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THE MAKING OF THE 'GEISTESWISSENSCHAFTEN' A CASE OF BOUNDARY WORK?

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ABSTRACT

The paper is concerned with the making of the German humanities. To address this topic, the boundary work approach is applied to the late 19th century, a historical episode that has been crucial for the formation of an entity called '*Geisteswissenschaften*'. The analysis reconstructs how boundary strategies that are scattered in programmatic manifestos, lectures, and introductions, and that can be found in neo-Kantianism, in historicism, in Dilthey's work, and not least in the *Naturwissenschaften*, cumulate from local negotiations and constitute the *Geisteswissenschaften* as a stable and robust social entity. Proceeding from this insight, the focus on boundary work emphasizes the temporality, the situatedness, and the relational character of symbolic demarcations. By emphasizing these three aspects, the boundary work concept facilitates a fruitful analysis of how the *Geisteswissenschaften* emerged. The paper contributes to a historical sociology of the social sciences and humanities by illustrating the analytical usefulness of the boundary work approach.

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1. INTRODUCTION: THE MAKING OF THE ‘*GEISTESWISSENSCHAFTEN*’ AS A SOCIAL ENTITY

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In 1800, the *Geisteswissenschaften* were not yet fully established. [1] Studies of the objects of nature were not fundamentally different from studies of the products of the human mind. Neither the organizational nor the social or the practical dimension of scholarship had the form they have today, although universities and chairs, roles for professors and students, and scholarship, teaching, and learning were long developed (for scholarly practices cf. Bruch 1999a; for organizations cf. Eulenburg 1904; Jaraus 2000; for social roles cf. Stichweh 1999). However, the idea that there is one realm for research on nature, and a different realm for research on products of the human mind, was not yet established, and it was certainly not articulated as the systematic schism that is today known in the form of Two Cultures (cf. Höflechner 1999). The dominant demarcation that ran through the universities instead and that separated (sub-) disciplines, academic cultures of knowledge production, and personnel, was rather oriented towards usefulness and applicability on the one side, and aloofness and autonomy on the other. Although Immanuel Kant stressed in 1798 that it was precisely the autonomy of the Faculty of Philosophy that made it useful for the enlightened absolutism of the Prussian state, he showed no awareness of a distinct academic culture called ‘*Geisteswissenschaften*’ – let alone of an opposition of ‘*Geistes-*’ and ‘*Naturwissenschaften*’ (Kant 1979). [2] The leading distinction for academic cultures in early 19th century Prussia was their degree of aloofness and applicability.

A mere 80 years later, things look differently. While debates on the distinction between academic autonomy and applicability, or on the precise usefulness of autonomy, flare up time and again (cf. Gengnagel/Hamann 2014), it is obvious that they are complemented by a new dominant distinction. By 1880, the prevalent divide is the one between the *Geistes-* and the *Naturwissenschaften*. [3] A number of protagonists proclaim the age of an entity called ‘*Naturwissenschaften*’ (cf. Du Bois Reymond 1878; Siemens 1886; Virchow 1893) and self-confidently identify themselves as “belonging to the circle of natural scientists” [4] (Helmholtz 1896: 162). At the same time, there are a number of attempts to lay an epistemological foundation for an opposing entity called ‘*Kultur-*’ or ‘*Geisteswissenschaften*’ (Dilthey 1959; Lenz 1922; Rickert 1926). While their groundwork follows various strategies, it is not least meant to declare “the independent position of the *Geisteswissenschaften* towards the *Naturwissenschaften*” (Dilthey 1958: 117).

[1] I would like to thank David Kaldewey and Rudolf Stichweh for their comments on an earlier version of this paper.

[2] About 60 years into the 19th century, Hermann von Helmholtz (1896: 162) will state in an 1862 speech that an opposition between *Geistes-* and *Naturwissenschaften* may have made itself felt recently, but that “at the end of the last century [the 18th century, JH], when the Kantian philosophy reigned supreme, such a schism had never been proclaimed, this [Kantian, JH] philosophy instead shared the same ground with the *Naturwissenschaften*.”

[3] It is striking that a forerunner of the famous Two Cultures debate in Britain (Snow 1963), the conflict between Matthew Arnold (1882, 1885) and Thomas Huxley (1897), takes place at the exact same time.

[4] All quotes have been translated from German by the author.

In this light, the question is how the *Geisteswissenschaften* came about, how they emerged as a socially robust and stable entity. Proceeding from the assumption that the entity that we still today call '*Geisteswissenschaften*' is socially constructed and historically contingent, my contribution depicts a historical episode that has been crucial for the emergence of the *Geisteswissenschaften*. By applying the boundary work approach to the late 19th century, the *Geisteswissenschaften* can be described as discursive effects, emerging cumulatively from symbolic distinctions that actors make in more or less local negotiations. [5] In principle, the sites for boundary work are manifold. However, my contribution focuses on textual sites like programmatic manifestos, lectures, and introductions, since these are sites where definitions of the contours and contents of the *Geisteswissenschaften* and their demarcation from other entities – e.g. the *Naturwissenschaften* – are the most evident. In doing so, my contribution is sensitive to the temporality and situatedness of symbolic strategies that define legitimate scientific activity. [6]

The following pages show that the '*Geisteswissenschaften*' emerge from several discursive boundary strategies that define them in their own right and simultaneously relate them to the *Naturwissenschaften*. The history and historical sociology of the social sciences and humanities has demonstrated that there are many starting points for a historical approach to the formation of the humanities (cf. the seminal work in Bod et al. 2010-2014; see also Eckel 2008; Hamann 2014). The making of the humanities can be traced back much further than the 19th century (for example, to the antiquity, cf. Bod 2013). However, with regard to the perspective of this paper, it is an open question whether the early- and pre-modern humanities can already be understood as '*Geisteswissenschaften*' in a narrow sense, and in particular in the sense the term is used in Germany. For example, the term *Geisteswissenschaften* implies a decidedly modern notion of *Wissenschaft* (cf. Bod et al. 2014). Hence, my contribution focuses on the emergence of the modern German *Geisteswissenschaften*. The current paper draws on a number of central protagonists and their claims in the second half of the 19th century. It attempts to reveal how they contributed to a notion of the *Geisteswissenschaften* as socially robust entities.

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After introducing the concept of boundary work in the following section, I will sketch some central sites of the emergence of the modern *Geisteswissenschaften*. One important site is actually located in the *Naturwissenschaften*, where natural scientists address a frontier between the *Natur-* and the *Geisteswissenschaften* and thus not only demarcate the Two Cultures in a peculiar way, but also put forward an external definition of what will later be known as '*Geisteswissenschaften*' (3.1). This distinction is reiterated on the other side of the boundary, with several simultaneous attempts to establish an entity that can stand as a modern scientific endeavor in its own right – vis à vis the *Naturwissenschaften*. Neo-Kantians, historicists, and Dilthey respectively undertake exemplary attempts to define a scientific realm that is distinct from the '*Naturwissenschaften*'. Their respective strategies are strikingly similar to each other (3.2). I will conclude my contribution by discussing the temporality, the relationality, and the situatedness of the boundary work that yields the '*Geisteswissenschaften*' (4).

[5] The boundary work perspective has been developed mainly by Gieryn (1983) and Abbott (1995), there are two broad overviews over the literature (Lamont/Molnár 2002; Pachucki et al. 2007). The approach is discussed in further detail in section 2. I have elaborated on the discourse analytical perspective in previous texts (Hamann 2012, 2014; cf. Keller 2011), parts of the empirical narrative can be found in more detail elsewhere (Hamann 2014).

[6] I use the term 'strategy' in a sense that can imply conscious decisions, but, crucially, also includes the pre-reflexive, subconscious sense for the social world that actors have because they are engaged in it. Therefore, strategical boundary work is not necessarily synonymous with intentional action. It rather emerges from practices that are generated by a habitus (Bourdieu 1995), and from statements that are part of a discursive formation (Foucault 1972). The discussion in section 4 expands on this.

