

Peter Meusburger · Tim Freytag  
Laura Suarsana  
*Editors*

*Klaus Tschira Symposia*

Knowledge and Space 8

# Ethnic and Cultural Dimensions of Knowledge

 Springer

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# **Knowledge and Space**

Volume 8

**Series editor**

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## **Knowledge and Space**

This book series entitled “Knowledge and Space” is dedicated to topics dealing with the production, dissemination, spatial distribution, and application of knowledge. Recent work on the spatial dimension of knowledge, education, and science; learning organizations; and creative milieus has underlined the importance of spatial disparities and local contexts in the creation, legitimation, diffusion, and application of new knowledge. These studies have shown that spatial disparities in knowledge and creativity are not short-term transitional events but rather a fundamental structural element of society and the economy.

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# Ethnic and Cultural Dimensions of Knowledge

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# Chapter 1

## Ethnic and Cultural Dimensions of Knowledge and Education: An Introduction

Peter Meusbürger, Tim Freytag, and Laura Suarsana

### Universally Accepted Knowledge versus Particular Knowledge

It is well known that some forms of knowledge are regarded as true or useful only in particular cultures; by certain ethnic groups<sup>1</sup>; or by people embedded and acting in specific physical, social, and cultural environments, whereas other categories of knowledge are universally accepted. The dichotomy between factual knowledge and orientation knowledge has already been discussed in other volumes of this series (e.g., Meusbürger 2015). As a particular form of situated knowledge, orientation knowledge consists chiefly of belief systems, values, cultural traditions, world-views, ideologies, religions, moral positions, mindsets, action-guiding norms, and reflection about the ethical conduct of one's life (for details see Meusbürger 2015; Mittelstraß 1982, 2001, 2010; Stegmaier 2008; Tanner 1999).

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<sup>1</sup>Culture and ethnicity have much in common, but ethnicity should not be taken as synonym of culture. The concept of ethnicity embraces cultural distinctiveness, deliberate or forced demarcation from other groups, self-denomination, and often social discrimination. The term *culture* is much broader; culture can be practiced unknowingly and without any intention. “[A] cultural group becomes an ethnic group when it decides or is forced, for one reason or another, to live in close contact with a different cultural group, and their differences—not necessarily all of them—are used to mark a social boundary between them” (Melville 1994, p. 87). In many states, “ethnicity” is a personal attribute registered in censuses, whereas culture is not.

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Orientation knowledge lays a basis for making moral valuations; providing actors and societal systems with a moral compass, ideologies, goals, values, a cultural memory, and a collective identity; strengthening the motivation and internal cohesion of societal systems; and offering rituals to their members and meeting their spiritual needs. (Meusburger 2015, p. 27)

Factual knowledge can be regarded as widely shared, canonized knowledge that is generated by experts and taken as true on the basis of the prevailing state of the art in research. It is needed in order to achieve a realistic description and analysis of a given situation, to master the complexity of the “real” world, to cope with new challenges, and to manage risks under uncertainty. Factual knowledge can be subdivided into three types:

1. Indisputable matters (e.g.,  $4 \times 5 = 20$ ; the distance between *A* and *B* is 12,678 miles; the sum of the angles in a triangle equals  $180^\circ$ ). This category of knowledge is the only one that is universal and unimpaired by local or cultural influences.
2. Contestable matters provable as true or false only through lengthy empirical examination or theoretical research (e.g., human impact on climate change, viruses can trigger cancer).<sup>2</sup>
3. Knowledge whose validity and practicability have been tested in specific contexts but which is known, accepted, or utilized only by particular people in certain physical, social, or cultural environments. This category of knowledge goes by several names: *local knowledge*, *place-based knowledge*, *situated knowledge*, *traditional knowledge*, and *indigenous knowledge* (for details see the Chaps. 7 and 8 by Sillitoe and Antweiler in this volume). However, indigenous or traditional knowledge may also contain elements of orientation knowledge.

The dichotomy between so-called universal knowledge and local, place-based, or situated knowledge<sup>3</sup> has two facets. First, it is the result of problem-solving, learning processes, and practices provoked by the challenges, needs, stimuli, or incitements that people experience in a particular environment or context in the sense meant by Grossberg (2010, pp. 20–43). This knowledge-generating process is affected by social, cultural, historical, and physical factors and power relations bound to a certain place, region, or context. It is not necessarily restricted to one place or one region but to a specific physical and cultural context (see the Chap. 9 by Nüsser and Baghel in this volume) and can be replicated in environments with comparable conditions and potentials. Geographers as well as the prominent scholar in science and technology studies, Donna Haraway (1988), and other social constructivists are “arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims.... Situated knowledges are about communities, not about isolated individuals” (pp. 589–590).

<sup>2</sup>Types 1 and 2 are also discussed by Felder (2013, p. 14).

<sup>3</sup>Some authors prefer the dichotomy between modern knowledge and traditional knowledge (see the Chaps. 10 and 12 by Davis and Mgbеoji in this volume).

All new knowledge starts as local knowledge. The diffusion of knowledge depends on the need to know and on the prior knowledge that potential recipients require in order to understand the new information (Douglas 2001; Meusburger 2009). If new knowledge is immediately accepted as useful, beneficial, or true by many people, it may become universally accepted knowledge or an indisputable matter after a certain period of time. If such knowledge is valued only as useful or true by people in particular environments with specific conditions, challenges, and traditions and is rejected by people who must cope with other challenges and need different competencies, it will remain local, situated, site-specific, or place-based<sup>4</sup> knowledge.

