

Competing Knowledges – Wissen im Widerstreit

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Competing Knowledges – Wissen im Widerstreit

Edited by
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Grußwort

Angesichts einer medialen Informationsflut und fast täglicher „Fake News“ werden Erkenntnisse und Fakten der Wissenschaft oder gar die Wissenschaft selbst von manchen gesellschaftlichen Gruppen immer häufiger infrage gestellt. Worauf fußen Diskurs und Entscheidungen in der Gesellschaft? Wie werden wir durch die Art der Vermittlung von Nachrichten in der Wahrnehmung von Informationen beeinflusst? Globalisierung und Mediatisierung der Alltagswelt, Forderungen der Politik und der Zivilgesellschaft nach einer partizipativen und gesellschaftlich verantwortlichen Wissenschaft sowie die Hinterfragung des Universalanspruchs von eurozentrisch-auflärerischen Definitionen von „Wahrheit“ und „Wissen“ verlangen die kritische Auseinandersetzung mit dem herkömmlichen Selbstverständnis von dem, was als Wissen(schaft) gelten soll. Bei einem Blick über nationale und kulturelle Grenzen hinweg zeigt sich sehr schnell, dass jegliche Wissensbestände durch regionale Traditionen geprägt, in politische und ökonomische Machtverhältnisse eingebunden, häufig durch Bildungsinstitutionen vermittelt und ein wichtiger Aspekt nationaler, kultureller und individueller Identität sind.

Mit Blick auf die Gegenwart unserer Gesellschaft trifft die berechtigte Forderung, über wissenschaftliche Entwicklungen umfassend und solide informiert zu werden, auf sogenanntes ‚Expertenwissen‘, das in der Regel inhaltlich und sprachlich erst einmal an das Alltagsverständnis anschließbar gemacht werden muss. Die Akademie der Wissenschaften in Hamburg und ihre Mitglieder haben es sich zur Aufgabe gemacht, diesen Transfer zu leisten und in öffentlichen Veranstaltungen wissenschaftliche ‚Fakten‘ kritisch zu debattieren. Die fachspezifischen Fokussierungen sowie die Theorieabhängigkeit der jeweiligen Wissenschaftssprache und die historische Kontextgebundenheit werden dabei im interdisziplinären Rahmen analysiert und diskutiert. Die Akademie versteht sich als ein Forum für den Transfer in die interessierte Bevölkerung und die Diskussion wissenschaftlicher Erkenntnisse mit der Gesellschaft. Sie eröffnet Denkräume jenseits der Zwänge des akademischen Forschungsalltags, der zunehmend auf Wettbewerb und Konkurrenz angelegt und von politisch gesetzten Rahmenbedingungen geprägt ist. Das Gespräch über Disziplinengrenzen hinweg deckt unreflektierte Vorannahmen und Wertesetzungen auf und ermöglicht, neue Sichtweisen auf wissenschaftliche und gesellschaftlich relevante Probleme zu entwickeln.

Eine interdisziplinäre Akademie-Arbeitsgruppe widmete sich seit 2014 dem Thema „Gesellschaftliche Legitimierung von Wissensbeständen – Vergleichende Perspektiven“ mit dem Ziel, exemplarische Analysen von historischen und kulturellen Bedingungen für Legitimierungsstrategien und Hierarchisierungen spezifischer Wissensbestände zu erarbeiten und eurozentrische Wissensdefinitionen aufzubrechen. Als Ergänzung fand im Oktober 2017 die Konferenz *Competing Knowledges on a Global Scale* mit internationalen Gästen im Hamburger Warburg-Haus statt. Dort wurde die

Produktion, Legitimierung und Entwertung von Wissensbeständen in verschiedenen Disziplinen, Kulturen und Nationen kritisch reflektiert und die wechselseitige Abhängigkeit dominanten und marginalisierten Wissens sowie die Problematik vorschneller intra- und interkultureller Analogiekonstruktionen analysiert. Die meisten Referate dieser Konferenz sind in dem vorliegenden Band wiedergegeben, gemeinsam mit den Vorträgen der Akademievorlesungsreihe *Wissen im Widerstreit* aus dem Wintersemester 2018/19, die ebenfalls von dieser Arbeitsgruppe organisiert wurde. Die Beiträge aus unterschiedlichen Disziplinen analysieren und illustrieren, wie diverse Wissensformationen – wie Natur- und Technik- sowie Geisteswissenschaften, Alltagswissen, religiöses, spirituelles, mythologisches und esoterisches Wissen –, in einer Gesellschaft zirkulieren, miteinander in Widerstreit geraten und interessengeleitet gegeneinander ausgespielt werden können.

