

Chapter 2

Action, Knowledge, and Social Relations of Space

Benno Werlen

Contrary to still well-established understanding, geographical conditions of human actions are to be seen from a sociogeographical point of view, that is, primarily as a social product and only secondarily as a biophysical condition. This ontological status of the age of anthropocene means that geographical social transformations are highly important for all forms of geography-making, which, in turn, are fundamental to social change and transformations. In other words, the constitutive processes of geographical realities are fundamental to a wide range of formative processes of social and cultural realities.

To grasp geographical realities as understandable realities, it is necessary to let go of most received geographical notions, from traditional regionalistic ones and colonial interpretations to present geographical concepts formulated in the aftermath of the spatial turn of the social sciences, cultural studies, and the humanities. But this change in perspective is not only scientifically crucial. It is even more so with respect to everyday practices, especially political actions. With the steady weakening of all-encompassing forms of national territorialization through the Digital Revolution and with the formation of supranational communities, the dominance of the nation-state in nearly all domains of social life is at stake. Just as the territorial organization of social life replaced feudal logic, the territorial principle itself is now at risk in many senses.

It is little different when it comes to the interrelation of knowledge and spatial conditions. The Digital Revolution—the end of distance for a wide range of human activities, and accelerated social change—is establishing what I call “new social relations of space.” By that I mean, as elaborated on in this chapter, a new way of relating to preset and spatially distant circumstances that are relevant to one’s action. And social relations of space have a strong impact on the production, dissemination, and incorporation of knowledge and information. Of course, I do not mean that

B. Werlen (✉)

Department of Geography, Friedrich Schiller University Jena, Jena, Germany

e-mail: benno.werlen@uni-jena.de

supranational trends and globalizations are effacing the local and regional. Globalization also accentuates places and regions as distinctive forums of human action. In one way or another all human actions remain regionally and locally contextualized. But to grasp the social significance of spatial constellations, scientific research has to proceed from social actions and practices to the regional and spatial realm and not vice versa.

The Relevance of the Spatial Dimension and the Spatial Turn

From the perspective of geography-making, which begins with the premises that all socially and culturally relevant geographies are constructed realities, the spatial conditions and spatial relations of individual actions are fundamental to the formation and structuration of social realities. A prime example is the current globalization affecting various aspects of everyday life. Systematic social theories have largely ignored the spatial dimension of social life. The reasons for this omission are profound and require thorough reconstruction of the underlying modes of thought. Without such analysis, one runs the risk of importing the traditional spatial perspective into the social sciences and cultural studies. The fact that such uncritical adoption of the conventional spatial perspective is neither productive nor insightful is exemplified by the “spatial,” or “geographical,” turn in the social sciences, cultural studies, and the humanities (see Döring & Thielmann, 2008; Foucault, 1999; Levy, 1999; Günzel, 2009; Schlögel, 2002; Soja, 1989; Warf & Arias, 2008).

The absence of the spatial dimension in social and cultural theorizing contrasts with the spatial obsession characteristic of early studies in human geography, a field that emerged in the late nineteenth century as a space-centered science applying to the study of human individuals and societies. This orientation and the way of thinking underlying it have significant ramifications for geography as an academic discipline and entail problematic political implications.

Traditional human geography’s rather simplistic focus on space and distance as determining dimensions of behavior results in an emphasis on the individual as part of the human species and neglects his or her capacity to perform social actions, which is fundamental for the meaningful construction of social and cultural realities. Arrival at this perspective needed a theoretical and not always successful debate lasting more than a century. The insights it has contributed greatly help the current debate about the spatial turn in the social and cultural sciences, identify its implications (some of which are problematic), and detect its shortcomings on the background of the history of geographical research.

Observed from the current theoretical debates, the first turn from human geography to social geography as of the early twentieth century was theoretically uninformed about social science and showed that merely integrating the social dimension

into a space-centered perspective was insufficient for adequately theorizing about social action and societal dynamics. What was required instead was a reformulation and restructuring of theoretical categories and classifications in order to move from a society-oriented spatial science to a space- and place-oriented social science. This requirement applied to the social sciences and geography alike.

Social science's traditional geographical or spatial descriptions of the world, such as "space is a relational order or arrangement of living organisms and social goods, of living organisms and things that have a social meaning" (Löw, 2001, p. 157, my translation), insufficiently distinguish between the ontological status of physical, subjective, and sociocultural conditions. Such postulations are intended to reestablish a sociology of space and are not too distant from the Chicago School of sociology in the 1920s. However, all they appear to do is help create "ontological slums" (Hard, 1998, p. 250). In fact, sociologies of space that draw on the above ontological premises revert to the state of geography prior to its overhaul by the social sciences.

The challenge of integrating the spatial dimension into the social science perspective—and vice versa—results most of all from ignoring the fact that geographical "space" is a theoretical concept. Rectifying this lapse requires one to adapt the concept's use to an ontological focus of study. It is not possible to apply just any theory and its specific vocabulary to just any context.

Inadequate adaptation of the theoretical term *space* yields contradictions, as Bourdieu's shows in his work on social space. According to Bourdieu (1985), geographical space is not a condition of the social world. But he claims that the social sphere can be located *in* geographical space. The included containerization of social reality contradicts the theory of the social production and construction of reality (Berger & Luckmann, 1966; Giddens, 1984; Schütz, 1932, 1981). That way the social is just part of a material, pregiven space preceding all social praxis. Consequently, the containerization of the social implies the transformation the social into a materiel fact. As already implied, similar problems of reducing the social dimension to geographical space are also evident in the Chicago School's theory of urban sociology, which adapted Warming's ecology—his botanic geography (1895) and geography of "plant communities" (1909)—to urban development. Park (1952) and his disciples (Park, Burgess, & McKenzie, 1925) even went so far as to say that social distance can be measured in spatial distance. Even Giddens's (1984) theory of structuration is, to a certain extent, prone to similar shortcomings when it takes the Newtonian container space of Hägerstrand's (1970) time geography as a basis for the social analysis of routines in everyday life. Similar contradictions are detectable when geographical space is included in theories of history, as in Braudel's (1949) concept of the *longue durée* (long term), which—unlike "event" or "economic cycle" is thought to be spatially determined. In an outline of social history, Koselleck (2000) vehemently argued against the reification of time but remained silent on the reification of space.

The Gaps in Social Theory

Geographical conditions and spatial relations of human action—in short, spatiality—are central to the shaping, or more precisely, the generation of social life and social relationships. Solving the “problem of space” in social theory is therefore a key task despite (or perhaps because of) its significant challenges. Globalization and acceleration affect the conditions and circumstances under which everyday actions are performed. It is against this backdrop that the problem of space in social theory—and its solution—are of utmost importance, not least because of its sociopolitical relevance. Spatial configurations or arrangements of material objects are by no means merely “data...that has to be taken into account” (Weber, 1922/1980, p. 3). They are key conditions for the performance of social actions, hence, for the generation of social realities, and are consequently vital to research in the social sciences.

Space (or the spatial dimension) has an epistemic relevance that differs from the one attributed to it by Max Weber, the founder of the interpretative, action-centered social theory. To Weber (1924/1988), “purely geographic aspects” (p. 462) (i.e., physical features such as climate and terrain) shall not be part of the realm that is accessible via *Verstehen* (i.e., the “interpretive” inquiry into social phenomena). For this reason they ought to be excluded from the problems examined by interpretive sociology specifically and interpretive social sciences more generally (see, for example, Giddens, 1979, p. 202). Without exaggeration, this alignment of interpretative social theoretical thinking—and consequently of social policies—is arguably one of the core reasons for the emergence of modern societies’ extreme ecological problems. The exclusion of the geographical aspects of action-centered social theory is pivotal in the current situation, as is the exclusion of meaningful social reality through excessive biologization of the social dimension in both functionalist thinking (Durkheim, 1893, 1957; Parsons, 1952, 1961) and ecological reasoning from its outset in Haeckel (1866) to the Brundtland report (World Commission on Environment and Development, 1987) and subsequent UN environmental policies.