The second facet of this dichotomy is asymmetric power relations between center and periphery. Centers of state bureaucracies, centers of large social systems, centers of calculation as meant by Latour (1987), imperialistic states, and dominant ethnic majorities often declare their own epistemic position—their knowledge, competence, technology, and interpretation of the world—to be objective, scientific, modern, progressive, or forward-looking. Simultaneously, they declare the epistemic position of their opponents, peripheries, colonies, or nondominant ethnic minorities to be traditional, outmoded, unscientific, or indigenous. Such dichotomies have found use as a political weapon in many ethnic and ideological conflicts, political and cultural imperialism, colonialism, and suppression in totalitarian states<sup>5</sup> to exclude or marginalize other forms of knowledge. Nationalists, imperialists, and racists in many cases have claimed to possess a superior form of knowledge and a historic mission to bring the knowledge and blessings of their civilization to less developed countries (the “White man’s burden”)<sup>6</sup> or to nondominant minorities within their own state (Ara 1991, p. 276; Eriksen 1991, p. 65; Tomiak 1991, pp. 187–188). The concept of local or indigenous knowledge is therefore not just an analytical construct but a political one as well (see the Chap. 9 by Nüsser and Baghel in this volume).

It would be wrong to apply the concept of local, place-based, or situated knowledge only to traditional (premodern) societies or in the framework of development studies. As disciplines, the geography of science and the history of science provide ample evidence that local knowledge milieus play a notable part in advanced knowledge societies and academia alike (Crang 1998, pp. 182–186). The gaining of expertise is usually understood “as a process of enhancing one’s competence in a target domain by accumulating experience of problem solving, understanding, and task performance in that domain” (Hatano and Oura 2001, pp. 3173–3174). The possibility of achieving knowledge and experience in a certain domain is in many cases restricted to a specific place, geographical setting, or knowledge environment (e.g., a specific

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<sup>4</sup>For definitions and discussion of the terms *place* and *space*, see Harvey (2005), Massey (1999, 2005), and Meusburger (2008).

<sup>5</sup>Examples from the former Soviet bloc are presented by Gyuris (2014) and Györi and Gyuris (2015).

<sup>6</sup>“The White Man’s Burden” is a poem by the English poet Rudyard Kipling (1899). This phrase was later used to justify American imperialism in the Philippines as a noble enterprise.

research institute). Some universities provide a unique knowledge environment, creative milieu, culture of science, and scientific potential; others do not (Livingstone 2003; Meusburger and Schuch 2012). Some faculties have produced a large number of distinguished scholars (including Nobel Prize winners); others have not.

## Interrelations Between Knowledge and Culture

Numerous authors in various disciplines have documented the inseparable link between knowledge and culture, between culture and education, and between power and education (e.g., Ara 1991; Berry 1979; Ciborowski 1979; Crang 1998; Dinges and Duffy 1979; Eriksen 1991; Freytag 2003; Gamerith 1998a, b, 2006; Havránek 1991; Heinemann 1991; Jordan and Tharp 1979; Kuikka 1991; Meusburger 1996, 1998; Miąso 1991; Mitter 1991; Shweder 2001a, b; Strohmayer 2003; Tomiak 1991; Vroede 1991). Political power tries to influence or control the educational system and the way cultural practices are produced (see the Chap. 2 by Meusburger, in this volume). Cultural values and identities shape learning styles, cognitive styles, comprehension, attitudes toward school and education, and the schemata of interpretation and understanding that individuals use to explain the world. Likewise, learning processes can have an impact on cultural traditions, ethnic identities, and processes of acculturation. Because cultural value systems evolve primarily through processes of communication, learning, imitating, appropriation, and adaptation, it is hard to conceive of investigating knowledge or education apart from culture's influence or of studying culture by omitting learning processes in particular institutions and settings. “[E]very form of knowledge is somehow ‘cultural’” (Strohmayer 2003, p. 521). “Knowledge, academic or popular, is about cultural systems of belief and validation—and cultural geography does not escape that” (Crang 1998, p. 185).

It is thus no surprise that many definitions of culture contain terms such as *knowledge*, *learning*, *education*, and *cognitive skills*. British social anthropologist Radcliffe-Brown (1952) defined culture as “the process by which a person acquires, from contact with other persons or from such things as books or works of art, knowledge, skill, ideas, beliefs, tastes, sentiments” (pp. 4–5). “The transmission of learnt ways of thinking, feeling and acting constitutes the cultural process, which is a specific feature of human social life” (p. 5). D’Andrade (1984) specified culture as “learned systems of meanings, communicated by means of natural language and other symbol systems, having representational, directive and affective functions, and capable of creating cultural entities and particular senses of reality” (p. 116). In 1977 the Canadian Commission for UNESCO defined culture as a “dynamic value system of learned elements, with assumptions, conventions, beliefs and rules permitting members of a group to relate to each other and to the world, to communicate and to develop their creative potential” (p. 83). Some anthropologists explicate culture as “patterns of behavior that are learned and passed on from generation to generation” (Shweder 2001a, p. 3106). According to Kögler (1999), culture refers to “the systems of knowledge or sense-making within which the self-understanding

of socially situated subjects is articulated” (p. 221). Hörning (1999) takes culture to mean “social practices grounded in knowledge” (p. 88). Hatano and Takahashi (2001) point out that “humans organize learning opportunities for their young to socialize or enculturate them in particular ways” (p. 3041). Knowledge is “one form of culture, which resides alongside other forms of existence” (Strohmayr 2003, p. 522). The educational system and media are the most important institutions “involved in internalizing the ingredients of culture and in making conformity to them a matter of individual will” (Smelser 1992, p. 7). According to Münch (1992),

social structures of inequality...are produced, reproduced, and transformed in interaction with the cultural code of a society, which entails the language, values, and norms used in discourses on questions of equality and inequality. This interaction is where culture meets social structure, exerts its influence on it, and is itself influenced by it. (p. 244)