Im Namen der Akademie der Wissenschaften in Hamburg danke ich allen Beteiligten für ihre anregenden Vorträge, ihre engagierten Diskussionsbeiträge, die freundliche sowie offene Gesprächsatmosphäre und nicht zuletzt für ihre Bereitschaft, die mündlichen Referate in überarbeiteter Form für den vorliegenden Band bereitzustellen. Vor allem danke ich Frau Prof. Dr. Anna Margaretha Horatschek, Sprecherin der Arbeitsgruppe „Gesellschaftliche Legitimierung von Wissensbeständen – Vergleichende Perspektiven“, Vizepräsidentin der Akademie der Wissenschaften in Hamburg und Herausgeberin dieses Buches, für ihr großes Engagement. Danken möchte ich auch Herrn Dr. Florian Henri Besthorn sowie Frederike Köpke für die redaktionelle und organisatorische Betreuung des Projektes. Dem Verlag sei, hier namentlich Dr. Julia Brauch, einmal mehr für die konstruktive Zusammenarbeit und Unterstützung gedankt.

Hamburg, im Juli 2019

Prof. Dr.-Ing. habil. Prof. E.h. Edwin J. Kreuzer
Präsident der Akademie der Wissenschaften in Hamburg

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I also want to thank the Academy of the Sciences and Humanities in Hamburg for their organisational support of our working group meetings, and for their generous funding of the 2017 international conference *Competing Knowledges on a Global Scale* and the 2018/19 Academy Lecture Series *Wissen im Widerstreit*. My special thanks go to the staff of the Academy office, who with efficiency and unshakeable friendliness managed all small and big catastrophes on the shortest notice.

I am very grateful to the contributors of this volume for their cooperation and patience in transforming their oral presentations of the conference and the lecture series mentioned above into a written form, in several instances adding substantial new material to back up their theses. Seeing so many cutting-edge analyses of our topic from different disciplinary angles gathered between two book covers leaves no doubt that it was worth the effort.

Finally, two more persons have to be mentioned by name. These are Dr. Florian Besthorn and Frederike Köpke, M.A. Their quiet dependability in completing their tasks, their competence, their flexibility and their patient kindness were a secure anchor in turbulent times.

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Anna M. Horatschek

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Anna Margaretha Horatschek

From Knowledge to Knowledges: An Introduction

Abstract: This Introduction outlines changing concepts of knowledge from the Platonic ‘justified true belief’ to central theses of present-day Knowledge Research, which emphasise the embeddedness of knowledge production in historical, cultural, political, economic, and medial power constellations. Thus, the entanglement of knowledge and power under colonial conditions manifests its legacy in the current deprecation of non-Western knowledge traditions, as critics from India and other postcolonial nations have pointed out. In contradistinction to such hierarchisations of knowledge forms, contemporary Knowledge Research in the West conceptualises knowledge cultures, where propositional and non-propositional knowledge forms – like aesthetic perceptions – under specific conditions are recognised as different, yet equally valid and limited ways of being in and appropriations of the world. As this anthology brings together English and German contributions, the introduction finally offers comprehensive summaries of the individual essays in order to facilitate a panoramic overview of the analyses and central theses gathered in this book for all readers.

Zusammenfassung: Die Einleitung skizziert unterschiedliche Wissenskonzepte von der platonischen ‚gerechtfertigten wahren Überzeugung‘ bis zu zentralen Thesen der gegenwärtigen Wissensforschung, welche die Eingebundenheit jeder Wissensproduktion in historische, kulturelle, politische, ökonomische und mediale Machtkonstellationen betonen. So schlägt sich die Verflochtenheit von Wissen und Macht im Kolonialismus heute in der generellen Geringschätzung nicht-westlicher Wissenstraditionen nieder, wie kritische Stimmen aus Indien und anderen postkolonialen Nationen hervorheben. In Absetzung von solchen Hierarchisierungen von Wissensformen konzeptualisiert die westliche Wissensforschung Wissenskulturen, in denen propositionale und nicht-propositionale Wissensformate – wie zum Beispiel ästhetische Erkenntnisse – als unterschiedliche, jedoch gleichermaßen wertvolle und begrenzte Möglichkeiten des In-der-Welt-Seins und der Aneignung von Welt anerkannt sind. Da diese Anthologie englische und deutsche Aufsätze zusammenbringt, schließt die Einleitung mit ausführlichen Zusammenfassungen der Einzelbeiträge, um allen Leserinnen und Lesern einen Überblick über die hier versammelten Studien und Thesen zu ermöglichen.

1 No Knowledge in Knowledge Societies?

According to Hans N. Weiler, “[t]he more recent debate on the impact of globalization on development and under-development in the world deals prominently with the role of knowledge and research both in sustaining a new globalized order, and in subverting it” (Weiler 2009: 6). On the one hand, the achievements in the wake of scientific discoveries as well as the dissemination of knowledge through educational institutions have brought improvements of health and living conditions for large parts of the world’s population, while on the other hand, knowledge has become a contested commodity, considered of paramount importance for the development and well-being of individuals and countries, and therefore framed and steered by political and economic interests.