Unlike Max Weber’s position (its basic fostering of meaning-oriented modern social theory as opposed to the biological-reductionist and functionalist versions of social theory of his time), my argument in this chapter is that the generation of sociocultural realities always points to specific spatial relations and, hence, to specific society–spatiality relationships and society–nature relationships. This proposition ought not be mistaken as an attempt to revive environmental or geographical determinism—quite the opposite. However, failure to recognize the relevance of societies’ spatial relations may bring about profound political and ecological conflicts.

The words *space* and *nature* refer to each other (Werlen, 2000, pp. 40–90). To avoid unnecessary, highly problematic confusion, one must first clearly differentiate them. A spatial constellation of material or natural things and objects is not the same as a physical space. This type of equating is reminiscent of geography as a nascent scientific discipline. Conceiving of space and nature as one, as a single unit, results

in a geo- or space-focused environmental policy (with its attendant concepts of sustainability), which is still fashionable in current environmental research programs and policies. That kind of policy posits the earth sciences as the bodies of knowledge most competent for addressing the resulting problems, so they are tasked with the development of solutions to sustainability problems. Such an approach, however, overlooks the point that sustainability problems ultimately arise from human actions, not from space or nature. It is time, therefore, to reassess disciplinary competence and authority.

Notions of space are important not only for the biophysical realm but also for the manner in which one conceptualizes the social dimension. As a kind of “deep ontology” (Werlen, 1995, p. 2), they also influence the way social realities are constituted and perceived, especially with respect to sociopolitical debates. The implications of such a deep ontological linkage between space and society is most evident in Heidegger’s (1933/2000) scathing critique of the work of neo-Kantian philosopher Richard Höningwald. By arguing for liberal society, wrote Heidegger, Höningwald would make himself a “servant of an indifferent, universal world culture” (p. 132) and would distract from the “historical rootedness and ethnic [*völkisch*] tradition of the origin in soil and blood” (p. 132, my translation) and thereby compromise the German population. In brief, anyone rejecting the notion of spatial rootedness in the sense of the biologically determined nexus of blood and soil, geographical origin, and tradition was an enemy of the biologically justified soil-bound society, the population. In keeping with the assumed deep ontological unity of equating not only space and nature but also space and society, such heretics are to be kept out, expelled, or exterminated. Such a biologically determined space–society combination is characteristic of ethnic nationalism that is still a common foundation of highly problematic political reasoning and comes very close to that other biological typification of the socioculture: racism.

This example semantically illustrates the meaning of the statement that space has profound implications for what is meant by society, and vice versa. In other words, space and society are discursively constructed images that influence each other. This relationship certainly holds also for constellations unrelated to ethnic ideas. However, the significance of the mutually referential relationship between society and space has thus far been largely neglected, the reason being that sociology and geography have had their specific blind spots for a long time—and to a certain extent still do. Sociology used to offer an only insufficiently reflexive concept of spatial reference (see Bourdieu, 1985; Giddens, 1979, 1984, 1993), and geography’s understanding of society long remained undertheorized. The nexus of space and social theory is still mostly rather superficial. It does not seriously take account of the deep implications that concepts of space have for the generation of society and that the relevance of social realities has for the theoretical conceptualization of space in the history of science, particularly the history of geography.

This is the basis on which ontological slums are flourishing. They result mainly from reified everyday concepts being reproduced in a nonreflexive way at the scientific level as meaningful spaces or biomaterial social worlds. The implications of such “slum” reproduction in scientific (dis)guise should be examined in the spirit of

science's noblest task: critical doubt. One promising way to approach it is to reconstruct the historical development of geography as an academic discipline in its sociocultural context.

Social Conditions of Scientific Research and the History of Space

Historically, geographers have conceived of space as a three-dimensional earth space, also called geographical space (Werlen, 1993a; 2000). It has been the primary focus of their research. In the mid-nineteenth century, at the beginning of geography as an academic discipline, their foremost task was to classify all manner of phenomena on the earth's surface on the basis of a metric (discrete) concept of space as defined by cartographic coordinates. To produce such "measuring of the world" (Kehlmann, 2007) and the associated spatial-cartographic conception of the world to derive scientific descriptions was customary practice in academic geography at that time. That approach assigned a particular area or space to material objects and immaterial phenomena, laying the groundwork for the further development of geography as a spatial science.

Academic geography moved from being a descriptive and classificatory discipline concerned with nature and the Earth in a biophysical sense to a methodologically inclusive endeavor aimed at discovering causal relationships. That is, scholarly geography changed in its focus (which was established by Alexander von Humboldt and Carl Ritter) from the cartography of objects and a description of the Earth's surface (*chorography*) to a causal and integrative geography, or spatial science (*chorology*). In this approach, space was thought of as a container. It thus represented a specific form of the theoretical concept of space developed by Isaac Newton for mechanics and later transferred to biology by Ernst Haeckel, who referred to it as *lebensraum*.

One of the most important historical conditions of this development in geography was prepared by Isaac Newton (1687) in *Philosophiae Naturalis Principia Mathematica*, the conceptualization of space as absolute. In *Opticks* Newton (1704/1952) defined space as a three-dimensional container space, containing everything material as an object and "God's Sensorium" (p. 125). With the underlying mechanical view of the natural world, Newton conceives of this container as material and absolute and as having a causal effect on everything contained in it. This definition of the absolute container space constitutes the basis of mechanics and the beginnings of the modern *natural* sciences. Despite being intended for modeling three-dimensional material—but not ideal, immaterial phenomena—this concept of space came to be applied far beyond the realm of mechanics. It became the foundation for an all-encompassing mechanistic world view and provided the rationale for positing universal laws of nature that claim validity for all parts of reality, including consciousness, society, and culture.

In the first development and conceptualization of ecology, Haeckel (1866) gave space a connotation similar to that in Newton (1704/1952). Space appeared to be a container or, more precisely, a container for all forms of life (Weingarten, 2009), as a *lebensraum*, a living space. At the same time, the *lebensraum* is also thought of as a sort of antagonist that every life form must contend with if it wishes to survive. The availability of a *lebensraum* was thus considered a necessary condition for the existence of all life forms and was at the same time a key evolutionary selection mechanism. In other words, the *lebensraum* in Haeckel's conceptualization and beyond had a causal effect in the sense that it distinguished successful from unsuccessful life forms and selected the former. From this reified and causally productive "authority" *lebensraum* one can derive a normative principle for life forms. It holds that only the fittest species will survive in a specific *lebensraum*. More important, the underlying tenor is that these fitting species will not only be able to survive but are the only ones that *should* survive. It is obvious at this point that a premise assuming a nexus of life and space (or blood and soil) also serves as a basis for ideas of racial hygiene and the legitimation of spatial hygiene or ethnic cleansing.

Trained as a zoologist, the founder of academic human geography Friedrich Ratzel (1891, 1897) conceived of space much as his teacher Ernst Haeckel had: as the determining life container of *anthropos*, or humanity. Thus, the human *lebensraum* was seen as the cause that determines a population's characteristics ("races" and "peoples"), and it became a determining frame for political processes—or, further, an agent of human history. According to this logic, cultures (social and economic forms) are the result of biological—that is, spatially determined—life forms. Natural conditions become natural spatial relations. These biologically interpreted spatial relations determine life and, hence, the specific features of cultures and societies.

Such a reduction of the social dimension to the biological level conceptually and methodologically disregards the interpretive dimensions of social actions and the relevance of interpretive patterns in dealing with natural conditions. The premise of *lebensraum* and the biologicistic reduction it implies are the foundation on which the research program of an early human geography is built. It aims to prove spatial determinism as environmental determinism of cultures, societies, and economies. The geographical world view is thus from the outset a mechanistic world view established by Newton, then transferred by Haeckel to biology and by Ratzel to the field of geographical research.