Given the close connection between culture, education, social status, and power, it is astounding that some representatives of new cultural geography more or less omitted terms such as *knowledge*, *education*, *school*, *teacher*, and *educational system*. Adherents of new cultural geography rightfully accused traditional cultural geography of having a strong historical orientation and of having concerned itself mainly with traditional issues such as local dialects, music, and material aspects of culture, such as the physiognomy of barns, houses, fences, or gravesites, rather than with the paramount questions and transformations of urban society (Barnes 2003; Cosgrove and Jackson 1987; Mikesell 1978). However, leading proponents of new cultural geography have ignored some of the key issues of a knowledge society—the school system, learning processes, educational attainment, the role of teachers in ethnic conflicts, the cultural causes, and consequences of ethnic disparities in educational attainment, and the suppression of minorities through the educational system. Terms and concepts such as *education*, *knowledge*, *school system*, and *learning* do not appear in Mitchell’s *Cultural Geography* (2000) and are at best marginal in the *Handbook of Cultural Geography* (Anderson et al. 2003)<sup>7</sup> and in *Kulturgeographie* (edited by Gebhardt et al. 2003). Some of the few exceptions are *Cultural Geography* by M. Crang (1998), which contains a chapter entitled “Cultures of Science: Translations and Knowledge”; *Culture and Space* by J. Bonnemaïson (2005, pp. 77–82), and *Schlüsselbegriffe der Kultur- und Sozialgeographie* by Lossau et al. (2014) with its overview on the potential of education and knowledge to be explored in social and cultural geographies (Jahnke 2014).

This disregard of educational systems and learning processes by some proponents of new cultural geography is even more astonishing considering that books seminal to the tradition and style of cultural studies reflected keen interest in inequality in educational trajectories (Winter 1999, p. 157). Literacy was a topic from the outset in Birmingham, England, the cradle of cultural studies (Hoggart 1957). Cultural studies as pursued at the Birmingham School encompassed a broad

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<sup>7</sup>The handbook covers topics such as cultures of consumption, cultures of money, cultures of labor, geographies of racialization, colonial geographies, and queer cultural geographies. It contains a chapter about epistemology (Strohmayr 2003), but *education*, *educational attainment*, *literacy*, *school*, *university*, *research*, and *teacher* do not appear in the index.



range of knowledge forms, including many types of everyday knowledge and ability rooted in popular culture (Hörning 1999, p. 99).

There is much debate and incertitude about how to define cultural studies,<sup>8</sup> but according to Grossberg (2010) cultural studies

is concerned with describing and intervening in the ways cultural practices are produced within, inserted into, and operate in the everyday life of human beings and social formations, so as to produce, struggle against, and perhaps transform the existing structures of powers....

Cultural studies describes how people's everyday lives are articulated by and with culture. It investigates how people are empowered and disempowered by the particular structures and forces that organize their everyday lives in contradictory ways, and how their (everyday) lives are themselves articulated to and by the trajectories of economic, social, cultural, and political power.... Cultural studies is concerned with the construction of the contexts of life as matrices of power, understanding that discursive practices are inextricably involved in the organization of relations of power. (p. 8)

According to Hörning (1999), a new cultural science must also be a type of "entirely new sociology of knowledge that is not solely concerned with how knowledge is generated as a cultural phenomenon but mainly with how, in all its manifestations and notations as cultural knowledge and expertise, it underlies social practice and thereby animates cultural life" (p. 113). A theory of culture should concern itself with the "implicit and informal aspects of the creation, representation, transfer, practice, materialization, storage, and practical application of knowledge and ability in which the social power of culture is expressed" (p. 89).

## Culture and Ethnicity as a Power-Sensitive Field

The question of how to treat difference or otherness is not only an academic issue but a serious political and ideological matter as well. "Culture is politics by another name" (Mitchell 2000, p. 3). Cultural issues are often used and abused for political reasons, to mobilize people, to establish a border between people, to stabilize social class inequalities and power relations, to constitute or enforce a territorial claim, and to consolidate or destabilize imagined communities and identities. "[C]ulture is a contested, conflictual set of practices bound up with the meanings of identity and community" (Denzin 2001, p. 3124). Culture is central to identity politics. It is a pivotal issue in the discussion of racism, xenophobia, colonialism, nation-building, neocolonialism, and the emancipation of and discrimination against nondominant ethnic minorities. Processes of assimilation and acculturation<sup>9</sup> are characterized by clear asymmetries of power relations between a majority and a minority, or between a dominant culture and a less dominant one, or between a political center and gradu-

<sup>8</sup>"Any definition is likely to disown at least some people who want to locate themselves within cultural studies" (Grossberg 2010, p. 7).

<sup>9</sup>"Acculturation is the process whereby one cultural system conquers the minds of an individual or group" (Boyer 2001, p. 3032).

ally assimilated peripheral entities (Boyer 2001). Many authors have pointed out that knowledge is conditioned by power, rhetorical or textual construction, and social solidarity (Fernandez 2001; Foucault 1980, 1990; Meusburger 2015). This viewpoint applies not only to orientation knowledge but also to the first two categories of factual knowledge listed in the first section of this introductory chapter.

