

Fort Hays State University

FHSU Scholars Repository

Modern Languages Faculty Publications

Modern Languages

1-1-2008

“Diesmal fehlt die Biologie!” Max Horkheimer, Richard Thurnwald, and the Biological Prehistory of German Sozialforschung

Kevin S. Amidon

Fort Hays State University, ksamidon@fhsu.edu

Follow this and additional works at: https://scholars.fhsu.edu/mlng_facpubs

Recommended Citation

Amidon, K. S. (2008). “Diesmal fehlt die Biologie!” Max Horkheimer, Richard Thurnwald, and the Biological Prehistory of German Sozialforschung. *New German Critique*, 35(2), 103–137. <https://doi.org/10.1215/0094033X-2008-005>

This Article is brought to you for free and open access by the Modern Languages at FHSU Scholars Repository. It has been accepted for inclusion in Modern Languages Faculty Publications by an authorized administrator of FHSU Scholars Repository. For more information, please contact ScholarsRepository@fhsu.edu.

**“Diesmal fehlt die Biologie!”: Max Horkheimer, Richard Thurnwald, and the Biological
Prehistory of German *Sozialforschung***

Kevin S. Amidon
Assistant Professor of German Studies
Iowa State University

Address:

Iowa State University
Department of World Languages and Cultures
3102 Pearson Hall
Ames, IA 50011

Office phone: (515) 294-7591
Email: ksamidon@iastate.edu

The author wishes to thank Michael Jennings, Staffan Müller-Wille, Garland Allen, Carrie Carlson, Jeffrey Mashburn, and the manuscript librarians of the Sterling Memorial Library, Yale University, for comments and assistance. Research for this article was supported in part by a fellowship of the Berlin Program for Advanced German and European Studies at the Free University of Berlin, and by a summer fellowship of the Center for Excellence in the Arts and Humanities at Iowa State University.

**“Diesmal fehlt die Biologie!”: Max Horkheimer, Richard Thurnwald, and the
Biological Prehistory of German *Sozialforschung***

Introduction: Biology, Social Research, and Disciplinary Authority

The turbulent history of the *Institut für Sozialforschung* (Institute for Social Research; hereafter *Institut*) with its several stations including Frankfurt, Geneva, Paris, and New York, has become so central to the many narratives of twentieth-century social thought that it is easy to forget that in its early history, the *Institut* did not stand out in the German academic field. It was one of a number of attempts to redevelop the institutional structure of German scholarship both inside and outside existing university frameworks. The efforts of the *Institut*'s members were not always repaid with respect or understanding. When Max Horkheimer assumed the directorship in 1930 and sought to reinvigorate the *Institut*'s publication program, he encountered vigorous resistance from other scholars. The *Institut*'s house journal, the *Archiv für die Geschichte des Sozialismus und der Arbeiterbewegung* (Archive for the History of Socialism and the Workers' Movement; known as *Grünbergs Archiv*) was to become the *Zeitschrift für Sozialforschung* (Journal of Social Research; hereafter: *ZfS*), an organ for the dissemination of the *Institut*'s work across the numerous disciplines engaged in research into social phenomena.¹ Even some of Horkheimer's closer colleagues perceived his

Unless otherwise noted, all translations in this article are by the author.

¹ Martin Jay, *The Dialectical Imagination: A History of the Frankfurt School and the Institute of Social Research 1923-1950* (Boston: Little, Brown, 1973), 26-27. Jay quotes Leo Lowenthal as follows: The *ZfS* was “less a forum for different viewpoints than a platform for the *Institut*'s convictions.” See also: Rolf Wiggershaus, *The Frankfurt School: Its History, Theories, and Political Significance*, trans. Michael Robertson (Cambridge: MIT Press, 1994), 38, 116-19. After the emigration of Horkheimer and the *Institut*

moves as a competitive threat to their own publication programs. Horkheimer, for example, even sent Leo Lowenthal by plane to speak to the sociologist Leopold von Wiese in Cologne, who had expressed concern that the editorial program of the *ZfS* would overlap with that of his own journal, the *Kölner Vierteljahrshefte für Soziologie* (Cologne Quarterly of Sociology).²

The Berlin ethnologist and sociologist Richard Thurnwald raised perhaps the most energetic opposition to Horkheimer's project from within the field of German social science. Thurnwald was editor-in-chief of the *Zeitschrift für Völkerpsychologie und Soziologie*, which he was at that moment in the process of redefining and reorganizing into a multilingual (German-English) journal with the bilingual title *Sociologus: Zeitschrift für Völkerpsychologie und Soziologie/A Journal of Sociology and Social Psychology* (hereafter: *Sociologus/ZVS*).³ Thurnwald and his student, colleague, and managing editor, Wilhelm Emil Mühlmann, corresponded with Horkheimer and at length among themselves about the *Institut*, the *ZfS*, the status of the *ZfS* relative to their own journal, and Horkheimer's motivations and intentions.⁴ Their exchange demonstrates that

to New York, the *ZfS* was renamed *Studies in Philosophy and Social Science* for its final two volumes (VIII/1939 and IX/1941).

² Jay, *Dialectical Imagination*, 27. Wiggershaus, *Frankfurt School*, 112.

³ On the fluid disciplinary and methodological status of *Völkerpsychologie* see: Matti Bunzl, "Franz Boas and the Humboldtian Tradition: From *Volksgeist* and *Nationalcharakter* to an Anthropological Concept of Culture," In *Volksgeist as Method and Ethic. History of Anthropology*, ed. George W. Stocking, Jr., vol. 8 (Madison, University of Wisconsin Press, 1996), 17-78. Andrew Zimmerman, *Anthropology and Antihumanism in Imperial Germany* (Chicago: University of Chicago Press, 2001), 52-4.

⁴ This material is heretofore unremarked in the published primary and secondary literature on the early history of the *Institut* and the *ZfS*. It is represented in correspondence from between 1931 and 1933 found in the Richard Christian Thurnwald Papers held in the Department of Manuscripts and Archives at the Sterling Memorial Library of Yale University in New Haven, Connecticut. Thurnwald was Visiting Professor at Yale intermittently in the 1930s. The Thurnwald Papers contain three letters from Horkheimer to Thurnwald that are not published in the Horkheimer *Gesammelte Schriften*. They are dated 6 August 1932, 7 November 1932, and 28 January 1933. One unpublished letter (of 15 December 1932) from Thurnwald to Horkheimer is also in the Thurnwald collection. The correspondence between Thurnwald and Mühlmann, and between them and their publishers, also discusses the matter at length, and refers to a visit made by Horkheimer to Mühlmann in Berlin in late 1931 that is also unremarked in the literature.

at this early stage, Horkheimer and his *Institut* colleagues framed the intellectual and institutional development of their research program around the problem of disciplinary definition and control. Other scholars registered their arguments, and sought to parry their moves.⁵

The disciplinary concept that became the focus of the disagreements between Horkheimer, Thurnwald, and Mühlmann was biology. Though their educational paths and political investments differed greatly, both Horkheimer and Thurnwald sought at the beginning of their scholarly careers to explore how human social phenomena might fall within the purview of the rapidly expanding methods and claims of the biological field. They went on, in the 1920s and 1930s, to develop critiques of what they perceived to be an inappropriate identification of biology with social thought and theory. Again, their critiques were profoundly different: Horkheimer's represented a philosophically grounded attempt to redevelop the basic disciplinary structure of social inquiry, and Thurnwald's emerged from his encounter with race theory and his work on the use of anthropological field methods in the exploration of social behavior. Both scholars, however, hoped to influence social praxis through their research, and they therefore recognized – though only at first through resistance to one another – that their disciplinary concerns covered much of the same intellectual and institutional ground. The conflict between them therefore originated as a personal disagreement generated by conflicting institutional interests. Nonetheless it threw off a series of documents that

⁵ The *Institut*'s early program and publications so highlighted the problems of disciplinarity in the development of new modes of social research that recent scholars and critics have willingly applied the anachronistic term “interdisciplinary” to its work. Helmut Dubiel notes that the term ‘interdisciplinary’ first came into use in the United States during the 1950s. Helmut Dubiel, *Theory and Politics: Studies in the Development of Critical Theory*, trans. Benjamin Gregg (Cambridge: MIT Press, 1985), 119-27, 189n7. This anachronism notwithstanding, scholarship on the *Institut*'s program in the early and mid-1930s has settled on the concept “interdisciplinary materialism” as the most appropriate description of the *Institut*'s goals and methods.

provide a nuanced representation of how biology as a disciplinary concept mapped the boundary conditions not only for their overlapping scholarly work and practice, but also their theorization of social research in general.

In Horkheimer's exchange with Thurnwald and Mühlmann, biology's politically and ideologically charged relationship with numerous other fields of scholarly inquiry into social phenomena became the flash point. In the early 1930s, the period of the initial construction of the programs of and justifications for the *Institut* and the *ZfS*, biology represented the far edge of the *Institut*'s potential network of disciplinary contact and communication. Thurnwald and Mühlmann also continually expressed concern about biology's relationship to sociology and social research in *Sociologus/ZVS*, in their own ethnographic and sociological research, and in their correspondence.⁶ Later, after their conflict, Horkheimer refrained from claims that biology stood within the disciplinary purview of the *Institut*'s program. Nonetheless, biology and its structures of justification had left indelible marks on the development of Horkheimer's thought, on the *Institut*'s practice, and on the editorial program of the *ZfS*. In the simplest sense, Horkheimer chose after his disagreement with Thurnwald and Mühlmann to eliminate biology from the programmatic content of the *Institut*'s 'interdisciplinary materialism.' He retained it, however, as a central moment of reference in his own argument and practice.⁷

⁶ The early volumes of *Sociologus/ZVS* always included a section of reviews of recent publications in "Biologie."

⁷ Philosophical interest in the consequences of biological inquiry has recently reemerged among the intellectual successors to the *Institut*, however, in the work of Jürgen Habermas, who has dedicated much of his effort in the past few years to issues of bioethics and the philosophical and ethical consequences of the potential for the genetic manipulation of embryos. See Jürgen Habermas, *The Future of Human Nature*, trans. William Rehg, Hella Beister, and Max Pensky (Cambridge: Polity, 2003). The *Deutsche Zeitschrift für Philosophie* 50.2 (2002) was dedicated in large part to an exchange between Habermas and several respondents on Habermas's bioethical turn.

Both Horkheimer and Thurnwald perceived that the term biology in the early twentieth century did not represent a strictly defined discipline, but rather a multifarious field that had developed in the nineteenth century through attempts to develop a complete understanding of life, from the level of the physiochemical mechanisms of the cell to the complex psychosocial manifestations of human behavior. They were not alone in their polyvalent understanding of the conceptual and programmatic content of biology. Many of the leading representatives of biological thought and institutions competed to lay claim to the most audacious of total arguments about the organization of the natural world, from the simplest structure of matter to the most complex manifestations of the diversity of life – including individual and social behavior. Biology therefore became not a methodologically autonomous field of scientific investigation, but rather a set discursive links among proliferating sets of institutions and sub-disciplines.⁸ The term delineated a kind of vestigial negative image of the interests held and promulgated by various actors inquiring into living organisms, including the human, and the biological field functioned as a fluid and protean network of scholars and commentators who competed for prestige and resources. Well into the twentieth century, in fact, there were not even discrete departments marked by the rubric ‘biology’ in German universities. Biology was rather a loosely applied marker of the both commonalities and the competition between the institutionally grounded fields of anatomy, physiology, botany, zoology, natural history, and various branches of medicine.⁹ Biology’s meta-disciplinary character led to

⁸ For a nuanced summary of biology’s position as a constitutive concept among late nineteenth century German social reformers, see: Kevin Repp, “‘More Corporeal, More Concrete’: Liberal Humanism, Eugenics, and German Progressives at the Last Fin de Siècle,” *Journal of Modern History* 72 (September 2000): 683-730.

⁹ Lynn Nyhart, *Biology Takes Form: Animal Morphology and German Universities, 1800-1900* (Chicago: University of Chicago Press, 1995), 205-6, 366-69.

controversy, but it also gave great persuasive power to those who chose to make biology a proxy for total explanation of the natural and human worlds. A number of important scholars of late nineteenth century German intellectual history, including Gunter Mann, Herbert Schnädelbach, and Helmuth Plessner, have used the term “biologism” to represent this proliferation of persuasive claims, and have gone so far as to argue, like Plessner, that this period was the “hour of authoritarian biology.”¹⁰

Charles Sedgwick Minot, the Harvard anatomist, noted biology’s fragmentary but ambitious character in a series of lectures he gave at the University of Jena in 1912, published in 1913 as *Modern Problems of Biology*. In Minot’s opinion, “Unfortunately, biology has not yet become a united science, but consists of sundry disciplines more or less separated from one another.”¹¹ Nonetheless he was fully confident that “true and real biology,” that is the incipient “unified biological science,” would answer the broadest human questions: “Consciousness, the relation of the soul to the body, the origin of reason, the relations of the external world to psychological perception, and most subjects of philosophical thought are fundamentally biological phenomena which the naturalist investigates and analyzes.”¹²

¹⁰ Herbert Schnädelbach, *Philosophy in Germany, 1831-1933*, trans. Eric Matthews (Cambridge, UK: Cambridge University Press, 1984), 99-100. Helmuth Plessner, *Die verspätete Nation: Über die politische Verführbarkeit bürgerlichen Geistes* (Frankfurt: Suhrkamp, 1982). Gunther Mann, ed. *Biologismus im 19. Jahrhundert* (Stuttgart: Enke, 1973).

¹¹ Charles S. Minot, *Modern Problems of Biology: Lectures Delivered at the University of Jena, December, 1912* (Philadelphia: P. Blakiston’s Son, 1913), 103.

¹² Minot, *Modern Problems*, 103, 104. Historians of biology still accept Minot’s logic. Betty Smocovitis recapitulates much of his vocabulary in her resume of the early disciplinary development of American biology: “The struggle to unify the biological sciences is one of the central features of the history of biology. Emerging only in the nineteenth century, biology was characterized by disunity to such an extent and for so long that repeated attempts to unify this science through professional societies proved to be a nearly impossible task. Charting the rocky road toward organized biology in America during the 1889-1923 period – a key period for the institutionalization of biology – historian Toby Appel concluded: ‘Numerous biological sciences were established in America, but no unified science of biology.’ So formidable was this task that the hope of ever formulating a unified biological society representing a unified science of biology appeared to have been largely abandoned by 1923.” Vassiliki Betty Smocovitis,

Thus in biology's very lack of concrete disciplinary form, in its status as a meta-disciplinary space of contingent, but potentially total scientific knowledge about humans as living, social beings, it represented both a positive and a negative model of the kind of interdisciplinary social research that both Horkheimer and Thurnwald hoped to be able to promote through their journals. It thus revealed the full range of difficulties and frictions inherent in their institutional projects.