Leaving this bird’s eye perspective, one sees individual lives increasingly regulated and organised by an aggressively market-oriented self-improvement industry, which bombards their consumers with supposedly scientifically approved advice, ranging from physical and psychological health to parenting and ethical lifestyles. Additionally, the internet allows access to medical, religious and philosophical knowledge traditions of non-Western cultures, which some recipients embrace as exotic(ist) remedy for occidental deficiencies, while others consider them as pre-enlightened guess work or mere superstition. Observing this state of affairs, the UNESCO World Report on Knowledge *Towards Knowledge Societies* states: “As for knowledge societies, while there is general agreement on the appropriateness of the expression, the same cannot be said of the content. Which types of knowledge are we talking about?” (2005: 5)

With the advent of ‘fake news’, ‘alternative facts’, and the difficulties of authenticating statements in the so-called social media, the problem to identify reliable knowledge in a host of competing knowledge formations has gained urgent relevance in interpersonal, intercultural and global contexts. But not even the academic sciences can supply clear-cut answers as to what counts as true knowledge: Historians of science, science sociologists, and philosophers of science – often inspired by the seminal work of Bruno Latour (see Latour 1979) – from their various perspectives uphold that definitions of truth are relative, because they are framed by historically and culturally specific concepts of authority, methodology, the state of technologies and medial representation. Yet, despite this relativisation of validity claims on all fronts, politicians increasingly have to rely on scientific knowledge as a basis for far reaching decisions: Challenges like climate change, alternative energies, genetics, epi- and pandemics, as well as the deposition of radioactive waste demand political interventions, which are legitimised by knowledges produced by expert communities and under circumstances mostly far removed from the sphere of politics as well as from the specific sites of intervention, as the essays of Rudolf Stichweh and Konrad Ott in this volume explicate.

Taking this state of affairs as their starting point, in 2014 the working group “Social Legitimation of Knowledge Formations – Comparative Perspectives” (Gesell-

schaftliche Legitimierung von Wissensbeständen – Vergleichende Perspektiven) was established at the Academy of the Sciences and Humanities in Hamburg in order to “address [...] the questions of how, by whom, and with which legitimation knowledge is produced, disseminated, and regulated” (Lenzen 2011: 2; my translation). The interdisciplinary group comprising ten academic disciplines conducted comparative analyses of various knowledge formations, diachronically between different historical periods as well as synchronically between different disciplines in Western societies, and between different cultures on a global scale. Two central premises framed the respective studies: 1) The manifest hierarchy of values accorded to the knowledge of the natural sciences and the humanities in Western societies, between propositional and non-propositional statements, and between Western and non-Western knowledge paradigms are not intrinsically given, but result from powerful constellations of dominant discourses, political and economic interests, technologies and media on an institutional, national and global scale. 2) The value attributed to specific knowledge formations is largely dependent on the legitimatory strategies to justify their claims to truth and validity. These assumptions also informed the international conference *Competing Knowledges on a Global Scale* in 2017 as well as the Academy Lecture Series *Wissen im Widerstreit* in 2018/19, from which this volume emerged. For this reason, the introduction will at first expound the two suppositions – namely the linkage of knowledge and power, and the significance of historically specific legitimatory strategies –, before presenting central theses of the ongoing Knowledge Research that form the theoretical background for most of the contributions in this volume. Finally, the individual essays will be summarised comprehensively.

1.1 Knowledge and Power

The entanglement of knowledge and power has most influentially been elaborated by Michel Foucault. In his view, knowledge is simultaneously the instrument and the result of the social competition for power. Already in his first lecture course at the Collège de France he comments on Aristotle’s assertion that “[a]ll men by nature (*phusei*) desire to know” (Aristotle qtd. in Foucault 2013: 5), and he voices his hypothesis that “we can articulate this will to know, which has taken the form of a will to truth, not on a subject or on an anonymous force, but on real systems of domination”, because “truth is not given in advance; it is produced as an event” (ibid: 4, 198). In “Truth and Power” he expounds:

[T]ruth isn’t outside power, or lacking in power: [...] Truth is produced only by virtue of multiple forms of constraint. [...] Each society has its régime of truth [...]: the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true. (Foucault 1980: 131)

The specific ways in which knowledge is connected to issues of power are diverse and often subtle. Thus, knowledge can function as a political instrument, for example when claims to absolute truth are instrumentalised in order to subdue social groups and entire cultures by installing supremacy over specific “kinds of knowledge such as know-how, indigenous knowledge, local knowledge, oral traditions, daily knowledge and so on” (UNESCO 2005: 148). The most blatant examples for this strategy can be found under colonialism, fired by the Eurocentric notion that “all knowledge worth knowing ... [sic] was created in Europe” and that before their colonisation non-European Indigenes had been “sitting on [their] thumbs waiting for enlightenment (Episkenew)” (Lutz 2018: 66). Comaroff and Comaroff explicate:

Euro-American social theory [...] has tended to treat modernity as though it were inseparable from *Aufklärung*, the rise of Enlightenment reason. [...] together they are assumed to have animated a distinctively European mission to emancipate humankind from its uncivil prehistory, [...] from the thrall of miracle and wonder, enchantment and entropy. (Comaroff/Comaroff 2016: 2)