2. BOUNDARY WORK APPROACHES: THE SYMBOLIC MAKING OF SOCIAL ENTITIES

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Generally speaking, boundary work approaches deal with questions of the relation between entities and their boundaries, and with questions about the conditions under which social entities come into being in the first place. The underlying assertion is that “boundaries come first, then entities” (Abbott 1995: 860), which is to say that social entities come into being only when actors establish boundaries and link them to units, objects, or notions in certain ways.

It is not surprising that a perspective as fundamental as this is already more or less explicitly inherent in the classical scholarship of social science: studies on status differences between groups (Weber 1978), on antagonistic relationships between classes (Marx 1963), and even on the distinction between the realm of the sacred and the realm of the profane (Durkheim 2008) all contribute significantly to the toolkit of current boundary work approaches (cf. Lamont/Molnár 2002). The most important inspiration from a more recent classic has likely come from Bourdieu’s (1984) analysis of social and symbolic distinction. However, a discussion of boundary work approaches has to draw some boundaries itself. The current section will not trace back the various sources and intellectual traditions that boundary work approaches draw on. I will rather introduce the two most influential perspectives of boundary work and concentrate on the different aspects they highlight.

The social robustness of symbolic boundaries is addressed by Andrew Abbott (1995), who describes how boundary work yields professions. According to him, the making of an entity is the connecting up of local oppositions and differences into a single whole that has a crucial property which can be called “thingness” (Abbott 1995: 872-873). Thingness is a quality of social things that makes them durable over time, and that lends them an independent causal authority in that they have consequences and social effects. Abbott’s perspective highlights the objective character of the things that are demarcated by symbolic boundaries. It allows us to ask to what extent the *Geisteswissenschaften* are a socially robust thing that actors can refer to and ascribe causes and effects to.

In another perspective, Thomas F. Gieryn (1983, 1999) emphasizes not the robustness, but the situated character of boundaries. This lends them not only a strategic dimension, but also a certain arbitrariness – an aspect that complements the objec-

tiveness highlighted by Abbott. In this view, the demarcation of things appears as a practical problem, for example when academics need to establish epistemic authority and credibility. This problem is solved by local negotiations and “strategic practical action” (Gieryn 1999: 23). Following Gieryn, boundaries are tools by which individuals and groups struggle over and come to agree upon definitions of reality. With the interpretative and strategic character of boundary work in mind, we can investigate whether actors pursue certain strategies when they demarcate, protect, or expand their epistemological stakes in a realm called ‘*Geisteswissenschaften*’. Perceiving the *Geisteswissenschaften* as a social thing that is demarcated for strategical reasons makes clear that the distinction between *Geistes-* and *Naturwissenschaften* is a boundary between epistemological legitimacies.

What can we learn from the boundary work approach if we bring together these two complementary perspectives? Generally speaking, symbolic boundaries can be understood as conceptual distinctions that social actors make to categorize objects, people, practices, and even time and space (Lamont/Molnár 2002). [7] Focusing on boundaries emphasizes that the relation between entities is neither logical nor ahistorical. Rather, social entities do not exist – or have certain qualities – by themselves, but in relation to others. While these constructivist axioms are likely a minimum consensus in most sociological and historical scholarship, boundary work approaches urge us to look for boundaries before imagining the respective entities they delineate. In particular, they stress the temporality, the situatedness, and the relationality of the construction of social things. Temporality invites us to look for social things before they are fully established, to embed their formation in an historical context, and to take into account the processual character of their construction. Situatedness reminds us that boundaries are produced and negotiated in certain contexts, and that boundary work consists of discursive practices that might follow certain strategies or local logics. The relational character of boundaries means that demarcations are drawn from and relate to various entities, and that in order to understand a social thing like ‘*Geisteswissenschaften*’, it is essential not to isolate it in our analysis from other things it refers to, builds on, delimits, or distinguishes.

Following these insights, the focus on boundaries makes a significant difference to the way we approach our questions. Generally speaking, the boundary work approach is tantamount to a shift of perspective, revealing, for example, that a nation state is made up of a set of cultural and geographical frontiers. These frontiers yield what is called, for example, ‘France’, an historically contingent entity that is demarcated from other, similar entities (Anderson 2006; cf. Piwoni 2015). The perspective may also reveal that a climate phenomenon is not entirely ‘natural’, but composed from meteorological data and simulated models that later yield an entity that is called ‘climate change’ (Sundberg 2007). Moving closer to the academic world, there are numerous examples for boundary work in science (cf. Lamont/Molnár 2002). For instance, academic disciplines are entities that emerge from and are institutionalized by boundary work (Byford 2007). Disciplines are consolidated inwardly by, for example, discourses on methodological rigor or diversity (Beddoes 2014). Outward rhetorical efforts are made to secure epistemic legitimacy for a representation of the world (Fuller 1991). It is not least local departmental conditions that shape how disciplines are legitimized and substantiated as new intellectual enterprises (Small 1999). [8] These studies describe boundary work in the sciences as relational (and often political) processes that operate across institutions and contexts. They suggest that the boundary work approach can be useful for a historical sociology of the social sciences and humanities.

[7] Lamont et al. distinguish symbolic boundaries that exist at the intersubjective level from social boundaries that manifest themselves as groupings of individuals and others (Lamont/Molnár 2002; Pachucki et al. 2007).

[8] Just like the general boundary work perspective builds on many aspects that are inherent in classical social science, the notion of symbolic turfs in science has been touched upon before, albeit with varying implications. For example, Polanyi (1967) speaks of chains of overlapping neighborhoods, and Campbell (1969) describes a continuous texture of narrow specialties, overlapping like scales on the back of a fish. (I thank Rudolf Stichweh for pointing me towards this prologue of the boundary work literature.)

Against the backdrop of this “processual ontology” (Abbott 1995: 859), it is evident that the boundary work approach also makes a difference to the way we approach the question of the making of the *Geisteswissenschaften*. The *Geisteswissenschaften* are quite obviously Things of Boundaries (Abbott 1995), and my contribution will be concerned with how they come into existence when social actors tie together epistemological boundaries in certain ways. [9] This discursive construction decidedly includes conflictual claims, and claims that are made on other turfs like the *Naturwissenschaften*. It will become apparent that the *Geisteswissenschaften* only appear as a single, coherent thing that can be justified in the system of disciplines when their boundary towards the *Naturwissenschaften* is established. In more general terms, my empirical case demonstrates how differences between disciplines, disciplinary groups, or epistemic cultures materialize from situated claims, conflicts, and negotiations, and become social things.

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3. SYMBOLIC BOUNDARIES AND THE MAKING OF THE MODERN *GEISTESWISSENSCHAFTEN*

This section will apply the boundary work approach to the debates and claims that bring about notions of the modern *Geisteswissenschaften*. My analysis of the *Geisteswissenschaften* as a discursive effect of boundary work sets in at the second half of the 19th century. From then onwards, we can observe several interrelated sites of boundary work from which the modern *Geisteswissenschaften* emerge. The academic backdrop of this symbolic constellation is twofold: first, philosophy transforms from a leading discipline to a worldly discipline among others. Its claim to constitute an epistemological superstructure that every other scientific endeavour can be derived from turns into the more humble aspiration to reflect on other disciplines’ epistemologies. Simultaneously, and second, the *Naturwissenschaften* ascend to a more and more self-confident group of disciplines that is unified by shared methods and a common epistemology. The broad-brush and superficial description gives us a rough idea about the constellation in which a number of protagonists undertake conflictual boundary work in order to demarcate the *Geisteswissenschaften* and the *Naturwissenschaften* from each other, and at the same time determine what the *Geisteswissenschaften* actually represent. A more detailed approach would have to factor in the social sciences as another important site for the formation of the *Geisteswissenschaften* (Sala 2013), and it could do justice to both the *Sozial-* and the *Naturwissenschaften* by not treating them as monolithic epistemic cultures, as my paper tends to do for the sake of simplicity.

[9] A more detailed account would have to consider other types of boundaries, for example institutional boundaries.

The debates that I have collected from various textual sites of boundary work, mainly programmatic manifestos, introductions, and lectures, have already been examined thoroughly by historiographic and sociological scholarship (which is partly quoted throughout the text). My contribution is to discuss them in a different light and to relate them to each other according to one heuristic approach – the boundary work approach. This might make a modest contribution to a historical sociology of the social sciences and humanities by shedding a different light on the emergence of an entity called ‘*Geisteswissenschaften*’ in the 19th century.