As for methodology, academic geography morphed at the end of nineteenth century into a causalistic science. It aimed to show empirically the natural space's determining effect on human actions and subsequently offered corresponding geographical explanations for the observed forms of cultural and economic realities. Geography's adaptation of the mechanistic world view as an ideal for scientific inquiry not only enhanced the discipline's scientific reputation and its political influence but thenceforth also served as the point of reference for the formation of the social science perspective on geography. In the context of traditional regional geography, for example, Max Weber (1924/1988) identified the relevance of the geographical point of view as establishing "in any given case which of the specific

components of cultural phenomena are attributable to climatic or similar, purely geographic aspects” (p. 462).

Politically, the alleged proof that cultures and societies are environmentally deterministic is connected to the normative claim of identifying the correct spatial expanse of nations by identifying their natural boundaries and uncovering the “commandments of the soil” (Ratzel, 1891, p. 48; my translation). In this way, “geographical facts” (Hettner, 1927, p. 267; my translation) are understood as the actual constitutive aspects that are to be uncovered as the true forces shaping social and cultural realities. Alfred Hettner, one of the important representatives of causal geography in the first half of the twentieth century and the leading figure of regional geography, pithily summarized this program: “By passing over human volition, we ascribe the geographic facts of humans to the environmental conditions present in their respective countries” (p. 267; my translation).

Understanding space as a fact that precedes all human actions opens the door to a line of reasoning that culminates in the idea that the structuring and organization of cultures and societies could be influenced through spatial planning. Geopolitics thus becomes a key concern for politics. Denying human individuals the possibility of making their own decisions and shaping social reality are the key anti-Enlightenment views in the geopolitical world view, especially in its National Socialist hue.

To sum up, the elements of the space–society combination discussed thus far are, first, a substantialist container space; second, a biological concept of life; and third (as a merger of the previous two), a concept of *lebensraum* as something that determines life forms located in it. Notions of the social dimension as being somehow determined by such a *lebensraum* imply a naturalistic or biologicistic reductionism, that is, a reduction of the social dimension to the biological category “life.” The notion of society thus turns into a biologicistic one, so it is frequently replaced by “population.” The constitution of subjective meanings on basis of the stock of knowledge at hand, subjective interpretations, and symbolic appropriations are *not* considered subjects of scholarly research in general or of the dominant mainstream geographical research in particular. As a result, the interpretative social and cultural sciences can be removed from the catalogue of scientific disciplines; biology and traditional geography are then sufficient for researching societies and social phenomena.

For sociocultural realities to be suitably investigated and characterized, one may invert the space–society combination, recast it as a society–space logic so as to put society first and consider the spatial dimension as an element of social realities but not as its determinant. Attempts to avoid the geodeterministic logic within the space–society paradigm—particularly those efforts made within geography’s spatial scientific program (Bartels, 1968; Bunge, 1962; Harvey, 1969)—have been unsuccessful. The spatial turn in sociology resulted in a “sociology of space” (Simmel, 1903) that delved primarily into the research on the “constitution of space” (Löw, 2008, p. 25) and the structuration of spaces instead of the structuration of society. Such a line of inquiry is consistent with the spatial scientific approach in traditional geography and, consequently, becomes trapped in these outdated

concepts of space—despite rhetoric that seems to suggest otherwise (Lippuner & Lossau, 2004). To be fair, Lefebvre (1974)—a key reference in the sociology of space—bypassed these problems. Yet his notions of perceived, conceived, and lived spaces call into question spatial practice in spatial terminology (Schmid, 2005, p. 18) instead of helping one regard space an abstract, conceptual element of social practice.

From the preceding discussion it can be concluded that spatial scientific attempts to approach the social dimension ultimately leads to naturalistic reduction of meaningful sociocultural realities. Even more recent attempts to establish a society-oriented spatial science or a spatioscientific sociology end up reducing the social dimension to the geographical space. And because the three-dimensional geographical space permits only the localization of three-dimensional material facts, this procedure leads (at least implicitly) to a reification of nonmaterial established facts. A nonreductionist inclusion of the geospatial dimension in an interpretative analysis of socioculturally constructed realities requires one to differentiate the various dimensions of human action by their ontological status. Only then can the ontological slum be avoided. Perhaps more precisely, only then can the ontological swamp be drained of the sewage of geospatial reductionisms.

Different Spaces for Different Worlds

A sufficiently detailed ontological differentiation is essential in order to give due consideration to both society and space. The flawed arguments put forward by spatially ignorant social sciences and socially ignorant geography are to be avoided, and human geography is to be reconstructed as an interpretative, constructivist, and socioscientific geography, such as a social geography. Such ontological differentiations should make it possible to overcome the kind of reductionism that spatializes social and cultural aspects and to develop alternative approaches.

Social practices can be seen as being composed of three ontologically different dimensions: the corporeal (biophysical), the mental (cognitive), and the sociocultural (Popper, 1972; Schütz, 1981). Subjecting these dimensions to the same kind of analytical procedure would therefore seem improper. Accordingly, social practices can first be distinguished into physical conditions and thought content. The former are characterized by their material substance, which has a spatial extent and can be described in terms of height, width, and depth. The physical realities refer to all material conditions and states, including actors' bodies, and exist independently of the subjects' thought content. The mental dimension refers to a person's knowledge and experience. It includes not only the reflexive (or discursive) but also the unconscious and the practical (or tacit) consciousness and related states of mind and forms of knowledge. The practical (or tacit) consciousness describes those elements of knowledge that subjects competently draw on when acting but that they cannot verbalize (at least not easily).

Concerning the distinction between the physical and the mental world, action- and practice-centered approaches stress that the meaning of material objects depends on subjects’ constitution of meaning on the basis of the stock of knowledge at hand. According to Schütz (1981, p. 92), the human body is the epitome of mediation between these two worlds. The body simultaneously is the center of immediate experience, the medium of actions, and a field of expression of subjective meaning. Furthermore, the mental world cannot be analyzed in isolation from the sociocultural world; the former is always—through socialization processes—embedded into the latter. Individuals are initiated into the sociocultural world through socialization or their action (Berger & Luckmann, 1966).

Ontologically, the sociocultural world is identical with neither the physical nor the mental world. Neither is it merely a combination of the two. The sociocultural world includes the intersubjectively accepted and applicable social norms and cultural values and the institutionalized patterns of action in the economic, legal, religious, and other realms. The meanings of these norms, values, and societal action patterns transcend the mental world of individual subjects and are therefore assigned a separate ontological standing.

Action, Knowledge, and Space—Space, Knowledge, and Action

Any definition of space has to take into account that the word has different meanings, depending on the meaning and situation of the action under consideration. Depending on the type of action, both the formal and the classificatory aspect acquire a specific connotation. That is, both aspects are contingent on the specific interests pursued by the actor.

The nomenclature of the spatial dimension changes with the model of action: instrumentally rational action, norm-oriented action, and meaning-oriented action. The shift of the spatial dimension’s nomenclature occurs or, more precisely, is necessary because relations with the body change depending on the orientation (or model) of action gives an overview of the characteristic attributes of each dimension (see Table 2.1).

Table 2.1 The characteristic attributes of action and space

Attributes	Formal	Classificatory/relational	Examples
Instrumentally rational	Metric	Classificatory calculation	Land market, real estate
Norm oriented	Metric and body centered	Classificatory-relational prescription	Nation-state, front and back region
Meaning oriented	Body centered	Relational signification	Motherland, homeland

From Werlen (2013, p. 9)

In the instrumentally rational model both orientation and classification are closely related to what Max Weber called “disenchantment of the world” (Weber, 1922/1980, p. 308). Giddens (1990) characterized this pithily as “emptying of space” (p. 18) and “emptying of time” (p. 18). Such disenchantment and emptying of formerly stable and invariable meanings convey the formalization of the interpretation of reality. This formalization builds upon the metrization of spatial expanse and thus facilitates classification and calculation. Formalization and metrization (e.g., longitude and latitude) are the basis of modern cartographic representations of the earth’s surface and their use as an orientation for action. If the spatial dimension is included in the course of action in the instrumentally rational model, it is only as purely formal aspects of action; substantively, however, the spatial dimension is no longer tied to specific actions in a general, invariable way.

