“Geography and Discourse”

By

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because people must make decisions based on new information under conditions of uncertainty. The availability heuristic, for instance, could lead individuals to believe that a particular event was rare if they could not recall any instances of such an event (and therefore they would not have to prepare for it). The general model of risk communication, which emerged through years of hazards research, stated that a message must be heard, confirmed, understood, believed, and personalized before action would be taken. Many of the ideas discussed above are complementary and acknowledge that individuals’ preparedness or mitigation actions are the result of internal and external factors and that a combination of factors either encourage or constrain actions. Most also operate under the assumption that an individual (or business or community) is not likely to prepare for an event unless he or she becomes aware of the event and believes that the event has consequences for him or her.

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See also Differential Vulnerabilities to Hazards; Disaster Prediction and Warning; Floods; GIS in Disaster Response; Hurricane Katrina; Hurricanes, Risk and Hazard; Natural Hazards and Risk Analysis; Resilience; Tsunami of 2004, Indian Ocean; Vulnerability, Risks, and Hazards; White, Gilbert

**Further Readings**


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**DISCOURSE AND GEOGRAPHY**

Discourse is a particular claim about the relationship between words and the things they represent. Discourse theory began with Michel Foucault, the famous French philosopher, as a critique of the Enlightenment idea that science and scientific investigation—using observation, measurement, and hypothesis testing—act as a mirror to the world, thus providing us rational objective truth about the world. Discourse theory rejects the claim that science offers us objective knowledge of the world and claims instead that all objects—while certainly real in a material sense—are also discursive constructions. Discourse theory claims that an object cannot be understood as a mere object but can only be understood in context, that is, in relation to the conversations, or discourses, that surround it. Imagine a car: It is in one sense a vehicle to get from Point A to Point B. But it is at the same time an object embedded in myriad discourses—environmental, social, and political, among others that reach far beyond its mere meaning as a way to get to and from work.

Discourses must be understood as constellations of statements that are not free-floating or disembodied but that act in powerful ways to shape our conception of the world and the objects in it. Invariably, the play of discourse sanctions some forms of knowledge as normal or true while excluding others. Social institutions play an important role in the production and circulation of discourse—what we talk about, how we talk.
about it, and what context we choose, or are allowed by the rules of what is normal, to discuss an object in. This is what is meant by the proposition that all objects are at once objects in a material sense and social constructions, and that is why Foucault equated discourse with power, knowledge, and truth. These claims have profound implications for scientific explanation, education, social policy, and politics of social change.

Discourse theory in the main rests on two principles common to all science and to geography: selection and aggregation. It is, of course, true that any object possesses an infinite number of attributes. Consider, for example, a human body, which presents itself to us as a single, tangible, bounded, objective unit of reality. But a human body has innumerable aspects such as physiology, personality, sexuality, medical history, and identity characteristics within each of which is another endless list of metric and nonmetric attributes. For a doctor, a body is a site of healing and surgery. For a biologist, a human body is a site of cellular processes. To a soldier, a human body is a target. To a census taker, it is a statistic; to a lover, a site of pleasure, and so on ad infinitum. So what exactly is a scientific definition of a human body? Every description of a body is by necessity a partial description of attributes that have been selected from an infinite list. In other words, the body is discursively constructed for a purpose, and there are as many such constructions as there are purposes. Consider the proposition “The man is black.” A person’s skin color does not describe something fundamental or essential about him or her. The statement represents a discursive construction of a particular human body relative to the powerful body discourses that are prevalent in society. The constructivist claims I have made about the body of a single person are true for all objects of scientific inquiry ranging from a grain of sand to the near-infinite realms of the known universe. From an infinite number of attributes, we select certain elements; this is a natural and essential process, without the ability to select certain attributes and ignore others, conversation of any sort would be rendered impossible. The claim of discourse theory is simply that what we select, and what we ignore, are shaped by social forces and certainly cast doubt on the rational scientific claim to objective knowledge free from discourse.

The second constructivist principle is discursive aggregation. Every word is not only a partial description of the objects it represents but also a discursive aggregation of disparate things. Words group things together to enable conversations. Consider the word capitalism. That word has no objective, discrete, bounded, scientific entity that lies at the core of the word. The term capitalism groups a number of disparate things, including ownership over the means of production, flows of money, wages, advertising, pollution, personal consumption, health, nutrition, lifestyles, cultural values, and innumerable other elements. It represents a way of talking about the world at particular levels of discursive aggregation. The term does not represent a pre-given segment of reality but is simply a useful way of talking about some aspects of the social world. Discourse theory does not demand that we abandon such aggregate concepts but only that we be aware of aggregation and its implications for scientific study and conversation.

All objects, and the names we use to identify them, are by necessity aggregations of other objects. Consider the terms molecule, soil, tree, forest, capitalism, deciduous forest, global warming, and terrorism. We obtain the concept of a “deciduous forest” by selecting the characteristic of “annual leaf fall” out of the infinite number of attributes possessed by trees. The concept does not correspond to a bounded entity existing in the natural world; it is simply a way of representing a set of trees at a particular level of discursive aggregation.

The fundamental claim of discourse theory is that the relationship between words and the things they represent is always mediated by the two principles of selection and aggregation and that thus the “objective” world of science is in fact a discursive construction. There is no known methodology to escape discursive construction.