3.1 Boundary work in the *Naturwissenschaften*

If the relational and situated character of boundary work is to be taken serious, an important starting point for the making of the modern *Geisteswissenschaften* are indeed the *Naturwissenschaften*. During the 19th century, natural scientists are more and more eager to claim methodical and epistemological self sufficiency. This is taking place against the backdrop of a standardization and integration of disciplines like physics, chemistry, biology, and physiology (cf. Stichweh 1984). Not only is a hitherto rather patchy landscape of disciplines unified from within by common theories and methods. External frontiers, for example with *Naturphilosophie*, become more stable and strict as well (cf. Mainzer 1989). The result is a quite coherent nexus that is called *Naturwissenschaften* and that, remarkably, is still located within the Faculty of Philosophy. This development lends self-confidence to natural scientists.

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The self-confidence of natural scientists becomes obvious when several protagonists proclaim an age of the *Naturwissenschaften* (Siemens 1886; Virchow 1893) or a “technical-inductive age”, which has “finally” come after a quick succession of geographical, astronomical, physical, and chemical discoveries (Du Bois Reymond 1878: 30). Whatever its specific label, the new age is one in which, as the physician and pathologist Rudolf Virchow (1893: 19) claims, “philosophical systems have been put in the rear, while sober observation and sound common sense prevailed”. This includes, first, building and expanding museums, laboratories, and institutes for those empirical disciplines that are “faithfully sticking to actual knowledge” rather than speculation (Virchow 1893: 28). The new age implies, second, changed roles for academics: “scholars are now expected to be researchers, and the demands regarding teaching are to introduce the students not only to methods, but also to the practical side of examination” (Virchow 1893: 25).

These claims are meant to be inaugurations of an age of empirical, exact, positivistic, and objective science. Natural scientists emphasize that, in the age of the *Naturwissenschaften*, all modern sciences are part of the same scientific endeavor. It is crucial that this rhetoric creates one coherent symbolic backdrop against which every scientific endeavor can be assessed. The creation of ‘science’ as a common point of reference has been described elsewhere, for example in terms of a semantic supercategory (Harris 2005) or a collective singular (Stichweh 2007). [10] However, through the lens of the boundary work approach, the demarcation of this symbolic backdrop is not a boundary of anything yet. It merely suggests a single distinction – ‘modern science’ vs. ‘pre-modern science’. Single distinctions that are not yet connected up to a coherent whole and that do not yet demarcate an entity can be called “proto-boundaries” (Abbott 1995: 866-867). Hence, Virchow may proclaim the age of the *Naturwissenschaften*, but for him, this mainly heralds the end of the supremacy of

[10] I want to thank David Kaldewey for pointing me towards this parallel.

speculative philosophy and *Naturphilosophie*. In his 1893 speech, he actually emphasizes the common origins of the *Geistes-* and the *Naturwissenschaften* in the Faculty of Philosophy. He reminisces that, one hundred years ago, classical philology, history, mathematics, parts of the *Naturwissenschaften*, and philosophy constituted „the microcosm of universitas“, acting as one cohesive scientific endeavour that “determined the direction of the scholarship” (Virchow 1893: 12).

Virchow is not alone in creating a symbolic backdrop against which all science can be assessed. The physician and physicist Hermann Helmholtz (1896: 165) states in an 1862 speech that “the opposition between *Geistes-* and *Naturwissenschaften* is mitigated to the degree in which both emphasize the empirical investigation of the facts”. Helmholtz stresses in his speech that all sciences have important commonalities regarding their form, their content, and their objective to “make the mind rule the world” (Helmholtz 1896: 183). In the end, therefore, every researcher “should see himself as a worker for the collective great matter that touches upon the noblest interests of mankind” (Helmholtz 1896: 184). Another example for claims of one single scientific endeavor is the physicist Ernst Mach (1903: 98-99), who, in an 1866 lecture, says that he “does not believe in the sciences being two different things”, and that the essential distinction between the Two Cultures will “appear as naïve to a matured age”. Mach claims that every scientific undertaking is “part of the same science”, and that “every object belongs to both sciences”. Lastly, the chemist and Nobel Prize winner Wilhelm Ostwald also claims that the realms that will later be distinguished as *Natur-* and *Geisteswissenschaften* belong to the same scientific endeavor. For him, the objects of investigation for the *Geistes-* and *Naturwissenschaften* are “by no means distinct” (Ostwald 1913: 119).

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Again: in terms of boundary work, these claims are mere distinctions between modern and pre-modern science. The quotes illustrate that even this distinction is not wholly consistent between the protagonists that claim it. Natural scientists do not delineate coherent entities that could be identified as ‘*Geisteswissenschaften*’ or ‘*Naturwissenschaften*’. Rather, they emphasize that ‘modern science’ is one unified realm. The low degree of consistency between the protagonists’ claims indicates an overall low robustness of the boundaries that they try to draw. In terms of boundary work, and following Abbott, this suggests that these are proto-boundaries, instead of proper, robust symbolic boundaries. Nonetheless, even if the simple distinction between modern and pre-modern science is still a proto-boundary, it serves as a rhetoric threshold for any scientific effort. Even if the natural scientists differ with respect to what exactly defines the unified realm of ‘modern science’, their claims demarcate a common point of reference that any modern scientific endeavor is benchmarked against (cf. Harris 2005; Stichweh 2007). This emphatically includes scientific endeavors in those disciplines that will later be called ‘*Geisteswissenschaften*’, even more so since a demarcation between the Two Cultures is not yet established. If they want to assert themselves as a modern scientific endeavor, the ‘*Geisteswissenschaften*’ will have to sustain being measured against the common point of reference ‘modern science’.

In terms of boundary work, this highlights two important points. First, we learn about the relational character of boundaries: as a point of reference, the proto-boundary ‘modern science’ relates to each other the two realms of scientific endeavor that will later be divided as Two Cultures. Second, it highlights how simple distinctions – here: ‘modern science’ vs. ‘pre-modern science’ – can become consequential when one

side is identified as exterior and the other side is identified as interior. The differences between the exterior and the interior of the distinction become all the more glaring since the point of reference – ‘modern science’ – stands for epistemological rigor, exact statements, and empirical, if possible experimental research. What are the distinctions highlighted by this point of reference?

The first important distinction that the point of reference ‘modern science’ creates between an exterior and an interior are the respective epistemological features of *Geistes-* and *Naturwissenschaften*. For example, Helmholtz anticipates Wilhelm Windelband’s distinction of idiographic and nomothetic methods when he underlines in 1862 that the *Naturwissenschaften* can present their results in general rules, while the *Geisteswissenschaften* present judgements that follow psychological tact (Helmholtz 1896: 172). For him, it is obvious that the more sober, empirical, and objective research is taking place in the *Naturwissenschaften*, and that the *Geisteswissenschaften* can hardly stand in this comparison. Similarly, Ostwald may see all sciences as part of the same entity, but this only allows him to urge them to deduce general laws from their observations. He has to admit that “the old *Geisteswissenschaften* have not yet arrived at this standpoint of a *scientific* conception of their problems” (Ostwald 1913: 120, highlighted in original).