Max Horkheimer, *Sozialforschung*, and the Valences of Materialism

Recent literature describes the founding and early development of the *Institut* as the creation of an endowed space for exchange with and critique of the models of scholarship pursued within the rigid disciplinary structure of the German university system of the 1920s. Martin Jay reads Horkheimer's 1931 address on "The Current Condition of Social Philosophy and the Task of an Institute of Social Research [*Die gegenwärtige Lage der Sozialphilosophie und die Aufgaben eines Instituts für Sozialforschung*]" as proposing an "interdisciplinary, synthetic" scholarship on social phenomena that could unite the insights of the many disciplines and sub-disciplines proliferating within and around institutionalized scholarship in Germany.¹³ Taking up Horkheimer's claim in his "Materialism and Metaphysics (*Materialismus und Metaphysik*)" that "materialism calls for the unification of philosophy and science," several scholars employ the term "interdisciplinary materialism" to describe

Unifying Biology: The Evolutionary Synthesis and Evolutionary Biology (Princeton: Princeton University Press, 1996) 97-98.

¹³ Jay, *Dialectical Imagination*, 25; Wiggershaus, *Frankfurt School*, 38-39.

Horkheimer's program for the *Institut* and the *ZfS* in the 1930s.¹⁴ The choice of this term to describe Horkheimer's project contains a particularly revealing irony: it recapitulates the historical roots of Horkheimer's own reflections on the status of biology as a materialist project. In many ways, late nineteenth century biology itself was a kind of "interdisciplinary materialism," one that sought in the concept "life" a unification of scientific inquiry from the smallest scale to the largest through investigation of living organisms, their physical and chemical determinants, and their interactions. For many reasons, of course, biology failed to become a systematic field offering a complete representation of the living world. Not the least of these was the proliferation of claims under the rubric *Lebensphilosophie*.¹⁵ Nonetheless vigorous and often highly personal debates about whether life can be understood on a purely material basis raged in German academic philosophy and natural science throughout the nineteenth century and into the twentieth.

The relationship between biological thought and materialism is complex, because materialism in the late nineteenth century had two valences that are generally read differently by natural scientists and social scientists: "mechanistic materialism" and "dialectical materialism."¹⁶ Much of the fascination and much of the difficulty in reading Horkheimer's early work emerges because when he spoke of "*Materialismus*" he always meant both categories. Horkheimer's programmatic "critical theory" of the mid-1930s

¹⁴ See: Seyla Benhabib, Wolfgang Bonß, and John McCole, eds., *On Max Horkheimer: New Perspectives* (Cambridge: MIT Press, 1993). The term "interdisciplinary materialism" is employed by both Jürgen Habermas and Wolfgang Bonß in the volume. Axel Honneth prefers "interdisciplinary social science." The quotation here is taken from Hauke Brunkhorst, "Dialectical Positivism of Happiness: Max Horkheimer's Materialist Deconstruction of Philosophy," in Benhabib et al. 91. Dubiel, despite his misgivings about the anachronistic character of the term, uses it.

¹⁵ See: Schnädelbach, *Philosophy in Germany*, 139-160.

¹⁶ Garland A. Allen, "The Classical Gene: Its Nature and Legacy," *Mutating Concepts, Evolving Disciplines: Genetics, Medicine and Society*, L. S. Parker and R. A. Ankeny, eds. (Dordrecht/Boston: Kluwer, 2002) 11-41.

can in fact be read as an attempt to develop an academic practice that seeks to dismantle the barriers that appear to separate these two valences of materialism, and that have been consciously and unconsciously constructed by various established academic disciplines, especially philosophy and the natural sciences.¹⁷ Mechanistic materialism seeks reductionist explanations of physical and physiological phenomena through the development of arguments that complex wholes can be understood completely through analysis into their simpler constituent parts. Mechanistic materialism thus understands change as the predictable responses of a system of parts to external forces. Dialectical materialism accepts the explanatory power of the analysis of complex systems, but refuses to reduce these systems only to the interactions of their parts. In dialectically understood systems, change is thus an emergent characteristic of the system in the irreducible entirety of its dynamics.¹⁸

The history of biology is also the history of conflict between these two materialisms. From the beginnings of biology as a concept, biological problems have driven the development of mechanistic materialism. Building on Frederick Gregory's claims about materialism in nineteenth century Germany, especially as it was found in the work of Carl Vogt, Jakob Moleschott, and Ludwig Büchner, Ernst Mayr emphasizes the centrality of this valence of materialism, which he calls "strongly reductionist materialism."¹⁹ Mayr also emphasizes the ways in which scholars perceived change in

¹⁷ Stanley Pierson, *Leaving Marxism: Studies in the Dissolution of an Ideology* (Stanford: Stanford University Press), 96.

¹⁸ Allen, "The Classical Gene," 17-19.

¹⁹ Frederick Gregory, *Scientific Materialism in Nineteenth Century Germany* (Dordrecht: Reidel, 1977). Ernst Mayr. *The Growth of Biological Thought: Diversity, Evolution, and Inheritance* (Cambridge: Belknap/Harvard, 1982), 128. Important here is also the concept of *Naturphilosophie* and its consequences in philosophy and biology. See: Robert Richards, *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe* (Chicago: University of Chicago Press, 2002).

living systems teleologically throughout the nineteenth century.²⁰ The biological thought of Ernst Haeckel, especially through its late nineteenth century mediation in Haeckel's widely disseminated system of philosophical 'monism,' represents the most thorough attempt to construct a system of the total explanation of all of the phenomena of life, from the simplest chemical constituents to the most complex issues of human social and political behavior, out of the general postulates of mechanistic materialism.²¹ The at once simplest and most radical of Haeckel's many statements of the foundational status of mechanistic causality in his thought comes at the beginning of his career, in the first of his great synthetic treatises, the *General Morphology of the Organisms* (*Generelle Morphologie der Organismen*; 1866).²² The preface to this work states its final goal: to explain organismal forms and their development "through mechanistic-causal explanation (*durch mechanisch-kausale Begründung*)."²³ Haeckel's claims reverberated for decades through German academic natural science and philosophy.

Dialectical materialism as a concept is, of course, generally more closely associated with the historical, philosophical, and political traditions of Marxism than it is

²⁰ Mayr, *Growth*, 528-31. See also: Timothy Lenoir, *The Strategy of Life: Teleology and Mechanics in Nineteenth-Century German Biology*, 2nd ed. (Chicago: University of Chicago Press, 1989). Stephen Jay Gould, *Ontogeny and Phylogeny* (Cambridge: Belknap/Harvard, 1977).

²¹ On Haeckel's monism see: Jürgen Sandmann, *Der Bruch mit der humanitären Tradition: Die Biologisierung der Ethik bei Ernst Haeckel und anderen Darwinisten seiner Zeit* (Stuttgart: G. Fischer, 1990). Horst Groschopp, *Dissidenten: Freidenkerei und Kultur in Deutschland* (Berlin: Dietz, 1997). *From Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany* (New York: Palgrave Macmillan, 2004). Hopelessly reductive but still often cited is: Daniel Gasman, *The Scientific Origins of National Socialism* (London: Macdonald Elsevier, 1971).

²² The full (and baroque) title of Haeckel's work emphasized the mechanistic qualities of his strategies of explanation: *Generelle Morphologie der Organismen: allgemeine Grundzüge der organischen Formen-Wissenschaft, mechanisch begründet durch die von Charles Darwin reformirte Descendenz-Theorie* [*General Morphology of the Organisms: General Foundations of the Organic Science of Forms, as Mechanistically Grounded through the Theory of Evolution as Reformed by Charles Darwin*] (Berlin: G. Reimer, 1866).

²³ Quoted in Mayr, *Growth*, 115.

with biological thought.²⁴ Yet it is precisely in the biological field of the period around 1900 that dialectical materialism found its profoundest challenges. If biology indeed held the potential to provide systematic – and possibly teleological – explanation of all of the phenomena of life including the social, then the integrative and antireductionist claims of dialectical thought seemed to life scientists and philosophers alike to be well suited to the diversity of their object of investigation.²⁵ Beginning with Friedrich Engels, many socialist thinkers sought to explore how nature, life, and history might be construed as mutually constitutive.²⁶ A wide range of German socialist thinkers also saw Darwinism as evidence for their proposed trajectories of historical and political change and development. Predictably, their claims also generated resistance.²⁷ Haeckel, for example, savaged any reading of evolutionary theory that appeared to venture support for socialist political claims.²⁸ Anne Harrington, the most thorough recent historian of biological and psychological holism, represents succinctly the problem that these figures struggled to solve: it often appeared that “a *mechanistic* approach to nature had nothing in

²⁴ Garland Allen notes how some scholars used “holistic” and “dialectical” interchangeably to refer to this valence of materialism, especially when it has been linked to the life sciences. Garland Allen, “The Distinction between Mechanistic and Holistic Materialism,” In Allen, *Life Science in the Twentieth Century* (Cambridge, UK: Cambridge University Press, 1978), 103-6. Martin Jay uses the terms “holistic” and “holism” largely synonymously with “totality” in his exploration of Western Marxism – at the same time that he emphasizes that that Marxism was “far more dialectical than materialist,” and that the Second International (1889-1914) “did not dwell with any sustained interest on the issue of totality.” Martin Jay, *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas* (Berkeley: University of California Press, 1984) 3, 66.

²⁵ The Sorbonne zoologist Marcel Prenant was perhaps the most prestigious practicing life scientist associated with this opinion in the 1930s. See: Marcel Prenant, *Biology and Marxism*, trans. C. Desmond Greaves (New York: International Publishers, 1938).

²⁶ Critical Marxists of the twentieth century found Engels’s work reductive, but worthy of careful explication. See: Ernst Bloch, “Exkurs über Engels’ Versuch ‘Dialektik der Natur,’” In Bloch, *Das Materialismusproblem, seine Geschichte und Substanz* (Frankfurt: Suhrkamp, 1972), 359-71.

²⁷ See: Richard Weikart, *Socialist Darwinism: Evolution in German Socialist Thought From Marx to Bernstein* (San Francisco: International Scholars Publications, 1998).

²⁸ In 1877, Haeckel publicly accused his teacher and colleague Rudolf Virchow of giving solace to the partisans of socialist readings of evolutionary thought – and Virchow shot back in print with a vigorous denial of any such intent. See: Peter Zigman, “Ernst Haeckel und Rudolf Virchow: Der Streit um den Charakter der Wissenschaft in der Auseinandersetzung um den Darwinismus,” *Medizinhistorisches Journal* 35 (2000): 263-302.

common with a *materialistic* understanding of nature.”²⁹ Martin Jay’s arguments that twentieth century Western Marxists reconstructed a totalizing theory of nature and society thus gain an additional layer.³⁰ Interest in dialectical models of explanation among biologists exists even into the present, and the work of Richard Lewontin, most clearly articulated in his book written with Richard Levins and entitled *The Dialectical Biologist*, articulates the issues involved most clearly. Lewontin, rare among practicing biological scientists, is also willing to credit the Marxist tradition with a large and direct measure of influence over biological explanation.³¹

Scholarly interest in the problems raised by attempts to develop systems of investigation and explanation that could be commensurate to the apparent irreducibility of living systems in fact well predates Marxist thought. Ernst Cassirer regarded this issue as a central element in the development of Kant’s critical philosophy.³² He argues that the entirety of the half of the *Critique of Judgment* dedicated to “teleological judgment” – that is to the problem of developing standards of judgment adequate to the appearance of purposiveness in living organisms – seeks an answer to this friction between systematic, analytical explanation and interdependent living systems:

It is no contradiction to imagine a nature that obeys the rules of connection according to law, as they are specified in the principles of substance, cause, and so on, and that in other respects discloses an *irreducible diversity* in the manifold

²⁹ Anne Harrington. *Reenchanted Science: Holism in German Culture from Wilhelm II to Hitler* (Princeton: Princeton University Press, 1996), 13.

³⁰ Jay emphasizes that “German bourgeois culture during much of the nineteenth century tended to favor holistic modes of thought.” Jay, *Marxism and Totality*, 73.

³¹ Richard Levins and Richard Lewontin, *The Dialectical Biologist* (Cambridge: Harvard University Press, 1985), 267-79.

³² Jay also credits Cassirer with recognizing the significance of the “Discourse of Totality before Western Marxism.” Jay, *Marxism and Totality*, 30-31.

of its appearances, a diversity that would never permit us to order them according to genus and species.³³

Cassirer thus describes Kant's later philosophy of inquiry into living things as a kind of emergent dialectics of critical inquiry into an object of infinite diversity. This moment of incommensurability in scientific explanation would haunt German academic philosophy throughout the nineteenth century, and dominate the interest of the generation of German neo-Kantian academic philosophers – of which Cassirer was perhaps the youngest important exponent – that trained Horkheimer and his many collaborators and competitors.³⁴

The relationship between the mechanistic and dialectical valences of materialism structured Horkheimer's thought from its earliest development. In the 1920s, Horkheimer and his colleagues, including Theodor W. Adorno, Georg Lukács, Ernst Bloch (and even Martin Heidegger in the pre-*Sein und Zeit* period) dedicated much of their philosophical effort to attempts to interrogate the varieties of materialism.³⁵ This effort emerged from their attempts to delineate new territory within the discipline of philosophy that could separate them from their neo-Kantian teachers, who had invested much of their careers in mapping the boundaries of the natural sciences.³⁶ Horkheimer's university studies were situated within this set of attempts to reexamine the materialist

³³ Ernst Cassirer, *The Problem of Knowledge: Philosophy, Science, and History since Hegel*, trans. William Woglom and Charles Hendel (New Haven: Yale University Press, 1950), 125.

³⁴ Lukács emphasized the underappreciated significance of Southwest German neo-Kantians Heinrich Rickert and Wilhelm Windelband in setting the terms of the late nineteenth-century debate about scientific inquiry, human life, and human society. Georg Lukács, *Die Zerstörung der Vernunft* (Darmstadt: Luchterhand, 1974), 404-5, 521.

³⁵ Lukács and Horkheimer remained relatively sympathetic toward the positions held by the neo-Kantians. Bloch was not. He introduces his chapter on them in *Das Materialismusproblem* with the lapidary sentence "The power to think conceptually decreased soon thereafter." Bloch, *Materialismusproblem*, 84.