With regard to norm-oriented day-to-day activities, spatially bound prescriptions—the relation between norm orientation and spatial expanse—are key. When relating to the physical world, actors apply, hypothetically, a classificatory criterion and a relational criterion to orient their actions. Using the classificatory criterion, they apply specific criteria (e.g., park) to categorize (e.g., public/private) the circumstances that are relevant to their actions. Using the relational criterion, actors attribute a relation to these categories (e.g., accessible/inaccessible) according to certain social or legal norms and cultural values.

Of particular societal relevance are relations with normative-prescriptive spatial connotations, such as permitted/prohibited or, “You are allowed to do activity X here but not there.” Such attributions result from processes of territorialization based on clearly measurable delineations. Control over people and the means of violence are organized via action-related territorialization, with the human body being the pivotal element. The combination of norm, body, and spatial context is exemplified by the modern nation-state with its territorially bound law and jurisdiction.

The spatial connotation of understanding rests on a distinctive focus on the body as the central element of interaction and communication. The significance of the body (*Körper*) for the spatial connotations becomes obvious as soon as the body is understood as the “particularly suitable link” (Schütz, 1981, p. 41, my translation) between the subjective and the extended, spatial physical world. From this perspective one can understand the body as a kind of a “functional link” (Werlen, 1993b, p. 75), switching element, or mediator for subjective biographical knowledge and symbolic appropriation of physical elements of contexts of action. Assuming that the meaning of the circumstances deemed relevant to someone’s actions depends on the person’s available knowledge, then the way meaning is attributed arguably depends on that hitherto acquired knowledge.

A decisive factor bearing on the formation of the knowledge stock is the bodily relation in the sense of presence/absence, in other words, the relation between direct and mediated experiences of the world. The significance of copresence—the sharing of corporeality in the here and now—is based on the direct experience of the world through one’s senses. The significance lies in having seen something with one’s own eyes and having heard something with one’s own ears and having gained

the attendant intimate knowledge. This *relationship between the physical senses and the world* contrasts with mediated ways of acquiring information and knowledge, which are characterized by a much lower level of intimacy.

The distinction between direct and mediated forms of knowledge acquisition underlies the generation of meanings and the production of significative relations to the world. In much the same way as prescriptions are the basis for territorialization in the norm-oriented model of action, emotive relations are the basis for classificatory significations as emotional/symbolic relations to specific places. They are expressed in regions of meaning attached to material entities and described by words such as *homeland*, *sacred site*, *landmark*, and *image*. In this form they frequently become unquestioned elements of social communication.

Hypothetically, the more these relations are based on immediate experience (intimate knowledge) and bodily everyday practice, the more they elude reflexive control and become linked to hypostatization and reification, eventually eliminating the difference between nomenclature (signification) and the named objects and circumstances (materiality). The represented meaning and the vehicle of representation become one and the same despite all existing ontological differences. As a result, *homeland* does not register as the expression of emotional, symbolic classification of a clearly delineated section of the world through which embodied experiences are represented. Instead, *homeland* “is” also experience, much like *sacred site* “is” itself the sacred. The more the basis for the signification is mediated—for example, via advertising’s instrumentally rational, conceptualized images of places—the more they are hypothetically subject to reflexive control. In both cases these relations become elements of communication and can orient normative-political action (e.g., nationalism, regionalism) as well as instrumentally rational consumptive action and productive action (e.g., tourism, place image, place reputation).

Accordingly, physical objects in a certain constellation or arrangement as a situation of action can only carry or convey meaning, but they can never be the meaning. Physical objects are the media of symbolization; they are always mere vehicles that transport meaning. Hence, there can be a spatial order of vehicles but not of meanings. A distinction must be drawn between symbolic space and the spatial arrangement of symbolizing vehicles. Meanings are always located on the side of the subject and never on the side of the object. Meanings are attributed, and the practice of attributing meaning is a way of establishing relations and bonds.

The distinction between three different models of action (instrumentally rational action, norm-oriented action, and meaning-oriented action) and their corresponding terminologically defined appropriation of spatially expansive physical objects hint at the meaning that relations and bonds in these realms of everyday practice may have. At the same time, they illustrate that the relations to space are dependent on the type of action undertaken. Subscribing to this view implies conceptualizing social geography as an investigation of different forms of everyday action-related geography-making, of geographical practices.

Incorporation of the World and the Construction of Geographical Realities

From a world view, a geographical imagination that puts the cognizing, knowing, and acting subject at the center results in a dynamization of the geographical perspective on and understanding of the world. The focus shifts from the question of where objects and people are located in space to the question of scholarly examination of forms of everyday geography-making. In short, attention turns to the interpretation of meaningful constructions of geographical realities, including the meaningful appropriation of objects, places, and spaces.

For this purpose a quite substantial part of geographical terminology needs to be redefined. One, if not the, key word is *regionalization*. From traditional to spatial scientific geography as well as in Giddens's (1984) theory of structuration, regionalization referred to the subdivision of given spaces (in whatever way it was determined). From the subject-centered new perspective, however, "regionalization" is understood to denote an everyday practice of establishing ties to the world in a specific manner. By emphasizing the spatial and temporal aspects of these specific relations, one can call them "world relationship" (*Weltbeziehung*, Werlen, 1996, p. 112) or "world-binding" (*Weltbindung*, Werlen, 1997, p. 215), the act of defining, shaping, or establishing one's own ties to the world. I would now like to call that act of geography-making "world incorporation." World incorporation refers to the social mastering of spatial and temporal relations in order to monitor and control one's own actions and those of others. It refers to the way subjects relate to the world; it constitutes one's relations to the world.

In the context of everyday regionalizations, space is a conceptual tool and a medium for action with which the various forms of world incorporation are implemented. The constraining and enabling component of power is particularly important in this respect. Its various manifestations are reflected in the varying degrees of capability and spatial range of world incorporation. Hence, in the subject-centered reconceptualization of geography, the space-centered question of power over space is replaced by the question of the efficacy of the available spatioconceptual media that are used to exercise power over and surveillance of practices.

The capability of shaping—which is inherent in social practices and does not exist outside them—is characterized, on the one hand, by the spatial and temporal range of one's actions. In this sense power is reflected in the transformative capacity of human action. On the other hand, this capability also depends on the ability to integrate absent subjects and objects into the realization of one's own aims and objectives. In the sense used by Giddens (1984), capability can be understood as consisting of resources and rules of action. According to him, the capability of monitoring and controlling the access to and the appropriation and use of natural resources and the world of material objects can be conceptualized as meaning that one has allocative resources at one's disposal. This capability exists in all forms of societal organization and relates to control over material resources, material artifacts

used in the transformation of these resources, and material goods produced in this transformation.

Within the frame of world incorporation, the terminological means with which access to allocative resources is granted is the notion of measured extension as metric space divested of all other symbolic attributions. This notion of space is the one implicit in cost calculations having to do with the distance and scale of transport at the beginning of the production line (e.g., shipping raw materials to the factory) and at its end (e.g., distributing to various retailers the goods produced from those raw materials). In combination with the notion of standardized metric time, it is possible to calculate the parameters for acting over distance. Such calculations facilitate planning of economic activities in both production (including work processes and commodity flows) and capital accumulation (Harvey, 1982) via world incorporation processes in global contexts.

The capability of acquiring and maintaining control and governance over actors—even in one's physical absence—is called authoritative resource. Such a capability of controlling and governing is based on direct or indirect access to the bodies of those being monitored, controlled, or governed, or on direct or indirect access to body-related ways of authorizing or preventing actions and of maintaining those actions over time.

World incorporation via authoritative resources is represented in the term *territory*, which prescriptively connects normative tenets to spatial expanse. These normative tenets (and their legal enforcement strategies) can be called upon in cases where human bodies enter or use the territory. The property rights connected to these normative prescriptions authorize or prevent access by others and facilitate maximum control over people and over the use of areas and material artifacts (means of production). Therefore, the resource-related aspects of incorporating the world refer to economic, social, political, juridical, and other dimensions. Authoritative resources are usually superimposed onto allocative resources, but the mobilization of authoritative resources always requires allocative resources (e.g., to ensure that one's own actions prevail).