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Apart from epistemological features, a second distinctive feature of ‘modern science’ concerns its usefulness and the practicability of its results. Again, the point of reference ‘modern science’ creates an interior and an exterior. Virchow, for example, who has emphatically proclaimed the age of the *Naturwissenschaften*, deems that “there is no further argument necessary that this kind of science is useful” for state and society, while “no insight into the real natural course of events emerges from the study rooms of the philosophers” (Virchow 1893: 24-25). Employing a narrative of modernization and progress, the physician Emil Du Bois-Reymond emphasizes that the *Naturwissenschaften* provide not only insights into nature and its laws, but that they also allow for “the conscious application of these insights for purposes” that serve to overcome and make use of nature by man, in order to aggrandize his power and well-being (Du Bois Reymond 1878: 12). [11] This “new molding of the life of humanity” seems to be more than what the *Geisteswissenschaften* have on offer, which is “merely a history of wars and a history of delusions of some cultural nations” (Du Bois Reymond 1878: 31, 33). [12] A very similar narrative of progress is used by Ostwald. He puts forth a “rational definition of the term culture” that “will relieve us from further discussions once and for all” (Ostwald 1913: 265). Crucially, the climax of his evolutionary notion of culture is science and engineering. For Ostwald, “our current [i.e., German, JH] prosperity” is not down to art, but to pure and applied science, “and most notably the exact, and not the historical or so called *Geisteswissenschaften*” (Ostwald 1913: 268). [13]

It is important to note that these distinctions are still proto-boundaries in that they delineate specific distinctions, but not clear demarcations of coherent entities. As it turns out, the *Naturwissenschaften* appear as the more “mature” sciences if they are evaluated against the symbolic backdrop of the point of reference provided by ‘modern science’ (Anderson 2003: 221). They are the ‘inside’ of this category, both in terms of their methods and in terms of their results. *Naturwissenschaften* subject their phenomena to rather straightforward quantitative laws, they control their objects in experiments, and they are able to achieve a hitherto unknown level of precision and confirmation (for further insight into the boundary work in the *Naturwissenschaften*, cf. Engelhardt 1990; Frühwald 1991; Jakobs 2006). As soon as the future *Geisteswis-*

[11] This applies, for example, to the famous German institution of the *Gymnasium*, which, according to Du Bois Reymond (1878: 53-54), must adapt its curricula since “the new guise [Gestalt] that the *Naturwissenschaften* have lend human existence cannot be denied.” According to him, the *Gymnasium* sticks to teaching mainly classical language and literature, although this knowledge appears to be less and less applicable as it “prepares for the *Geisteswissenschaften* first and foremost”. Thus, Du Bois Reymond (1878: 55) demands from the *Gymnasium* to do as much justice to the requirements of future doctors, architects, officers as it is doing to the requirements of future judges, priests, and teachers of the classics.

[12] Goschler (2004) provides a broader context for the claim to cultural validity that Virchow issues for the *Naturwissenschaften*. Gradmann (1993) contextualizes Du Bois-Reymond’s notion of cultural history and *Bildung*.

[13] Ostwald (1913: 267-268) continues stating that “one will search the history of the past century to no avail if one wanted to account for the share that the preservers and guardians of what they think is the high-

senschaften are related to and distinguished from such a notion of research oriented ‘modern science’, they find themselves in an intricate position. The following section will illustrate how the boundary work in other sites relates to the claims made in the *Naturwissenschaften*.

Summing up the boundary work of influential natural scientists, the distinction ‘modern science’ vs. ‘pre-modern science’ has created a common point of reference of ‘modern science’. Whether we want to describe it as a semantic supercategory or a collective singular, with respect to boundary work the common point of reference ‘modern science’ becomes a benchmark for every scientific endeavor. The notion of ‘modern science’ is consequential in that it creates an interior and an exterior; specific qualities can clearly be identified as ‘modern science’ and other features just as clearly fail this test. These distinctions are not yet proper boundaries, because they are not coherent between protagonists, and they do not demarcate coherent social things. However, they still introduce a distinction, and if this distinction is picked up in other sites of boundary work, it might add up to a proper, socially robust boundary.

3.2 Boundary work in the *Geisteswissenschaften*

The boundary work in sites that will later be delineated under the label ‘*Geisteswissenschaften*’ takes place against a specific academic backdrop. This context is characterized, first, by the ascent of the *Naturwissenschaften* that has been described in the previous section. Second, philosophy descends from a self-proclaimed leading discipline, an influential epistemological framework of all disciplines, to a mere worldly discipline amongst others. Broadly speaking, the problem is that natural scientists introduce a point of reference – ‘modern science’ – that not all scientific disciplines can satisfy without dismissing as unscientific a legacy of groundbreaking scholarship since the enlightenment. In other words, if the rich tradition of Jacob and Wilhelm Grimm, Wilhelm von Humboldt, or Leopold von Ranke, to name just a few, is to be preserved, humanities scholars cannot fully embark on ‘modern science’ as defined by the *Naturwissenschaften*. Put simply, the *Geisteswissenschaften* are in need of an independent symbolic realm in which their legacy can be held in esteem (cf. Anderson 2003: 223). However, wholly rejecting the advances of ‘modern science’ does not seem feasible either. Not only does the downfall of German Idealism in general and Hegelianism in particular open up a window of opportunity for new approaches to assert themselves. More importantly, the advancement of method driven empirical research is not a phenomenon that is limited to the *Naturwissenschaften*. It has roots in other scholarly traditions just as well, and it is in fact connected to the very canonical figures that would be dismissed if the notion of ‘modern science’ would be rejected altogether.

These admittedly simplistic remarks may serve as an interpretative background for the boundary work in the realm that will later be called ‘*Geisteswissenschaften*’. They explain, first, why boundary work in the *Geisteswissenschaften* affirms and simultaneously dismisses the distinction ‘modern science’ vs. ‘pre-modern science’ that has been established by the *Naturwissenschaften*. They explain, second, why the boundary work described in this section not only demarcates an independent realm from the *Naturwissenschaften*, but is likewise concerned with delineating and characterizing the resulting entity ‘*Geisteswissenschaften*’ in its own right. With the external challenge of the strengthened *Naturwissenschaften*, and in light of the dwindling influence of

est culture have had in the cultural evolution of the German or any other nation. The enormous developments and enhancements our German life demonstrated in national as well as in technical, economical, artistic and scientific regards in the last one hundred years are completely independent from the positive influence of those guardians of the treasures of the antiquity, yes, by all means, they came into being in a struggle against them.”

German Idealism, the question arises what those disciplines have in common that do not examine natural phenomena, but products of the human mind. In other words, what is at stake is a definition of what constitutes and defines ‘the modern *Geisteswissenschaften*’ – a struggle along an internal frontier –, and what distinguishes this entity from the *Naturwissenschaften* – a struggle along an external frontier. Without raising claims to completeness (cf. [14]), we can identify a number of interrelated sites where the respective boundary work is taking place.

3.2.1 Neo-Kantianism as a site of boundary work

One important site for the boundary work that contributes to the making of the ‘*Geisteswissenschaften*’ is philosophy. After the decline of Hegelianism, a vacuum emerged in the professional discourse in philosophy. Scientific materialism attempted to fill this vacuum, challenging the idealistic notion that concepts or ideas are subsistent, if not the primary reality. Figures like Karl Marx and Friedrich Engels opposed metaphysical idealism, advocating the thesis that the primary reality is indeed the physical nature, and that natural phenomena do not have metaphysical causes. During the idealism materialism debate of the 1850s (cf. Pinkard 2002: 306-316), philosophy got in a difficult situation. On the one hand, it became more and more obvious that idealist metaphysics embraced Kant’s idealism without doing justice to his empirical realism. It seemed incapable of providing anything which could suitably be called academic knowledge. On the other hand, materialism seemed to reduce philosophy to a system of mere naturalistic observations (cf. Copleston 1963: 352-360). This realism seemed compatible with the ‘science’ demarcated by the *Naturwissenschaften*, but could it tackle the pressing philosophical questions? The dominant strategy to move past this stalemate sought to return to Kant, the great thinker who “had succeeded in avoiding the extravagances of metaphysics without falling into the dogmatism of the materialists” (Copleston 1963: 361). This is the constellation in which the philosophical movement of neo-Kantianism very effectively draws new boundaries that explicitly re-integrate Kant into the philosophical discourse – and thus into the movement’s claims of what the *Geisteswissenschaften* actually represent.

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Within neo-Kantianism, a so-called Baden school competes with a Marburg school over the proper aims of Kant-studies. The differences between – or within – both schools cannot be elaborated here (cf. Adair-Totef 2003). An oversimplifying juxtaposition is that the Baden school attempts to apply Kantian thought to contemporary cultural issues, while the Marburg school aims for methodological precision. What is more important for the current argument is that neo-Kantianism in general makes powerful claims on two fronts: on one front, it is concerned with developing a philosophical approach that is situated between materialist and speculative perspectives. First and foremost, this is an effort to develop an epistemological and methodological approach for the study of the products of the human mind. As a difference that is introduced into epistemological and methodological debates, neo-Kantianism is not intended to be a boundary of anything. A consistent realm of ‘*Geisteswissenschaften*’ does not yet exist. Rather, neo-Kantianism is merely a proto-boundary that addresses an internal frontier, suggesting what an independent realm of scholarship on products of the human mind might actually be based on. On a second front, neo-Kantianism also addresses the proto boundaries drawn by the natural scientists in the previous section. Picking up the distinction ‘modern science’, philosophers try to establish an independent scientific realm on an equal footing next to the *Naturwissenschaften*.