³⁶ On the centrality of neo-Kantianism's critique of natural-scientific epistemology in late nineteenth-century German academic philosophy see: Schnädelbach, *Philosophy in Germany*, 56-58. See also: Klaus Christian Köhnke, *The Rise of neo-Kantianism: German Academic Philosophy between Idealism and Positivism*, trans. R. J. Hollingdale (Cambridge: Cambridge University Press, 1991).

tradition. He studied philosophy extensively, but his understanding of both the potential and the limits of natural scientific inquiry developed largely out of his encounter with Gestalt psychology. The early stages of Horkheimer's doctoral training took place in the laboratory of the Gestalt psychologist Adhémar Gelb.³⁷ Gelb and his collaborator Kurt Goldstein ran the Institute for Research into the Consequences of Brain Injuries at Frankfurt in the early 1920s, which explored experimental possibilities for the rehabilitation of soldiers with neurological injuries previously considered fully debilitating.³⁸ Gelb and the Gestaltists perceived no disciplinary boundary between Gestalt psychology and biology, or between scientific inquiry, medicine, and the explanation of complex human perceptions and interactions. Their understanding of physical reality and living systems was fundamentally holistic. Anne Harrington, in her study of the valences of early twentieth-century German holistic thought, describes the guiding principle of early Gestalt psychology as follows: "...Gestalt theory argued for the possibility of retaining a place for human significance in nature but without sacrificing rigorous experimental standards of traditional natural science."³⁹ Horkheimer began his dissertation research at Gelb's and Goldstein's institute in 1921, and intended to explore the physiological functioning of vision. For a number of reasons – including the fact that investigators in Copenhagen published work very similar to his dissertation research – Horkheimer chose not to pursue his empirical work with Gelb, and he developed his early

³⁷ Adorno also worked for a time in Gelb's laboratory. Jay, *Dialectical Imagination*, 6, 23. Wiggershaus, *Frankfurt School*, 44.

³⁸ Harrington, *Reenchanted Science*, 121, 145-6.

³⁹ Harrington, *Reenchanted Science*, 103. See also: Mitchell G. Ash, *Gestalt Psychology in German Culture, 1890-1967: Holism and the Quest for Objectivity* (Cambridge: Cambridge University Press, 1995).

academic writings as philosophical tracts under the Frankfurt neo-Kantian Hans Cornelius.⁴⁰

Both Horkheimer's dissertation and his *Habilitationsschrift* addressed an aspect of the German philosophical tradition that bore directly on the development of biology as a concept. This aspect was the same issue that drew Cassirer's interest: Kant's arguments about the nature of 'teleological judgment' in the *Critique of Judgment*. The dissertation, completed in 1922 and entitled *On the Antinomy of Teleological Judgment (Zur Antinomie der teleologischen Urteilskraft)*, explored the problem of the explanation of living processes. Kant regarded reason as inadequate for the investigation of living things, because those living things, when reduced to their constituent parts, appear not as a set of causally linked processes, but as a set of purposive structures. In Kant's critical system, therefore, only the faculty of judgment can elucidate life and its conceptual problems.⁴¹ Horkheimer argued that Kant's views on the antinomy between reason and the teleological judgment which explains life generate a further antinomy, one that reveals a tension in Kant's arguments about the correspondence between practical and theoretical judgment and thus prefigures the dialectical nature of later philosophical systems.⁴² This antinomy emerges concretely as that between teleological judgment and mechanical explanation. Horkheimer reads Kant's arguments, including those in the *Critique of Judgment*, as privileging mechanical explanation, because teleological judgment is only a heuristic device that enables inquiry into living processes that appear

⁴⁰ Harrington, *Reenchanted Science*, 121. Wiggershaus, *Frankfurt School*, 44-46. On Cornelius's influence on the early Frankfurt School see: Susan Buck-Morss, *The Origin of Negative Dialectics: Theodor W. Adorno, Walter Benjamin, and the Frankfurt Institute* (New York: Free Press, 1977), 7.

⁴¹ Jay, *Marxism and Totality*, 48.

⁴² See Wiggershaus, *Frankfurt School*, 46. On the varied consequences of Kant's concepts of teleology in nineteenth-century biological thought see Lenoir, *Strategy of Life*.

to be incommensurate to reason. Thus in Horkheimer's reading, Kant regards teleological judgment as a lesser form of inquiry, one that does not reach the level of true explanation. Horkheimer makes this claim with specific reference to the disciplinary fields of physics and biology:

4. Physics and biology: both have the same concept of event, namely the mechanical. In any case, the sciences of "organic" and "inorganic" nature differ according to Kant not in the general structure of their explanations. The former do require as a "makeshift" (U. 320) a teleological "guideline for the observation of a type of natural things" (U. 297). Nonetheless both branches of the natural sciences – at least in all of their constitutive judgments – have the same concept of the formation and development of such things: that, namely, every natural object, "with respect to the elements that it receives from nature outside of itself, must only be regarded as an eduction" (U. 287).⁴³

Kant thus still fundamentally subordinates biological thought to physical thought, and Horkheimer sums up Kant's opinion as follows: "If one wanted to understand the expressions development, growth, life processes etc. within biological theories as having a special meaning, that would be an error...."⁴⁴

⁴³ Max Horkheimer, *Zur Antinomie der teleologischen Urteilskraft, Gesammelte Schriften 2* [*Philosophische Frühschriften 1922-1932*] (Frankfurt: S. Fischer, 1987), 46-47. "4. Physik und Biologie: beide haben denselben Begriff vom Geschehen, nämlich dem mechanischen. Die Wissenschaften von der 'organischen' und der 'anorganischen' Natur unterscheiden sich nach Kant jedenfalls nicht durch die allgemeine Struktur ihrer Erklärungen. Die ersteren benötigen zwar als 'Nothilfe' (U. 320) einen teleologischen 'Leitfaden für die Beobachtung einer Art von Naturdingen' (U. 297), doch von der Bildung und Entwicklung solcher Dinge haben beide Zweige der Naturwissenschaften – wenigstens in allen ihren bestimmenden Urteilen – denselben Begriff: daß nämlich jeder Naturgegenstand, 'was die Bestandteile betrifft, die er von der Natur außer ihm erhält, nur als Educt angesehen werden muß' (U. 287)"

⁴⁴ Horkheimer, *Zur Antinomie*, 47. "Wollte jemand die Ausdrücke Entwicklung, Wachstum, Lebensvorgänge u.s.w. in biologischen Theorien in besonderem Sinne verstehen, so wäre das ein Irrtum...."

The Horkheimer of 1922 has a particular solution to this antinomy in Kant's thought: the holistic quality of Gestalt thinking, which is in its most basic disciplinary form *biological* thought, because it addresses the wholeness of the organism. Horkheimer raises this point early in the dissertation, in the sections following his discussion of Kant's "principle of formal purposiveness in nature (*Prinzip der formalen Zweckmäßigkeit in der Natur*).” In the section entitled “Consequence of the Principle [of generation] for Biology in Particular (*Konsequenz des Grundsatzes [der Erzeugung] für die Biologie im besonderen*)” Horkheimer reduces Kant's ideas to the simplest postulate of biological holism: “Kant's application to biology can, in very simple brevity, be made clear in something like the following way. – The living body is a whole within nature.”⁴⁵ Horkheimer returns to this claim late in the dissertation, and uses it to rescue Kant's system from its own inadequate understanding of living things. First he notes that modern physics is beginning to demonstrate the same need for holistic explanation beyond the purely mechanical: “Mechanical explanation, which for Kant is explanation par excellence, is, as he himself witnesses, inadequate in the biological sciences.... Modern research has now also clearly ascertained this inadequacy in physical problems.”⁴⁶ Kant's system therefore becomes open to the solution of its secondary antinomy through the holistic inquiry enabled by Gestalt thought: “In recent philosophy the theory of Gestalt qualities has stood in contrast to the Kantian view. It argues that a whole as such has characteristics that are lost through division into parts, because they

⁴⁵ Horkheimer, *Zur Antinomie*, 29. “Kants Anwendung auf die Biologie läßt sich in sehr grober Kürze etwa auf folgende Weise deutlich machen. – Der lebende Körper ist ein Ganzes in der Natur.”

⁴⁶ Horkheimer, *Zur Antinomie*, 61. “Die mechanische Erklärung, bei Kant die Erklärung schlechthin, ist nach seinem eigenen Zeugnis in den biologischen Wissenschaften unzulänglich.... Die moderne Forschung hat diese Unzulänglichkeit nunmehr auch für physikalische Probleme klar festgestellt.” Horkheimer was not the only scholar interested in the issues raised for physics and physical explanation by the rise of holistic arguments in biology. The quantum physicist Pascual Jordan pursued these problems during the 1930s and 1940s in collaboration with the biological theorist Adolf Meyer-Abich.

only accrue to the unity that was originally present.”⁴⁷ The young Horkheimer thus insists that the tenets of mechanistic materialism alone cannot facilitate an appropriate understanding of Kant’s philosophy or of biological thought and inquiry in general.

In his 1925 *Habilitationsschrift, On Kant’s Critique of Judgment as Bond Between Theoretical and Practical Philosophy (Über Kants Kritik der Urteilskraft als Bindeglied zwischen theoretischer und praktischer Philosophie)*, Horkheimer further elaborated his position. In it he expanded his exploration of the valences of Kant’s discussion of teleological judgment to encompass Kant’s other major category of reflective judgment: the aesthetic. Horkheimer analyzes the links between these two varieties of judgment around a distinction central to Gestalt thought: that between cognition and experience. He further glosses the spheres of teleological and aesthetic judgment with the disciplinary terms ‘biology’ and ‘art.’

The *Critique of Judgment* divides into two parts – into the critiques of aesthetic and of teleological judgment. – The justice of this division, that is of the inclusion of two so heterogeneous cultural spheres as those represented by art and biology in the field of the activity of one and the same faculty – that of reflective judgment – may at first glance appear highly questionable.... According to the introductory statements about the function of the *Critique of Judgment* within the entirety of Kantian philosophy, the factual reason is easy to recognize: analysis of those unities that can be experienced, and the formation of which cannot be traced

⁴⁷ Horkheimer, *Zur Antinomie*, 67. “In der neuesten Philosophie trat der Kantischen Ansicht die Lehre von den Gestaltqualitäten gegenüber. Sie besagt, daß ein Ganzes als solches Eigenschaften hat, die bei der Zerlegung in Teile verlorengehen, weil sie nur der Einheit zukommen, die ursprünglich vorlag.”

back to the exclusively aggregating function of the faculty of cognition, represents the function of the entire work.⁴⁸

Here Horkheimer emphasizes Kant's argument that the cognitive faculties must approach living organisms and aesthetic objects by parallel means, because they both must be experienced rather than simply enumerated through observation. This separates them from other fields of scholarly or scientific inquiry.⁴⁹

Horkheimer has here made the disciplinary language of Gestalt thought a less immediately present element of his argument than it was in his dissertation, but he retains his interest in the emergent qualities of living and aesthetic systems under human observation, and he continues to focus on Kant's claims that mechanistic explanations are inadequate to life and art. His summary comments on teleological judgment make this clear:

The basic thesis of the Critique of Teleological Judgment which was to be analyzed here claims that: insofar as organic products of nature display characteristics that cannot be explained as "a product of the parts and their powers

⁴⁸ Max Horkheimer, *Über Kants Kritik der Urteilskraft als Bindeglied zwischen theoretischer und praktischer Philosophie. Gesammelte Schriften 2* (Frankfurt: S. Fischer, 1987), 110. "Die Kritik der Urteilskraft zerfällt in zwei Teile, in die Kritik der ästhetischen und diejenige der teleologischen Urteilskraft. – Die Rechtmäßigkeit dieser Einteilung, d.h. der Einbeziehung zweier so heterogener Kulturbereiche, wie Kunst und Biologie sie darstellen in das Feld der Betätigung eines und desselben Vermögens: der reflektierenden Urteilskraft, mag auf den ersten Blick höchst fraglich erscheinen.... Nach den einleitenden Ausführungen über die Funktion der Kritik der Urteilskraft im ganzen der Kantischen Philosophie ist der sachliche Grund der Einteilung leicht zu erkennen: Die Analyse derjenigen erfahrbaren Einheiten, deren Formung nicht auf die bloß aggregierende Funktion des Erkenntnisvermögens zurückzuführen ist, macht das Geschäft des ganzen Werkes aus."

⁴⁹ A lecture by the young Adorno provides an interesting counterpoint to Horkheimer's focus on teleological judgment. Adorno, in a lecture entitled "The Idea of Natural History [*Die Idee der Naturgeschichte*]" that he gave to the Kant Society in Frankfurt am Main on 15 July 1932, develops a similar argument out of reflections on newer attempts to explain aesthetic phenomena. He argues that in fact the traditional natural scientific concept of nature is empty. Rather, he argues, all nature is history, and all history is nature. He therefore demands a new form of "Naturgeschichte" as the form of inquiry commensurate to the complexities of the world. He further argues that the kind of inquiry into aesthetic objects pioneered by Georg Lukács and Walter Benjamin points the way toward this new "Naturgeschichte," because it is fully dialectical. Theodor W. Adorno, "Die Idee der Naturgeschichte," *Gesammelte Schriften 1 [Philosophische Frühschriften]* (Frankfurt: Suhrkamp, 1973), 345-65.

and faculties of individual combination,” it is only possible for us to think of them as purposes....⁵⁰

Horkheimer thus develops Kant’s critique of Enlightenment materialism, with its wide-ranging consequences for the disciplinary development of the biological sciences, into the basis for much of his own early work.

Through the late 1920s and early 1930s, as he was developing the intellectual and institutional grounding for the *Institut* and the *ZfS*, Horkheimer sought to develop in his own work an independent understanding of materialism that sought to be philosophically and historically adequate to both the mechanistic and the dialectical valences of materialist thought. Jay, in his reading of Horkheimer’s programmatic statement for the *Institut*, describes Horkheimer’s investigations of the relationship between materialism and scientific disciplinarity with reference to another term with important biological valences: ‘natural philosophy.’ Social philosophy (*Sozialphilosophie*), one of the early terms employed by Horkheimer to describe the work of the *Institut*, “was to be understood as a materialist theory enriched and supplemented by empirical work, in the same way that natural philosophy was dialectically related to individual scientific disciplines.”⁵¹ Horkheimer saw that empirical inquiry, whether in the social or the natural sciences, had a tendency to fragment into competing disciplines with vested interests in preventing communication and exchange.⁵² The *Institut* presented an

⁵⁰ Horkheimer, *Über Kants Kritik*, 143. “Die Grundthese der Kritik der teleologischen Urteilskraft, die hier zu untersuchen war, besagt: daß die organischen Naturprodukte, insofern sie Eigenschaften aufweisen, die nicht als ‘ein Produkt der Teile und ihrer Kräfte und Vermögen sich von selbst zu verbinden’... zu erklären sind, nur als Zweck für uns zu denken möglich seien....”