The great interest that agents of power have in culture lies partly in the fact that culture is

not stable, homogeneous, and fixed but marked by receptiveness, contradiction, negotiation, conflict, innovation, and resistance. Culture is viewed as a process of social inequality involving a struggle for power.... It is not the integrative function but rather the struggle over meanings, the conflict about the sense and value of cultural traditions, experiences, and practices, that determines analyses [of culture].... Culture is a polyphonic, ever controversial, and complex process of constructing sociocultural meanings and identities. (Hörning and Winter 1999, p. 9)

As Grossberg (2010) formulates it, “while power operates in institutions and in the state, it also operates where people live their daily lives, and in the spaces where these fields interact” (p. 29).

If culture is understood not only as a medium of integration but as a criterion of distinction and as a discourse about values, norms, meaning, validity, and identity (Miller 2001; Spencer 1983; Spencer and Markstrom-Adams 1990), then which institutions of knowledge production and knowledge dissemination serve as an instrument or forum for these processes and power struggles? In states with a history of internal colonialism, in newly founded nation-states, and in nations struggling with ethnic or racial conflicts, it is little wonder that cultural diversity, ethnicity, and the cultural rights of nondominant minorities are highly explosive political topics (see Ara 1991; Eriksen 1991; Frantz 1999; Havránek 1991; Heinemann 1991; Kuikka 1991; Miąso 1991; Tomiak 1991). Nationalist politicians such as Giovanni Gentile in fascist Italy regarded the nation “as a unitary and organic community which could not allow any particularist deviations” (Ara 1991, p. 276). Political elites of many nation-states emphasize the importance of national unity and cultural homogeneity and often advocate an anticulturalist position.

Anti-culturalists worry that any description of cultural difference merely sows the seed of invidious comparison and conflict, and thus should be disavowed. For the...pluralists, however, the recognition and appreciation of cultural differences is one of the major aims of ethnography in particular and cultural anthropology in general. (Shweder 2001b, p. 3154)

Some intellectuals worry that culture is “an excuse for the maintenance of authoritarian power structures and permits despots and patriarchs around the world to deflect criticism of their practices by saying ‘that is our custom’ or ‘that is the way we do things in our culture’” (Shweder 2001b, p. 3153). Others point out that “cultural rights are significant because culture is an intrinsic part of individual and group identities. Not only does culture exert a crucial influence on the formation of identity of individuals, but it also helps perpetuate ethnic groups” (Renteln 2001, p. 3116; see also Kymlicka 1995). Another reason why culture is often misused as a vehicle for political aims is that people seem much easier to mobilize if political conflicts are presented (disguised) as religious, ethnic, or cultural conflicts.

## Goals, Structure, and Contents of This Volume

The chapters of this volume are not intended as fuel for the intensive debate about multiculturalism, cultural pluralism, cultural assimilation and acculturation, cultural rights, or minority rights (see Kymlicka 1992, 1995; Renteln 2001). They focus instead on three other issues. The first five texts deal with the role of the educational system in multiethnic states, with the impact of ethnic identity and race<sup>10</sup> on schooling, and with the reasons and consequences of ethnic disparities of educational achievement. The subsequent four chapters study the relevance of indigenous, native, traditional, and local knowledge compared to universal, scientific, or so-called *objective* knowledge. The final four chapters present case studies on the social and cultural function of indigenous knowledge in nonwestern societies and on the influence that culture may have on action.

### *Ethnic Minorities and Schooling*

Peter Meusburger presents an overview on some of the reasons why the school system in multiethnic or multilingual states is a contested field and an arena of political, racial, and cultural conflicts. In states with compulsory education, it is crucial to ask whether and under which circumstances nondominant ethnic minorities are allowed to use their mother tongue in elementary and secondary schools as the language of instruction, whether the teachers are sympathetic to the minority cultures, whether minorities figure in determining the location and size of elementary schools and the content of the textbooks, and whether those minorities have a say in the “memory industry.” The school can support and reinforce the cultural learning process that students have already undergone in their families and neighborhoods but can also interrupt or reverse it, eventually instilling them with serious doubt about their identity. In multiethnic states minority students entering the school system frequently

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<sup>10</sup>In the academic community it is widely agreed that there is no such biological thing as *race* (for an overview on the literature, see Bonnett and Nayak 2003; Diamond 1994, pp. 85–87; Mitchell 2000, pp. 233–241). In most European countries this term is no longer used by scholars or in official statistics. Nevertheless, in some states (e.g., the United States) race is still one of the personal attributes registered in population censuses. The U.S. population census of 2010 declares: “Our population statistics cover age, sex, race, Hispanic origin, migration, ancestry, language use, . . .” (<http://www.census.gov/programs-surveys/decennial-census.html>). However, the connotation of the term *race* in the United States differs from that in Europe. Even if the scientific validity of race as an attribute is denied, one cannot ignore the racialization of many spheres, the power of racial differentiation, and the existence of racism in everyday life (Bonnett and Nayak 2003; Kobayashi 2003). For example, a journal entitled *Ethnic and Racial Studies* has existed since 1978. In the United States scholars have developed the academic discipline called “critical race theory” (Gillborn and Ladson-Billings 2010; Stovall 2006) and discuss “racing-language” (Gutiérrez et al. 2010, p. 359). And in a speech delivered in Philadelphia on March 18, 2008, U.S. President Obama declared: “Race is an issue that I believe this nation cannot afford to ignore right now.” See par. 43 of the transcript of President Obama’s speech, retrieved from <http://edition.cnn.com/2008/POLITICS/03/18/obama.transcript/>

find that the values, historical experiences, and cultural practices that their parents have passed on to them are called into question, resisted, or portrayed as backward.