[14] The literature systematizes the subsequent debates in various ways. Anderson (2003) distinguishes neo-Kantian, historicist, and Psychological approaches. Schnädelbach (1983: 120-137) identifies four reactions, to the external challenge of *Naturwissenschaften* and the internal challenge of a succession of German Idealism: 1) attempts to rehabilitate philosophy as a science, 2) philosophical perspectives that declare science itself to the philosophy of the time and lead to various forms of scientism, 3) claims that re-position philosophy as critique, and 4) efforts to assign to philosophy an own area of responsibility that is distinct from other (empirical) disciplines. Scholtz (1991: 135-149) identifies no less than eight ways to handle the “problem of historicism” (Scholtz 1991: 135): 1) the search for continuity and stable norms among the unstructured historical sources and epochs is led by philosophical anthropology, 2) the search for supra-historical values is led by neo-Kantianism, 3) a traditionalist reduction tries to concentrate on one system of values and norms, 4) ethics and natural law attempt to provide a normative minimum consensus, 5) the search for coherence and order is advanced by the systematic conception of various disciplinary subject areas, 6) by world or universal history, 7) by structuralism, and 8) by social and cultural history.

However, their claims are not yet coherent enough to form a socially robust thing named ‘*Geisteswissenschaften*’.

On the first, internal frontier that tackles the question of how to substantiate an independent realm of scholarship on a par with the *Naturwissenschaften*, Windelband (1894: 18) tries to (re-)establish philosophy by conceding that the discipline “has discarded all metaphysical ambition”, while still “feeling up to the big questions”. This claim is an interesting case of boundary work. Not only does Windelband speak confidently for philosophy as a whole, he also claims that it is philosophy – and not, one is inclined to add, *Naturwissenschaften* – that is competent to deal with the fundamental questions. Windelband also asserts in his claim the lack of all metaphysical ambition, which is a resolute dissociation of speculative philosophy.

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In the very same speech, Windelband also addresses the external frontier by making a stand against the *Naturwissenschaften*. He suggests a new classification of the (*Geistes-* and *Natur-*)*Wissenschaften*. Rather than distinguishing disciplines by their objects of investigation and distinguishing the mind [*Geist*] from the nature, he calls for a classification that is oriented towards epistemic goals and methods. Windelband puts forward a system that distinguishes, in a first step, philosophy and mathematics from all other, empirical disciplines. It is only in this category of empirical disciplines that, in a second step, nomothetic *Naturwissenschaften* and idiographic *Geistes-* and *Kulturwissenschaften* are distinguished (Rentsch 1991). This new disciplinary landscape grants philosophy a peculiar status: the discipline has no independent object of knowledge, but is instead expected to be “capable to reveal the epistemological range of the other disciplines” (Windelband 1894: 41). Beyond just defining the status of philosophy, this strategy also delineates a realm of empirical sciences in which idiographic research is given a position that is separate but equal to the nomothetic research of the *Naturwissenschaften*.

Heinrich Rickert, Windelband’s pupil and successor in the chair of philosophy at Heidelberg, is a second main figure of neo-Kantianism. Similar to Windelband, he delineates a realm of empirical sciences in which the ‘*Geisteswissenschaften*’ sans philosophy are located. However, Rickert deviates from his teacher when he defines the common denominator for studies on the products of the human mind. For him, the equivalent and counterpart to the objects of nature of the *Naturwissenschaften* are not objects of the mind [*Geist*], but culture (Rickert 1926). Thus, Rickert brings forward a different distinction: he rejects the term ‘*Geisteswissenschaften*’ and speaks of ‘*Kulturwissenschaften*’. This addresses, first, the internal frontier, along which a legitimate definition of the studies of the products of the human mind is at stake. Rickert’s statements are explicitly framed “in contrast to the opinions that dominate philosophy” (Rickert 1926: 12), and it is obvious that his strong focus on culture devaluates other claims made for the *Geisteswissenschaften* by re-defining the very object in question. Rickert’s and Windelband’s claims are good examples for the difference between proper boundaries that demarcate socially robust entities, and proto-boundaries that might become consistent demarcations later on, but for the time being are merely distinctions that are not meant to be boundaries of something. It is obvious that Rickert’s and Windelband’s respective definitions of what constitutes the scientific realm in question do not add up and create a social thing that has actual consequences. So far, the two rather introduce independent distinctions.

Rickert does not only introduce new distinctions within the *Geistes-/Kulturwissenschaften*. His boundary work also makes a second claim that addresses the external frontier with the *Naturwissenschaften*. Here, his aim is to “develop a concept that can determine and demarcate the common interests, tasks, and methods of the non-natural empirical sciences against the natural scientists.” (Rickert 1926: 1) The intention is to make a clear distinction between the *Naturwissenschaften* and a realm that can still only be described as “non-natural empirical sciences”. Since natural objects are value neutral and cultural objects are embedded in values and meaning, the decisive difference between the two scientific realms is actually not their objects of investigation (which would be nature on the one and culture on the other hand), but the values researchers approach their objects with (cf. Rickert 1902). With his boundary strategy, Rickert underlines that the “non-natural empirical sciences”, as fuzzy as this preliminary distinction might be, are equal to the *Naturwissenschaften*, because both belong to the realm of empirical sciences. Simultaneously, the non-natural empirical sciences are separate from their natural scientific counterparts because they are concerned with questions like the transcendental conditions of values, while the *Naturwissenschaften* are grounded in the logic of the mind.

One cannot but register that the neo-Kantian boundaries are drawn under the aegis of a specific symbolic capital. Kant’s oeuvre and the Kantian problematic still serve as a guarantee for orthodox philosophical endeavours (Bourdieu 1991: 56). In this perspective, it takes no wonder that neo-Kantianism soon becomes a powerful force in German philosophy. By the turn of the century, most of the university chairs of philosophy were occupied by scholars who were to some degree at least representatives of the movement (Copleston 1963: 361). At the same time, it is noteworthy that even neo-Kantianism cannot ground a distinct and autonomous epistemology of the *Geisteswissenschaften* on the claim of philosophy (still) being the leading discipline.

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In terms of boundary work, neo-Kantianism introduces several proto-boundaries that are concerned with methodological differences. [15] That is to say that the distinctions and claims are not boundaries of a coherent and socially robust entity. They are simple differences that are negotiated among the protagonists. What the (Marburg) neo-Kantians agree on, and what therefore is a more stable and robust demarcation, is that philosophy is cut down from a metaphysical superstructure that guides all disciplines to a reflexive endeavour about other disciplines. On the internal frontier about what “non-natural empirical sciences” might actually represent, neo-Kantianism is not consistent. The only coherent claim is that they are empirical sciences. Apart from that, there is still too much variance – or as Abbot (1995: 866) would phrase it: “independent, unconnected boundaries” – to recognize a coherent and socially robust entity that all protagonists can agree on. Along the external frontier, the demarcation from the *Naturwissenschaften* assumes a realm that is, first, decidedly empirically grounded and thus equal to the *Naturwissenschaften*, and, second, still separate from them because of its idiographic character and its orientation on values. Again, the difference between the Two Cultures is a proto boundary that is not yet consistent between the protagonists, as Windelband refers to idiographic vs. nomothetic procedures, while Rickert draws the line between value oriented and logical approaches.

[15] According to the Baden school, the methodological rigor of the Marburg school misleads it to apply theoretical judgments to all fields of intellectual investigation alike. It is reckoned that this conflates the methods of *Naturwissenschaften* with proper thinking per se, and thus degrades the *Geisteswissenschaften* to a subaltern rank. Understandably, this kind of hierarchical relation between the Two Cultures is not a boundary strategy that is highly appreciated in the rest of the *Geisteswissenschaften* (Copleston 1963).

