 591; AA III, 428, B 673; Cambridge p. 593, AA III, 430, B 675. As is well-known, this leads Kant to posit the three principles of sameness, of variety and (the law) of the affinity of all concepts (Cambridge p. 598; AA III, 428; B 685). Kant applies these principles to different orders of phenomena that can be studied scientifically. As for Lotze, he applies them to the problem addressed in this first chapter of the *Medical psychology*, and bearing upon the question as to whether we need only one or two separate principles to explain physical and psychic phenomena. Then he would rely on the second of Kant’s principles, the principle of variety that “limits in turn this inclination to unanimity” and thus counterbalances the first principle of homogeneity. (Cambridge p. 599; AA III, 437; B 688).

<sup>29</sup> *Ibid.*, p. 591; AA III, 428; B 672.

<sup>30</sup> Yet, not only Lotze says absolutely nothing about the transcendental aspect of Kant’s principles; he also avoids the specific vocabulary related to it: “ideas”, “regulative use”.

<sup>31</sup> MPs, p. 30.

<sup>32</sup> *Ibid.*

<sup>33</sup> Cf. Kurt Bayertz, “Was ist moderner Materialismus?” in *WPN-I*, pp.50-70; “Dépasser la philosophie par la science. Le matérialisme naturaliste en Allemagne au XIX<sup>e</sup> siècle” in Morel, pp. 73-77.

<sup>34</sup> MPs, p. 30; see also p. 34, where Lotze denounces “the most adventurous outgrowths of this false enthusiasm for natural science”. Lotze also speaks of “passion” (*Leidenschaft*): see below, quotation p. 93. See also at the beginning of § 4, “The identity of the real and the ideal”, p.45: “a one-sided fascination with the principles of natural science and its mechanistic bend”.

<sup>35</sup> According to Lotze, this is one of the two “foundations” of the materialist position. But later on, in the text, he does not insist much on the second one: “a clear polemic against any attempt to grant any aesthetic or moral requirements of the spirit an influence on the shaping of our scientific views”: *ibid.*, p. 35.

<sup>36</sup> *Ibid.*, p. 40.

<sup>37</sup> Spinoza, *Ethics*, book I, appendix.

<sup>38</sup> Cf. Kurt Bayertz, “Dépasser la philosophie par la science. Le matérialisme naturaliste en Allemagne au XIX<sup>e</sup> siècle”, in Morel, p. 76, p. 78.

<sup>39</sup> Cf. end of the previous quotation p. 93; “*Seele und Seelenleben*”, KS I, p. 7.

<sup>40</sup> MPs, p. 11-13; “*Seele und Seelenleben*”, p. 7. See Beiser commenting on this point: *Late German Idealism*, p. 218; Woodward, pp. 110-111, 114, 196.

<sup>41</sup> “*Seele und Seelenleben*”, KS II, p. 1; see also: self-advertising abstract of *Medicinische Psychologie*, KS I, p. 5.

<sup>42</sup> MPs, p. 14. See also p. 38 and p. 43: “[...] to have recognized that these two circles of processes don’t communicate”; “psychical appearances are not identical or analogous to physical ones” (Lotze’s emphasis).

<sup>43</sup> *Ibid.*, p. 30-31. See also p. 32: “We need not give up the view according to which psychical and physical processes can be explained by a common domain of laws; but naturally this domain lies beyond both members of this opposition, and the truth will not be found if we apply the laws that are valid for the one member in view of its special nature, to another whose specific quality is entirely divergent, although this one may fall under the same general concept.”

<sup>44</sup> *Ibid.*, p. 29: “We must admit the diversity of these substrata as soon as the difference between these phenomena demands it as imperiously as in the present case, i.e. studying life of the soul”.

<sup>45</sup> “Recension von Karl Snell, *Die Streitfrage des Materialismus. Ein vermittelndes Wort. (Jena 1858)*” (*Göttingische gelehrte Anzeigen*, 1859, n°104, p. 1026-1035; KS III, pp. 349-355; here p. 353).

<sup>46</sup> *Ibid.*

<sup>47</sup> MPs, p. 24, end of § 13.

<sup>48</sup> *Ibid.*, p. 45.

<sup>49</sup> *Ibid.*, p. 56: “In the course of life we are so used to sensual intuitions, that that which is most obscure --merely present, passive, inert stuff-- appears to us the most clear [...]. This exclusive belief in the sensual, this confidence in its exclusive reality, whose expressions face us in every corner of the scientific world, constitutes, in our time, springing forth from many sources, such a great and imposing current of error [...]”.

