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**Boundary work between the Two Cultures.
Demarcating the modern '*Geisteswissenschaften*'**

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Abstract

The contribution applies the sociological boundary work approach to debates in the late 19th century to analyze how the *Geisteswissenschaften* emerged as one component of the Two Cultures. Boundary strategies are scattered in programmatic manifestos, lectures, and speeches, and they can be found in historicism, philosophy, and not least in the natural sciences. The analysis illustrates that symbolic boundaries are discursive effects that emerge from local negotiations and constitute the *Geisteswissenschaften* as a stable and robust social entity. Highlighting the temporality, the situatedness and the relational character of boundary work, the paper contributes to a historical sociology of the social sciences and humanities.

1. Introduction: How did the Two Cultures come about?

In 1800, the Two Cultures did not exist.¹ The idea that there is one realm for research on nature, and a fundamentally different realm for scholarship on products of the human mind, was not yet established, and it was certainly not articulated as a systematic schism between Two Cultures.² In Germany, the dominant symbolic demarcation that ran through the universities instead 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 its autonomy that made the Faculty of Philosophy useful for the Prussian state, he showed no awareness of distinct academic cultures called 'Geisteswissenschaften' and 'Naturwissenschaften'.³

A mere 80 years later, things look different. While debates on academic autonomy and applicability flare up time and again and remain an important motif until today, it is obvious that the now dominant distinction is one between entities that are called 'Geisteswissenschaften' and 'Naturwissenschaften'. All of a sudden, a number of protagonists proclaim the age of the *Naturwissenschaften*⁴, while others attempt to lay an epistemological foundation for 'Kultur-' or 'Geisteswissenschaften'⁵.

My contribution asks how the Two Cultures emerged as socially robust and stable entities. It focuses on the making of the *Geisteswissenschaften* as one half of the Two Cultures. Drawing on the sociological boundary work approach, the *Geisteswissenschaften* are described as discursive effects, emerging cumulatively from symbolic distinctions that actors make in local negotiations. The current analysis focuses on a number of central protagonists and their claims in the second half of the 19th century. These claims are sites where definitions of the contours and contents of the *Geisteswissenschaften* and their demarcation from other entities – e.g., the *Naturwissenschaften* – are most evident.

The historiography 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, some

¹ An earlier version of this paper has been published as Julian Hamann, *The Making of the 'Geisteswissenschaften'. A Case of Boundary Work? FIW Working Paper No. 7* (Bonn: Forum Internationale Wissenschaft, 2017).

² Walter Höflechner, "Bemerkungen zur Differenzierung des Fächerkanons und zur Stellung der philosophischen Fakultäten im Übergang vom 18. auf das 19. Jahrhundert," in *Artisten und Philosophen. Wissenschafts- und Wirkungsgeschichte einer Fakultät vom 13. bis zum 19. Jahrhundert*, ed. R.C. Schwinges, (Basel: Schwabe & Co. AG, 1999), 297-317.

³ Immanuel Kant, *The Conflict of the Faculties* (New York, NY: Abaris Books, 1979).

⁴ Werner von Siemens, *Das naturwissenschaftliche Zeitalter. Vortrag gehalten in der 59. Versammlung Deutscher Naturforscher und Aerzte am 18. September* (Berlin: Carl Heymann, 1886); Rudolf Virchow, *Die Gründung der Berliner Universität und der Uebergang aus dem philosophischen in das naturwissenschaftliche Zeitalter* (Berlin: Julius Becker, 1893); Emil H. Du Bois Reymond, *Culturgeschichte und Naturwissenschaft* (Leipzig: Verlag von Veit & Co., 1878).