To study the collective social status and the vertical social mobility of nondominant ethnic groups; the ethnic awareness, social cohesion, and ethnic self-esteem of minorities; the power relations and conflicts between ethnic groups; or the discrimination against ethnic minorities, one can scarcely find a better approach than to inquire into a minority's position in the school system and to analyze the large disparities in educational achievement among ethnic groups. The public school system is one of the multiethnic state's best sounding boards for societal problems and conflicts. Since the mid-nineteenth century, the school system has become a battlefield of ethnic strife and conflict where existing power relations have been maintained, reinforced, yet also contested. Nationalist movements in Europe of the nineteenth century as well as the civil rights movement in the United States of the twentieth century originated in conflicts over schooling issues.

Adam Fairclough studies the development of public education in the southern United States, focusing on interrelations between education, race, politics, and geography. The southern states have posted the lowest levels of educational achievement since the first U.S. statistics in this field appeared. In this region public schools have long suffered from the legacy of slavery, racism, and the political consequences of the Civil War. White hostility to the education of Blacks stunted the development of public education after 1865 and produced a racially segregated school system that perpetuated inequality. In the nineteenth and early twentieth century, most Whites wished to restrict Black education to basic literacy, and many of them continued to believe that schooling for Blacks damaged the interests of Whites. Rural schools of the south were mainly primitive one-room, single-teacher elementary schools. Some schools for Blacks suffered the additional handicap of a constantly shifting population. In the cotton South, Black sharecroppers often moved every year in search of a better landlord, an annual migration that continually disrupted the already meager and intermittent education of their children. Another problem was that many teachers in Black schools had never attended a secondary school, let alone a college or university.

The post-1945 civil rights movement attacked and eventually destroyed the segregated school system. By 1970 the South's public schools were substantially integrated. Many Blacks, however, regarded integration as a dubious gain. In implementing integration, White politicians and administrators usually saved public money by closing Black schools, demoting Black principals, and dismissing Black teachers. Black children found it difficult to feel at home in integrated schools where the principal and most of the teachers were White. By the 1990s, however, "White flight" had made the South's big-city public school systems overwhelmingly Black. According to Fairclough, the current nostalgia for the Black schools of the pre-Brown era<sup>11</sup> reflects profound disappointment that the predicted academic and

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<sup>11</sup> In May 1954 the U.S. Supreme Court handed down a landmark ruling in a case known as *Brown v. Board of Education*. In effect, the court declared that "separate but equal" public schools for Blacks and Whites were unconstitutional. The decision meant that "separation itself was inherently unequal and a violation of the equal protection clause of the 14th amendment." Retrieved April 14, 2015, from <http://www.civilrights.org/education/brown/>

social benefits of integration have not been forthcoming. In his view the all-Black schools provided a safe haven within which they were shielded from White condescension and White bullying.

Werner Gameraith calls attention to the fact that public education in the United States was originally regarded as an instrument for seeding American society with political attitudes and ideological concepts such as the egalitarian society and the melting pot. The American public school was supposed to function as a cradle of democracy offering equal opportunity for any citizen and across all social and ethnic lines. The public school was vital to the process of assimilation as legions of European immigrants poured into the United States in the late nineteenth and early twentieth century. However, the ideology of public education as an incubator of American civic values and as a vehicle for social advancement has never fully embraced African Americans, Native Americans, and Hispanics. The official rhetoric of schooling as an anchor for equal opportunity, democratic values, and social change has always collided with the day-to-day reality of failure, racism, suppression, and low achievement endured by various ethnic groups.

Although some ethnic differences in educational attainment have been reduced in the United States in recent decades, equality still lies far in the future. Equalization in financing the public school system is at best a political slogan, but will not come about as long as school funds mainly depend on the local property taxes. Fourth- and eighth-graders from the Old South but also from parts of the Southwest and the West fail to achieve national standards in reading skills and mathematics. As these individuals proceed through their educational careers, they come to account for a high percentage of school dropouts and only a low percentage of university graduates. The risk of leaving school before graduation depends considerably on the ethnic background of the students, even if one controls for other variables like parents' socioeconomic status, income, or occupation. Even when schools solely for African Americans existed, they were nowhere near equal to the educational institutions for Whites. Differences in financial endowment, the duration of the school year, and the competence of the teachers could vary greatly between White and African Americans schools. Native Americans suffered even more discrimination. White-Anglo America was convinced that the best way to assimilate Native American children was to put them into boarding schools hundreds of miles away from their families and local cultures on the reservations and not allow them to use their mother tongue.

Tim Freytag explores the impact of cultural identity and sociocultural embeddedness on the production of educational inequalities by examining the example of Hispanic students and academic staff at U.S. universities and research institutions. He first analyzes the comparatively low educational performance of Hispanics and the extent to which they are still underrepresented in U.S. higher education, particularly at the University of New Mexico in Albuquerque. The second part of his chapter focuses on the importance of family values in Hispanic culture and explains why it appears rather difficult for some Hispanics to combine university studies with the expectations and duties of the family. Hispanics who grew up in New Mexico tend

to feel particularly attached to the cultural and physical environment of that U.S. state. They may experience the period of studying at an out-of-state university as cultural transformation and alienation. This observation is also underlined by Hispanic professors who try to find a place for or improve the integration of Hispanic culture in their professional environment.