<sup>50</sup> Heinrich Czolbe will take this point very seriously and try to reply in his *New presentation of sensualism* by elaborating a “construction of matter” (as Lotze calls it): *Neue Darstellung des Sensualismus*, II, chap. 1, “Materie und Raum”, II, chap. 1; Lotze, review of Heinrich Czolbe, 1855, KS III, p. 248). Lotze gives a (very) critical account of this elaboration in the next to last page of his review of Czolbe’s book (*ibid.*, p. 249).

<sup>51</sup> MPs, p. 31.

<sup>52</sup> Cf. *Microcosmos*, I, chapters 2 to 4. Also the previous essay “Leben, Lebenskraft” provides the reader with an accurate analysis of the concept of force (*Kraft*) that backs up Lotze’s rejection of the vital force theory: KS I, p. 153-159.

<sup>53</sup> Cf. Reinhardt p, *op. cit.*, pp. 219-227.

<sup>54</sup> Review of Gustav Fechner, *Über die physikalische und philosophische Atomenlehre* (Leipzig 1855), KS III, pp. 215-238. See Pester’s summary in the pages referred to just above, as well as Beiser, p. 236.

<sup>55</sup> MPs, p. 61-62.

<sup>56</sup> MPs, p. 57. See also p. 56.

<sup>57</sup> *Ibid.*, p. 60.

<sup>58</sup> Within the context of the materialism controversy, this appears clearly in the review of August Weber’ book, *Die neueste Vergötterung des Stoffes. Ein Blick in das Leben der Natur und des Geistes. Für denkende Leser* (1856); KS III, pp. 294-303: cf. notably, pp. 295-297; see also the review of Czolbe’s book (see above, fn. 50; review of Czolbe 1855, pp. 248-249).

<sup>59</sup> About this metaphysical approach to matter: see MPs, pp. 61-62.

<sup>60</sup> The self-advertising abstract of *Medical Psychology*, KS III, p. 5.

<sup>61</sup> See for instance what we noted above about Czolbe, p. 91: the shift from anti-vitalism to materialism is a good example of the extent to which inaccuracy affects the very possibility of addressing the right topic in the controversy.

<sup>62</sup> In addition to his review of Czolbe’s book, *Neue Darstellung des Sensualismus (New presentation of sensualism)*, Lotze wrote a second review for a text which Czolbe addressed to him directly: cf. review of Heinrich Czolbe, *Entstehung des Selbstbewusstseins. Eine Antwort an Herrn Prof. Lotze (Leipzig 1856)*; KS III, pp. 315-320.—On Lotze and Czolbe see Beiser, *Late German Idealism*, pp. 246-249; Beiser, *After Hegel*, pp. 84-89; Woodward, pp. 212-213; Hedwig Breilmann, *Lotzes Stellung zum Materialismus, unter besonderer Besichtigung seiner Controverse mit Czolbe*, Inaugural-Dissertation, Münster, 1925.

<sup>63</sup> See above. (2): this is the title of § 1 in *Medical Psychology*: cf. MPs, p. 9; pp. 15-18; “*Seele und Seelenleben*”, KS II, pp. 4-19.

<sup>64</sup> Review of Czolbe 1855, p. 244.

<sup>65</sup> *Ibid.*

<sup>66</sup> *Ibid.*, p. 243.

<sup>67</sup> On Lotze’s being aware of Kant on this matter cf. Beiser, *After Hegel*, p. 86; Woodward, p. 212, Beiser, *Late German Idealism*, pp. 223-229, “A Kantian Psychology”.

<sup>68</sup> Lotze contrasts this term with the only cognitive principle in Czolbe’s sensualism: “*Anschauung*”, which here means the intuitive knowledge of the sensory world.

<sup>69</sup> Review of Czolbe 1855, p. 240.

<sup>70</sup> *Ibid.*, p. 245.