3.2.2 Historicism as a site of boundary work

Philosophy is not the only site that puts forward definitions of common denominators of the studies of the products of the human mind. A neighboring site of boundary work is the discipline of history. Just as the *Naturwissenschaften* in general, history benefits from the downfall of German Idealism and the resulting vacuum of definatory power. And just as neo-Kantianism attempts to overcome the dichotomy of materialism and idealism in philosophy, historicism seeks “to reconcile the wrong alternative of materialistic and idealistic worldview with the historical worldview” (Droysen 1868: 20).

In order to establish this historical worldview, many historians in the last third of the 19th century re-position their discipline by drawing on Ranke (1868: 4), who is famously insisting on “bringing to mind the full truth” with “critical studies of the real sources; impartial conception, objective presentation”. While Ranke’s universal historiographical approach might have lost ground in light of increasing specialization of (historical) research, other convictions and developments still seem valid. The so-called Ranke-Renaissance (Fehrenbach 1974; Schleier 1975), although separated by internal methodological disputes (Beiser 2011; Wittkau 1992), brings forward certain methodological principles that are highly influential beyond the discipline of history. Two of these principles are the imperative of objectivity by means of thorough source critique, with the according expectation of the historian to “force back his subjective moods” (Sybel 1886: 484), and the assumption that the objects of investigation are not metaphysically given, but that all values and actions are historically and socially embedded (Beiser 2008; Hardtwig 1978).

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With these methodological claims, neo-Rankean historicism establishes an orientation on empirical data, a prevention of subjectivity, and a rigorous application of methods as epistemological benchmarks. Historiography is delineated as a decidedly empirical undertaking that relies on highly developed methods of source-critique. This historicist strategy claims to promote the discipline of history from the preliminary stage of enlightenment historiography to a proper, research-based science (Below 1924; Ritter 1919). From Johann Gustav Droysen onwards, the historian is professionalized and thereby transformed from a chronicler and annalist to a modern researcher, and historiography is turned into “empirical perception, experience, and research” (Droysen 1868: 17). This boundary work addresses the same two frontiers that have already been distinguished for philosophy.

The first frontier is concerned with the realm that will later be called ‘*Geisteswissenschaften*’. Since one of the main objections against Hegelians was that their metaphysical systems ignored the empirical facts of history, it is evident that the methodological claims of the neo-Rankeans are meant to wrest epistemological leadership from philosophy and distinguish from it modern, method-oriented science (Gadamer 1986: 10; Scholtz 1991: 82). Not all historicists agree with the particular notion of neo-Rankean objectivism, but even those that do not still advocate empirical research with the aid of controlled methods. Droysen, for example, a main figure of 19th century historicism, rejects strict objectivity in historiography. Nonetheless, he demands that the historian “must not be speculative but proceed in an empirical manner” (Droysen 1868: 15). He develops his hermeneutic method as a decidedly scientific procedure, stating that “the essence of the historical method is *Verstehen* by research [*forschend zu verstehn*].” (Droysen 1868: 18) After the downfall of metaphysics, the boundary work of historicism does not (yet) establish a boundary of anything. It would be pre-

mature to say that the claims demarcate a stable social entity that can be labelled 'Geisteswissenschaften'. Historicists merely negotiate a distinction of 'pre-modern science' vs. 'modern science', the latter being as objective, methodical, and empirical as possible (cf. Diemer 1968). Taken by itself, this distinction is not yet coherent and robust enough to serve as a boundary of anything.

Historicism does not only address the realm of scholarship on products of the human mind. In line with the efforts in philosophy, one is also concerned with a demarcation from the *Naturwissenschaften* on an external frontier. Employing a boundary strategy that is strikingly similar to what we have seen from neo-Kantianism, historicism, too, attempts to establish non-natural empirical sciences on a par with the *Naturwissenschaften*. Just as in philosophy, the same double strategy of affirmation and demarcation is applied. The following examples demonstrate how closely intertwined these boundary strategies are. In 1897, Max Lenz (1922: 597), one of the main figures of neo-Rankeanism, wants to "deny the claim to sole reign issued by the *Naturwissenschaften*" and states that "the historical sciences in no way have to shun the competition with the sciences of the nature, neither regarding their scope nor their impact." This strong demarcation is paired with epistemological claims that draw heavily on objectivity and empiricism, and thereby correspond to the notion of 'modern science' championed by the *Naturwissenschaften*. Lenz (1922: 602) asserts that, "today, we do not pursue any secondary aims or particular ideals. We just want to give account how we have become what we are today [...]. We are confronted with the past like the natural scientist is confronted with a plant or the periods of earth's history." Rejecting metaphysical or speculative aspirations very clearly, the historian states that "we have so little interest in a system and dogmatic values, that, to the contrary, we rather dissolve all systematization and prove the contingency of all worldly being and desire. We want nothing but to examine and discover" (Lenz 1922: 603).

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The same double strategy of demarcation and affirmation is employed by Droysen. He concedes that the "human mind conceives the world of [empirical, JH] phenomena in the broadest terms of nature and history" (Droysen 1868: 16), leaving no doubt that history is the discipline that is on an equal footing with the modern *Naturwissenschaften* in terms of breadth and relevance. At the same time, Droysen positions his hermeneutic method against a mere logical approach. He makes clear that historical life is "not merely of organic nature", and since this sensuous world is "no analogue of eternal matter and metabolism" (Droysen 1868: 19), one needs to approach it differently. This is where Droysen brings into play his method of hermeneutic interpretation. He thus employs a strategy of demarcation that emphasizes the intrinsic value of non-natural empirical sciences in a way that is very similar to the strategy that we have seen from Lenz.

Without wanting to neglect differences in their respective historiographical programs, claims like the ones from Lenz and Droysen can be interpreted as similar boundary strategies. First, both Droysen and Lenz claim that history is more than able to compete with the *Naturwissenschaften* when it comes to the scope and impact of the questions addressed. History does not want to leave the fundamental questions to the *Naturwissenschaften* – a rhetorical move that we have also seen in philosophy. Second, along the internal frontier that is concerned with what the sciences on the products of the human mind actually represent, both Droysen and Lenz make a clear dissociation of speculative philosophy: Droysen elaborates his hermeneutic as a method that controls and regulates the process of research, Lenz declares that history

has no metaphysical ambition and does not follow any, as he calls it, dogmatic value systems. This is where historians, just as philosophers, distance themselves from a pre-modern notion of research and conceive a ‘modern science’ that simultaneously affirms and dismisses the ‘modern science’ established by the *Naturwissenschaften*.

Taken for themselves, historical and philosophical boundary strategies are not consistent and homogeneous enough to constitute a socially robust entity. As I have remarked throughout the previous two subsections, the respective claims are not coherent between protagonists of one discipline, let alone between both history and philosophy. However, the advantage of historical hindsight, and of the temporal perspective of boundary work approaches, is to be able to identify similar rhetorical patterns in different contexts, and to discern when distinctions (or proto-boundaries) that are initially independent and unconnected add up to more stable and robust demarcations. This is the case for the boundary work in history and philosophy. Protagonists employ strategies that are strikingly similar in order to establish a legitimate relationship to the *Naturwissenschaften* – namely a relation that is simultaneously affirmative and demarcative. Protagonists in both disciplines agree on certain features in order to characterize their scientific realm. It is on a par with the *Naturwissenschaften* because of a similar emphasis on empirical research, systematic methods, and factual results. However, at the same time, it is a different scientific endeavour, independent from the *Naturwissenschaften* because it is oriented towards values and understanding the meaning of phenomena. These distinctions are formerly local and situated proto boundaries. Our comparative boundary work perspective allows us to see that they have added up between different sites, which makes it more likely that an actually robust and stable social entity named ‘*Geisteswissenschaften*’ might emerge.

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3.2.3 Dilthey’s boundary work

A third important site of boundary work is Wilhelm Dilthey’s attempt to demarcate an independent foundation for what he envisions as ‘*Geisteswissenschaften*’. He insists so resolutely on the sovereignty of a scientific realm besides the *Naturwissenschaften* that his claims have been described as an “attacking epistemological pre-emptive defence” (Bruch 1999b: 46). Dilthey’s boundary work follows the pattern of internal and external frontiers that I have reconstructed in the previous subsections. His claims are supposed to define what the non-natural empirical sciences are about by “revealing the main features of the epistemological-theoretical nexus in this coherent entity“, and his claims are also meant to establish an external distinction by “setting forth the independent position of the *Geisteswissenschaften* towards the *Naturwissenschaften*” (Dilthey 1958: 117).