Enforced by the allegiance of Western notions of knowledge with the ideas of ‘civilisation’ and ‘progress’, normative concepts concerning the production and definition of knowledge have been imposed on non-Western knowledge traditions, either forcibly under colonial conditions, or by instruments of institutional and economic coercion in more recent times. This international division of intellectual labour, “in which the setting of theoretical agendas and methodological standards are the prerogative of [...] societies and institutions [...] located in the economically privileged regions of the world” (Nandy 1983: 116; see also Ahmad 1992), has been criticised from various quarters. Referring to knowledge produced in Western universities, Weiler observes that “[t]he transnational division of labor between center and periphery functions in both realms: the international knowledge order is as much dominated by the knowledge institutions and traditions of the West as the international development order is dominated by the powerful center of donor and investor agencies” (Weiler 2009: 8). Even Western knowledge formations like Postcolonial Studies for various Indian critics have done violence to cultural traditions that for centuries had given meaning to Indian peoples (see Prakesh 1999; Spivak 1988; Chatterjee 1986; Nandy 1983). Concepts of self-description and analysis like ‘postcoloniality’, ‘subalternity’, ‘indigeneity’, ‘religion’, ‘philosophy’, and even the concept of the ‘concept’ have come under scrutiny as they converge in the devaluation of non-Western knowledge paradigms as mythical, religious, or spiritual in character, and thereby affirm the Western “claim to superior, objective, and universal knowledge” (Nanda 2003: 153; see also Devy et al. 2014; Chakrabarty 2000). As Žižek (2009) points out, the universal validity claims of Western thinking are not restricted to these norms and values, but include the individuals themselves: “[I]ndividuals relate to themselves as ‘universal’, they participate in the universal dimension directly, by-passing their particular social position.” In this context, historiography as a central Western strategy of (selectively) ordering the

past (see Abeysekara 2013: 506) has received particular attention because of its conceptual allegiance with the equally problematic semantic fields of ‘development’ and ‘modernity’ (see Chakrabarty 2000; Lal 2003). Weiler expounds:

Institutionalized efforts at development, whether they originate at the national or international levels, have established their own hierarchies of knowledge where certain kinds of knowledge claim higher standing and greater influence over other kinds. Knowledge about development that is validated internationally, preferably through publications in North American or European journals, commands a higher status than work published in the developing regions of the world, often regardless of how relevant [...] it may be to [...] those regions. Similarly, higher status is conferred upon work that conforms to the evidentiary and analytical standards of Western [...] sciences. (Weiler 2009: 7)

These hierarchies are implemented by “power differentials [which] fundamentally determine how knowledge is perceived, whose knowledge matters, and the ensuing effectiveness of policies on which it is based” (Weiler 2009: 7). The ‘Digital Revolution’ is one such power differential, which spreads a “narrative [...] that charts the [...] superiority of Western science throughout the world” (Ratté 2012: 17) and defines knowledge societies with reference to norms of Western knowledge production. In this situation, the UNESCO World Report on Knowledge rhetorically asks: “Do we have to endorse the hegemony of the techno-scientific model in defining legitimate and productive knowledge?” (2005: 5)

To redress the overwriting of the “diversity of cognitive cultures” (UNESCO 2005: 148) by Western knowledge paradigms, writers, critics and activists in former colonies like First Nation writer Jo-Ann Episkew (2009) in Canada, Dipesh Chakrabarty (2000), Ashis Nandy (1983, 2000) and Vinay Lal (Lal/Nandy 2005) in India, Frantz Fanon (1980 [1952]) and Ngũgĩ wa Thiong’o (1986) in Africa, and movements like the Australian Aboriginal Progressive Association (AAPA) – to name a few –, see it as imperative to ‘decolonise the minds’ (Ngũgĩ wa Thiong’o), to ‘de-educate’ (Episkew) and thus to end the ‘cultural amnesia’ (see Devy 1992) imposed by Western colonisation and epistemological hegemony. More specifically, Ashis Nandy suggests that universities “begin to act as sources of scepticism toward the victorious systems of knowledge, and as the means of recovering and transmitting knowledge that has been cornered, marginalized or even defeated” (1983: 118). From this perspective, a universal condition for a knowledge formation to be counted as ‘valid knowledge’ lies in its authority to organise the communal co-existence of humans and their natural environment. In this respect, for “retaining a valid concept of the universal [one has to] incorporat[e] non-European, anti-imperialist and socialist histories” (Mukherjee 2011: 180).

However, Ganesh Devy in his contribution to this volume illustrates with reference to India that such ‘knowledge wars’ are not restricted to combats between East and West or North and South – depending on perspective –, but that intra-national political issues of classes, castes and tribes are also delivered in fiercely evaluative

discourses, in which culturally specific knowledge traditions like Sanskrit as well as Western paradigms are pitted against indigenous archives and practices of knowledge – and vice versa.

The essays in Part I of this volume – “Competing Knowledges on a Global Scale” – analyse the conflict between competing knowledge formations in colonial and post-colonial power constellations in India, in seventeenth century Brazil, and in a confrontation of Western with First Nations knowledge in present day North America. However, the entanglement of knowledge and power is just as intricate, though often more subtle than in postcolonial constellations, if we restrict our view to the competition of various disciplines in Western academia for public recognition.