<sup>71</sup> See also Beiser, *Late German Idealism*, pp. 219-220: does Lotze admit ontological dualism? —The philologist Friedrich Max Müller, who attended Lotze’s philosophical circle in Göttingen (and who later became a major specialist in Sanskrit philology) reports that, on these occasions, the young Lotze was mostly interested in Kant’s texts: “Most of all, we used to read and to discuss Kant’s *Critique*” (F. M. Müller, *Aus meinem Leben. Fragmente zu einer Selbstbiographie*, Gotha, Perthes, 1902, p. 115; quoted by Pester, p. 103). See also Reinhard Pester’s valuable article of Lotze and Kant: “*Lotzes Verhältnis zu Kant und zum Neukantianismus*”, *Kant und die Berliner Aufklärung. Akten des IX. Internationalen Kant-Kongresses*, Berlin - New York 2001, n° 193, vol. 5, pp.297-397.

<sup>72</sup> By echoing Czolbe’s own terms in the *New Exposition of Sensualism*, Lotze speaks of a “suprasensible content” (*übersinnlicher Inhalt*)—an expression, which does not help clarify his relation to Kant. Cf. review of Czolbe 1855, pp. 240-141, for example: “thus whenever we in general call something a thing, we are again adding something supersensual to the inventory of intuition”.—In his second *Logic* in 1874, however, Lotze directly uses the term “*Apriorismus*”.

<sup>73</sup> Cf. review of Czolbe 1855, p. 239.

<sup>74</sup> See Pester’s summary of this issue: Pester, pp. 191-192; and in particular this passage from Lotze’s review of Ottomar Domrich: *Die psychischen Zustände, ihre organische Vermittelung und ihre Wirkung in Erzeugung körperlicher Krankheiten. Jena 1849*, KS II, p. 451 (quotation also by Pester, p. 193): “The assumption of the soul as a characteris-

tic principle of [physical] effects [stands] for me, or for anyone who shares my opinions in this matter, not in an indivisible connection with the need to somehow salvage the immortality or freedom of the human spirit, [but rather] it only comes from the theoretical demands for an explanation of the psychological facts [...].” (Lotze’s emphasis); “indeed, through this presupposition it did not occur to me to replace theoretical principles of explanation with theological articles of faith, but I make it because the immanent need for the explanation of psychological explanations demands it.” (*ibid.*)

<sup>75</sup> MPs, pp. 32-33. See also the following paragraph (p. 34; see below in this article, fn. 86): the passage is directly lifted from the review of Ottomar Domrich, slightly modified in order to fit the new context: see the review of Ottomar Domrich, KS II, pp. 449-450; quoted and commented on by Pester, p. 192.

<sup>76</sup> See the important passage characterizing the soul as a “phenomenological expression” both in the 1844 article on “*Instinkt*” (KS I, p. 239) and in the 1846 “*Seele und Seelenleben*” (KS II, p. 18: “Consequently, the term ‘soul’ does not designate for us any kind of separate genus of substance, opposed to other genera, rather it is only a phenomenological expression, and means every substrate that is moreover unknown to us, insofar as it is capable of bringing forth the indicated phenomena.” But the argument accounting for the “physical-mental mechanism” from “*Leben, Lebenskraft*” (1842) sounded quite differently: in fact, there the soul is directly referred to as a substance (KS I, p. 191; *cf.* also fn. 78). In relation to such appeal to the concept of substance in order to refer to the soul, Georg Misch tries to make things clearer by pointing out that it applies only at some intermediate levels in the system: *cf.* Georg Misch, “*Einleitung*”, in his edition of Lotze’s *Logik, Logik. Drei Bücher, vom Denken, vom Untersuchen und vom Erkennen*, Leipzig, Meiner, 1912, p.L-LI.

<sup>77</sup> On this central idea (from which it follows that Lotze’s physiological psychology rests upon basis different from Fechner’s and Wundt’s) *cf.* Denis Seron, *art. cit.*, p. 30 *sq.*; Woodward, pp. 202-227 (“The Physical-Mental Mechanism: An Alternative to Psychophysics”). Lotze, MPs, book 1, chap. 2: “On physical-mental mechanism”; *Mikrokosmos*, book III, chap. 1, “*Der Zusammenhang zwischen Leib und Seele*”.

<sup>78</sup> I assume that we have indeed exactly the same kind of reasoning in the passage about the soul in “*Leben, Lebenskraft*”, which the previous footnote refers to. If we consider Lotze’s whole line of reasoning, even in the case where the soul is referred to as a substance (this being a non-Kantian thesis), I would tend to highlight the implicit reference to Kant’s categories of relation: a *substance* – not only an *idea* – being necessary in order to be able to speak of a *causal* relations (what is at stake is in the end the *interaction* – *Wechselwirkung*: “reciprocity” in the action – between several substances).