⁵ Heinrich Rickert, *Kulturwissenschaft und Naturwissenschaft* (Tübingen: Mohr, 1926); Wilhelm Dilthey, *Der Aufbau der geschichtlichen Welt in den Geisteswissenschaften* (Stuttgart: B.G. Teubner, 1958); Max Lenz, "Die Stellung der historischen Wissenschaften in der Gegenwart," in *Vom Werden der Nationen. Kleine historische Schriften, Bd. 1*, ed. M. Lenz, (Berlin, München: Oldenbourg, 1922), 596-608.

reaching back much further than the 19th century.⁶ My contribution understands the Two Cultures in a more narrow sense, and thus focuses on the *modern* humanities, and on the German case as one exemplary case out of many other possible national contexts. Tracing arguments preceding the Two Cultures debate, this analysis illustrates that a focus on boundaries allows for a relational perspective that is sensitive to the temporality and situatedness of symbolic strategies that define legitimate scientific activity.

2. Boundary work approaches

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. The underlying assertion is that “boundaries come first, then entities”⁷, which is to say that social entities come into being only when actors establish boundaries and link them to objects or notions in certain ways. In this section, I will introduce two influential perspectives on symbolic boundary work.

The social robustness of symbolic boundaries is addressed by Andrew Abbott.⁸ According to him, the making of an entity is the connecting up of local boundaries and differences into a single whole. The things that emerge this way can be durable over time, and have independent consequences and social effects. Abbott’s perspective 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 a different perspective, Thomas F. Gieryn emphasizes the situated character of boundaries.⁹ This lends them not only a strategic dimension, but also a certain arbitrariness – an aspect that complements the robustness highlighted by Abbott. In this view, the demarcation of things appears as a practical problem for academics because they need to establish epistemic authority. This problem is solved by local negotiations and strategies. With the interpretative and strategic character of boundary work in mind, we can investigate actors’ strategies when they demarcate the distinction between *Geistes-* and *Naturwissenschaften* as a boundary between epistemological legitimacies.

Bringing together these two perspectives, symbolic boundaries can be understood as conceptual distinctions that actors make to categorize objects, people, practices, and even time and space.¹⁰ Focusing on boundaries emphasizes that the relation between entities is not logical or ahistorical, and that social

⁶ See Anthony Grafton’s contribution to this forum, cf. also ; Rens Bod, Jaap Maat and Thijs Weststeijn, eds., *The Making of the Humanities, 3 Vols.* (Amsterdam: Amsterdam University Press, 2010-2014).

⁷ Andrew Abbott, "Things of Boundaries." *Social Research* 62, no. 4 (1995):857-882, 860.

⁸ Andrew Abbott, "Things".

⁹ Thomas F. Gieryn, *Cultural Boundaries of Science: Credibility on the Line* (Chicago: University of Chicago Press, 1999).

¹⁰ Cf. Michèle Lamont and Virág Molnár, "The Study of Boundaries in the Social Sciences." *Annual Review of Sociology* 28, no. 2002 (2002):167-195.

entities do not exist – or have certain qualities – by themselves, but in relation to others. Boundary work approaches invite us to look for social things before they are fully established and to embed their processual formation in an historical context (temporality). They remind us that boundaries are produced and negotiated in certain contexts, and that boundary work might follow certain strategies or local logics (situatedness). Lastly, boundary work approaches underline that, in order to understand a social thing like '*Geisteswissenschaften*', it is essential not to isolate it in our analysis from other things it builds on, delimits, or distinguishes (relationality).

Against the backdrop of this "processual ontology"¹¹, my contribution is concerned with how the *Geisteswissenschaften* come into existence when social actors tie together epistemological boundaries in certain ways. This discursive construction decidedly includes conflictual claims, and claims that are made on other turfs like the *Naturwissenschaften*. In more general terms, the empirical case illustrates for the historiography and historical sociology of the social sciences and humanities how differences between disciplines, disciplinary groups, or epistemic cultures emerge from situated claims and conflicts, and in the process become social things.