1.2 Legitimising Knowledge – Disciplining Knowledge

In recent years, discussions in the Sociology of Knowledge have focussed on the aspect of legitimisation in procedures of knowledge production (see Schützeichel 2007: “Soziale Epistemologie”, 291). The efforts to justify the validity claims of specific knowledge formations are motivated to a large extent intrinsically by the search for – their respective – truth, but they are also compelled by the necessity to receive public acknowledgement in order to acquire political and social bearing and – possibly – access to funding and institutional forms of dissemination like patrons, courts, schools and universities. The strategies of legitimising knowledge vary widely in different historical, cultural and disciplinary contexts. Possible legitimacy reference points are individual experience, institutionalised authorities, cultural traditions, pragmatic considerations, detailed norms of scientificity, historically specific concepts of truth, ethical considerations, or – as the essay of Sabine Maasen in this volume illustrates – the present-day keywords ‘innovation’, ‘social relevance’, and ‘excellence’.

With view to Western sciences, the historicisation of knowledge paradigms exposes that ultimately the differentiation of disciplines is intricately bound up with their distinct legitimacy strategies, that is with the construction of ‘truth’ and ‘authority’ in their specific realms of knowledge (see Rößler 2012; Daston/Gallison 2007; Daston 1991; Shapin 1994). These negotiations about the normative conditions of what counts as knowledge generate historically and culturally diverse hierarchies of knowledges associated with their relevance, cultural authority, reputation and reliability, and thus demarcate continually shifting and fuzzy boundaries between what is acknowledged as legitimate and what is illegitimate knowledge (see Bourdieu 1989). The fuzziness stems from the fact that the distinctions are implemented by normative definitions of the ‘knowledge horizon’ (*Erkenntnishorizont*), which marks a border to non-knowledge or the unthinkable, and classifies what counts as knowledge proper and what can be known under which conditions. In this way, the ‘horizon’ ultimately disciplines the legitimacy procedures in the respective knowledge formation, and

thus discursively installs the conditions for the possibility of knowledge (see Adler 2013: 26). In Foucault's classic definition,

a discipline is not the sum of all that can be truthfully said about something; it is not even the set of all that can be accepted about the same data in virtue of some principle of coherence and systematicity. [...] Within its own limits, each discipline recognises true and false propositions, but it pushes back a whole teratology of knowledge beyond its margins. The exterior of a science is both more and less populated than is often believed: [...] perhaps [in the exterior] there are no errors in the strict sense, for error can only arise and be decided inside a definite practice; on the other hand, there are monsters on the prowl whose form changes with the history of knowledge. (Foucault 1981: 59–60)

Similarly, Grenfell and James (2004: 510) with regard to the 'Bourdiesian field' of educational research expound: "Any *field* is also 'bounded', and there is that which is included in it and that which is excluded. [...] [I]t is constituted by all that is methodologically possible within it; in other words, its topography amounts to the range of research activity and the principles that guide it."

In Europe, legitimising self-descriptions of specific knowledge formations abound already in the Early Modern Period, when religious dogmas were challenged by the 'New Sciences', the precursors of the natural sciences (see Nate 2009). Ironically, their explicit claims to rationality and empirical observation as legitimacy reference points quite often were at odds with the rhetorical means to justify their methodology: Thus Roger Bacon, a founding father of the 'New Sciences', in his *Instauratio Magna* (1620) defended the new knowledge paradigm with extensive references to the Bible and Greek mythology (see Nate 2009: 151–170; Nate 2018: 45–63, esp. 46–49).

Historically, the central legitimacy strategy consisted in proving the truth – or validity – of one's statements. However, Hans Blumenberg (1993: 32) traces significant changes regarding concepts of truth from Plato's alignment of truthful knowledge with "Being as the *self-representation* of beings [perceived by] the inactive, calm contemplation of *theōria*", to the legitimation of validity claims by reference to their methodological place in a normative knowledge system like empiricism. Additionally, already in the Early Modern Period, when the latter strategy was established by the 'New Sciences', 'proving' something was a contested practice that bred fierce conflicts about degrees of trust, the boundaries between scholarly disciplines and the purview of official institutions (see Nate 2009: esp. 11–44, 65–170). Considering this historical and conceptual 'unreliability of concepts of reliability' (see Hörisch 2007: 10), attempts to ascertain 'true knowledge' against 'fake news' today cannot revert to the suggestion of some innate truth of scientific or any other kind of knowledge, but have to analyse, differentiate and expose the genesis – and validity – of legitimacy practices in different knowledge formations instead.

Part II of this volume – "Disciplinary Negotiations" – illustrates cases of current disciplinary differentiations by specific strategies of legitimation in various academic

fields, and shows the limits – and the necessity – of such disciplinary boundary work in present-day knowledge societies.