<sup>79</sup> *Cf.* my paper: “Descartes et Leibniz, deux modèles pour dépasser le matérialisme au 19<sup>e</sup> siècle: un parcours dans la philosophie du jeune Lotze”, in *Les âges classiques du 19<sup>e</sup> siècle*, dir. Delphine Antoine-Mahut, Stéphane Zékian, Paris, soon to be published by Éditions des archives contemporaines.

<sup>80</sup> MPs, p. 61.

<sup>81</sup> *Ibid.*, pp. 55-56. My emphasis.

<sup>82</sup> MPs, p. 57. About this distinction: Pester, pp. 188-189; Beiser, *Late German Idealism*, p. 217, and the beginning of chapter 2 in MPs, pp. 66-69.

<sup>83</sup> MPs, p. 57.

<sup>84</sup> *Cf.* Georg Misch, “Die Idee der Lebensphilosophie in der Theorie der Geisteswissenschaften”, in *Kant-Studien*, 31, n° 1-3, January 1926, p.546. See also Helmut Plessner, *Macht Und Menschliche Natur. Ein Versuch zur Anthropologie der geschichtlichen Weltansicht*, Berlin, Junker & Dünnhaupt, 1931, p. 180. Nevertheless, Ernst W. Orth emphasizes that the terminological difference between *erklären* and *verstehen* is not already as significant for Lotze as it will be for Dilthey (“Psyche and Psychologie bei Rudolph Hermann Lotze”, in *Grenzen der kritischen Vernunft. Helmut Holzhey zum Geburtstag*, eds. Peter A. Schmid, Simone Zurbuchen Basel, Schwabe, 1997, p. 125).

<sup>85</sup> MPs, p. 24-25. My emphasis, except for the last word (Lotze’s emphasis).

<sup>86</sup> *Ibid.*, p. 34: “We would only be required to make our fundamental principles of natural science still more general, to cleanse them still more of the specific components that are valid only for determinate classes of \*material substrata\*, and to assimilate them to a general statics and mechanics that is related not simply to motions, but also to changes in general, not only to masses, but to beings.” (*ibid.*). This passage (including the preceding lines: see above, fn. 75) is taken from a review which Lotze write for a book by Ottomar Domrich: KS II, pp.449-450. Lotze only made one change that I have marked with aster-

isks here: “*materieller Substrate*” instead of “*Wesen*” in the previous version.

<sup>87</sup> Kant, *Critique of Pure reason*, Cambridge, p. 598 (AA III, 435; B 685).

<sup>88</sup> *Ibid.*, p. 600 (AA III, 438; B 690).

<sup>89</sup> *Ibid.*, p. 603 (AA III, 440; B 694).

<sup>90</sup> *Ibid.*, p. 599-600 (AA III, 437; B 688). My emphasis.

<sup>91</sup> From the perspective of the “Appendix to the transcendental Dialectic”, we would be facing the case where the answer to the question as to “the constitution of the object” “lies too deeply hidden for [anyone] to be able to speak from an insight into [its] nature” (*ibid.*, p. 604, my translation, AA III, p. 441; B 695).

<sup>92</sup> In this respect, I refer to the end of the first part: we must also continue to ask ourselves why this foundation should be a metaphysical one, whereas a transcendental solution would have been possible as well.

<sup>93</sup> MPs, § 3, p. 32.

<sup>94</sup> *Cf.* Lotze, review of C. W. Stark’s *Allgemeine Pathologie*, KS I, p. 27: “Mostly it is Schelling’s *Naturphilosophie* that hindered physiology for a long time....”, quoted by Woodward, p. 50; Pester, p. 81.

<sup>95</sup> In § 4 in particular (“The identity of the real and the ideal”), Lotze develops this very criticism after his critique of the materialist approach in § 3: the identity philosophies which had as their aim to explain nature on the basis of its undifferentiated unity with spirit have therefore deprived themselves of the only possible means for investigating the (spatio-temporal) conditioned relationships that take place between natural elements: mechanism. (MPs, pp. 45-46; p. 49).

<sup>96</sup> *Ibid.*, § 3, p. 32.

<sup>97</sup> See the excerpt already quoted above, p. 91: “The great extension that these materialistic reasonings have won in the progressive decline of general education, and surely will continue to win, requires us, without the hope of meaningful success, to test out [...] their salient arguments.” (MPs, p. 30)

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