3. Boundary work between the Two Cultures

The academic backdrop of the emergence of the '*Geisteswissenschaften*' in the late 19th century is twofold: philosophy transforms from an epistemological leading discipline to a mere worldly discipline that reflects on other disciplines. Simultaneously, the natural sciences ascend to a self-confident group of disciplines that is unified by shared methods and a common epistemology. This is the constellation in which a number of protagonists undertake boundary work in order to demarcate the Two Cultures from each other, and at the same time determine what the *Geisteswissenschaften* actually are. A more detailed approach would have to consider the social sciences as another important site for the formation of the *Geisteswissenschaften*.¹²

3.1 "The age of the *Naturwissenschaften*"

If the relational and situated character of boundary work is to be taken serious, an important starting point for the demarcation of the modern *Geisteswissenschaften* and the Two Cultures are indeed the natural sciences. During the 19th century, natural scientists are eager to claim methodical and epistemological self-sufficiency. This takes place against the backdrop of a standardization and integration

¹¹ Andrew Abbott, "Things", 859.

¹² Cf. Roberto Sala, "One, Two, or Three Cultures? Humanities Versus the Natural and Social Sciences in Modern Germany." *Journal of the Knowledge Economy* 4, no. 1 (2013):83-97.

of disciplines like physics, chemistry, biology, and physiology.¹³ 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. 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. Thus, several protagonists proclaim an "age of the *Naturwissenschaften*"¹⁴ or a "technical-inductive age", which has come after a quick succession of geographical, astronomical, physical, and chemical discoveries.¹⁵ The proclaimed new age is one in which, as the physician and pathologist Rudolf Virchow claims, "philosophical systems have been put in the rear, while sober observation and sound common sense prevailed."¹⁶ This includes, first, building and expanding museums, laboratories, and institutes for those empirical disciplines that are "faithfully sticking to actual knowledge" rather than speculation.¹⁷ 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".¹⁸

These claims are meant to be inaugurations of an age of empirical, exact, and objective science. This does not necessarily exclude the realm that will later be called '*Geisteswissenschaften*'. For example, for Virchow, the age of the *Naturwissenschaften* merely heralds the end of the supremacy of speculative philosophy and *Naturphilosophie*. In fact, he emphasizes the common origins of the *Geistes-* and *Naturwissenschaften* in the Faculty of Philosophy.¹⁹ Likewise, the physician and physicist Hermann Helmholtz (1896, 165) states in an 1862 speech that "the opposition between the other sciences [*sic!*] and the natural sciences is mitigated to the degree in which both emphasize the empirical investigation of the facts."²⁰ Another example for claims of a common, modern scientific endeavor is the physicist

¹³ Cf. Rudolf Stichweh, *Zur Entstehung des modernen Systems wissenschaftlicher Disziplinen. Physik in Deutschland 1740-1890* (Frankfurt/M.: Suhrkamp, 1984).

¹⁴ Werner von Siemens, *Zeitalter*; Rudolf Virchow, *Gründung*.

¹⁵ "So stieg in rascher Folge der geographischen, astronomischen, physikalischen, chemischen Entdeckungen endlich das Zeitalter herauf, in dessen Segnungen wir leben. Wir nennen es das technisch-inductive", Emil H. Du Bois Reymond, *Culturgeschichte*, 30.

¹⁶ "In dem Maasse, als die philosophischen Systeme in den Hintergrund gedrängt wurden, sind die nüchterne Beobachtung und der gesunde Menschenverstand in ihr Recht getreten", Rudolf Virchow, *Gründung*, 19.

¹⁷ "in treuem Festhalten an dem tatsächlichen Wissen", Rudolf Virchow, *Gründung*, 28.

¹⁸ "Jetzt verlangt man von dem Gelehrten, dass er auch ein Forscher sei, und die Ansprüche in Bezug auf die Lehre haben sich so sehr gesteigert, dass schon der akademische Unterricht sich die Aufgabe stellt, die lernende Jugend nicht bloß in die Methoden, sondern auch in die Praxis der Untersuchung einzuführen." Rudolf Virchow, *Gründung*, 25.

¹⁹ Rudolf Virchow, *Gründung*, 12.