Drawing on philosophic and historicist traditions alike, Dilthey wants to establish a new scientific foundation for historical experience, and thus conceptualizes his work as a Critique of Historical Reason (Ermarth 1978). Like his neo-Kantian and neo-Rankean counterparts (see Makkreel 1969; Reiter 1974 for the respective relations), Dilthey distances himself from speculative perspectives by stating that “the age of metaphysical substantiation of the *Geisteswissenschaften* is completely gone” (Dilthey 1959: XIX). This acknowledges once more a window of opportunity for new approaches to assert themselves. Interestingly, this is but one striking feature that Dilthey’s boundary strategy shares with the boundary work that we have seen from historicism and neo-Kantianism. There are further, arguably more vital similarities, namely the

emphatic demarcation from the *Naturwissenschaften* that is combined with a focus on controlled and systematic methods, on objective results, and on empirical data. Just as historicism and neo-Kantianism, Dilthey does not only make an effort to discard any metaphysical ambition; his version of 'non-natural empirical science' does not completely back away from pre modern tradition either. I will illustrate Dilthey's efforts to establish an entity called '*Geisteswissenschaften*' – tellingly in Hegel's chair of philosophy at the University of Berlin – with a focus on his demarcation of, first, the method, and, second, the objects of investigation he delineates for this entity.

The method that Dilthey puts forward for the '*Geisteswissenschaften*' manages to reconcile the modern elements of the new approaches in philosophy and history with the pre-modern traditions of an introspective and speculative idealism. His hermeneutic method of reliving [*Nacherleben*] assumes a three step process of, first, the experience of an historical actor (e.g., love), second, the expression of this experience (e.g., in a love poem) that, third, creates an experience for the researcher (who reads the love poem). Experiencing the expression of someone else's experience means reliving it (Dilthey 1958: 213-216). What is crucial about this method in terms of boundary work is that it draws on both modern and pre-modern notions of research. On the one hand, Dilthey's hermeneutic is conceptualized as an artistic understanding that is "based on a particular personal genius" (Dilthey 1958: 216). This aspect brings to the fore the subjective personality of the scholar that pre-modern science relied on. On the other hand, Dilthey (1958: 217) expects this very method to systematize and regulate research, to "turn personal genius into a technique", and thus to allow for inter-subjective feasibility. In the end, the method of reliving is a technique that facilitates methodical control of what a researcher experiences, and therefore allows for hermeneutics to at least approach objectivity and reach "a degree of universality" (Dilthey 1958: 218). This claim is more modest than the objectivity that neo-Rankeans have in mind. However, it still is very much compatible with the 'modern science' of the *Naturwissenschaften*, because a systematic method controls and channels the subjective interpretation of the genius scholar (see also Dilthey 1961) – this is not the same, but it comes close to the "aperspectival objectivity" that the *Naturwissenschaften* champion with an "ethos of the interchangeable and therefore featureless observer" (Daston 1992: 609).

Dilthey's conception of the objects of investigation of the '*Geisteswissenschaften*' follows a similar pattern: The '*Geisteswissenschaften*' investigate manifestations of life [*Lebensäußerungen*], which includes "everything man has had his impact on", and thus "everything in which the spirit has objectified itself" (Dilthey 1958: 148). The notion of an 'objectified spirit' means that the research is not concerned with the subjective experiences of an historical actor (e.g., the love someone feels), but with the objective meaning structures that are condensed in the expressions of this actor (e.g., the love poems someone writes). These objective meaning structures are created by, but lastly detached from the internal processes of individual historical actors. This is why the objects of investigation in the '*Geisteswissenschaften*' are "objectifications of life" that allow an insight into what Dilthey calls "the historical essence" (Dilthey 1958: 146-147). Objectified in manifestations of life, the objects of the '*Geisteswissenschaften*' are neither substantiated by a metaphysical, timeless *Weltgeist*, as Hegelianism would suggest, nor are they an unsystematic collection of historical facts, as argued by neo-Rankean historicism. Rather, various subjective manifestations of life emerge cumulatively and yield a common structure that is historically contingent, but still expresses an overall order of historical conditions (Dilthey 1958: 150-152). In terms

of boundary work, it is evident that this concept finds a middle ground between more traditional notions of a scholarly competence for subjective phenomena, and the modern historicist notion of what the non-natural empirical sciences are concerned with. On the external frontier with the *Naturwissenschaften*, the cumulative and objectified character that Dilthey ascribes to objects of investigation is very much compatible to the rationalistic and inductive 'science' of the *Naturwissenschaften*.

It is worthwhile to examine this double strategy in Dilthey's boundary work in more detail. His epistemological foundation delineates both objects of investigation and methods that set the *Geisteswissenschaften* apart from more traditional notions of scholarship. Simultaneously, however, Dilthey's claims still contain elements of the idealistic philosophical heritage that made the non-natural sciences so influential in the first place. Dilthey's strategic demarcation still depicts research as a creative process that relies on the genius of a researcher. The subjective *Verstehen* is still crucial, it is understood as a process of "putting the own self in something exterior" (Dilthey 1961: 262). In addition, the foundation of the '*Geisteswissenschaften*' is based on life philosophy, a school according to which meaning and values are the responsibility of philosophy, rather than history, and according to which philosophy is neither concerned with metaphysical issues nor limited to modern scientific methods. The life-philosophical orientation of Dilthey's delineation of the '*Geisteswissenschaften*' goes a long way to rehabilitate philosophy as the site of epistemological reflection, and to highlight the difference to the 'modern-science' of the *Naturwissenschaften*.

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Yet, this interpretation does not tell the whole truth. Although he keeps up a specific heritage by maintaining elements of a pre-modern notion of scholarship, Dilthey also dismisses any metaphysical ambitions and clearly acknowledges the advances of 'modern science'. The way he conceptualizes their methods and the objects of investigation, the *Geisteswissenschaften* appear as part of the empirical sciences that conduct their research in a systematized, methodical way. This neatly integrates into the symbolic backdrop of 'science' that the *Naturwissenschaften* established (cf. the analogies drawn by Dilthey himself, 1961: 259-260). Dilthey delineates a coherent methodical procedure that allows for results that are replicable and intersubjectively comprehensible. [16] What is more, the formal conceptualization of his hermeneutics is analogous to an inductive conclusion. Deriving general principles from specific observations, as Dilthey's hermeneutics suggests, is highly compatible to the inductive reasoning of experimental research, making the method well-suited to the general notion of scientific research and epistemology of the time (Gadamer 1986: 240-241; Habermas 2001: 226-233).

Summing up, the boundary work perspective illustrates that Dilthey's hermeneutic method and his conceptualization of objects of investigation affirm and simultaneously snub the notion of 'modern science' that has been established by the *Naturwissenschaften*. By defining their objects of investigation and their method, Dilthey's boundary work claims what the '*Geisteswissenschaften*' are in their own right. Alongside the external frontier with the *Naturwissenschaften*, the claim is that the *Geisteswissenschaften* are equal and yet different.

[16] Later on, Habermas (2001: 230) will accuse Dilthey of having "transferred the notion of objectivity from the *Naturwissenschaften* to the *Geisteswissenschaften*", while Gadamer (1986: 246) laments that Dilthey's boundary work "demonstrates the pressure exerted by the modern sciences' orientation towards methods".

4. DISCUSSION: THE MAKING OF THE ‘*GEISTESWISSENSCHAFTEN*’ FROM A BOUNDARY WORK PERSPECTIVE

The previous section revealed that Dilthey’s double strategy of affirmation and demarcation towards the *Naturwissenschaften* is strikingly similar to the boundary work in philosophy and history. In the next step, I will highlight these commonalities between boundary work strategies in different sites, and discuss how insights into the temporality, the relationality, and the situatedness of these discursive practices have been instructive in order to further illuminate a historical episode that has been crucial for the emergence of an entity that is called ‘*Geisteswissenschaften*’.