⁵¹ Jay, *Dialectical Imagination*, 25. Wiggershaus paraphrases Horkheimer’s argument this way: “The present state of knowledge requires a continuing fusion of philosophy and the various branches of science.” Wiggershaus, *Frankfurt School*, 38.

⁵² Stephen Toulmin’s discussions of the problems of disciplinarity and their emergence from the historical disconnect between reason and reasonableness (a dichotomy he derives from his Wittgensteinian model of

opportunity for the development of a kind of critical, meta-disciplinary philosophy that could counteract the incentives to specialization and ideology construction that were endemic to academic institutions. It therefore held the potential to enable a reconciliation of natural scientific method and philosophical argument. Horkheimer imagined himself as the central node in this incipient institutional network of meta-disciplinary work.

Helmut Dubiel thus describes Horkheimer's program as one of a combination of research and 'presentation':

The Institute's program in the early 1930s consisted of "interdisciplinary" social research. [...] ...Horkheimer systematically claimed the function of presentation for himself, while his colleagues were assigned the role of providing material from the various disciplines.⁵³

The *ZfS* was to serve as the organ for this network.

Materialism, Biology, and the *Zeitschrift für Sozialforschung*

The founding of the *ZfS* represented an attempt to draw together these streams of argument and scholarship through a differentiated understanding of materialism into a productive synthesis of disciplinary inquiry, philosophical reflection, and engagement with social problems. In the early years of the publication of the journal, especially 1932 and 1933, Horkheimer and his colleagues believed that natural scientific inquiry, and especially that which had living systems as its object, remained fully within the intended

argument and inquiry) parallel and recapitulate central topoi of Horkheimer's thought. Toulmin does not explore Horkheimer or the Frankfurt School directly in his work, but the title of one of his recent books evokes Horkheimer almost uncannily. Stephen Toulmin, *Return to Reason* (Cambridge: Harvard University Press, 2001).

⁵³ Dubiel, *Theory and Politics*, 126-27.

purview of the journal's program.⁵⁴ Horkheimer's editorial choices, as well as his own contributions to the *ZfS*, demonstrate this. His short introductory essay in the first volume of the journal, entitled "Comments on Science and Crisis (*Bemerkungen über Wissenschaft und Krise*)," is suffused with language linking the concepts of *Leben*, *Natur*, *Wissenschaft*, and *Gesellschaft*. The very first paragraph raises all of the valences of materialist understanding in one extended sentence about the relationship of science and society:

It [science] makes the modern industrial system possible – as a condition, on average, of the mobility of thought that has developed with it in the past decades; further in the form of the simple insights about nature and the human world of which even the members of the lower social layers in advanced nations take notice; and not least as an element of the intellectual capital of the researchers, whose discoveries decidedly have a say in the form of social life.⁵⁵

Nature, human individuals, and societies together provide the basis for the knowledge that generates and mediates the economic system. Horkheimer is fully aware, however, that similar arguments could be advanced by scholars and political figures with violently exclusionary, nationalist, and racist values. He thus immediately insists that although scholarly inquiry remains an element within the historical and social world explored by

⁵⁴ This is in marked contrast to Axel Honneth's claim that "the entire edifice of interdisciplinary social science that Horkheimer attempted to sketch out during the 1930s rests upon the disciplines of economics and psychoanalysis alone." Axel Honneth, *The Critique of Power: Reflective Stages in a Critical Social Theory*, trans. Kenneth Baynes (Cambridge: MIT Press, 1991), 30-31.

⁵⁵ Max Horkheimer, "Bemerkungen über Wissenschaft und Krise," *Zeitschrift für Sozialforschung* 1 (1932): 1. "Als Bedingung der durchschnittlichen Beweglichkeit des Denkens, die sich in den letzten Jahrzehnten mit ihr entwickelt hat, ferner in Gestalt der einfachen Erkenntnisse über Natur und Menschenwelt, die in den fortgeschrittenen Ländern selbst die Angehörigen der unteren sozialen Schichten mitbekommen, nicht zuletzt als Bestandteil des geistigen Vermögens der Forscher, deren Entdeckungen die Form des gesellschaftlichen Lebens entscheidend mitbestimmen, ermöglicht sie [die Wissenschaft] das moderne Industriesystem."

the *Institut*, it must be pursued independently from specific social and political interests. Furthermore, accessible and applicable standards of truth must guide such inquiry. Horkheimer only lightly veils his judgment of the claims of the politically active branches of biological thought like race biology and eugenics, for he engages their rhetoric of life process (*Lebensprozeß*) and necessity to life (*Lebenswichtigkeit*) just a few sentences later in the second paragraph of his essay:

It in no way justifies a pragmatic theory of knowledge that science plays a role as a productive force and mode of production in the life process of society. [...] The test of the truth of a judgment is something different from the test of its necessity to life. No case exists where social interests must decide about truth. Rather there are valid criteria that have developed in connection with the progress of theory. Indeed science does itself change in the historical process, but never is a reference to this change an argument for the application of other criteria of truth than those that are adequate to the state of knowledge in the current stage of development.⁵⁶

Since this claim enables Horkheimer to set his project apart from immediate political goals, he can explore the valences of materialism with greater leeway.⁵⁷ Thus in the remainder of his short essay he goes on first to dismiss mechanistic materialism, and then to highlight how economic conditions and scholarly institutions and explanations move in

⁵⁶ Horkheimer, "Bemerkungen," 1. "Daß die Wissenschaft als Produktivkraft und Produktionsmittel im Lebensprozeß der Gesellschaft eine Rolle spielt, berechtigt keineswegs eine pragmatische Erkenntnistheorie. [...] Die Prüfung der Wahrheit eines Urteils ist etwas anderes als die Prüfung seiner Lebenswichtigkeit. In keinem Fall haben gesellschaftliche Interessen über die Wahrheit zu entscheiden, sondern es gelten Kriterien, die sich im Zusammenhang mit dem theoretischen Fortschritt entwickelt haben. Zwar verändert sich die Wissenschaft selbst im geschichtlichen Prozeß, aber niemals ist der Hinweis auf diese Veränderung ein Argument für die Anwendung anderer Wahrheitskriterien als derjenigen, die dem Stand der Erkenntnis auf der erreichten Entwicklungsstufe angemessen sind."

⁵⁷ Honneth refers to this aspect of Horkheimer's arguments as evidence of a "sociological deficit." Honneth, *Critique of Power*, 17.

parallel with one another, but must do so without the subordination of one to the other. He sums this idea up as follows: “The theory of the correlation of cultural disorder with economic conditions – and with the conflicts of interest that emerge from them – reveals nothing about the degree of reality or the hierarchical relationship of material and intellectual goods.”⁵⁸ Horkheimer thus seeks means by which scholarly inquiry might be prevented from devolving into yet another form of ideology, and finds it, at least potentially, in an adequately sophisticated form of materialist thought. He is already moving past the mechanistic-dialectical duality and toward the kind of multivalent, interdisciplinary materialism that will characterize his Critical Theory of the later 1930s.

Horkheimer’s editorial policy in the first two years of the publication of the *ZfS* sought to expand the purview of its predecessor publication, *Grünbergs Archiv*, beyond the field of political economy. The work of scholars like Friedrich Pollock, Kurt Baumann, and Henryk Grossmann helped the new journal retain its status as one of the foremost academic organs of Marxist-oriented economic thought. Nonetheless the *ZfS* did have an extraordinarily broad purview. Adorno published “On the Social Situation of Music (*Zur gesellschaftlichen Lage der Musik*);” Leo Lowenthal wrote similarly “On the Social Situation of Literature (*Zur gesellschaftlichen Lage der Literatur*).” Julian Gumperz analyzed the American political system. Erich Fromm contributed three substantial articles on psychoanalysis and social psychology. Each of the first two volumes of the journal also contained one article that focused particularly on the natural scientific and biological embranchments of materialist thought. Both of these articles highlighted the issue of the ideological loading of scientific inquiry through too great an

⁵⁸ Horkheimer, “Bemerkungen,” 6-7. “Die Lehre vom Zusammenhang der kulturellen Unordnung mit den ökonomischen Verhältnissen und den aus ihnen sich ergebenden Interessengegensätzen besagt nichts über den Realitätsgrad oder Rangverhältnis der materiellen und geistigen Güter.”

emphasis on mechanistic or deterministic claims to total explanation of natural phenomena.

The first volume of the *ZfS* contained a contribution by the Vienna sociologist Franz Borkeuau entitled “On the Sociology of the Mechanistic Representation of the World (*Zur Soziologie des mechanistischen Weltbildes*).” Borkeuau saw the proliferation of a “mathematical-mechanistic representation of the world (*mathematisch-mechanistisches Weltbild*)” after 1620 as a thoroughgoing shift in European thought. In Borkeuau’s view, the influence of Descartes, Hobbes, and Gassendi led to complete dominance of theories of knowledge by mathematically elaborated mechanistic models. He further emphasizes that this development suffused both physical explanation and social theory, and revealed their unity at the time: “In the origination process of modern thought there exists – in the sharpest contrast to its further formation – no boundary between metaphysics and the theory of knowledge on the once hand, and physics and social theory on the other.”⁵⁹ This unity drove the rapid development of industrial manufacture. Nonetheless it also rapidly developed ideological character, and Borkeuau discusses the work of numerous thinkers including Althusius, Lipsius, and Hobbes as ideologies. Interestingly, Borkeuau does not describe what he sees as Pascal’s “pessimistic” system of “negative dialectics [*negative Dialektik*]” as ideological. This is because Pascal, despite being rooted in the social structures of his day, developed a new approach to scientific inquiry: “He first subordinated, with extreme rigor, the formulation

⁵⁹ Franz Borkeuau, “Zur Soziologie des mechanistischen Weltbildes,” *Zeitschrift für Sozialforschung* 1 (1932): 311. “In dem Entsehungprozess des modernen Denkens gibt es – im schärfsten Gegensatz zu seiner weiteren Ausbildung – keine Grenze zwischen Metaphysik und Erkenntnistheorie einerseits, Physik und Soziallehre andererseits.”

of natural laws to verification by experiment....”⁶⁰ Pascal provides a necessary part of the foundation for the kind of autonomously systematic and empirically rigorous inquiry into natural and human phenomena to which materialist social research still aspires.

Borkenau thus establishes that mechanistic explanation, though inadequate as a theory of knowledge, remains within the sphere of social research because it has accreted durable social functions.

In the second volume of the *ZfS*, Paul Ludwig Landsberg contributed an article that made clear the importance of a well argued response by materialist social theory to one widely known but particularly problematical sphere of biological thought: race theory. Landsberg’s title pulled no punches about the fundamental issue involved: “Race Ideology and Race Science (*Rassenideologie und Rassenwissenschaft*).” Landsberg develops his argument in the spirit of Horkheimer’s claims that despite the present danger of ideological misrepresentation and misuse of the results of scholarly inquiry, such inquiry can and must still aspire to truth. Furthermore, ideology itself clearly reveals the socially embedded character of all knowledge, and therefore must be drawn into methods of inquiry that seek knowledge as social truth. Landsberg thus draws a clear conceptual distinction between science and ideology, but refuses to dismiss ideology as purely false or manipulative:

It is of the greatest importance to differentiate in principle between race theory as pure ideology and race theory as natural science. The sense in which the questions of bourgeois natural science are not free from a guiding ideological motive will be demonstrated, but also that the widest possible difference exists

⁶⁰ Borkenau, “Zur Soziologie,” 335. “Er [Pascal] als erster hat mit äußerster Strenge die Formulierung von Naturgesetzen der Verifizierung durch das Experiment untergeordnet....”

between those questions and actual race ideologies. As regards the concept of ideology, we are far from making the ideologue equivalent to the fraud. The fact that a theory can be designated an ideology indicates that both its origin and its evidence are not based, for its adherents, on experiential content, but on a social function, on an effect within society and its conflicts that is expected of it.⁶¹

The problem of the scientific and ideological use and misuse of the race concept also points directly to the mutual implication of biological and sociological inquiry.

Landsberg argues that biology has in fact provided the foundation for important developments in both sociology and philosophy:

The tremendous development of modern biology raised the problems of race with new urgency, because it placed biological questions at the center even of sociological discussion. In philosophy since Nietzsche it gave occasion to the formation of biocentric representations of the world that have widely divergent value, and of which the most important are that of Bergson, and at some interval of niveau that of Klages.⁶²

Landsberg's conclusions about race biology develop the principles of Horkheimer's materialist social research into a detailed case study of a field in which the common

⁶¹ Paul Ludwig Landsberg. "Rassenideologie und Rassenwissenschaft: Zur neuesten Literatur über das Rassenproblem," *Zeitschrift für Sozialforschung* 2 (1933): 388. "Es ist von grösster Wichtigkeit, prinzipiell zu unterscheiden: Rassenlehre als pure Ideologie und Rassenlehre als Naturwissenschaft. In welchem Sinne auch die Fragen der bürgerlichen Naturwissenschaft von einem leitenden ideologischen Motiv nicht frei sind, wird zu zeigen sein, aber auch, dass zwischen ihnen und den eigentlichen Rasseideologien ein himmelweiter Unterschied besteht. Was den Begriff der Ideologie anlangt, so liegt es uns fern, den Ideologen etwa mit dem Betrüger gleich zu setzen. Dass eine Lehre als Ideologie zu bezeichnen ist, sagt aus, dass sie sowohl ihre Entstehung, wie ihre Evidenz für ihre Anhänger im Wesentlichen nicht einem Erfahrungsinhalt verdankt, sondern einer sozialen Funktion, einer Auswirkung in der Gesellschaft und ihren Kämpfen, welche von ihr erwartet wird."

⁶² Landsberg, "Rassenideologie und Rassenwissenschaft," 403. "Da die gewaltige Entfaltung der modernen Biologie biologische Fragen in das Zentrum auch der soziologischen Diskussion stellte und in der Philosophie seit Nietzsche Anlass gab zur Herausbildung biozentrischer Weltbilder von sehr verschiedenem Wert, deren bedeutendste das von Bergson und in einigem Niveauabstand das von Klages sind, stellte sie die Probleme der Rasse in neuer Dringlichkeit auf."

historical and social roots of science, ideology and politics become particularly clear, and which therefore provides at once a great challenge to and a powerful motivation for the development of the methods and goals of the *Institut* and the *ZfS*.