²⁰ "In dem Maasse nun, als die empirische Erforschung der Thatsachen auch in den anderen Wissenschaften wieder in den Vordergrund trat, ist allerdings der Gegensatz zwischen ihnen und den Naturwissenschaften gemildert worden." Hermann von Helmholtz, "Ueber das Verhältniss der Naturwissenschaften zur

Ernst Mach, who states 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.”²¹

It is striking that these different statements, scattered in books, lectures and speeches, all make the distinction between ‘modern’ and ‘pre-modern’ science. However, even this simple distinction is not wholly consistent between the protagonists that claim it. In terms of boundary work, this suggests an overall low social robustness. Nonetheless, 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.²² Hence, 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’.

‘Modern science’ stands for epistemological rigor, exact statements, and empirical, if possible experimental research. As it turns out, the natural sciences appear as the more sober sciences if they are evaluated against this symbolic backdrop.²³ They subject their phenomena to quantitative laws, they control their objects in experiments, and they are able to achieve a hitherto unknown level of precision and confirmation. As soon as the future *Geisteswissenschaften* are related to such a notion of modern and research oriented ‘science’, they find themselves in an intricate position. Natural scientists question the epistemological maturity of the *Geisteswissenschaften*²⁴ and express doubts over the practical usefulness of their results, with Virchow claiming that “no insight into the real natural course of events emerged from the study rooms of the philosophers”²⁵. Crucially, these distinctions delineate specific differences, but they do not mark clear demarcations of coherent entities. The following section will illustrate how boundary work in other sites relates to the claims made in the *Naturwissenschaften*.

Gesamtheit der Wissenschaften," in *Vorträge und Reden, Bd. 1*, ed. H. von Helmholtz, (Braunschweig: Vieweg, 1896), 157-185, 165.

²¹ “Ich muß gestehen, ich glaube nicht an dieses Zweierlei der Wissenschaft. Ich glaube, daß diese Ansicht einer gereiftern Zeit [...] naiv erscheinen wird“, Ernst Mach, *Populär-wissenschaftliche Vorlesungen* (Leipzig: Johann Ambrosius Barth, 1903), 98.

²² Cf. Roy Harris, *The Semantics of Science* (London: Continuum, 2005).

²³ Cf. R. Lanier Anderson, "The debate over the *Geisteswissenschaften* in German philosophy," in *The Cambridge History of Philosophy, 1870-1945*, ed. T. Baldwin, (Cambridge: Cambridge University Press, 2003), 221-234, 221.

²⁴ Cf. Hermann von Helmholtz, "Verhältniss", 172.

²⁵ “Aus den Studierzimmern der Philosophen war kein Aufschluss über wirkliche Naturvorgänge hervorgegangen.“ Rudolf Virchow, *Gründung*, 24; cf. Emil H. Du Bois Reymond, *Culturgeschichte*, 12.

3.2 The '*Geisteswissenschaften*': equal, but different

The natural sciences are not the only beneficiaries from the downfall of German Idealism and the resulting vacuum of definatory power. Within the realm of the future '*Geisteswissenschaften*', protagonists in a number of disciplines attempt to demarcate a realm of scholarship on products of the human mind.

For example, historians make influential claims for an orientation on empirical data, rigorous methods, and a prevention of subjectivity. These standards are established by neo-Rankean historicism, a decidedly empirical historiography that relies on highly developed methods of source-critique. With this orientation, the discipline of history is supposed to be promoted from the preliminary stage of enlightenment historiography to a proper, research-based science.²⁶ Thus, from Johann Gustav Droysen onwards, historiography is understood as "empirical perception, experience, and research", while the historian is professionalized and thereby transformed from a chronicler and annalist to a modern researcher.²⁷

After the downfall of metaphysics, and with one of the main objections against Hegelians being 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 method-oriented, modern science. To be sure, not all historicists agree with the particular notion of neo-Rankean objectivism. However, even those that do not still advocate empirical research that is controlled by rigid methods. Droysen himself is a good example: a main figure of 19th century historicism, he rejects strict objectivity in historiography, but at the same time he develops his hermeneutic method as a decidedly scientific procedure, demanding that the historian "must not be speculative but proceed in an empirical manner".²⁸

Historicism is also explicitly concerned with a demarcation from the natural sciences. As empirical, modern sciences, the *Geisteswissenschaften* are seen as on a par with the *Naturwissenschaften*. Thus, historians apply a boundary strategy that closely intertwines affirmation of and demarcation from the natural sciences. For example, Max Lenz, one of the main figures of neo-Rankeanism, wants to "deny the claim to sole reign issued by the *Naturwissenschaften*" and states in 1897 that "the historical sciences in no way have to shun the competition with the sciences of the nature, neither regarding their

²⁶ Moriz Ritter, *Die Entwicklung der Geschichtswissenschaft an den führenden Werken betrachtet* (München: Oldenbourg, 1919).