2 What is Knowledge Research?

Knowledge Research responds to the growing scientification of contemporary knowledge societies and the resulting dissolution of former – supposedly clear – differentiations between different kinds of knowledge formations like scientific and everyday knowledge. In consequence, “[t]he aim of systematic and reflective knowledge research is to elucidate the peculiar profiles of knowledge forms as well as their interplay” (Abel 2012: 3), as Abel states in the two volume anthology *Rethinking Epistemology* (2011/12). The interplay of various knowledge forms is understood as an irreducible plurality that exceeds normative ideas of mutual exclusion or hierarchisation. With this premise, Knowledge Research focuses on interdisciplinary, interphilosophical and intersocietal problems beyond disciplinary limitations in order to develop pragmatic heuristics that are “capable of contributing to our orientation in everyday life, in the sciences, and in the arts. Indeed, helping to orient us in this manner constitutes a great deal of the *humane* significance of systematic and reflective knowledge research.” (ibid.: 12) In contrast, traditional epistemologies neglect the “*social, cultural, and mental* dimension of scientific knowledge” (Sandkühler 2014: 68; my translation)¹ as well as non-scientific modes of knowing and of being in the world (cf. Abel 2012: 13–14). Accordingly, Wolfgang Detel illustrates that the Platonic definition of knowledge as ‘true justified belief’ is too narrow a concept to grasp the complex interrelatedness of modes and methodologies of knowledge formation with epistemological, institutional, political and economic power constellations.

The model of ‘belief’ and ‘justification’ Detel refers to was established in Plato’s *Theaetetus* by the character of Socrates, who points out that “true belief” cannot be considered knowledge unless it is “justified” (Plato 1961: 254–255). However, for centuries each term of this definition, namely ‘justification’, ‘truth’ and ‘belief’, has been contested. Not surprisingly, the debates were mostly conducted by privileged and male members of the respective societies and focussed on knowledge formations entrenched in authoritative social discourses and institutions. This tradition is reflected in present-day Knowledge Research insofar as it seems to concentrate on the knowledge of the natural sciences, thereby even in their critique affirming “the hegemony of the techno-scientific model in defining legitimate and productive knowledge” (UNESO 2005: 5).

¹ “soziale und kultur- bzw. mentalitätsgeschichtliche Dimension wissenschaftlicher Erkenntnis”.

Yet while traditional knowledge definitions focus on propositional and conceptual thought, rationality and systematicity,² Knowledge Research tends to favour constructivist models, incorporates non-binary epistemological attitudes, relativity and plurality, and includes knowledge mediated by non-rational ways of cognition such as emotions and beliefs in their studies: “It is an important aspect of the broad sense of basic, factual knowledge that this concept is deeply, firmly anchored in our everyday language, our life-world, and our ordinary practices.” (Abel 2012: 22) Embracing such a broad concept of knowledge that does not discriminate against non-linguistic, non-propositional and implicit knowledge, systematic Knowledge Research “formulates [...] the ways in which knowledge forms interpenetrate perceptual, conceptual, and enactive processes in speech, thought, and action” (ibid.: 6). Such a systematic Knowledge Research in Abel’s view precedes classical epistemology from a methodological perspective, and transcends the “exclusive dominance of the model of ‘belief’ and ‘justification’” (ibid.: 23) as normative conditions for true knowledge.

The following will at first trace a few historical precursors of Knowledge Research concerning the natural sciences, before turning to some reflections on aesthetic knowledge.

2.1 From the Ingenious Individual to Knowledge Cultures

Till well into the twentieth century, discussions about the production and definition of legitimate knowledge rested on the premise of a ‘Cartesian epistemology’ and assumed that agency in scientific knowledge production rested entirely with the individual scientist’s (decidedly gendered) intellectual potential in command of adequate methodological procedures. Knowledge was “the exclusive domain of tight circles of wise men and the initiated few” (UNESCO 2005: 17), and epistemic dynamics were bound to their intellectual potency.

Only in 1935, the Polish physician Ludwik Fleck with his foundational *Entstehung und Entwicklung einer wissenschaftlichen Tatsache* – which went virtually unnoticed till Kuhn mentioned him nearly thirty years later in *The Structure of Scientific Revolutions* (1962) –, introduced the social dimension of scientific knowledge production, which has become the central focus of any Sociology of Knowledge, Sociology of Science, and Social Epistemology since then.³ Fleck, in his observations on the discovery of syphilis, comes to the conclusion that scientific knowledge production cannot be conceptualised adequately in a model comprising only the subject and the object of investigation without taking the respective state of the art and the concomi-

² For an example, see in this volume Hoyningen-Huene, “The Heart of Science: Systematicity.”

³ Hubert Knoblauch in his essay of this volume holds that in contradistinction to the Sociology of Knowledge, the Philosophy of Science is still based on a Cartesian epistemology. For a contextualising approach to knowledge definitions from a Philosophy of Science view see Brendel/Gähde 2016.

tant ‘thought collectives’ (*Denkkollektive*) into consideration. According to him, each collective maintains a specific thought style (*Denkstil*), which preconditions the perceptions and concepts of the respective members (*Denkzwang*). However, as the individual scientist is part of several such thought collectives, each disciplinary thinking style will be changed by extrinsic influences. This model denies any exclusivist position to the individual researcher as well as to scientific knowledge in comparison to non-scientific thought collectives; indeed, for Fleck the ‘traffic of ideas’ (*Gedankenverkehr*) between various thought collectives is the essential task of the sciences (see Schützeichel 2007: “Soziologie des wissenschaftlichen Wissens”, 308–309). The so-called laboratory studies, explicated most prominently in Bruno Latour’s Actor-Network-Theory, add another narcissistic mortification to the myth of the individual scientific genius by attributing foundational agency to trans-scientific networks of personal, natural, and material phenomena, which are indispensable for the production, dissemination, acknowledgement, and establishment of scientific findings as legitimate knowledge (see Latour 1988 [1984]).