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The downfall of German Idealism and the simultaneous ascent of the *Naturwissenschaften* as a set of disciplines that self-confidently represents a notion of ‘modern science’ have yielded various strategies of boundary work. These strategies not only refer to each other between *Geistes-* and *Naturwissenschaften*, but they are also conspicuously similar within the *Geisteswissenschaften*. I tried to make clear throughout the various sections that the respective claims from neo-Kantians, historicists, and Dilthey are merely simple differences and independent distinctions when taken for themselves. They do not demarcate a coherent entity, and are in fact not boundaries of anything. Too many threads in the respective debates remain unconnected, too many aspects unresolved between the protagonists. Yet, the boundary work approach allowed us to discern these discursive efforts as boundary work in the first place, and to analyse the scattered claims as proto-boundaries that might cumulate to proper, durable boundaries of coherent social entities if they add up in a particular way (Abbott 1995: 866-867).

Over time and between different sites, this is precisely what happens. I want to highlight three distinctions that add up between the different sites, and thus form proper symbolic boundaries of the ‘*Geisteswissenschaften*’ as a social entity. First, in neo-Kantianism, historicism, and in Dilthey’s claims alike, any speculative orientation is thoroughly dismissed: to name but a few, Windelband (1894: 18) concedes that philosophy “has discarded all metaphysical ambition”, Lenz (1922: 603) denies any interest “in a system and dogmatic values”, and Dilthey (1959: XIX) states that “the age of metaphysical substantiation of the *Geisteswissenschaften* is completely gone”. Thus, speculative and metaphysical scholarship is firmly placed outside of the terrain of ‘modern *Geisteswissenschaften*’. This is a distinction that cumulatively adds up to a socially robust boundary. Crucially, the distinction is also matched from the out-

side, because natural scientists resolutely discard speculative perspectives as well. In history and philosophy, all protagonists also agree that the responsibility for the big, fundamental questions of life has not been lost to the *Naturwissenschaften*, but still lies in the area of authority of the scientific realm they delineate.

A second distinction adds up between the different sites of boundary work and thus becomes a symbolic boundary of the '*Geisteswissenschaften*'. All protagonists define their scientific realm as decidedly empirical. In most cases, this is combined with specific epistemological aspirations and ambitions. Thus, with the distinction 'empirical science' come specific methods and methodologies. Broadly speaking, the empirical character and methodical systematization of research in the '*Geisteswissenschaften*' is what puts them on a par with the *Naturwissenschaften*. Between the different sites of boundary work, this distinction is coherent enough to become a proper boundary of the socially robust entity named '*Geisteswissenschaften*'. It is important to note that this characterization allows them to stand against the point of reference 'modern science' that is defined in the *Naturwissenschaften*.

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So far, the two symbolic boundaries that demarcate the '*Geisteswissenschaften*' put them on equal footing with the *Naturwissenschaften* and affirm their notion of 'science'. It is all the more important to note that at least one more distinction adds up between the sites of boundary work. The '*Geisteswissenschaften*' are not only delineated as equal to, but also as separate from the *Naturwissenschaften* – they do not only affirm, but simultaneously dismiss their rationalistic, objectivistic claims. The boundary work strategies between the various protagonists are coherent in that they all insist on vital epistemological and methodological differences between *Geistes-* and *Naturwissenschaften*. The third proper boundary that demarcates the '*Geisteswissenschaften*' as a socially robust thing is that they are equal to, but different from the *Naturwissenschaften*, that they are affirmative towards 'modern science', but in their very own right. The previous sections made clear where the protagonists differ in their demarcating efforts – some base the distinction against the *Naturwissenschaften* on different objects of research, others on their value orientation, or on different methods that are overall more interpretative. According to the logic of the boundary work approach, these disagreements do not add up to a stable boundary that could determine what exactly distinguishes the *Geistes-* from the *Naturwissenschaften*. However, it is noticeable that every demarcating effort – be it the emphasis on idiographic methods, on value orientation, or on interpretative procedures – draws on the pre-modern tradition of the '*Geisteswissenschaften*'.

Apart from these three symbolic boundaries of the *Geisteswissenschaften* that cumulate from boundary strategies in different sites, the boundary work approach has also illustrated some methodological aspects. Section 2 discussed how boundary work approaches remind us of several principles, most importantly the temporality, the situatedness, and the relationality of the construction of social things. Coming back to this argument, my contribution illustrated, first, that the making of the '*Geisteswissenschaften*' requires to take serious the processual character of their emergence. This includes the somewhat paradoxical analytical procedure of ascribing arguments and debates to a realm called '*Geisteswissenschaften*' before this realm is fully demarcated and established. However, the historical perspective allows us to identify the protagonists that are drawing the boundaries of what will later become known as '*Geisteswissenschaften*'. In doing so, we are able to include earlier historical contexts into the story. The dominance of philosophy as a leading discipline at the beginning

of the 19th century, the ascent of the *Naturwissenschaften*, and the stalemate after the downfall of speculative philosophy could only come into the picture because the boundary work approach sensitises for the temporal dimension of the emergence of social entities. The advantage of this approach is that the processual character of the *Geisteswissenschaften* becomes visible, and that we can reconstruct how this disciplinary formation emerges and comes to the discursive surface vis-à-vis the *Naturwissenschaften*.

Second, boundary work approaches stress the principle of situatedness. This means that boundaries are drawn in certain contexts, and that the respective strategies follow local logics. In order to reconstruct the emergence of the *Geisteswissenschaften*, my contribution included several local contexts. For example, the *Geisteswissenschaften* are not only constituted by philosophers and historians, but just as well by the natural scientists that define them from the other side of the frontier. Furthermore, there are several sites of boundary work even within the realm that is demarcated as '*Geisteswissenschaften*'. Claims that are made in history draw on different traditions than claims that are made in philosophy. Given the situatedness of boundary work, it is all the more surprising that the various strategies have been found to be very similar in their approach. A more detailed account could take the situatedness of boundary work even more serious and distinguish, for example, the contexts of schools more systematically.

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A third methodological aspect that boundary work approaches emphasize is the relational character of boundaries. This is to say that every boundary relates an interior to an exterior. Hence, the demarcation of *Geistes-* from *Naturwissenschaften* – what I have coined the external frontier – always implies a notion of what the *Geisteswissenschaften* are in their own right – what I have coined the internal frontier. In other words, due to their relational character, boundaries and demarcations draw on and relate to various entities. My contribution demonstrated that, in order to understand the emergence of a social thing like '*Geisteswissenschaften*', it is essential to relate a number of demarcations and frontiers to each other. For example, the boundaries that delineate a modern project like the *Naturwissenschaften* heavily influence how the *Geisteswissenschaften* can be conceptualized in the first place. Likewise, the various boundary strategies from neo-Kantians, historicists, and Dilthey relate to each other. Especially Dilthey draws heavily on neo-Kantian and historicist debates. Boundary work also distinguishes between what is considered a 'pre-modern tradition' and what is considered 'modern science', and thus relates both points of reference on a chronological dimension.

The boundary work perspective provides us with analytical tools for processes of the discursive construction of entities. It also makes visible the negotiations and conflicts that define the frontiers of what later comes to be a robust social thing. This makes the boundary work approach useful for a historical sociology of the social sciences and humanities. Boundary work approaches allow us to abstract from individual actors and to focus on discursive formations that operate beneath the consciousness of individual actors. These formations define a system of conceptual possibilities that determine the boundaries of what can be thought and said in a given historical period (Foucault 1972). The boundaries that yield an entity then emerge from an interrelated network of utterances. It is the rules of academic discourse that force us to ascribe these utterances to individual speakers, verify them with source citations, and thus re-introduce the subject as the source of meaningful statements. In addition,

boundary work approaches allow us to focus on the strategic character of claims and statements. Crucially, these strategies do not necessarily represent an orchestrated effort, but they can stem from a mostly subconscious and pre-reflexive sense for the social world that actors have because they are engaged in it (Bourdieu 1995). Due to their compatibility to Foucauldian and Bourdieusian methodologies of discursive formations and strategies carried out by habitus, boundary work approaches are not dependent on the strong notion of an actor that actually intends to create the '*Geisteswissenschaften*'.

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