Horkheimer himself chose a more philosophical approach to questions of scholarly inquiry and social conflict in his fully developed scholarly contributions to the early volumes of the *ZfS*. In two essays published in the second volume of the journal he thoroughly explored the concept of materialism, and staked his claim to scholarship that could be fully adequate to the political and social problems of the day. In “Materialism and Metaphysics,” the lead article in volume two of the *ZfS*, Horkheimer develops most systematically his argument that the mechanistic and dialectical valences of materialism are in fact part of the same historical process, and thus must contribute together to a productive system of inquiry that can advance the understanding of the world. Furthermore, the identity of the two valences of materialism reveals historically and demands methodologically that natural scientific and philosophical work be pursued with unitary purpose. He begins with an argument that even opponents of materialism often accept for its means of linking a unitary view of the world with the practical consequences of human action:

Even if materialism appears so insufficient in contrast to other possible summations of the whole of the world, its most general thesis – the one that concerns the world in and of itself – is also taken up in combat against it as fundamental for specific practical consequences, and so too for a unitary formal arrangement of life....⁶³

⁶³ Max Horkheimer, “Materialismus und Metaphysik,” *Zeitschrift für Sozialforschung* 2 (1933): 7. “Mag der Materialismus gegenüber den anderen möglichen Auffassungen vom Weltganzen als noch so

He goes on to clarify the historical and intellectual roots of the apparent, but philosophically meaningless, divide between the mechanistic and dialectical forms of materialist thought. Martin Jay's reading of this essay, which he calls "one of his [Horkheimer's] most important in the *Zeitschrift*," focuses on how Horkheimer critiques both "mechanical materialists" and "the putative materialism of orthodox Marxism."⁶⁴ Horkheimer develops his argument out of a claim that both Kant and Hegel attempted to avoid materialist terms in the construction of their idealistic systems, but how both thereby in fact further developed the grounding for materialism. He then sums up the historical and philosophical result of these developments of the late eighteenth and early nineteenth centuries in one of his most famously unambiguous and widely quoted phrases: "Materialism demands the unification of philosophy and science."⁶⁵

The final third of Horkheimer's essay must therefore address how and why his multivalent materialism provides superior means of explanation to other synthetic modes of inquiry. The other modes that challenge Horkheimer's vision have a common thread, as well. They are all biological. They thus claim to provide total explanations of life, its determinants, and its consequences. He begins with the best known philosophical system promulgated by a practicing academic biologist: Ernst Haeckel's monism.

Because in the seventeenth and eighteenth centuries all of science rested upon the mechanical theory of nature, and almost exhausted itself in it, the materialism of the time allowed as valid knowledge of reality only mathematical-mechanical

unzulänglich erscheinen, seine allgemeinste, die Welt überhaupt betreffende These wird auch im Kampfe gegen ihn als grundlegend für bestimmte praktische Konsequenzen, ja für eine einheitliche Lebensgestaltung genommen...."

⁶⁴ Jay, *Dialectical Imagination*, 53.

⁶⁵ Horkheimer, "Materialismus und Metaphysik," 23. "Der Materialismus fordert die Vereinigung von Philosophie und Wissenschaft."

natural science. [...] The physical materialism of Vogt and Haeckel in the nineteenth century had already practically given up striving for the unification of philosophy and positive science, because in their time the mechanical theory of nature in no way coincided any longer with the content of science, but had, rather, lost significant contemporary meaning in relation to the social sciences. They had also become decisive for methodology. The purely natural scientific monism of Haeckel is therefore a pseudo-materialism, which also announces itself in its function, by means of world-view, of distracting from historical praxis.⁶⁶

Nineteenth century positivism, including the forms pursued by Comte and Mach, reveals a similar failing: it refuses to recognize any historicity in the processes of scientific inquiry. Positivism also, through its refusal to seek more than only explanations for the observable appearances of natural and living phenomena, has no answer to superstitions or to metaphysical and vitalistic speculations about souls and life forces.

In Horkheimer's opinion, the two most widely read scholarly partisans of biologicistic philosophical thought after 1900, Henri Bergson and Hans Driesch, lost themselves entirely in the thickets of positivism's failures. Bergson's 'élan vital' and Driesch's extensively elaborated arguments for a vitalistic force guiding the development of living organisms are thus both attempts to answer the unanswerable pseudo-problems

⁶⁶ Horkheimer, "Materialismus und Metaphysik," 23-24. "Weil im 17. und 18. Jahrhundert die gesamte Wissenschaft auf der mechanischen Naturlehre beruhte, ja sich fast in ihr erschöpfte, ließ der damalige Materialismus als einziges Wissen von der Wirklichkeit die mathematisch-mechanische Naturwissenschaft gelten. [...] Schon der physikalische Materialismus der Vogt und Haeckel im 19. Jahrhundert hat jedoch das Bestreben, Philosophie und positive Wissenschaft zu vereinigen, praktisch aufgegeben, indem zu ihrer Zeit die mechanische Naturlehre keineswegs mehr mit dem Inhalt der Wissenschaft zusammenfiel, sondern gegenüber den Gesellschaftswissenschaften stark an aktueller Bedeutung verloren hatte. Sie wurden nun auch für die Methodologie entscheidend. Der haeckelsche rein naturwissenschaftliche Monismus ist daher ein Pseudo-Materialismus, was sich auch in seiner weltanschaulichen, von der geschichtlichen Praxis ablenkenden Funktion kundgibt."

of positivism.⁶⁷ It comes as no surprise to Horkheimer that both Bergson and Driesch (and even Comte before them) wound up tilting at spiritualistic and occult phenomena and explanations.⁶⁸ Horkheimer's conclusion is unambiguous. "Neither 'the mystical' nor the 'meaning of life' exists."⁶⁹ He thus concludes that his multivalent materialism more successfully addresses the full range of human phenomena and interests than its biologically justified predecessors, because only it develops clear intellectual and methodological means of explaining together both the physical and the economic aspects of human life in their historical and present manifestations. His second essay in the second volume of the *ZfS*, on "Materialism and the Moral (*Materialismus und Moral*)," further develops his arguments by exploring their consequences for the ethical judgment of human action.

Richard Thurnwald and the Biology of Society

Despite the interests in sophisticated explanations of social phenomena that Horkheimer and Thurnwald had come to share by 1931, their personal histories and processes of intellectual development were very different. Thurnwald achieved his academic position, as professor of ethnology in Berlin, only circuitously. Thurnwald's early history, in fact, seems ready-made to have given him little tolerance for the opinions of a young and ambitious left-oriented academic like Horkheimer. Born in 1869 in Vienna, Thurnwald grew up in bourgeois surroundings, served for some time in the

⁶⁷ Bloch and Lukács expand this critique, especially in relation to Bergson's "attack on objectivity and scientificity" [Lukács]. Lukács, *Zerstörung*, 27-35. Bloch, *Materialismusproblem*, 278-82.

⁶⁸ Horkheimer, "Materialismus und Metaphysik," 28-29.

⁶⁹ Horkheimer, "Materialismus und Metaphysik," 29. "Es gibt weder 'das Mystische', noch den 'Sinn des Lebens.'"

imperial Austro-Hungarian army, and earned a degree in law in 1895. As a civil servant in Graz he met the sociologist Ludwig Gumplowicz, who awakened his interest in research on human societies. In 1900 he moved to Berlin to resume studies at the university on ethnological topics. In 1901 he met Felix von Luschan, the director of the Berlin Museum of Ethnology. By November of that year he had published his first scholarly article on ancient Egypt, and had been appointed to a research assistantship at the museum.⁷⁰

Through his interest in the anti-alcohol movement, Thurnwald came into close contact and association with a group of scholars and advocates who contributed more than any other to the propagation of principles of race hygiene and eugenics in Germany. The leading figure in the group was Alfred Ploetz, and together with Ernst Rüdin and Anastasius Nordenholz, Ploetz and Thurnwald founded both the journal known as the *Archiv für Rassen- und Gesellschaftsbiologie* (*Archive for the Biology of Race and Society*; in 1904) and the Society for Race Hygiene (*Gesellschaft für Rassenhygiene*; in 1905). Thurnwald contributed several articles to the early volumes of the journal, and remained on its editorial board into the 1920s.⁷¹ He would later reject many of the principles of race hygiene that the *Archiv* and the *Gesellschaft* had been instrumental in propagating, but only after years of further study and his development, through years of field research, into one of the founders of German field ethnology.⁷² In September 1906, Thurnwald began his first ethnological research trip under the auspices of the Berlin

⁷⁰ Marion Melk-Koch, *Auf der Suche nach der menschlichen Gesellschaft: Richard Thurnwald* (Berlin: Museum für Völkerkunde; Dietrich Reimer, 1989), 13-30.

⁷¹ For the most extensive of the many treatments of German race biology see: Paul Weindling, *Health, Race and German Politics between National Unification and Nazism 1870-1945* (Cambridge: Cambridge UP, 1989). Weindling unfortunately misses Thurnwald's intellectual developments in the 1920s, incorrectly lumping him with the Nazi race theorists who had also earlier contributed to the development of the *Archiv für Rassen- und Gesellschaftsbiologie*.

⁷² Melk-Koch, *Auf der Suche*, 30-48.

museum, and it took him to a place he would spend many years: New Guinea. This first journey, which also took him to Bougainville, pursued the collection of material objects for the museum in Berlin. It lasted until September 1909, and included a visit to the United States on the return trip to Germany.

By 1910, Thurnwald was questioning Luschan's insistence on the systematic collection of the objects of material culture as the museum's main scientific pursuit, and began planning another lengthy research trip to begin exploring methods of research which could better explore the broad determinants of the social aspects of informant groups through participatory methods of observation.⁷³ In 1911 he gave a number of major lectures at conferences that explained his new methodological ideas. In them he extensively developed his claim that complex socio-cultural phenomena must be explored as manifestations of historically rooted psychologies that have biological determinants. At the first meeting of the International Organization for Comparative Law and Economics (*Internationale Vereinigung für Vergleichende Rechtswissenschaft und Volkswirtschaftslehre*), he phrased it this way:

It appears to me to be generally more important, and at the same time more practically productive, to ask after the branching geographical, biological, and economic *conditions* for the formation of a specific mode of thought and the conventions and institutions that accrete to it, and then to approach the basic problems of ethnographic studies from this side.⁷⁴

⁷³ Melk-Koch discusses at length Thurnwald's thoughts about ethnological methods, and the conflicts with Luschan that resulted from them. Melk-Koch, *Auf der Suche*, 76-91, 114-24,

⁷⁴ Quoted in: Melk-Koch, *Auf der Suche*, 137. "Allgemein wichtiger und zugleich praktisch fruchtbringender scheint es mir zu sein, nach den verzweigten geographischen, biologischen und wirtschaftlichen *Bedingungen* für die Gestaltung einer bestimmten Denkart und daran sich knüpfende Gewohnheiten und Einrichtungen zu fragen und von dieser Seite her an die Grundprobleme der ethnologischen Studien heranzutreten." Emphasis original.

At the 83rd meeting of the Association of German Naturalists and Physicians (*Versammlung Deutscher Naturforscher und Ärzte*) in Karlsruhe, he emphasized the biological element in his methods. He sought, “on the basis of biology,... to grasp cultural inquiry with the natural-scientific spirit of exact psychology.”⁷⁵ He embarked on his second research journey in December 1912, and he would not return to Berlin until May 1917, after adventures including an English-Australian navy campaign against his ‘position’ in New Guinea in early 1915 and over a year as a guest researcher at the University of California in Berkeley during 1916 and 1917. 1918 saw Thurnwald fighting for several months on the Western Front in France.

In 1919, in view of his numerous and well-respected publications, the University of Halle granted him the *Habilitation* in ethnology. In 1922 he received a second *Habilitation* from Berlin, where he was able to continue his career after 1923. In 1925 he was given the honorary title of professor, but without a civil service salary or chair as *Ordinarius*. In this period he worked with numerous journals, published widely, and served as the founding editor of the *Zeitschrift für Völkerpsychologie und Soziologie*, which was published from 1925 to 1933 under his leadership.⁷⁶ In his programmatic lead article in the first volume of the journal Thurnwald returned to the language of his 1911 lectures, and emphasized the complex disciplinary status and structure of his scholarly goals in a way that would have been familiar to Horkheimer. Biology once again arose as a significant moment of disciplinary overlap:

⁷⁵ Quoted in: Melk-Koch, *Auf der Suche*, 138. “...auf den Grundlagen der Biologie... die Kulturkunde mit dem naturwissenschaftlich exact-psychologischen Geiste zu erfassen.” Emphasis original.

⁷⁶ Ute Michel discusses the difficult financial and administrative circumstances of the publication of the ZVS (and other journals) in this period. Ute Michel, “Wilhelm Emil Mühlmann (1904-1988) – ein deutscher Professor. Amnesie und Amnestie: Zum Verhältnis von Ethnologie und Politik im Nationalsozialismus,” *Jahrbuch für Soziologiegeschichte* 1991: 75.

Social psychology (*Völkerpsychologie*) and sociology are concepts contested in their meaning and interpretation. In any case, there are other areas of knowledge that are already valued today as recognized and settled in which concepts are not sharply bounded. In geography and biology, and fully in political economy (*Nationalökonomie*), the boundary regions take up broad swaths, even when it is specifically in these disciplines that the nucleus has clearly crystallized.⁷⁷

Thurnwald's chosen disciplinary designations have a much in common with Horkheimer's multivalent materialism. The one element they do not share is Horkheimer's interest in the philosophical grounding of disciplinary inquiry. They did share a sense that their careers were stagnating in the atmosphere of economic, political, and academic crisis in early 1930s Germany, and sought opportunities to expand their activities beyond German borders. In 1930 and 1931 Thurnwald pursued further field research in Africa. In 1931-32 he was visiting professor at Yale. After a year in a cabin in the Adirondacks, a further research trip to New Guinea, six months in Australia, a short return to Berlin, and another year (1935-36) at Yale, Thurnwald found himself with no choice but to return to Berlin, for at age 67 he was too old to hold an American professorship during an economic depression and in an age of mandatory retirement laws. After years of deprivation during the war, he was made *Ordinarius* at the refounded Humboldt-Universität in July 1946. He had little patience with academic life in the

⁷⁷ Richard Thurnwald, "Probleme der Völkerpsychologie und Soziologie," *Zeitschrift für Völkerpsychologie und Soziologie* 1.1 (1925): 1. "Völkerpsychologie und Soziologie sind in ihrer Bedeutung und Deutung umstrittene Ausdrücke. Allerdings sind die Begriffe in anderen heute schon als anerkannt und eingesessen geltenden Wissensgebieten auch nicht immer scharf umgrenzt. In der Geographie oder in der Biologie, vollends in der Nationalökonomie, nehmen die Grenzgebiete breite Streifen ein, wenn gleich in diesen Disziplinen der Kern schon deutlich auskristallisiert ist."