However, the structuration of human action and, hence, of all forms of world incorporation does not rely on resources alone. According to Giddens (1984), rules are the second important aspect. They include specific semantic and moral rules that can form powerful interpretive schemes and can regulate courses of action in a value-specific manner. Actors use these interpretive schemes to interpret (in line with the rules) and symbolically organize practice-specific realms of reality. Interpretive schemes are the most comprehensive form of the structuration of human action and, consequently, of the constitution of society or sociocultural realities.

Rule-specific aspects are key for types of action oriented to intersubjective understanding. These aspects underlie all types of symbolic relations to the world. The vocabulary used for such emotionally charged, significant classifications of relations to places and objects includes *sacred site* and *homeland*.

Regionalizations and Regions of Meaningful Geographical Realities

The programmatic research areas concerning meaningful geographical realities are derived from the three already mentioned types of action theories: instrumentally rational, normative, and meaning oriented. Depending on research interests, empirical investigations might focus on socioeconomic aspects (consumptive-productive types of world incorporation), sociopolitical aspects (political-normative types of world incorporation), or sociocultural aspects (informative-significative types of world incorporation). Everyday actions feature all three dimensions simultaneously. In addition, each of these dimensions is interpreted differently by different subjects; that is, it is idiosyncratically relevant to one's actions (see Table 2.2). Therefore, geography turns into everyday geographies.

Research on the economic type of world incorporation revolves around three main questions: (a) How do producers bring under their control the raw material used in the production process and the labor force? In other words, how do they relate to the world (or bind the world to themselves)? (b) How do consumers decide what to buy? That is, under which conditions and with which medium or resources do they make which decisions? (c) What is the relationship between the productive and consumptive types of world incorporation?

Production-related types of world incorporation involve, first, deciding on a site or location at which to produce. Such decisions are typically made by drawing on the locational focus of production-related activities and commodity flows that are directly mediated by the body. Decisions on where to produce and on the corresponding arrangements generated as a result of such decisions are elements of economic world incorporation. They are always tied to allocative resources and the notion of metric space. The analytical lens of world incorporation (everyday actions yielding multiple everyday geographies) enables one to describe systematically the establishing of global relations pertaining to productive types of world incorporation, especially in times of digital or virtual capitalism, when capital accumulation no longer requires activities involving the body or other matter. In addition, the perspective of world incorporation makes it possible to analyze the varying capabilities of control over resources, material goods, means of production, and the resulting power and power relations.

Table 2.2 Types of world incorporation

Main types	Subtypes
Productive-consumptive	Geographies of production
	Geographies of consumption
Normative-political	Geographies of normative appropriation
	Geographies of political control
Significative-informative	Geographies of information
	Geographies of symbolic appropriation

From Werlen (1997, p. 274)

Consumption decisions largely depend on available financial means (i.e., allocative resources) and lifestyle (traditional or individual). The relevance of consumption decisions is expanding along with people's increasing reflexivity with regard to consumption decisions and intensifying globalization. Consumption decisions reflect subjectively constituted cultural and life worlds because late-modern lifestyles are largely shaped by *subjective* decisions. (In traditional ways of life, by contrast, collective constraints are the dominant factor determining the course of actions). Accordingly, consumption is embedded in the processes through which people develop their subjectivity. This embeddedness also leads to the continuing dissipation of the territorial logic in both the economic and the cultural realm. Against this backdrop it becomes clear why geoscience-based environmental policy-making is doomed to fail. What is needed instead in this context is a practice-centered ecocritique and ecopolicies. Because the local and the global are interwoven, lifestyle-specific consumption for the purpose of moving toward moral and ethical consumption and global sustainability is becoming negotiable in public discourse (Werlen, 2012, 2015).

Research on social and political types of world incorporation currently focuses on geographies of normative appropriation and political control. Prescriptive-normative appropriations prevent or facilitate access to spatial contexts of action. At the same time, they serve to socially regulate types of action within these spatial contexts. In addition to formal political regionalizations such as the nation-state, federal states and counties, important informal normative regionalizations with respect to age, social status, role, and gender are regulating access to and exclusion from certain spatial contexts of everyday life. Goffman's (1959) distinction between front and back region also belongs to this category. His approach usefully highlights the relevance of both the reference point of interaction and the setting for the way interactions are performed.

Thus far, I have informally described negotiated regionalizations. They have to be distinguished from formal, legally recognized, institutionally established, and bureaucratically organized regionalizations. Such formal regionalizations make command and power over others possible in absentia, meaning that physical copresence of the rulers and the ruled is not required for power to be exercised. At the same time, formal regionalizations play a key role in identifying and categorizing classes of rights (e.g., constitutional, administrative, and criminal law; contract, tort, and property law). Research on formal regionalizations also encompasses the relation between public and private space, including surveillance and its legitimacy in public areas.

From the action- and practice-centered perspective proposed here, regionalist, nationalist, or ethnic movements can be seen as forces of everyday geography-making that oppose existing forms of authoritative control. A practice-centered perspective suggests that command and power over territories is actually command and power over subjects. This interpretation highlights the difference between a practice-centered and a traditional geopolitical perspective: The former focuses on subjects and their different way of *making* geography (and power); the latter, on the way that

power *over* space supposedly translates into power *of* space. The fact that regionalist and nationalist movements usually follow the traditional geographical and geopolitical logic exposes their Janus-faced character in the light of modernity: claiming the right to *self*-determination within a spatial-material logic when there is actually no self.

Informative-significative types of world incorporation or regionalizations are also closely tied to the corporeality of subjects. In the absence of the physical body, communication media serve as extensions of the body. Significant regionalizations (in the form of symbolic appropriations) are the most comprehensive and arguably the most powerful processes in the construction of meaningful geographical realities.

Research on the geographies of information focuses on the preconditions and processes of acquiring information and knowledge. With respect to the sender, research has to clarify the preconditions for generating and linguistically steering the potential appropriation of information via different information media. In historical order the starting points include the dissemination of information through writing (e.g., books and other print media), the electronic (radio, TV), and digital media (internet-based communication). Of particular interest are the globalizing consequences of the production and use of these media and the resulting tensions between the unfamiliar and familiar, between mediated information and unmediated experience. The implications of those consequences are observable in the context of cultural integration, for example.

Symbolic appropriations (and the symbolic geography-making that they stand for), the production of symbolic structures of spatially locatable phenomena and objects, are key dimensions of cultural representation. Hypothetically, one can assume that such symbolic appropriations are relevant in communication and as media for social integration and regulation (of economic actions). Attributing meaning to material contexts of action through the use of particular terms reflecting the relevant notion of space is always done via practices and usually in the form of routines used to manage standard situations.

Action and practice-centered geographical research should also inquire into the stock of knowledge-based interpretive schemes, rules of interpretation, skills, moral rules, and emotional dispositions that substantiate the different types of appropriations conducted as classificatory significations. Clarification of the following questions is required, too: Which subject-related geographies of symbolic appropriation are being produced in which communicative contexts? What do the symbolizations represent and with what consequences? How are the symbolizations enforced? A further important area of research is the empirical identification of the transformative potential that symbolic appropriations of places and material contexts of action can have for economic and political practices. The reconstruction of the processes constituting everyday “mythologies” (Barthes, 1957) and of their underlying reification techniques (“chosification” p. 112) are particularly important in this context, not least because they have been in the focus of traditional geographical research.

The six main types of world incorporation—the ways of defining, shaping, or establishing one's own ties to the world—are connected in manifold ways. Consumptive actions, for example, belong primarily to the economic field and are linked to allocative resources. However, they are also embedded in normative standards and might have a strong cultural-symbolic and/or lifestyle-related connotation. Particularly with globalization processes, the traditional combinations of a given type of action in only one field or type of resource—which have long been deeply ingrained, not least because of the unchallenged hegemony of nation-state institutions—are not only questioned but put into a new “order.”