²⁷ "Die Geschichte ist ein Ergebniss empirischen Wahrnehmens, Erfahrens und Forschens." Johann Gustav Droysen, *Grundriss der Historik* (Leipzig: Veit, 1868), 8.

²⁸ "dass er [der Historiker, JH] nicht speculativ dürfe sein wollen, sondern in seiner empirischen Weise [...] vorgehen habe." Johann Gustav Droysen, *Grundriss*, 6.

scope nor their impact.”²⁹ This demarcation is paired with epistemological claims that heavily draw on objectivity and empiricism, and thereby correspond to the notion of ‘modern science’ that is established by the natural sciences. Lenz 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.”³⁰ 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”.³¹

The same double strategy of demarcation and affirmation is applied by Droysen. He concedes that the “human mind conceives the world of [empirical, JH] phenomena in the broadest terms of nature and history”, leaving no doubt that history is the discipline that is on an equal footing with the modern natural sciences in terms of breadth and in relevance.³² At the same time, Droysen draws a distinction to the merely logical approaches that he sees in the natural sciences. 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”, one needs to approach it differently.³³ 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 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. Concerned with a foundation of scholarship on the products of the human mind, 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 distance themselves

²⁹ “Ich will von meiner Seite aus jenen Anspruch [der Naturwissenschaften, JH] auf Alleinherrschaft bestreiten und behaupte vielmehr, daß die historischen Wissenschaften an Umfang wie an Wirkung den Wettstreit mit denen von der Natur in keiner Weise zu scheuen haben.” Max Lenz, “Stellung”, 597.

³⁰ “halte ich jener Besorgnis entgegen, daß wir heute keine Nebenzwecke, keine besonderen Ideale verfolgen. Wir wollen nur berichten, wie wir zu dem geworden sind, was wir sind [...]. Wir stehen der Vergangenheit gegenüber wie der Naturforscher der Pflanze oder den Perioden unserer Erdgeschichte”, Max Lenz, “Stellung”, 602.

³¹ “So wenig wollen wir ein System und dogmatische Werte, daß wir im Gegenteil alle Systematik auflösen und die Bedingtheit alles irdischen Wesens und Begehrens nachweisen. Wir wollen nichts als untersuchen und entdecken”, Max Lenz, “Stellung”, 603.

³² “Natur und Geschichte sind die weitesten Begriffe, unter denen der menschliche Geist die Welt der Erscheinungen begreift.” Johann Gustav Droysen, *Grundriss*, 7.

³³ “statt der sittlichen Welt ein Analogon der ewigen Materie und des Stoffwechsels. [...] nur organischer Natur.” Johann Gustav Droysen, *Grundriss*, 19.

from a pre-modern notion of research and conceive an empirical, 'modern science'. However, both Droysen and Lenz do so on the assumption that history is more than able to compete with the *Naturwissenschaften* when it comes to the scope and impact of the questions addressed. As historians affirm a notion of 'modern science', but simultaneously distinguish it from the 'modern science' that is championed by the natural sciences, the realm of scholarship on products of the human mind is conceptualized as equal to, but different from the natural sciences.