Freytag argues that educational success and educational inequalities should be regarded neither as merely resulting from one's ethnic or cultural belonging nor as simply depending on the meaning and significance attributed to educational attainment in an overarching concept, such as social class, socioeconomic status, lifestyle, or gender. In fact, educational attainment arises from a complex interplay of parameters operating at the individual, collective, or structural levels.

George J. Sefa Dei theorizes the link between identity, knowledge, representation, and schooling in the particular case of Black and minority youth education in Euro-Canadian contexts. He adopts an anticolonial perspective to argue that the epistemologies of Black and marginalized youth, particularly the ways in which these learners come to know and act within schools, offer interesting insights into why and how the questions of identity, representation, and social difference are critical for educational success. He focuses on narratives of Canadian youth, parents, and educators from diverse racial and ethnic backgrounds as they speak about the school system. The relevance and implications of their voices are highlighted as legitimate sources of cultural resource knowledge that inform teaching, learning, and the administration of education. The local ways of knowing among young learners, minority parents, and educators stand at the center of Dei's theorizing and search for ways to improve schools in response to the needs and concerns of a diverse body politic. He affirms there is much to learn from the ways in which oppressed bodies relegated to the status of racial minorities eventually claim a sense of intellectual and discursive agency as well as ownership and responsibility for their knowledge about everyday schooling. Dei discusses ways in which African people's local knowledge of cultural resources can help enhance the schooling and education of young African learners.

An anticolonial reading offers a critique of how conventional schooling provides education that fails to help young learners develop a strong sense of identity, self, collective agency, and empowerment for community-building. The anticolonial prism affirms the role and power that local cultural knowledge possesses to subvert such internalized colonial hierarchies of schooling by placing values such as social justice, equity, fairness, resistance, and collective responsibility at the center of the learner's education. Dei argues that a school system should be capable of tapping into youth identities and identifications as valuable sources of knowledge. He asserts that there is something fundamentally and morally wrong when students go through the educational system without being taught by educators who share their cultural, racial, and ethnic backgrounds. He does not mean that only teachers of a particular background can provide the much-needed nurturing environments but rather that it is essential for all learners to have teachers with whom they can identify.

## ***Academic Debates About Indigenous, Traditional, Native, and Local Knowledge***

The vast majority of chapters in the first seven volumes of the series *Knowledge and Space* refer to the context of literate, economically advanced societies, where concepts such as meritocracy, efficiency, competitiveness, professionalization, and bureaucracy give science, professional expertise, technology, high educational attainment, and rationality a function as cornerstones of society. However, there exist other societies that challenge the western view of knowledge and expertise. In preindustrial societies, illiterate societies, or acephalous<sup>12</sup> communities, educational achievement, science, and technology do not enjoy the same status as in advanced knowledge societies.

Paul Sillitoe demonstrates in his chapter that people of acephalous communities are not so much inclined to trust experts, especially external ones, as people in western societies are. The perception of what constitutes knowledge differs from one spatial and cultural context to the next. The terms *indigenous knowledge*, *traditional knowledge*, *native knowledge*, and *local knowledge* have been used to describe categories of knowledge that are more or less counter to western science, to so-called objective knowledge, the knowledge of former colonial powers, or the knowledge of the centers of calculation (Latour 1987). Approaches marked by preference for these terms stress the subjective nature of experience, understanding, and knowing; mirror an interest in oral tradition, illiterate societies, embodied knowing, and individual knowledge; reflect an attempt to increase the prominence of local voices and practices (e.g., local knowledge about medical plants or farming) in development contexts, and point out that these terms are often used by minorities in their resistance against hegemonic powers.

The terms *indigenous knowledge*, *native knowledge*, and *traditional knowledge* have been criticized by some scholars for several reasons. According to Sillitoe, there is anxiety from a liberal perspective that use of the words *indigenous* or *native* may encourage xenophobic or racial emotions. The use of these terms may also be unwelcome because it reveals asymmetric power relations, inequality, exploitation, and histories of colonialism. He indicates that some states that began as colonies, such as the United States of America and Australia, given their history of domination, ethnocide, and even genocide, do not wish to draw attention to indigenous issues and rights. Despite warnings from some academics about using the word *indigenous*, many autochthonous minorities do so deliberately to position themselves in society and to remind others of their traditions, way of life, culture, and painful history.

The situation and the research question determine which of these adjectives are appropriate or useful. The term *indigenous knowledge* may be problematic in development studies, but quite useful in political debates about identities, minority rights,

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<sup>12</sup>An acephalous society or community is one that lacks political leaders or hierarchies. Most foraging or hunter-gatherer societies are acephalous.

colonialism, and postcolonialism. The adjectives *traditional*, *indigenous*, and *native* express the need to see knowledge in a wider cultural context, not just from the position of western science. Dei and Sillitoe argue that the notion of static traditionalism sometimes exists only in the imagination of the critics of indigenous knowledge. They hold that criticisms of these adjectives seemingly have more to do with reservations of western intellectuals than with those of people to whom the words are regularly applied and who happily use these labels for themselves because—unlike western scientific, rationalist epistemology—they characterize unique attributes of the native epistemologies.

In political discourses or power struggles the adjectives *indigenous* and *native* entail a certain moral stance. They are meant to recall the history of colonialism, aggression, and genocide and are prominent in the native people's resistance to dominant political forces. Sillitoe argues that attempts to discourage the use of the adjective *indigenous* could induce new tensions because some people fear there will lose their identity or be disadvantaged in their fights for their rights and interests, of which national governments seek to dispossess them.