Social Relations of Space

Processes of world incorporation are both structured and structuring; they are in the focus of practice-centered geographical research. This perspective makes it possible to reformulate the question about the relationship between society and space: Given that the spatiality of actors derives from their corporeality and necessitates world incorporation, what significance does that spatiality have for the generation of soci-ality? How has this basic challenge of spatiality been coped with over the course of history?

These questions broaden the horizon of social science geography and draw attention to two issues: (a) the process of relating social action to the implications of corporeality, and (b) the relevance of these relations for the generation of social realities. In a nutshell, it highlights just how essential society–space relationships are for soci-ality. Research on these relationships should therefore be the macro-analytic complement to the microanalytic level of subjective world incorporation processes in geographical social science research. Together they form the core of social science geography and are an extension of theories of society and of culture.

As the spatial turn in the social and cultural sciences suggests, the concept of society–space relationships takes account of the fact that it is insufficient to include the spatial aspect in social theory as a kind of spatialization of the social dimension. What is needed instead is a reconceptualization of social theory as a theory that refers to the geographical shaping of social realities without relapsing into material-istic or spatial reductionism. It must systematically take into account the implications that the corporeality of the actors and the material basis of many social institutions have for the subsequent spatiality of the social dimension for communication, interactions, socialization, learning situations, and care-giving.

A first important step for highlighting the relevance of spatiality was the contrasting of social relations and spatial structures (Gregory & Urry, 1985). It focused on pointing out the spatial manifestations of social reality with respect to the spatial structure of settlements and transport networks, the spatiotemporal paths of social reproduction, and social inequalities in the sense of regional disparities, for instance. Focusing on society–space relationships reverses the perspective: Research efforts

are no longer directed to the spatial structures of societal relationships but rather to the significance that spatial relationships have for the meaningful construction of sociocultural and geographical realities.

With spatiality being understood as describing actors' corporeality, this new perspective raises the question about the role that this spatiality and the ways of coping with it play in co-determining the shaping of sociocultural realities. In this context the ways in which people act over distance are profoundly important. Distance is understood in both a social and the physical sense. According to Tönnies (1887/2001), it is regarded as a core element of the difference between community and society. Consequently, the concept of society–space relationships includes consideration of the ways to cope with one's spatiality and, hence, with spatial distanciation as constituent of society.

The Times They Are a-Changing: From Territorial to Digital Social Realities

As noted in this chapter's introduction, the expression *social relations of space* refers to the historically and socially established ways of relating to given and spatially distant circumstances relevant to one's action. Social relations of space (spatial relations) are determined by the means and tools available for coping with spatiality for the purpose of creating social realities. Accordingly, the dominant spatial relations can be identified best by examining the available means and tools. Social relations of space are in this sense grounded in the sociohistorically created conditions, means, tools, and media of acting over distance, that is, in the forms and options for coping with the everyday world's spatiality with respect to all forms of social practice, social interaction, and communication. Therefore, social relations of space are evident in the current and historical possibilities and impossibilities of the sociogeographical conditions of social coexistence. Because the aforementioned ways of incorporating the world on the basis of terminological media are embedded in the historical development of the technological media of acting over distance, the analysis has to be complemented by a diachronic perspective.

The scope of daily geographical practices is limited by the manifestation of the social relations of space in each form of world incorporation. The media for mastering spatiality have advanced in revolutionary steps. The Neolithic Revolution and Industrial Revolution were, in this sense, also revolutions of society–space relations. Another reconfiguration of these society–space relations is taking place as the Digital Revolution. Each of these revolutions can (hypothetically) be characterized by a distinctive range of options for the formation of sociotatality.

Social relations of space determine the *modi operandi* (for acting over distance), based on which the corporeal social practices that construct sociocultural realities can take place. The historically available means, tools, and media are therefore constitutive of all forms of sociotatality. I contend that these means, tools, and media are

constitutive of social realities in much the same way as the Marxian relations of production are.

Social relations of space are, however, distinct from relations of production and modes of production. According to Marx (1867, p. 792, 1847/1983, p. 130), societal history progressed from primitive society to slave society (or ancient slave society) to feudal society, bourgeois society, and, finally, communist society. Marx assumed these different societal formations to emerge as the result of changing relations of production. That is, he considered social change to be determined by the respective relations of production. If his analysis can be considered as almost accurate for the period of industrial revolution, it can certainly not be seen as an all-encompassing formula for explaining the social world and its transformation. However, societies can also be classified according to the dominant mode of production and economic sector into agrarian, industrial, service, or information societies. By contrast, society–space relationships focus on the technological media for coping with distance and time. After the Neolithic Revolution they included the wheel; script (cuneiform); plant and animal breeding; irrigation; and storage capacities for food, seed, and water. The Industrial Revolution brought changes in the form of mechanics, metrization, mechanical drivetrain, and electricity, for instance. In the course of the Digital Revolution, numerical data storage and telecommunication in real time have become new technological media for coping with distance and time.

Modern nation-states can thus be viewed as the manifestations of thinking in terms of actions that expand linear reach, territorialization, clearly measurable territorial scope of social norms (state borders), bureaucracy, and communication via the medium of text (as opposed to orality) produced by printing technologies. The key question is, then, what the dissolution of the territorial nexus means for societality in the Digital Age. Further social science research would usefully investigate how to move beyond “methodological nationalism” (Beck & Sznaider, 2006, p. 3) or, more precisely, ontological nationalism, if the differentiation between methodological and ontological is used systematically (Werlen, 1987, p. 78, 1993b, p. 40). Such research would need to take account of the fact that geographical and social realities are based on specific *modi operandi* concerning the manifold ways in which people are coping with their spatiality.

These *modi operandi* are always imposed upon actors and formally specify the possibilities (or impossibilities) of acting over distance. In other words, *modi operandi* can be understood as sets of rules governing the ways in which the available means, tools, and media can (or cannot) be used by actors. A specific *modus operandi* therefore allows for a specific spatial and temporal reach of people’s actions and, by implication, also for particular forms of societality, socialization, and communication. For example, pre-Neolithic tribal societies characterized by the primacy of the present and of orality (which, in turn, requires bodily copresence) arguably operate in the synchronic/present mode. By contrast, nation-state forms of societality draw on analog written communication and the availability of the past and therefore operate in the diachronic/distanced mode. I conjecture that the hitherto undetermined societality of the Digital Age—based on numeric digitality—will take the synchronic/distanced *modus*.

Implications: From Space to Action and from Action to the Spatiality of Action

The approach suggested in this chapter opens up an alternative perspective on many current societal issues, including the global financial crisis, global migration, and sociocultural integration. They can be understood as consequences of the at least potential, continuing, spatiotemporal disembedding of social, cultural, and economic realities in the course of the Digital Revolution. The spatial ties of social practices are at least selective and no longer of the same encompassing nature as those in the predigital age. They are the result of practices of appropriation and socially produced spatiality rather than a quasi-natural condition.

The aforementioned societal issues can be interpreted as manifestations of the mismatch between the spatiotemporal shaping of societality and the logics of control governing that societality. In other words, the above societal issues arise when society–space relationships have changed or are in the process of changing to a new *modus operandi* while politics is still operating according to the logics established in the previous *modus operandi*. The increasing disintegration becomes evident in the continued use of territorial strategies (e.g., territorial wars or national financial policy) to dispel problematic consequences of a-territorial networks with fluid place-bound nodes (e.g., terrorism or digital financial capitalism).

Analyzing sociocultural realities from the geographical perspective outlined in this chapter emancipates the spatial from the temporal dimension. Hägerstrand's (1970) time geography has shown that the time required to perform corporeal actions correlates with spatial order. In other words, new society–space relationships always imply new society–time relationships, and society–space relationships therefore also represent space–time relationships.

Including actors' corporeality and the physical conditions of actions in the analytical perspective means that time no longer takes precedence over space. The acceleration of social life is thus an expression of the altered conditions of coping with spatiality and ultimately leads to action in global contexts in quasi simultaneity. The space–time relationships are at the basis of a reconceptualization of social theory.