Taken for themselves, boundary strategies in history are not consistent and coherent enough between protagonists to constitute a socially robust entity. 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 certain claims and distinctions are not as independent and unconnected as they might seem. This is the case for the boundary work in the *Geisteswissenschaften*. For history is not the only site where protagonists undertake boundary work in order to demarcate the future '*Geisteswissenschaften*'. Protagonists in other fields employ boundary strategies that are strikingly similar. In Philosophy, neo-Kantians aim to "demarcate the common interests, tasks, and methods of the non-natural empirical sciences against the natural scientists."³⁴ Wilhelm Dilthey famously defines "the independent position of the *Geisteswissenschaften* towards the *Naturwissenschaften*".³⁵ Like his counterparts in history and philosophy, Dilthey affirms a notion of empirical 'modern science'. At the same time, he distinguishes this notion from the one championed by the natural sciences. Space limitations prevent an account of the boundary work in these sites.³⁶

These necessarily brief remarks on different sites of boundary work cannot do justice to the complexity of the respective debates. However, maybe it is precisely the simplification of said claims that allows us to see their commonalities in terms of boundary work. Protagonists in history and philosophy try to establish an independent realm of scholarship on products of the human mind. Their specific attempts might differ, but they all emphasize the importance of empirical research and dissociate from metaphysical and speculative, pre-modern science. In doing so, the '*Geisteswissenschaften*' are conceptualized as equal to, but different from the natural sciences.

³⁴ "die gemeinsamen Interessen, Aufgaben und Methoden der nichtnaturwissenschaftlichen empirischen Disziplinen zu bestimmen und gegen die der Naturforscher abzugrenzen", Heinrich Rickert, *Kulturwissenschaft*, 1.

³⁵ "die selbständige Stellung der Geisteswissenschaften den Naturwissenschaften gegenüber", Wilhelm Dilthey, *Der Aufbau der geschichtlichen Welt in den Geisteswissenschaften*, 117.

³⁶ Cf. Julian Hamann, *Geisteswissenschaften*, see also Viktoria Tkaczyk's contribution to this forum.

4. Conclusion: the demarcation of the '*Geisteswissenschaften*'

Taken by itself, the boundary work in the natural sciences and in different sites of the future '*Geisteswissenschaften*' just delineates simple claims and distinctions. Seen individually, these distinctions do not demarcate a coherent entity, in fact they are not boundaries *of* anything. Too many threads in the respective debates remain unconnected, too many aspects unresolved between the protagonists. Yet, the heuristic approach applied in the current article allows us to discern these efforts as boundary work. In this light, the claims scattered across the different sites appear as proto-boundaries. Proto-boundaries are distinctions that might cumulate to proper, durable boundaries of coherent social entities if they add up in a particular way.³⁷ This is what happens between the different sites of natural sciences, history and philosophy.

What are the distinctions that add up between the different sites, and thus form stable boundaries of the '*Geisteswissenschaften*'? First, speculative and metaphysical scholarship is firmly placed outside of the terrain of modern '*Geisteswissenschaften*'. Crucially, this distinction is also matched from the outside; natural scientists resolutely discard speculative perspectives as well. Second, all protagonists define the scholarly realm of the '*Geisteswissenschaften*' as decidedly empirical. With the distinction empirical 'modern science' come specific methods and methodologies. The empirical character and methodical systematization of research in the '*Geisteswissenschaften*' is what puts them on a par with the natural sciences. Third, the '*Geisteswissenschaften*' are not only delineated as equal to, but also as different from the natural sciences. Protagonists highlight epistemological differences with respect to research subjects or interpretative methods. Following the boundary work approach, these distinctions are not coherent enough to add up to a stable boundary that could determine what exactly distinguishes the Two Cultures epistemologically. However, there seems to be agreement in that the *Geisteswissenschaften* are not only equal to, but also fundamentally different from the natural sciences.

In heuristic terms, the boundary work approach has highlighted its potential for a historical sociology of the social sciences and humanities. The boundary work approach enabled us to take serious the processual and temporal character of the emergence of the '*Geisteswissenschaften*' as one component of the Two Cultures. It facilitated an analysis of boundaries in local contexts and according to the logics of specific fields. Lastly, the boundary work approach emphasized that boundaries are always relational in that they relate an interior to an exterior. Hence, the demarcation of Two Cultures always implies a notion of what the *Geisteswissenschaften* are in their own right.

³⁷ Cf. Andrew Abbott, "Things", 866-867

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