In constructivist and contextualising models of scientific knowledge production following in the wake of Fleck’s conception, changes of epistemic practices and breaks with traditional semantics of ‘knowledge’, ‘rationality’, or ‘truth’ are seen in close connection with historical conditions like the function of rhetorics in the cities of antiquity, legitimatory strategies of scientists within the patronage system, the debates about experimentation versus metaphysical discourse as proper philosophical or scientific methodology in the Early Modern Period (see Detel 2014), and strategies of funding, institutionalising and thereby steering the production and dissemination of knowledge in present-day educational and science policies.

With knowledge as the product not primarily of individual ingenuity, but of social and material conditions, it has to be relocated as a part of cultural and intersubjective processes. The term ‘knowledge cultures’ points towards this interrelation of ‘knowledge’ and ‘culture’: Knowledge cultures shape the generation of knowledge, which, in turn, works towards ‘justification’ or ‘truth’ within the respective cultural and epistemological framework. It is crucial to understand that ‘knowledge cultures’ are not neatly defined areas of human interaction, but highly complex “relationships inside and in between hybrid cultures and forms of knowledge” (Sandkühler 2014: 62; my translation)⁴ that constitute the conditions for difference and dedifferentiation. The plural of ‘knowledge cultures’ implies the dynamics of these processes throughout cultures, while simultaneously rejecting claims to hegemony. In this way, knowledge cultures function not only as conditions for acknowledgement and affirmation, but ultimately as a framework for any kind of access to the world: “Cultures of knowledge are conditions of possibility and limits of cognition, according to the degree of participation in or exclusion from knowledge.” (Sandkühler 2012: 181) More specifically, Wolfgang Detel, taking up the tradition of theorists like Ludwik Fleck,

⁴ “Verhältnisse innerhalb und zwischen hybriden Kulturen und Wissensformen”.

argues for a concept of knowledge cultures as “*cultures [...] consist[ing] of practices, which are based on a few premises and are related to mechanisms of tradition*” (Detel 2014: 73; my translation)⁵, and which acknowledge both propositional and practical knowledge. With this model, each society is a knowledge society, a view which is also endorsed by the UNESCO World Report on Knowledge: “Does the aim of building knowledge societies make any sense when history and anthropology teach us that since ancient times, all societies have probably been, each in its own way, knowledge societies?” (UNESCO 2005: 17) However, characterising Western societies as specific knowledge societies highlights their change from societies of industrial production to societies, where a specific class producing knowledge is growing rapidly, and where – starting in the US after WWII –, the value of formal education as ‘symbolic capital’ (Bourdieu) is rising exponentially in all professions.

Politics, according to Rudolf Stichweh, occupy a very special place in this social and epistemological landscape of knowledge cultures, because political decision-makers – in the absence of any genuine political knowledge culture – have to rely entirely on the import of expert knowledge. The essays in Part III – “Competing Knowledges in Politics” – analyse and illustrate, how politics in Western knowledge societies access the variety of competing knowledge cultures in order to replace the intra-systematically beneficial ‘ignorance at the center of the system’ by the knowledge of expert knowledge cultures, and thus respond flexibly to the challenges of social dynamics.

2.2 New Epistemologies for Scientific Research?

The shift of perspective from ‘truth’ or ‘reality’ as legitimacy yardsticks for scientific knowledge to social and material conditions governing scientific knowledge production necessitates a revision of epistemological tenets. In consequence, Abel (see 2012: 27) argues in favour of a modified epistemology that re-anchors knowledge in the life-world. For him, epistemology should no longer be a meta- or intratheoretical reflection, but incorporate the facticity of the I–We–World triangle, because a “3D-epistemology” would allow for a non-dualistic semiotic and interpretative theory of epistemic objects that does not imply the primacy of one particular knowledge form over another. Such a model would have to include a maximum of the factors at play in the formation of knowledge (see Sandkühler 2014: 70), while still keeping in mind the discrimination that all talk about knowledge necessarily depends upon (see Abel 2012: 31).

Accordingly, in Social Epistemology knowledge becomes a communal phenomenon that is anchored in and that simultaneously creates a collective reality based on

⁵ “dass Kulturen im allgemeinsten Sinne aus *Praktiken* bestehen, die auf einigen *Hintergrundüberzeugungen* beruhen und mit *Mechanismen der Tradierung* verknüpft sind.”

specific ways of thinking (Ludwik Fleck's '*Denkstille*'). Yet such a notion of epistemology has consequences for the authority and the methodologies not only of the sciences, but of academic research in general. In fact, the perspective on subjectivity and relationality resulting from the revised understanding of 'knowledge' in the context of 'knowledge cultures' proves to be highly problematic for conventional scientific practice, since it turns the causality of rational reasoning upside down:

Knowledge cultures form the *possible conditions for the possibility* of cognitive procedures and epistemic results. They form the basis for the perception of situations, for the evaluation of situations as facts, for the selective cognitive grasp of reality, for the acceptance of rules and norms, for the understanding, interpretation, explanation, and description, for the use and non-use of instruments for knowledge acquisition (for example before and after an invention like the telescope and the microscope), and also for systems of observation and experiment. (Sandkühler 2014: 65; my translation)⁶