Application of Discourse Theory to Geography

How does the notion of discursive construction apply to geography—to its objects of study and
its concepts of space and scale? Unlike systematic sciences such as economics and geology, geography is not defined by a unique set of objects. The nearest formulation to the concept of a geographic object is "anything that has a specified location." Such objects are shown on maps as points, lines, and areas, but the interest of geographers in them arises from their ability to represent substantive features such as cities, roads, and regions. Following the two principles invoked earlier, it is clear that all geographic objects are discursively constructed because the actual description of cities, roads, and regions cannot escape the rules of attribute selection and level of aggregation. Depending on the context, a city, for example, is more than just its population size; it is also defined by a number of other attributes such as air pollution, safety, lifestyle, and so on. It is also a discursive aggregation—of people, neighborhoods, streets, and traffic.

The rules of discursive construction apply with equal force to the concept of geographic space. Traditionally, geographers have viewed space as an a priori given (alongside time) that exists prior to geographic investigation, where the subject was in fact defined as the study of the organization of objects in space. The notion of space as a pregiven dimension is also evident in the literature on time-geography and space-time cubes. But why are geographers concerned with the concept of space? Independent of objects there is nothing intrinsically interesting about space itself. This provides us with a succinct definition of space: "Space is that in which objects are located." Space is not an a priori dimension; it comes into being only through objects, their attributes, and their spatial relationships. But if objects are discursively constructed and space comes into being only through the location of objects, then elementary logic leads us to the proposition that space is also a discursive construction.

The geographic concept of scale provides a powerful insight into the role of discourse in geography. At its most elementary level, a scale is a ratio between a linear unit on the map and the number of ground units it represents. The appearance of detail of a city drawn at a scale of 1:5,000 is very different from what is depicted of the city at 1:500,000. The transition involves the selection of features and attributes to represent. Therefore, every map, drawn at whatever scale, is a discursive construction of the world. Geographers also use the concept of scale to speak about places as they range over the levels of households, neighborhoods, communities, counties, regions, and continents. Those conversations take place at particular levels of discursive aggregation. In fact maps of landforms, climate, or vegetation classifications are nothing but fact groupings based on the principles of selection and aggregation at different levels of generalization.

The written records of geographic knowledge dating back to the Greeks and Arabs show that they routinely employed concepts of space, scale, and classification. So the role of discourse was always present in geography and is not something that simply surfaced in "postmodern times." It is manifestly clear that no geographic knowledge can exist outside discourse, but the more important point is to explore the significance of that relation.

The importance of discourse to geography can be illustrated by considering the common practice of drawing "poverty maps." A household is considered poor when its income falls below a specified income threshold. Areas with high concentrations of poverty households are deemed "poverty areas." Such areas are then compared with other areas of high income, permitting geographers to extract a series of explanatory indices such as unemployment, race, gender, type of household, education level, and behavioral profile. The list of such indices determines how social policy will be formulated and, consequently, who will be authorized to address the poverty problem. The extraction of explanatory indices based on the spatial distribution of household income is not an objective act of scientific investigation that simply mirrors a given underlying social reality but is, rather, a profound discursive construction of the material conditions of people's lives. Poverty is not an inherent characteristic of certain countries, states, or even neighborhoods. Furthermore, the common practice of "mapping poverty" may tell us where poor people live but offers us no location for where the causes of poverty reside. As reasonable as the geography of poverty may at first seem, as a discourse it is linked as a causative agent of the very problem it is designed to address. By comparing poor areas with those
that are not, poverty maps set up an unhelpful binary along the following lines: poor versus non-
poor, problem versus nonproblem, undeveloped versus developed, inner city versus suburbs, areas
without resources versus those that have, poor as the other versus nonpoor as self. Such binaries
privilege nonpoor areas and their residents, houses, landscapes, and lifestyles while ignoring the
role of wealthy areas in creating poverty. By presenting the income levels and consumption
habits of nonpoor areas, not just as the location of the nonproblem but in fact as the standard to
emulate and aspire to, the geography of poverty has become a prescription for the creation of
permanent scarcity and inequality.

Presenting the geography of poverty as discourse rather than as objective science not only
allows us to contest that particular representation but also allows us to create alternative discursi-
Ve constructions that may prove more useful. Alternative constructions will select different
features to highlight, present them at different levels of discursive aggregations, authorize different
social policies, and thus empower different agents to act. If we move away from the concept of
income—on which poverty maps are based—and ask instead a series of alternative questions, such
as why poor people find it difficult to obtain good nutrition, live in healthy bodies, or find afford-
able transport to work, the new discourse we generate leads us to very different solutions, social
policies, and social change agents empowered to act. This is what Foucault meant by employing the
neologism “power/knowledge”—that power is exercised through knowledge; contesting estab-
lished discourses is indeed a form of political practice because it enables the exercise of power
by different agents.

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Further Readings

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DISEASE, GEOGRAPHY OF

Waldo Tobler’s first law of geography states that things closer in space are more similar than things
farther apart in space. Thus, it is no surprise that disease burdens, often measured by disease rates,
create spatial patterns in their distribution and spread. These patterns can be caused by an array
of factors, including population demographics, rate and method of infectious disease transmis-
sion, environmental contamination, health behaviors, access to health care, and spatial distribution
of social or economic conditions.

Identifying spatial patterns of disease distribution or spread is valuable to both public health
practice and the expansion of scientific knowledge. Visualization and analysis of spatial pat-
terns can inform public health and medical efforts by improving public health surveillance, identifying
places that require additional resources, identifying the best location for a health care facility,
generating hypotheses about disease etiology and spread, and forming the basis for additional
study. It can also raise public awareness of risk, potentially affecting behavioral or other risk fac-
tors for disease. Analyses that relate suspected risk factors for disease to burdens of disease can
provide a basis for public health intervention,