In order to understand the significance of the revolution in the spatial and temporal conditions of the social dimension—or of globalization and acceleration (Rosa, 2013) with regard to the circumstances relevant to everyday action—they are to be thought of as two sides of the same coin. Whereas globalization denotes the spatial reach of one's action in real time, acceleration refers to its consequences for the frequency of decisions in social interaction. Thinking of globalization and acceleration as two sides of the same coin enables one to track the societal consequences of reshaping society–space relationships.

This geographical perspective opens up new approaches to issues of sustainability and the analysis of human practices according to ecological criteria. The notion of life and society being literally contained in biological habitats can be overcome with the concept of world incorporation. The a priori container space that was

conventionally assumed to exist independently of human experience and social practice—from Haeckel and the ecopolicies based on his ideas to the UN sustainability policies à la the Brundtland Report (World Commission on Environment and Development, 1987)—no longer has to be the criterion for survival or extinction and for calculations of so-called carrying capacity. Focusing on world incorporation means turning the perspective upside down: Human action is privileged above habitat (Earth), so sustainability politics and ecopolitics can be rid of biologicistic thinking, which usually puts them in the vicinity of traditional geopolitics. This accounting for society–space relationships makes it possible for an original approach without naturalistic reductionisms to be developed (Becker & Jahn, 2006) with ecological practices (Gäbler, 2015) rather than ecotopes at its center. Such reorientation is a consequence of the geographical turn from space to practice.

Conclusions

The scientific investigation into the shaping of spatial relations in a society can be seen as an important thematic field for holistic study of social, cultural, economic, and political matters, research that is generated by a spatially grounded perspective without ensnarement in natural or spatial determinism. With the recognition of the importance of society's spatiality, sociospatial conditions will identifiably become a part of the social sphere. For example, they will indicate the fundamental conditions for establishing social relations over distance, which are currently enabling many social actors to sustainably shape socialization and power without being physically copresent.

The dissolution of former principles of sociospatial conditions and the revolutionary establishment of new ones are resulting in new social arrangements and issues. As an already apparent reaction to this situation, there is a new (and highly problematic) tendency to address these changes by relying on well-known structural principles and established interpretational frameworks, such as the increasing nationalization of European or global issues. Yet continued deterioration in spatio-temporal conditions limits the potential success of such territorial solutions. In essence they can, hypothetically, be seen as attempts to illustrate how conventional conceptions of the world, regarded as the all-embracing, ingrained, and only possible interpretation, are eventually adapted to newly established spatiotemporal constellations. However, these constellations lay the claim for applying national or territorial logics of societal coexistence to increasingly deterritorialized living conditions rather than simply territorially regulating them.

One of the most important contemporary tasks in social and cultural studies is the establishment of and elaboration on new conceptions of the world that bring about not only the sociocultural spheres but also the attendant political and everyday frameworks. This endeavor, however, also implies the uncoupling from traditional and trusted conventions. Thus, the first and foremost goal is to dismantle and discard ideas and understandings of container space and to spatialize social and

cultural realities as the basic principles of world conceptualizations that have been all-encompassing for several centuries. It is not to promote practice-centered views and illustrate how actors relate to the world with and within the conventions of their actions.

Relating to this shift in perception, other urgent issues such as sustainability and the evaluation of human activities involving ecological questions will also have to be renegotiated. Besides the consideration of social issues, the matter of decontainment will be essential to this process. In this respect, the nomenclature and concepts of space and place and of nature and landscape cannot be regarded as logically separable or independent.

References

- Bartels, D. (1968). *Zur wissenschaftstheoretischen Grundlegung einer Geographie des Menschen* [On the epistemological foundation of a geography of men]. Wiesbaden: Steiner.
- Barthes, R. (1957). *Mythologies* [Mythologies]. Paris: Seuil.
- Beck, U., & Sznaider, N. (2006). Unpacking cosmopolitanism for the social sciences: A research agenda. *British Journal of Sociology*, 57, 1–23.
- Becker, E., & Jahn, T. (Eds.). (2006). *Soziale Ökologie: Grundzüge einer Wissenschaft von den gesellschaftlichen Naturverhältnissen* [Social ecology: Outline of a science of social nature-relations]. Frankfurt am Main: Campus-Verlag.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality*. Garden City, NY: Doubleday.
- Bourdieu, P. (1985). *Sozialer Raum und "Klassen": Leçon sur la leçon. Zwei Vorlesungen* [Social space and "classes": Two lectures]. Frankfurt am Main: Suhrkamp.
- Braudel, F. (1949). *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* [The Mediterranean and the Mediterranean world in the age of Philip II]. Paris: Colin.
- Bunge, W. (1962). *Theoretical geography*. Lund: Gleerup.
- Döring, J., & Thielmann, T. (Eds.). (2008). *Spatial Turn: Das Raumparadigma in den Kultur- und Sozialwissenschaften* [Spatial turn: The space paradigm in cultural and social sciences]. Bielefeld: Transcript.
- Durkheim, E. (1893). *De la division social du travail*. [The division of labor in society]. Paris: Félix Alcan.
- Durkheim, E. (1957). *Professional ethics and civic morals*. London: Routledge/Kegan Paul.
- Foucault, M. (1999). Andere Räume [Of other spaces]. In J. Engelmann (Ed.), *Michel Foucault: Botschaften der Macht: Der Foucault Reader* (pp. 145–160). Stuttgart: Deutsche Verlags-Anstalt.
- Gäbler, K. (2015). *Gesellschaftlicher Klimawandel: Eine Sozialgeographie der ökologischen Transformation* [Social climate change: A social geography of the ecologic transformation]. Sozialgeographische Bibliothek: Vol. 17. Stuttgart: Franz Steiner.
- Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. London: MacMillan.
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Polity Press.
- Giddens, A. (1990). *The consequences of modernity*. Stanford: Stanford University Press.
- Giddens, A. (1993). Preface. In B. Werlen, *Society, action and space: An alternative human geography* (pp. xii–xvi). London: Routledge.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York: Doubleday.
- Gregory, D., & Urry, J. (Eds.). (1985). *Social relations and spatial structures*. London: MacMillan.