Seemingly self-evident viewpoints or assumptions are reframed as the result of methodological and theoretical *choices* that are based on an "epistemic profile" (Sandkühler 2012: 175). Thus, knowledge is no longer perceived as the result of solely mental efforts at grasping and representing reality, but as a context-based phenomenon intrinsically linked to social, economic and political conditions as well as to preceding sentences, to emotions and to an entire habitus. As a result, statements appear as 'artefacts' "charged with conditions of cultural knowledge norms and social practices, epistemological and practical needs and interests, as well as propositional attitudes of opinion, belief, conviction, desire and apprehension" (Sandkühler 2014: 63; my translation).⁷ With relationality instead of rationality at the core of scientific knowledge production, Sandkühler proposes "to lay one's cards on the table on behalf of the clarity and truthfulness of reasoning. The arguments for which validity is claimed should be dated and provided with one's own signature – the signature of a choice." (Sandkühler 2012: 175)

⁶ "Wissenskulturen sind *mögliche Bedingungen der Möglichkeit* kognitiver Prozesse und epistemischer Resultate. Sie sind Gründe für die Wahrnehmung von Sachverhalten, für die Bewertung von Sachverhalten als Tatsachen, für den selektiven kognitiven Zugriff auf die Wirklichkeit, für die Akzeptanz von Regeln und Normen, für das Verstehen und Interpretieren, Erklären und Beschreiben, für den Gebrauch oder Nichtgebrauch von Instrumenten des Wissenserwerbs (etwa vor und nach der Erfindung z.B. von Teleskop und Mikroskop) und auch für Beobachtungs- und Experimentalsysteme."

⁷ "[...] geladen mit wissenskulturellen und praktisch-sozialen Voraussetzungen, epistemischen und praktischen Bedürfnissen und Interessen sowie mit propositionalen Einstellungen des Meinens, Glaubens und Überzeugtseins, des Wünschens und Befürchtens."

2.3 Aesthetics

One branch of Knowledge Research asks after the place accorded to experiential phenomena like aesthetic perception as a mode of knowledge production, in contradistinction to the exclusive position rendered to rationality, propositionality and *noesis* in traditional epistemological models. A widespread denigration of humanistic knowledge in general and aesthetic knowledge in particular makes the UNESCO World Report on Knowledge remind its readers: “Useful knowledge is not simply knowledge that can be immediately turned into profit in a knowledge economy – ‘humanist’ and ‘scientific’ knowledge each obey different information-use strategies.” (2005: 19)

The subordination of aesthetic knowledge under logical knowledge has a long history. As late as 1750, the German philosopher Alexander Gottlieb Baumgarten in his *Aesthetica* finally declared aesthetics as the ‘younger sister’ of logic (see Baumgarten 2007 [1750]: Prolegomena § 13) and – according to an ironic remark of Kant – thereby “hoped of bringing the critical estimation of the beautiful under principles of reason, and elevating its rules to a science” (Kant 1998 [1781/1787]: A21/B35; see also McQuillan 2015). Sensual perception (*aisthesis*) had traditionally been considered only as the physiologically limited and therefore faulty basis of conceptual knowledge (*noesis*), and consequently it had to be transcended. Against this conviction Baumgarten aimed to establish aesthetics as a new epistemology in its own right and to place it on a par with logics (see Mirbach 2007: esp. XXVI).

Hans Adler (2013), referring back to Baumgarten, similarly argues against a hierarchisation of *aisthesis* and *noesis* and ascribes unique dimensions of truth to both aesthetic and logical forms of knowledge, bound to their specific – equally valuable and equally limited – ‘horizon’. Thus, as Dieter Mersch in his reflections on aesthetics in *Epistemologien des Ästhetischen* (Mersch 2015) spells out, the aesthetic episteme in contradistinction to the natural sciences does not aim at generalisation, repeatability, or universality, but at re-establishing the significance of the singular (see also Mersch 2013: 8). More generally, Mersch deconstructs the claim that knowledge proper *per definitionem* is bound to propositionality, and that means to linguistic statements and standards of rationality.⁸ Mersch refutes this seemingly clear-cut differentiation between propositionality and non-propositionality by exposing how the non-propositional dimension is continuously excluded from the propositional statement in order to enforce the latter’s claim to ‘truth’. The result, in Adler’s terms, is a fragile idyll with unstable and permeable boundaries, in which the respective knowledge formation acquires only the semblance of stability as “the gnoseological *conditio humana*”

⁸ “In Bezug auf die Wissenschaften erweisen sich folglich Propositionen als die eigentlichen Bedeutungsträger, die deren Wahrheit oder Falschheit als binäres Schema allererst austragen. Als Urteile verfahren sie entweder bejahend/zuschreibend oder verneinend/absprechend, so jedoch, dass sie als ihren Rationalitätsausweis bereits die ganze klassische Logik mit ihren Prinzipien der Identität, des Widerspruchs und des ausgeschlossenen Dritten voraussetzen.” (Mersch 2015: 2)