Diana K. Davis employs the term *indigenous knowledge* in her chapter to refer to “knowledge that the nomads and other pastoralists have garnered, often over centuries, from working with animals in an arid, stochastic environment” (see p. 27 in this volume). She also underscores the point that indigenous knowledge is very dynamic, not static as some critics assume. In her view indigenous knowledge is knowledge and practice executed at the local level as opposed to a variety of expert knowledge coming from elsewhere, such as those of international development agencies and national agricultural institutions. She uses the terms *indigenous knowledge* and *local knowledge* synonymously. Some people prefer the term *traditional knowledge* because they wish to keep their cultural tradition and cultural heritage intact and want to protect them from extinction due to pressures of current globalization. In a bid to revive their traditional culture, others seek to recover traditions that had been suppressed by colonial powers and that are now lost.

Two chapters in this volume focus on the category of local knowledge. Christoph Antweiler deals with the specific ontic character of local knowledge, the epistemic implications of that character, and the proper methods for studying such knowledge. In his view, research on local knowledge is often idiosyncratic, and the possibility of a truly comparative analysis of local knowledge from different local settings is often dismissed prematurely. He claims that research about local knowledge needs well-defined methodologies, which require a clear theoretical understanding of the phenomenon of local knowledge. Using an empirical study of urban knowledge from Indonesia, he outlines ten universal features of local knowledge, which he presents in a general model. According to Antweiler, local knowledge is usually gained through intense personal experience in a specific environment. “Local knowledge comprises skills and acquired intelligence, which are action-oriented, culturally situated, and responsive to constantly changing social and natural environments” (see p. 27 in this volume). In his view local knowledge consists of more than technological and environmental knowledge (e.g., how to survive in a desert). It entails not only cognitive but also emotive and corporeal aspects and may be best understood as a cultural or social product.



The term *local knowledge*, too, has its critics. Some of them hold that external relations, migration, and the impact of globalization make definition of the local problematic. However, Marcus Nüsser and Ravi Baghel see such critique as a misunderstanding of the term *local*. Local does not mean stable, fixed, or isolated from external influences but site-specific or geographically situated. Nüsser and Baghel's concept of local or situated knowledge is that certain types of knowledge are geographically bounded and, even more important, engendered in specific localities that affect both its form and its content. Site-specific knowledge emerges through people's practical engagement with their environmental setting, including its material resource base. Such site-specific knowledge is not timeless or static but part of the ever-changing constellation of human and environmental factors.

Nüsser and Baghel explore in their chapter so-called artificial glaciers in Ladakh (the Himalayas), structures that people build to store frozen water to help them through seasonal water scarcity. These ice reservoirs meet local irrigation needs in the agricultural season by melting before natural glacial meltwater becomes available. At the same time, they are also framed as an adaptation to climate change, a perspective suggesting that, contrary to romanticized notions, local knowledge is not disconnected from globally circulating knowledge about climate change. Nüsser and Baghel state that the dynamics of the transformation or persistence of land-use practices in peripheral high mountain regions strongly depend on the interplay of local environmental knowledge, social cooperation, livelihood strategies, political organization, and external relations. Nüsser and Baghel argue that the emphasis on local knowledge as a central pillar of development is one of the most significant changes to emerge from the turn from top-down to bottom-up approaches and has the ostensible objective of integrating local perspectives and perceptions. Local knowledge and external interventions tend to interact in a dynamic and fluid relation that changes the local setting through local observation, external concerns, and strategies to sustain local livelihoods. Local knowledge and scientific knowledge are thus not necessarily incompatible or in contrast to each other; both forms of knowledge can easily be combined.

### ***Knowledge, Culture, and Action: Case Studies on Indigenous and Local Knowledge***

Four chapters present case studies on the social and cultural role of indigenous knowledge in nonwestern societies and on the influence that culture has on action. Diana K. Davis studies how colonialism and the influence of western development projects had deleterious effects on the knowledge system of pastoralists in the Maghreb and in Afghanistan. She explores the ways that local knowledge became suppressed and western expert knowledge became privileged and how that processes had far-reaching consequences for power and gender relations. In the nineteenth century the nomads in the Maghreb and Afghanistan possessed an impressive

body of ecological knowledge about herding and range management complemented by sophisticated indigenous veterinary knowledge.

The French state appropriated land and forests, banned common management techniques like burning for pasture regeneration, and, later, criminalized traditional veterinary medicine. These changes and those that were wrought in trading systems by the imposition of western veterinary medicine and land-management techniques reduced indigenous knowledge and practice. The erosion of pastoralist indigenous knowledge persisted under the postcolonial government, which retained many colonial laws and policies as well as mainstream development projects that privileged “expert” knowledge. In the colonial Maghreb changes in property laws, restrictions on natural resource use, the imposition of western veterinary medicine, and the spread of capitalist social relations all had profound, mostly adverse impacts on pastoralists’ ways of life and knowledge systems.

Similar developments threaten to destroy the sophisticated and highly valued indigenous veterinary knowledge of women among Koochi nomads in Afghanistan. Afghan Koochi women have a rich array of knowledge of animal diseases and their treatments. They help with difficult births, regularly care for sick and newborn animals, and often have a more accurate understanding of livestock diseases than men do. In many cases it is the ignorance of western development agencies that devalues indigenous knowledge and undermines the knowledge and skills of Afghani women. Despite the sophisticated knowledge of Koochi women, western development programs trained only men to treat livestock diseases that had traditionally been dealt with by women. The NGO and USAID staff had assumed that Koochi women do no work with animals other than milk them and that they had little or no knowledge of animal health and disease. Biased, ignorant views of Muslim women by western development “experts,” in conjunction with the extremely conservative religious government of the country, is curtailing women’s work with livestock in ways that endanger their knowledge, practice, social status, and well-being.