- Günzel, S. (2009). (Ed.). *Raumwissenschaften* [Spatial sciences]. Frankfurt am Main: Suhrkamp.
- Haeckel, E. (1866). *Generelle Morphologie der Organismen* [General morphology of organisms]. Berlin: Reimer.
- Hägerstrand, T. (1970). What about people in regional science? *Papers in Regional Science*, 24, 7–24.
- Hard, G. (1998). Eine Sozialgeographie alltäglicher Regionalisierungen [Social geography of everyday regionalizations]. *Erdkunde*, 52, 250–253.
- Harvey, D. (1969). *Explanation in geography*. London: Edward Arnold.
- Harvey, D. (1982). *The limits to capital*. Oxford: Basil Blackwell.
- Heidegger, M. (Ed.). (2000). *Gesamtausgabe: Vol. 16. Reden und andere Zeugnisse eines Lebensweges: 1910–1976* [Complete edition: Vol. 16. Lectures and other testimonies of a life path: 1910–1976]. Frankfurt am Main: Klostermann. (Original work published 1933)
- Hettner, A. (1927). *Die Geographie: Ihre Geschichte, ihr Wesen und ihre Methoden* [Geography: Its history, nature, and methods]. Breslau: Ferdinand Hirt.
- Kehlmann, D. (2007). *Measuring the world*. London: Quercus.
- Koselleck, R. (2000). *Zeitschichten: Studien zur Historik* [Layers of time: Studies on history]. Frankfurt am Main: Suhrkamp.
- Lefebvre, H. (1974). *La production de l'espace* [The production of space]. Paris: Édition Anthropos.
- Levy, J. (1999). *Le tournant géographique* [The geographical turn]. Paris: Belin.
- Lippuner, R., & Lossau, J. (2004). In der Raumfalle: Eine Kritik des spatial turn in den Sozialwissenschaften [Caught in the space trap: A critique of the spatial turn in the social sciences]. In G. Mein & M. Riegler-Ladich (Eds.), *Soziale Räume und kulturelle Praktiken: Über den strategischen Gebrauch von Medien* (pp. 47–64). Bielefeld: Transcript.
- Löw, M. (2001). *Raumsoziologie* [Sociology of space]. Frankfurt am Main: Suhrkamp.
- Löw, M. (2008). The constitution of space: The structuration of spaces through the simultaneity of effect and perception. *European Journal of Social Theory*, 11, 25–49.
- Marx, K. (1867). *Das Kapital: Kritik der politischen Ökonomie. Erster Band: Buch I. Der Produktionsprozess des Kapitals* [Capital: A critique of political economy: Vol. I, Book I. The process of capitalist production]. Hamburg: Meissner.
- Marx, K. (1983). Das Elend der Philosophie: Antwort auf Proudhons “Philosophie des Elends” [The poverty of philosophy: Response to Proudhon’s “Philosophy of Poverty”]. In Institut für Marxismus-Leninismus bei ZK der SED (Ed.), *Karl Marx. Friedrich Engels* (pp. 63–182). Marx-Engels-Werke: Vol. 4. Berlin: Dietz. (Original work published 1847)
- Newton, I. (1687). *Philosophiae naturalis principia mathematica*. London: Joseph Streater.
- Newton, I. (1952). *Opticks: Or, a treatise of the reflexions, refractions, inflexions and colours of light*. New York: Dover. (Original work published 1704)
- Park, R. E. (1952). *Human communities: The city and human ecology*. New York: Free Press.
- Park, R. E., Burgess, E. W., & McKenzie, R. D. (1925). *The city*. Chicago: University of Chicago Press.
- Parsons, T. (1952). *The social system*. London: Free Press.
- Parsons, T. (1961). *Theories of societies. Foundations of modern sociological theory: Vol. 2*. New York: Free Press of Glencoe.
- Popper, K. (1972). *Objective knowledge: An evolutionary approach*. Oxford, UK: Clarendon Press.
- Ratzel, F. (1891). *Anthropo-Geographie: Zweiter Teil. Die geographische Verbreitung des Menschen* [Anthropo-geography: Second part. The geographical distribution of mankind]. Stuttgart: J. Engelhorn.
- Ratzel, F. (1897). *Politische Geographie: Geographie der Staaten, des Verkehrs und des Krieges* [Political geography: Geography of states, transport, and war]. Munich: Oldenbourg.
- Rosa, H. (2013). *Social acceleration: A new theory of modernity* (J. Trejo-Mathys, Trans.). New York: Columbia University Press.

- Schlögel, K. (2002). Kartenlesen, Raumdenken: Von einer Erneuerung der Geschichtsschreibung [Map reading, spatial thinking: Of a renewal of historiography]. *Merkur. Deutsche Zeitschrift für europäisches Denken*, 636, 308–318.
- Schmid, C. (2005). *Stadt, Raum und Gesellschaft: Henri Lefebvre und die Theorie der Produktion des Raumes* [City, space, and society: Henri Lefebvre and the theory of the production of space]. Sozialgeographische Bibliothek: Vol 1. Stuttgart: Franz Steiner.
- Schütz, A. (1932). *Der sinnhafte Aufbau der sozialen Welt: Eine Einführung in die verstehende Soziologie* [The phenomenology of the social world: An introduction to interpretive sociology]. Vienna: Springer.
- Schütz, A. (1981). *Theorie der Lebensformen* [Theory of life forms]. Frankfurt am Main: Suhrkamp.
- Simmel, G. (1903). Soziologie des Raumes [Sociology of space]. *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, 27(1), 27–71.
- Soja, E. W. (1989). *Postmodern geographies: The reassertion of space in critical social theory*. London: Verso.
- Tönnies, F. (2001). *Community and civil society* (J. Harris & M. Hollis, Trans.; J. Harris, Ed.). Cambridge: Cambridge University Press. (Original work published 1887)
- Warf, B., & Arias, S. (2008). *The spatial turn: Interdisciplinary perspective*. Routledge studies in human geography: Vol. 26. London: Routledge.
- Warming, E. (1895). *Lehrbuch der Ökologischen Pflanzengeographie. Eine Einführung in die Kenntnis der Pflanzenvereine* [Textbook of ecological botanic geography: An introduction to the knowledge of horticultural associations]. Berlin: Gebrüder Borntraeger.
- Warming, E. (1909). *Oecology of plants: An introduction to the study of plant communities*. Oxford: Clarendon Press.
- Weber, M. (1980). *Wirtschaft und Gesellschaft: Grundriss der verstehenden Soziologie* (5th ed.) [Economy and society: An outline of interpretive sociology]. Tübingen: Mohr & Siebeck. (Original work published 1922)
- Weber, M. (1988). Geschäftsbericht und Diskussionsreden auf den deutschen soziologischen Tagungen (1910) [Annual report and discussion speeches at the German sociologic conferences (1910)]. In M. Weber (Ed.), *Gesammelte Aufsätze zur Soziologie und Sozialpolitik* (pp. 431–491). Tübingen: Mohr & Siebeck. (Original Work published 1924)
- Weingarten, M. (2009). Biologie/Ökologie [Biology/ecology]. In S. Günzel (Ed.), *Raumwissenschaften* (pp. 77–92). Frankfurt am Main: Suhrkamp.
- Werlen, B. (1987). *Gesellschaft, Handlung und Raum: Grundlagen handlungstheoretischer Sozialgeographie* [Society, action and space: Principles of social geography based on action theory] (3rd ed.). Erdkundliches Wissen: Vol. 89. Stuttgart: Franz Steiner.
- Werlen, B. (1993a). Gibt es eine Geographie ohne Raum? Zum Verhältnis von traditioneller Geographie und zeitgenössischen Gesellschaften [Is there a geography without space? On the relationship between traditional geography and contemporary societies]. *Erdkunde*, 47, 241–255.
- Werlen, B. (1993b). *Society, action, and space: An alternative human geography* (G. Walls, Trans.). London: Routledge.
- Werlen, B. (1995). *Sozialgeographie alltäglicher Regionalisierungen: Bd. 1. Zur Ontologie von Gesellschaft und Raum* [Social geography of everyday regionalizations: Vol. 1. On the ontology of society and space]. Erdkundliches Wissen: Vol. 116. Stuttgart: Franz Steiner.
- Werlen, B. (1996). Die Geographie globalisierter Lebenswelten [The geography of globalized life worlds]. *Österreichische Zeitschrift für Soziologie*, 21, 97–128.
- Werlen, B. (1997). *Sozialgeographie alltäglicher Regionalisierungen. Bd. 2: Globalisierung, Region und Regionalisierung* [Social geography of everyday regionalizations: Vol. 2. Globalization, region, and regionalization]. Erdkundliches Wissen: Vol. 119. Stuttgart: Franz Steiner.
- Werlen, B. (2000). *Sozialgeographie*. [Social geography]. Bern: Paul Haupt.

- Werlen, B. (2012). True global understanding and pertinent sustainability policies. In I. Scheunemann & L. Oosterbeek (Eds.), *A new paradigm of sustainability* (pp. 163–172). Rio de Janeiro: IBIO.
- Werlen, B. (2013). Gesellschaft und Raum: Gesellschaftliche Raumverhältnisse. Grundlagen und Perspektiven einer sozialwissenschaftlichen Geographie [Society and space: Society–space relationships. Principles and perspectives of a social science geography]. *Erwägen-Wissen-Ethik. Forum für Erziehungskultur*, 24, 3–16.
- Werlen, B. (2015). From local to global sustainability: Transdisciplinary integrated research in the Digital Age. In B. Werlen (Ed.), *Global sustainability: Cultural perspectives and challenges for transdisciplinary integrated research* (pp. 3–16). New York/London: Springer.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.

Open Access This chapter is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, duplication, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the work's Creative Commons license, unless indicated otherwise in the credit line; if such material is not included in the work's Creative Commons license and the respective action is not permitted by statutory regulation, users will need to obtain permission from the license holder to duplicate, adapt or reproduce the material.