Soviet zone of occupation, however, and participated in the founding of the Freie Universität Berlin in 1948. He died in 1954.

Wilhelm Emil Mühlmann, Thurnwald's student and the managing editor of *Sociologus/ZVS* in the period of the disagreement with Horkheimer, also had a colorful career. Mühlmann, like Thurnwald, started his career in eugenic and race biology circles, and had been a student not only of Thurnwald but also of three of the leading luminaries of German race science in the 1920s and 1930s: Eugen Fischer, the investigator of race mixing in German South-West Africa, in Freiburg and Berlin; Walter Scheidt, the partisan of "cultural biology (*Kulturbiologie*)," in Hamburg; and Fritz Lenz, the (first-ever) professor of race hygiene and propagandist of racial 'values' in Munich.⁷⁸ During the Nazi period Mühlmann participated in several Nazi ethnographic and sociological research initiatives in the occupied parts of the Soviet Union. Nonetheless he was denazified without difficulty after the war, and went on to professorships in Mainz and Heidelberg, where he became the focus of controversy in the late 1960s for his complicity in Nazi race research.⁷⁹

Horkheimer, Thurnwald, and the Biological Politics of Social Research

The problem of the disciplinary status of biology in social research was the intellectual issue at the core of the conflict between Horkheimer and Thurnwald. Two

⁷⁸ Michel, "Mühlmann," 72-3. Mühlmann explains his personal history, his investment in the concepts and goals of race biology and race hygiene, and his association with and respect for Fischer, in a lengthy handwritten letter to Thurnwald dated 2 April 1932. Thurnwald and Fischer themselves enjoyed a collegial working relationship, and the Thurnwald Papers include a number of friendly letters between them from this period. Richard Christian Thurnwald Papers, Department of Manuscripts and Archives, Yale University Library. All quoted letters are from this collection unless otherwise noted.

⁷⁹ On the 1960s controversy about Mühlmann's complicity in Nazi research see also: Michael Kater, "The Myth of Myths: Scholarship and Teaching in Heidelberg," *Central European History* 36 (2003): 573.

moments of institutional friction with personal consequences sparked it, however. The first of these was the competition that the *ZfS* presented to *Sociologus/ZVS*. By January 1933 *Sociologus/ZVS* had German, American, English, and Dutch sociologists, anthropologists, and biologists on its editorial board, including Friedrich Alverdes, Edward Sapir, Bronislaw Malinowski, and Pitirim Sorokin.⁸⁰ It was therefore similar to the *ZfS* in its claims to international, cross- and interdisciplinary interests. The *ZfS* and *Sociologus/ZVS* further shared the same publisher, C. L. Hirschfeld in Leipzig, which intensified Thurnwald's and Mühlmann's concerns that the *ZfS* represented competition to their journal rather than a mutually reinforcing enterprise. The second reason for Thurnwald's skepticism toward Horkheimer was the association of the *Institut* and its forms of materialist thought and theory with Marxism, which Thurnwald treated with generalized scorn. Thurnwald's association with race biology and eugenics had colored his early politics, but by the early 1930s he had found his way to a kind of liberal internationalism. Both Thurnwald and Mühlmann regarded Horkheimer as an opportunist. Nonetheless their own academic relationship was not without sources of conflict. Their mutual criticism of Horkheimer's goals and politics between 1931 and 1933 ignited a series of their own personal and academic disagreements over the intellectual and scientific status of race biology that further demonstrates how the disciplinary instability of biology made itself felt in many areas of social research.

The initial document of the interaction between Horkheimer, Thurnwald, and Mühlmann gives evidence of how Horkheimer himself highlighted the interdisciplinary

⁸⁰ In his position on the editorial board of *Sociologus*, Alverdes, who was Professor of Zoology at Marburg, provides a direct link between the interdisciplinary socio-anthropology of Thurnwald and the new directions in holistic organismal and environmental biology being pursued by Adolf Meyer-Abich, Ludwig von Bertalanffy, Hans Driesch, and Jakob von Uexküll.

nature of his plans for the *ZfS* to other scholars. This document is a letter from Mühlmann (in Berlin) to Thurnwald (in New Haven), dated 30 October 1931. In it, Mühlmann recounts receiving a first letter from Horkheimer a few days before in which Horkheimer, apparently in Berlin at the time, asked to see Thurnwald.⁸¹ Upon learning that this was impossible, Horkheimer spoke at length with Mühlmann, apparently in person, about his plans. Mühlmann describes Horkheimer's presentation of his plans for the *ZfS* as follows:

At that point I gave him an interview, in which I learned the following: the aforementioned Frankfurt institute plans to publish an (institutional) journal, "Zeitschrift für Sozialforschung," that is supposed to appear first at the beginning of next year. It is supposed to make political economy (*Nationalökonomie*), biology, psychology, social psychology (*Völkerpsychologie*) "fruitful" for social research (*Sozialforschung*). The reason that Herr Prof. Horkheimer imparted these things to me was, firstly, that he – as he expressed it to me – felt the need to discuss the planned founding [of the journal] with a specialist; for twenty minutes he took me for your temporary replacement at the university. Secondly, the gentleman wanted our and your help.⁸²

Horkheimer thus raises the same set of mediating disciplines, psychology and biology, that linked his concept of *Sozialforschung* as multivalent materialism to other academic

⁸¹ This first letter from Horkheimer is not extant in the Thurnwald papers, nor does it appear in the finding aids or indices of the Horkheimer-Pollock Archiv, Frankfurt am Main.

⁸² Mühlmann to Thurnwald, 30 October 1931, 2. "Ich gab ihm darauf ein Interview, auf dem ich folgendes erfuhr: Das erwähnte Frankfurter Institut plant die Herausgabe einer (Instituts-) Zeitschrift, 'Zeitschrift für Sozialforschung', die ab Anfang nächsten Jahres erscheinen soll. Sie soll Nationalökonomie, Biologie, Psychologie, Völkerpsychologie für die Sozialforschung 'fruchtbar' machen.... Der Grund dafür, dass Herr Prof. Horkheimer mir diese Dinge mitteilte, war einmal der, dass er, wie er sich ausdrückte, das Bedürfnis habe, sich mit einem Fachmann über die geplante Neugründung auszusprechen; er hielt mich nämlich zwanzig Minuten lang für Ihren Vertreter an der Universität. Zweitens aber wünschte der Herr unsere und Ihre Hilfe."

structures – and were also precisely those boundary disciplines with which Thurnwald was most concerned. Mühlmann was distinctly skeptical of Horkheimer’s intent, immediately scoffing that: “All of it was a completely clumsy attempt to lead me on, and still today I am shocked that one takes us for so boundlessly stupid as to work for the competition.”⁸³ Mühlmann further indicates that Horkheimer sent him a letter of confirmation of their discussion, on *ZfS* letterhead. Thurnwald wrote back to Mühlmann on 14 November 1931 with a somewhat more sanguine opinion of Horkheimer’s intent, indicating that he considered Horkheimer’s intentions to be just another example of misplaced “industriousness (*Betriebsamkeit*).”⁸⁴ These two letters further demonstrate how Thurnwald and Mühlmann approached biology as a foundational disciplinary element in sociology, for they discuss at some length the idea of including a section of book reviews in the December issue of *Sociologus/ZVS* under the rubric “Biological Foundations of Sociology (*Biologische Grundlagen der Soziologie*).”

Mühlmann’s next letter to Thurnwald, dated 29 November 1931, is an important document of the biologically structured thought of a major young ethnologist of the period. Mühlmann and Thurnwald thought similarly about many things, but Mühlmann, though he was younger, saw race as a much more significant category of inquiry than did Thurnwald. In his letter, Mühlmann writes at length about why he is less skeptical of “value theory (*Werttheorie*)” than Thurnwald, and why he sees Darwinism as the grounds for arguments that evolutionary claims about human diversity can justify theories of

⁸³ Mühlmann to Thurnwald, 30 October 1931, 2. “Das Ganze war ein überaus plumper Versuch, mich auszuholen, und ich bin noch heute erschrocken darüber, dass man uns für so masslos dumm hält, für die Konkurrenz zu arbeiten.”

⁸⁴ Thurnwald to Mühlmann, 14 November 1931, 2.

value.⁸⁵ In doing so he raises a category that was also fundamental to Horkheimer and his *Institut* colleagues at this point, and thus further helps to explain why Thurnwald and Mühlmann were resistant to Horkheimer's arguments: *Praxis*. Mühlmann reminds Thurnwald that:

You yourself want to reach out from sociology into praxis. Praxis, however, is decidedly not self-evident. [...] For my part, therefore, praxis is so entirely not self-evident because my thought is decisively determined by racial hygiene; and in the light of racial hygiene some measure of today's praxis, for example in social welfare, appears considerably questionable.⁸⁶

Mühlmann thus reveals that his primary intellectual allegiance is to his training in race biology and race hygiene.

Thurnwald responded on 21 December 1931 with a lengthy discussion of his hard-earned skepticism about race biology. He himself had been a major figure in early German race biology and eugenics, but he had become publicly critical of their methods and goals after the First World War. By 1925, Thurnwald believed that race biology was an inadequate means of understanding human diversity. He had come to see the field's vulgar evolutionism as conflating culture and taxonomy through the loose concept of race. Thurnwald extensively critiqued race biology in the 1920s and 1930s, and developed a theory of sifting (*Siebung*) as a counterpoint to what he saw to be all-too-loose analogies to Darwinian selection in the race biologists' approach to processes of

⁸⁵ Here Mühlmann is recapitulating the vocabulary of his teacher Fritz Lenz, which is found most dramatically in: Fritz Lenz, *Die Rasse als Wertprinzip: Zur Erneuerung der Ethik* (Munich: J. F. Lehmanns Verlag, 1933). An earlier version of Lenz's essay was published in *Deutschlands Erneuerung* in 1917.

⁸⁶ Mühlmann to Thurnwald, 29 November 1931, 2. "Sie wollen ja doch selber von der Soziologie in die Praxis ausgreifen. Praxis aber ist doch nichts Selbstverständliches. [...] Für mich selber ist Praxis darum so ganz und garnichts Selbstverständliches, weil mein Denken entscheidend von der Rassenhygiene her bestimmt ist; und im Lichte der Rassenhygiene erscheint mancherlei Praxis von heute, z. B. in der sozialen Fürsorge, in bedeutender Fragwürdigkeit."

cultural change. In 1924 he published a lengthy article entitled “On the Critique of the Biology of Society (*Zur Kritik der Gesellschaftsbiologie*)” in Werner Sombart’s *Archiv für Sozialwissenschaft und Sozialpolitik* (*Archive for Social Science and Social Policy*).⁸⁷

Thurnwald believed that biological phenomena were of crucial importance to ethnological and sociological methods, but he insisted in this article that the latter fields must not be collapsed into biology through all-too-facile borrowing:

Several concepts that recur in discussions of the biology of society deserve to be thought through critically. In many cases these concepts have been transferred from zoology or biology onto human conditions of sociability. Such carryover of a concept from one area of application to another brings easily with it, however, displacement of relationships, lack of clarity, and then failure of communication in discussion.⁸⁸

This personal history of increasing distance to the claims of race biology colors his response to Mühlmann:

Now then, as regards your assertions about values, I set myself against that “overvaluing” of values that has become common in Germany.... I know that strict “objectivity” is not possible, least of all in the sociological field. But there are *levels* and *degrees* of subjectivity. [...] As regards racial hygiene, you

⁸⁷ The article is organized into five sections, each of which addresses and critiques a central concept in race biology: *Rasse*, *Degeneration*, *Siebung* [sifting – this is Thurnwald’s theoretical replacement for Darwinian ‘selection’], *Völkertod* [race death], and *Tüchtigkeit* [fitness – another Darwinian term of which Thurnwald is critical]. Thurnwald also published articles on “Rasse,” “Rassenfrage,” “Rassenhygiene,” and “Rassenkampf” in: Paul Herre, ed., *Politisches Handwörterbuch*, vol. 2 (Leipzig: K. F. Koehler, 1923), 403-409.

⁸⁸ Richard Thurnwald, “Zur Kritik der Gesellschaftsbiologie,” *Archiv für Sozialwissenschaft und Sozialpolitik* 52.1 (1924): 462. “Einige Begriffe, die in den gesellschaftsbiologischen Erörterungen wiederkehren, verdienen einmal kritisch durchdacht zu werden. Vielfach sind diese Begriffe aus der Zoologie oder Biologie auf menschliche Zustände der Gesellung übertragen worden. Eine solche Ueberführung eines Begriffs aus einem Anwendungsgebiet auf ein anderes bringt aber leicht eine Verschiebung der Beziehungen, Unklarheit, und dann ein Vorbeireden in den Erörterungen mit sich.”

probably know that I too came through this childhood disease. Most race hygienists are however, as you yourself insinuate, so divorced from society, and therefore so divorced from life, that one would like to weep.⁸⁹

Thurnwald goes on to discuss at length the potential misunderstandings that arise because sociology and biology can make use of the same terms of analysis. He specifically explains to Mühlmann how this problem affects his use of the term *Siebung*, and further why he expressly avoids the term *Rasse*: “Should you address the confusion in thought that is bound up with the word ‘race,’ then that will all be very nice. But specifically because great confusion reigns, I chose a different expression.”⁹⁰ For Thurnwald in 1931, race is no longer a term that has useful explanatory content either in sociology or in biology.

In early 1932, Horkheimer and the *ZfS* again appear in the correspondence, and biology is again the moment of contention. On 20 February 1932, Mühlmann reported receiving the publisher’s prospectus for the *ZfS*:

The enclosed prospectus from our “competition” will interest you. The first volume has not yet been published. I have to write the publisher a few stern words about this, its newest child, especially since I bugled the charge so powerfully in the autumn. The preface represents approximately the things that Prof. Horkheimer brought to my attention at the time. At that time, however, he

⁸⁹ Thurnwald to Mühlmann, 21 December 1931, 2-3. “Was nun ihre Ausführungen über die Werte anbelangt, so wende ich mich gegen die in Deutschland üblich gewordene ‘Überbewertung’ der Werte.... Ich weiss, dass strenge ‘Objektivität’ nicht möglich ist, am wenigsten auf soziologischem Gebiet. Aber es giebt *Stufen* und *Grade* von Subjektivität. [...] Was die Rassenhygiene anbelangt, so wissen Sie wahrscheinlich, dass ich diese Kinderkrankheit auch durchgemacht habe. Die meisten Rassenhygieniker sind aber, wie Sie selbst andeuten, so gesellschaftsfremd und damit lebensfremd, dass man weinen möchte.” Emphasis original.