Gunter Senft discusses the interrelations between indigenous knowledge, culture, and ceremonies by studying the process of by which large seagoing *masawa* canoes used to be constructed by the Trobriand Islanders of Papua New Guinea. The joint communal construction of such canoes was a highly complex enterprise that required different forms of technical and magical knowledge. The knowledge needed was distributed among various craftsmen and magicians within a community. The magicians had to know more than ten forms of magical rites and the respective formulae. It was simply inconceivable to a Trobriand Islander that a *masawa* could be constructed without the appropriate magical rites being performed. The dispersed knowledge of craftsmen and magicians had to be integrated and coordinated at the communal meals arranged by the *toliwaga* (an owner of a *masawa*) during or after specific phases of the building process. The process of building a canoe continuously tested and monitored the security and stability of a village community’s social network. They all had to cooperate in good faith to ensure the success of the canoe under construction, and they all had to be paid in the form of adequate food-distribution ceremonies after certain stages in the construction process.

Senft explains why most of the village communities on the Trobriand Islands have gradually lost the knowledge of how to make a *masawa* and what social and cultural consequences this loss of knowledge has had for the communities. Because the construction process of a canoe was intertwined with social events and had a stabilizing influence on the communities' social network, a loss of technologies entailed losses of social activity and cultural identity and had an impact on the population's social construction of reality and on their cognitive capacities.

Ikechi Mgbeoji argues in his chapter that ceremonies in precolonial Igbo societies of Southeast Nigeria had not only been greatly significant normative activities and relevant instruments of social governance but also crucial vehicles for the communication of values and beliefs and the diffusion of information and knowledge. Some of the ceremonies had had major ecological and environmental implications and had transferred key knowledge to the young generation. He examines the ways in which those ceremonies had often been deployed to educate the young and prepare them for life in the traditional settings. Ceremonies were veritable instruments that reflected, transmitted, shared, and modified the society's sense of social justice, legitimacy of law, public participation in governance, integrity of the human person, and protection of the family. Ceremonies in the traditional knowledge framework accomplished norm-bearing and norm-iterating functions. They marked certain events that affected social bonds and complex interrelationships.

According to Mgbeoji, Igbo ecological and traditional knowledge was often enmeshed in a body of law that asserted the multiple linkage of mankind in a complex chain and interrelation of other parts. The elaborate ceremonies on adulthood and maturation ceremonies were equally seminal in teaching teenagers the importance of self-reliance and respect for constituted authority. These beliefs were narrated and validated in Igbo law and life through ceremonies and religious observations. Since the age of colonialism, however, Igbo cultural practices have been subjected to Eurocentric sanitization and cleansing processes designed to remake native law in the image of English common law. In the colonial encounter, Igbo culture, though somewhat displaced, has not been totally vanquished.

People experience a gap between knowledge and action every day. Very few cigarette smokers respond positively or immediately, if at all, to medical evidence that smoking affects health and reduces life expectancy. William T. S. Gould explores the nature and extent of the disconnect between knowledge and behavior in connection with the prevalence of HIV/AIDS in sub-Saharan Africa. Analyzing surveys in Kenya, Tanzania, and Uganda, he tries to answer two questions. First, why does widely distributed knowledge of this disease's social biology and its prevention coincide with high and even rising infection rates. Second, why do knowledge-based policies and HIV/AIDS programs often fail to match local cultural practices and socioeconomic conditions? Available knowledge has not been sufficiently internalized to induce substantial change in the sexual behavior of those people most at risk of contracting the disease. Cultural practices affecting sexual behavior and exposure to HIV are telling determinants of the knowledge/behavior gap.

Obviously, access to the most recent biomedical knowledge or a high level of education are not sufficient to influence sexual behavior and to change attitudes.

People do not always react directly or immediately to new knowledge. The path from knowledge to behavior is filtered through attitudes and cultures. Behaviors rooted in traditional values, such as multiple partnerships, are not based on ignorance. Nor are they irrational in the social and cultural contexts in which they are embedded. Gould mentions, for example, that sexual intercourse has a symbolic function among the Luo in Kenya. It plays an important part in festivals for the fertility of people and land, for the harvest, and for prosperity in general. Both resistance to male circumcision and reluctance to abandon sexual cleansing rituals (a widow has to marry the brother of her deceased husband) are two specific examples of cultural attitudes that Gould and many other people regard as barriers to reducing HIV prevalence and AIDS deaths. One of the main conclusions of Gould's research is that effective national HIV/AIDS policies cannot be driven only by national public information programs or the formal school system but need cultural sensitivity as well. He calls for new awareness of the need to understand and build on existing indigenous knowledge systems.

## Conclusion

Knowledge and culture are a research topic of at least a dozen disciplines. Each of them can offer something different to the discussion. Ideally, cultural studies, science studies, and educational studies should be interdisciplinary in practice; they should cover various scales of analysis (individuals, communities, social systems, spatial contexts, spatial disparities), and cross the boundaries between disciplines. We hope that the variety of chapters in this volume will extend the research field on the relationship between knowledge and culture and that it will substantiate the importance of spatiality and contextuality for the production and diffusion of knowledge. We also hope that readers interested in traditional knowledge, indigenous knowledge, local knowledge, the cultural dimension of knowledge, and ethnic disparities of educational attainment will be motivated to read beyond their own discipline. May this collection of perspectives foster the discussion on how fruitful and challenging the research and concepts involving situated, local, or indigenous knowledge can be—especially when they bring in postcolonial perspectives and power relations.

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