⁹⁰ Thurnwald to Mühlmann, 21 December 1931, 4. “Wenn Sie sich mit der gedanklichen Verwirrung, die mit dem Wort ‘Rasse’ verbunden ist, befassen, so wird das sehr schön sein. Eben deswegen aber, weil grosse Unklarheit herrscht, wählte ich einen anderen Ausdruck.”

spoke of “making fruitful” economics, history, psychology, *and biology*. This time biology is missing! That proves to me that Mr. Horkheimer came to me then with quite specific and individually tailored intentions. “Biology” was supposed to be bait that would get me to talk.⁹¹

Mühlmann thus believes that Horkheimer was not, in fact, interested in biology as a disciplinary problem, but rather only that Horkheimer used the term as a red herring to get his attention. He thus underestimates Horkheimer’s motivations for including biology in the range of disciplines addressed by the *ZfS*. Thurnwald responded on 2 March 1932, acceding to Mühlmann’s adversarial reading with a comment that: “The journal is clearly a competitive undertaking, as I see.” For Thurnwald, however, it is not the disciplinary issues raised by Mühlmann that best explain his own animosity. Rather it is the Marxist orientation of Horkheimer and his colleagues: “But we have the bilingual form as an advantage, and perhaps a few ideas. The others clearly bore away at Marxism, which they disguise.”⁹²

Horkheimer’s early scholarship indicates that he was well aware of the many and complex valences of the term biology, and of the ongoing debates in sociology, psychology, and philosophy about biology’s status as a foundational discipline.

Nonetheless the way that biology arises selectively in Horkheimer’s language emerges

⁹¹ Mühlmann to Thurnwald, 20 February 1932, 2-3. “Der beiliegende Prospekt unserer ‘Konkurrenz’ wird Sie interessieren. Das erste Heft ist noch nicht erschienen. Ich muss dem Verlag noch ein paar verbindliche Worte über dies sein neuestes Kind schreiben, schon weil ich im Herbst so heftig zum Kampf geblasen habe. Das Vorwort entspricht ungefähr dem, was mir Herr Prof. Horkheimer seinerzeit zu verstehen gab. Damals sprach er allerdings von einem “Fruchtbarmachen” der Ökonomik, Geschichte, Psychologie *und Biologie*. Diesmal fehlt die Biologie! Das beweist mir, dass Herr Horkheimer damals mit ganz bestimmten, auf mich eingestellten Absichten hierherkam. ‘Biologie’ sollte ein ein [sic] Köder sein, der mich gesprächig machen sollte.” Emphasis original.

⁹² Thurnwald to Mühlmann, 2 March 1932, 2. “Die Zeitschrift für Sozialforschung ist deutlich eine Konkurrenzunternehmung, wie ich sehe. [...] Aber wir haben die Zweisprachigkeit voraus, und vielleicht einige Ideen. Die anderen bohren natürlich im Marxismus, was sie verschleiern.”

from its potential, but never clearly defined, overlap with his concept of multivalent materialism as research method and model of scholarship. Horkheimer never did programmatically define the relationship between biology and his goals for the *ZfS* and the *Institut*. Rather, he recognized biology's qualities as a negative disciplinary concept that itself required elucidation. He also realized that the qualities of his own multivalent materialism could be clarified through the exploration of some of the issues of biological disciplinarity. Nonetheless he always addressed the problem through the lens of philosophy. Thurnwald and Mühlmann misunderstood Horkheimer's goals because they read his arguments as pointing primarily to the Marxist-inflected dialectical of materialism, rather than to the mechanistic valence prominent in the natural sciences.

Horkheimer's first letter to Thurnwald is dated 6 August 1932. It is brief, but is written in a collegial tone. Horkheimer explains that he had been seriously ill for several months – a situation that is also explained in a footnote to his introductory essay published in the first volume of the *ZfS* – and that his illness, combined with Thurnwald's absence from Berlin, delayed his intended visit to Thurnwald. He succinctly explains his goals for the *ZfS* and its multi-disciplinary approach:

I hope that the goals of the journal will not be unsympathetic to you. The essential point consists of concentrating the results of various branches of knowledge more decidedly on the problem of contemporary society than has taken place up to now.⁹³

⁹³ Horkheimer to Thurnwald, 6 August 1932, 1. 'Ich hoffe, dass Ihnen die Ziele der Zeitschrift nicht unsympathisch sein mögen. Ein Wesentliches besteht darin, die Ergebnisse verschiedener Wissenszweige noch entscheidender auf das Problem der gegenwärtigen Gesellschaft zu konzentrieren, als es bisher geschehen ist.'

Horkheimer still hopes to be able to visit Thurnwald personally, and to suggest to him that he collaborate with the *ZfS*.

Thurnwald apparently received Horkheimer's letter promptly, although Horkheimer had addressed it to Berlin. Thurnwald was at the time residing in Big Shanty Camp, North River, Warren County, New York, where mail from Berlin was rapidly forwarded to him via New Haven. He had clearly accepted Mühlmann's negative reading of Horkheimer's intent by this time. On 29 August 1932, he revealed this in a letter to Wilhelm Kohlhammer, whose Stuttgart publishing house was a subsidiary firm of C. L. Hirschfeld in Leipzig, and who apparently had substantial administrative authority over scholarly journals published under the Hirschfeld imprint. Thurnwald expresses displeasure at both the competition to *Sociologus/ZVS* that the *ZfS* represents, and also at Horkheimer's Marxism:

All of the addresses and contacts that I imparted to Hirschfeld publishers over the years are now being exploited to propagate the competition to *Sociologus*. Mr. Horkheimer and his minions have succeeded in talking the representatives of Hirschfeld publishers into the idea that the new journal is no competition, and that *Sociologus* has to limit itself to social psychology (*Völkerpsychologie*) while Mr. Horkheimer taps true sociology (namely Marxist). It is not enough that Mr. Horkheimer thereby imitates the organization of *Sociologus* (even if pathetically) – in places he takes over our words almost verbatim. That does not demonstrate quick-wittedness, but rather only “machinations (*Mache*).” [...] When Mr. Horkheimer says that he concentrates the results of various branches of knowledge more decidedly on the problem of contemporary society than has been

the case up to now, he overlooks the *Zeitschrift für Völkerpsychologie und Soziologie*.⁹⁴

Thurnwald goes on to express to Kohlhammer praise for Mühlmann's skepticism about Horkheimer's intentions. On 4 September 1932 he then wrote to Mühlmann personally, repeating his negative opinion of Horkheimer's intentions and Marxist political views, and again praising Mühlmann for his skepticism. He ironically tells Mühlmann that should Horkheimer's intended visit to him in Berlin actually come to pass, then he is "truly not at home (*wahrlich nicht zu Hause*)."⁹⁵ The letter indicates, however, that it was not out of personal investment in the capitalist economic order that Thurnwald drew his disdain for Horkheimer and his plans. He reports to Mühlmann his belief that the United States, in the depths of the Great Depression, is in a period of "cultural overhaul," in which "the old varnish of capitalist swindles, bribes, and the like is beginning to be morally devalued."⁹⁶ At this point, Mühlmann's thoroughly negative opinion had carried the day.

Kohlhammer did not share Thurnwald's displeasure with Horkheimer and the *ZfS*. He wrote Thurnwald on 19 September 1932, drawing a response from Thurnwald on 3 October 1932 in which Thurnwald reiterated his negative opinion. He dismisses

⁹⁴ Thurnwald to Kohlhammer, 29 August 1932, 1. "...[A]lle meine im Laufe der Jahre dem Verlag Hirschfeld mitgeteilten Adressen und Winke werden jetzt benutzt, um die Konkurrenz von SOCIOLOGUS zu propagieren. Es ist Herrn Horkheimer und seinem Gefolge geglückt, den Vertreter des Verlages Hirschfeld einzureden, dass die neue Zeitschrift keine Konkurrenz ist, dass 'Sociologus' sich auf 'Völkerpsychologie' zu beschränken habe, während Herr Horkheimer die echte Soziologie (Nämlich die marxistische) verzapft. Nicht genug damit imitiert Herr Horkheimer den SOCIOLOGUS in der Einteilung (wenn auch kläglich) und stellenweise nimmt er fast wörtlich die Worte von uns über. Das zeigt nicht von Scharfsinn, sondern nur von „Mache“. [...] Wenn Herr Horkheimer sagt, dass er die Ergebniss [sic] verschiedener Wissenszweige besser auf das Problem der Gesellschaft konzentriert, als bisher der Fall war, so übersieht er die Zeitschrift für Völkerpsychologie und Soziologie."

⁹⁵ Thurnwald to Mühlmann, 4 September 1932, 1.

⁹⁶ Thurnwald to Mühlmann, 4 September 1932, 1. "Kulturüberholung... der alte Firnis kapitalistischer Schwindeleien, Bestechungen u.dgl. beginnt moralisch entwertet zu werden."

Kohlhammer's suggestion that his fears are only "seeing the worst (*Schwarzsehen*)."⁹⁷

Kohlhammer then discussed the issue with Horkheimer directly, who took the discussion as the basis for a long two-page letter to Thurnwald on 7 November 1932. After initial niceties about his respect for Thurnwald's "scholarly achievement (*wissenschaftliche Leistung*)," and his surprise at Thurnwald's concerns about competition between their journals, Horkheimer explains that he had, in fact, wished to retain Grünberg's title for the *Institut's* journal, but that Grünberg himself had insisted on a name change.

Horkheimer thus chose a name for the journal that paralleled the name of the *Institut*: "That we then chose a title that corresponds with the name of our institute was certainly the obvious thing."⁹⁸ He goes on to explain that the *ZfS* intends to concentrate its editorial policy on work by members of the *Institut*. Thurnwald's concerns that the *ZfS* represents competition should thus, in time, clearly be allayed. Horkheimer concludes with a paragraph reiterating his surprise and disappointment at Thurnwald's misgivings. He recalls his earlier plan to visit Thurnwald personally and to request his assistance:

How little I anticipated that the publication of our journal could displease you might also come to light in my desire last year to visit you, along with other interested colleagues. This was in order to request that you inform us of appropriate works in your discipline that bear consideration for a review in our journal. It should pain me greatly if your concerns – which are most decidedly

⁹⁷ Thurnwald to Kohlhammer, 3 October 1932, 1.

⁹⁸ Horkheimer to Thurnwald, 7 November 1932, 1. "Dass wir dann einen Titel gewählt haben, der mir dem Namen unseres Instituts übereinstimmt, war doch gewiss das Nächstliegende."

unfounded – prevented the development of the relationship between both journals into one of fruitful mutual supplementation.⁹⁹

Horkheimer clearly had no intention of allowing Thurnwald's concerns to damage the publication prospects of the *ZfS*, but he just as clearly hoped to apply his considerable reserves of administrative talent, diplomacy, and charm to manage successfully his relations with an important academic colleague.

Thurnwald realized at this point that Horkheimer's attitude, combined with Kohlhammer's general support for the *ZfS*, meant that he had little chance of preventing the publication of the *ZfS* by C. L. Hirschfeld. He responded to Horkheimer on 15 December 1932 with a very short letter that gives no indication of the dissatisfaction that he had voiced vigorously to Mühlmann and Kohlhammer. He had apparently resigned himself to the publication of the *ZfS*, and saw no reason to continue to treat Horkheimer uncollegially by ignoring his letters. He thus takes the civil path opened by Horkheimer. He reworks Horkheimer's own words about his hopes for a mutually productive enterprise: "I too nurture the sincere wish that both journals might supplement each other."¹⁰⁰ Horkheimer responded, concisely but cordially, on 28 January 1933. He thanks Thurnwald for his thoughts, and expresses hope that they will have the chance to meet personally once Thurnwald returns to Germany. Given the political situation of the moment, however, there was little immediate prospect of such a meeting, and the

⁹⁹ Horkheimer to Thurnwald, 7 November 1932, 2. "Wie wenig ich bis heute geahnt hatte, dass Ihnen das Erscheinen unserer Zeitschrift missfallen könnte, mag auch daraus hervorgehen, dass ich Sie letztes Jahr, wie einige andere interessierte Kollegen, besuchen wollte, um Sie zu bitten, uns jeweils die Arbeiten aus Ihrem Fach, welche für eine Besprechung in unserer Zeitschrift in Betracht kommen, mitzuteilen. Es sollte mir aufrichtig leid tun, wenn Ihre Bedenken, die ganz entschieden unberechtigt sind, es verhinderten, dass sich das Verhältnis der beiden Zeitschriften zu dem einer wissenschaftlich fruchtbaren gegenseitigen Ergänzung ausbildete."

¹⁰⁰ Thurnwald to Horkheimer, 15 December 1932. "Auch ich hege den aufrichtigen Wunsch, dass sich beide Zeitschriften ergänzen mögen."

correspondence therefore breaks off here. There is no indication in the Thurnwald papers or in the Horkheimer-Pollock Archive of any direct personal contact or correspondence between Horkheimer and Thurnwald after this final letter.

National Socialism, Race Biology, and Social Research

Thurnwald's relationship with Mühlmann took a somewhat rougher turn at just this time, however. Almost a year before, they had discussed the methods and goals of race biology and race hygiene, and Mühlmann had felt it necessary to defend his own training in and advocacy for race biology. Now, after Thurnwald had at first accepted Mühlmann's negative reading of Horkheimer's intentions but then realized that he would not be able to thwart them, the issue of Mühlmann's investment in race biology became an opportunity for Thurnwald to reestablish his authority as the senior scholar in their working relationship through a renewed critique of race biology. The immediate political stakes of the National Socialist appropriation of race biology further inflect his comments. Remarkably, Horkheimer and his *Institut* colleagues remained a present element in this conflict. Horkheimer's own assertion of the importance of biology for the *Institut* and *ZfS* meant that when biological fields and terms became a moment of contention in the collaboration between Thurnwald and Mühlmann, they could use him and their mutually expressed disdain for him as a means of deflecting some of the personal friction of their own intellectual conflict. Horkheimer thus remained a source of derision in Thurnwald's and Mühlmann's correspondence for some months after he was no longer in direct contact with either of them.

The proximate cause of their disagreement was an unspecified article manuscript by Walter Scheidt, Mühlmann's teacher in Hamburg, that Mühlmann had forwarded to Thurnwald in New York State. On 15 December 1932, the same day he wrote his letter to Horkheimer, Thurnwald informed Mühlmann of his receipt of the Scheidt manuscript. Only one week later, on 22 December 1932, Thurnwald wrote Mühlmann again with an extensive and thoroughgoing critique of Scheidt's ideas and methods. Thurnwald finds the essay to be nothing more than "juggling with slogans (*Herumjonglieren mit Schlagworten*).” He reiterates his own sympathy for biological thinking, but finds Scheidt's work – work that included a 1930 monograph on *Kulturbiologie* – to be nothing of the sort: “As you know, my stance toward biological points of view is very sympathetic. For that very reason this work appears to be inadequate to me.”¹⁰¹ He even criticizes general trends in German scholarship by associating them with Scheidt's self-important style: “Everything is excessively ambitiously puffed up: ‘Nonsense, nonsense’ etc., then the underlining of entire paragraphs. Those are psychological indications for the immense – but in Germany impressive – self-overestimation of Mr. Scheidt.”¹⁰² He then hints that Scheidt would find a better home in competing journals. While he does not mention the *ZfS* by name, his derisory recommendation that Scheidt send his “delectable fruits (*köstlichen Früchte*)” to the “competition (*Konkurrenz*)” must be understood, in the context of past and future comments and of the conflict with Horkheimer over the previous months, as a veiled reference to the Frankfurt project.¹⁰³

¹⁰¹ Thurnwald to Mühlmann, 22 December 1932, 1. “Ich stehe persönlich, wie Sie wissen, den biologischen Standpunkten sehr sympathisch gegenüber. Gerade darum aber scheint mir diese Arbeit unzureichend.”

¹⁰² Thurnwald to Mühlmann, 22 December 1932, 1. “Alles ist ungeheuer anspruchsvoll aufplustert: ‘Unsinn’, ‘Unsinn’, etc. dann Unterstreichungen über ganze Absätze hin. Das sind psychologische Indizien für die ungeheuerere, aber in Deutschland imponierende, Selbstüberschätzung Herrn Scheidt's.”

¹⁰³ Thurnwald to Mühlmann, 22 December 1932, 2.

Mühlmann responded on 7 January 1933, regretting that he would therefore have to reject Scheidt's article, and fearing that this rejection would precipitate a break with Scheidt and his colleagues in Hamburg. Thurnwald responded sympathetically on 20 January 1933, but reiterated his sweeping condemnation of Scheidt's methods and results: "Science exists not by 'belief' but by 'proof.' That is what is misjudged here [in Germany]. Thus the collapse of German science."¹⁰⁴ Thurnwald and Mühlmann continued to discuss this matter in several more letters, and as their discussion progressed, it became more and more significantly focused on Scheidt's claim to be doing 'biological anthropology' or '*Kulturbiologie*.' Thurnwald explained his opinion most thoroughly in a lengthy letter to Mühlmann on 3 February 1933, in which he noted that although he had found Scheidt's early ethnological work interesting, "his theoretical works are powerfully misguided."¹⁰⁵

Both Thurnwald's opinion and Mühlmann's fears of Scheidt's response to the rejection of his article were apparently well founded, for in 1935, Mühlmann sought his *Habilitation* in Hamburg with a manuscript on "State Formation and Amphictyonies in Polynesia (*Staatsbildung und Amphyktionien in Polynesien*)."¹⁰⁴ Of the four readers of Mühlmann's manuscript, only Scheidt evaluated the work negatively. Ute Michel describes Scheidt's intellectual and political justifications for his rejection. The similarity of her paraphrase of Scheidt's reasons for rejection bears enough similarity to Thurnwald's disdain for Scheidt's work and methods to raise the possibility that Scheidt was retaliating for Mühlmann's accession to Thurnwald's criticisms. Nonetheless the political realities of 1935 surely played an even more significant role, and despite

¹⁰⁴ Thurnwald to Mühlmann, 20 January 1933, 2. "Wissenschaft besteht nicht in 'Glauben', sondern in 'Beweis'. Das verkennt man bei uns. Darum der Verfall der deutschen Wissenschaft."

¹⁰⁵ Thurnwald to Mühlmann, 3 February 1933, 7. "...seine theoretischen Arbeiten hauen scharf daneben."

Mühlmann's widely expressed support for National Socialism, Scheidt accused him of endangering the political rectitude of the younger academic generation:

Scheidt justifies his judgment with the argument that Mühlmann had distanced himself from a solid, scholarly mode of work, and thus might, with his teaching and research, lead parts of the academic youth down paths leading away from the National Socialist state.¹⁰⁶

The Nazi system's incentivization of political denunciation as a means to academic and professional prestige – sometimes especially among individuals who were apparently strongly committed to the success of the party – was already well developed by this time.

Remarkably, as the Nazis consolidated their power in Germany in early 1933, Horkheimer's behavior remained a point of reference between Thurnwald and Mühlmann, and they associated what they perceived to be Horkheimer's scholarly opportunism with the Nazis' political behavior. On 2 April 1933, Thurnwald wrote to Mühlmann and included some lengthy political rumination on his ambivalence about the rise of the Nazis. "I always fear German 'enthusiasm,'" he wrote, indicating disdain for the events of 1914, 1918/1919, and 1933. And about Horkheimer, he asked snidely: "How is our marxistic competition digesting the new regime? Have the people become Nazis?"¹⁰⁷ With this reiteration of Thurnwald's derisory opinion of what he perceived to be Horkheimer's opportunistic stance, the controversy dissipated into the clouds of political uncertainty that had overtaken Europe.

¹⁰⁶ Michel 77. "Sein Urteil begründet Scheidt damit, daß sich Mühlmann von solider wissenschaftlicher Arbeitsweise entfernt habe und nun mit seiner Lehre und Forschung Teile der akademischen Jugend auf vom nationalsozialistischen Staat abführende Wege leiten könnte."

¹⁰⁷ Thurnwald to Mühlmann, 2 April 1933, 2, 4. "Ich fürchte immer die deutsche 'Begeisterung'. [...] Wie bekommt unserer marxistischen [sic] Konkurrenz das neue Regime? Sind die Leute Nazis geworden?"

Despite Thurnwald's distinctly negative opinion in early 1933, Horkheimer appears to have retained his positive regard for Thurnwald's work and career, though perhaps with some irony about Thurnwald's generally conservative political views. Upon Thurnwald's death in 1954, Horkheimer wrote a traditional letter of condolence to his widow, Hilde Thurnwald. His condolences were expressed in a tone appropriate to Thurnwald's political reputation, with doubtlessly conscious military metaphor: "With Dr. Richard Thurnwald a human being has again departed who dedicated his life to scholarship and fought in an advance position. I will honor his memory."¹⁰⁸ Hilde took over the editorship of the revived *Sociologus* after her husband's death, and corresponded a few times with Horkheimer about editorial questions like choosing qualified book reviewers.

Mühlmann also reestablished a working relationship with Horkheimer after the war. He twice turned to Horkheimer in the 1950s and 1960s for support during controversies. The first of these controversies is revealing: in it, Mühlmann resigned from the editorial board of *Homo*, the journal of the German Society for Anthropology (*Deutsche Gesellschaft für Anthropologie*). He had sought to publish a review of a book by the formerly Nazi-affiliated race theorist Hans F. K. Günther entitled *Gattenwahl zu ehelichem Glück und erblicher Ertüchtigung (Spousal Choice for Marital Happiness and Hereditary Strengthening*; Munich: J. F. Lehmanns Verlag, 1951), which was a new edition of a book originally published in 1940. In his review Mühlmann sought to draw attention cryptically to what he claimed were the "depredations" that "these ideas called

¹⁰⁸ Horkheimer to Hilde Thurnwald, 26 January 1954, Horkheimer-Pollock Archiv, Frankfurt am Main [III, 13, 62]. "Mit Dr. Richard Thurnwald ist wieder ein Mensch dahingegangen, der sein Leben der Wissenschaft verschrieben hatte und auf Außenposten kämpfte. Ich werde sein Andenken in Ehren halten."

forth in Germany only a few years ago.”¹⁰⁹ The editor-in-chief of *Homo*, the anthropologist Egon von Eickstedt, twice asked him to moderate this allusion, and Mühlmann resisted. Given that neither Günther nor Mühlmann had been punished, imprisoned, or banned from academic work for their Nazi affiliations, and that both had rapidly and successfully reestablished their careers in West Germany after the war, this episode represents Mühlmann’s desire to distance himself from his own complicity in Nazi policies and crimes. Ute Michel emphasizes how Mühlmann’s sought consistently after the war to highlight his own lack of responsibility in her detailed critical resume of his career.¹¹⁰ That Mühlmann had even testified as a witness for the defense in Günther’s denazification trial in 1947 redoubles the evidence for this self-exculpatory motivation.¹¹¹ There is no evidence that Horkheimer responded to Mühlmann’s 1952 letter. Nonetheless, there is also no evidence that Horkheimer himself doubted or questioned Mühlmann’s scholarly motivations, for in a further controversy from 1960 about the doctoral curriculum in *Soziologie* at Heidelberg, Horkheimer lent personal support to Mühlmann’s insistence that history not be deemphasized as a required companion discipline.¹¹² After this, however, there is no evidence of scholarly contact between them.

Conclusion: Biology as Boundary Condition

¹⁰⁹ Mühlmann to “die Mitherausgeber von HOMO sowie einige andere anthropologische Fachkollegen,” 20 August 1952, Horkheimer-Pollock Archiv, Frankfurt am Main [III, 10, 303]. “Verheerungen...diese Ideen noch vor wenigen Jahren in Deutschland hervorgerufen haben.”

¹¹⁰ Michel, “Mühlmann,” 100-102. She calls him “scholar without responsibility (*Wissenschaftler ohne Verantwortung*).”

¹¹¹ Michel, “Mühlmann,” 101.

¹¹² Horkheimer to Mühlmann, 17 July 1960, Horkheimer-Pollock Archiv, Frankfurt am Main [III, 27, 23-24].

As Horkheimer developed the principles of Critical Theory in the mid-1930s, the stakes of these questions and disciplinary boundary zones did not dissipate. The most important place where biology arises in his widely disseminated essays from this period is found in the 1937 essay “Traditional and Critical Theory (*Traditionelle und kritische Theorie*).”¹¹³ In it Horkheimer outlines the principles of a kind of inquiry that, growing out of the ‘interdisciplinary materialism’ of the early 1930s, might avoid the tendency for theoretical work on social relations to become captured and made unproductive by its own vested interests in disciplinary and institutional power. After Horkheimer has sketched the character of critical theory as inquiry that embeds an understanding of its own social position and disciplinary power into its methods, he addresses potential arguments against the uniqueness of his proposed mode of critical thought. It is specifically biology, the science that straddles the physico-chemical and the social-behavioral, for which critical theory might be most easily mistaken:

The necessity that dominates society could in this sense be seen as biological, and the special character of critical theory could thus be doubted, because in biology, as in other natural sciences, individual processes are theoretically construed in a similar way as happens in the critical theory of society, according to the explanation above.¹¹⁴

¹¹³ Two of Horkheimer’s essays from 1935 and 1936 on “philosophical anthropology” address his developing views of biology as well: “Bemerkungen zur philosophischen Anthropologie,” *ZfS* 4 (1935), and “Egoismus und Freiheitsbewegung (Zur Anthropologie des bürgerlichen Zeitalters),” *ZfS* 5 (1936). See: Pierson, *Leaving Marxism*, 101-2.

¹¹⁴ Max Horkheimer, “Traditionelle und kritische Theorie,” *Traditionelle und kritische Theorie: Vier Aufsätze* (Frankfurt: Fischer Taschenbuch Verlag, 1970) 45. Originally in *ZfS* 6 (1937). “Die Notwendigkeit, von der die Gesellschaft beherrscht wird, könnte in diesem Sinn als biologisch angesehen und der besondere Charakter der kritischen Theorie deshalb bezweifelt werden, weil in der Biologie wie auch in anderen Naturwissenschaften in ähnlicher Weise einzelne Verläufe theoretisch konstruiert werden, wie es nach dem oben Dargelegten in der kritischen Theorie der Gesellschaft geschieht.”

Horkheimer's earlier reflections on purposiveness in Kantian philosophy resonate here. He believes that theoretical work always requires arguments about cause and necessity in the relationships between phenomena, and that the biological approach to the living organism thus has many parallels to a potential critical theory of society.

Horkheimer must then also address a commonplace analogy in biological thought and argument: the claim that society is a kind of organism, and (indirectly) that inquiry into social phenomena can best be reduced to inquiry into living things. He dismisses such arguments with a reminder that the parts of an organism, unlike the members of society, are not mediated through reason. Here his youthful Gestalt-holist arguments about emergent phenomena themselves return:

Reason cannot become transparent to itself as long as human beings act as the limbs of an organism without reason. As a naturally growing and dissipating unity, the organism is not a sort of model for society, but rather a hollow form of being from which it must emancipate itself.¹¹⁵

Those who pursue critical theory must therefore be aware of slippage between it and biological modes of thought, in order to avoid any appearance that critical theory is simply biology by another name.

Horkheimer's work in the early critical theory period thus interrogates biology through the broader stakes of the rereading of materialism. Critical theory had to be interested in biology because the concept of biology itself demonstrated that the intractable problems of disciplinary distinction in the life sciences functioned in parallel

¹¹⁵ Horkheimer, "Traditionelle und kritische Theorie," 28-29. „Die Vernunft kann sich selbst nicht durchsichtig werden, solange die Menschen als Glieder eines vernunftlosen Organismus handeln. Der Organismus als natürlich wachsende und vergehende Einheit ist für die Gesellschaft nicht etwa ein Vorbild, sondern eine dumpfe Seinsform, aus der sie sich zu emanzipieren hat.”

with claims to total theoretical explanation – including the explanation of social phenomena. Life scientists participated in biology as a narrative of complete knowledge of living things and their environments, and because those environments could be read socially, social scientists also participated similarly. Biology allowed scholars of the living, the human, and the social to make both narrowly focused investigational claims and claims about human affairs that breached the categories of the political and ideological. Direct sub-disciplinary associations and investigational techniques tended to insulate life scientists from criticism that their claims were too broad. Social scientists rarely had that luxury, yet they could not easily differentiate themselves from the sphere of biology. Biology thus necessarily formed a primary boundary around the interests of Horkheimer and his *Institut* colleagues, and their encounters with that boundary brought them into contact and conflict with scholars like Thurnwald and Mühlmann who were pursuing similar goals mapped onto other disciplinary and conceptual categories. Biology seemed to describe the limits of all of the fields of research into social phenomena that these scholars were working to establish, including *Sozialforschung*, *Soziologie*, and *Völkersonziologie*, and they themselves came to understand and to represent it as the spark of their disagreements. The National Socialist appropriation of socially oriented biological argument further raised the stakes of their conflicts because it threw all personal political interests and investments into high relief. Seventy years later the troubled encounter between biology and social research remains an ever-present source of rancor.