

Distance

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Glossary

Construal level theory Conceptual framework developed in psychology that explains the reciprocal relationship between subjective distance (how far or proximal something seems) and the level of concreteness (the richness in detail) of our mental representations.

Homophily The tendency for people to be drawn to, and seek out, people similar to themselves. The concept underpins the everyday saying "Birds of a feather flock together."

Hypotheticality One of the four dimensions of subjective distance, alongside spatial distance, temporal distance, and social distance. It refers to the degree of uncertainty of a phenomenon or hypothesis.

Subjectivity Pertaining to how a person experiences the world and themselves. If objectivity refers to how things actually are, independently of our opinions or feelings, subjectivity captures how we feel and/or think about how things are.

Theoretical and quantitative revolution Philosophical and methodological movement in the Anglo-American geography of the 1950s and the 1960s marked by a preoccupation to transform geography into a theoretically informed and quantitatively oriented academic discipline.

Distance is one of human geography's key concepts. But what is the significance of this widely acknowledged idea? In order to appreciate the complexities involved, it is useful to step back and look at human geography as an academic discipline. There are different ways to define and delimit one academic discipline from others. For example, if one publishes in recognized geography journals or if one grounds their work in prior research conducted by geographers, these can come to be seen as sufficient grounds to label that work "geography." There is, however, something unsatisfactory or *ad hoc* about these criteria. A deeper and more interesting perspective would be to investigate the set of related concepts through which a given researcher looks at the world. From this standpoint, geography is the discipline that looks at the world through the preferred lens of related spatial concepts such as space, place, region, territory, environment, landscape, scale, location, diffusion, and distance. Different geographers will have different preferences as to which of these concepts they would deem most important or central to geographical inquiry. Some of these preferences are expressions or consequences of subscribing to particular schools of thought or philosophies within human geography. Thus, place has often been the preferred key concept of humanistic geographers, scale the preferred spatial analytic for Marxist geographers, and territory the central concept for poststructuralist approaches inspired by the work of Michel Foucault. This situation means that the relative prominence of different key geographical concepts rises and falls with the changing fortunes of different schools of geographical thought.

Distance, the Theoretical and Quantitative Revolution, and the First Law of Geography

Distance has been theorized and leveraged as a key geographical concept especially as part of the theoretical and quantitative revolution that has swept through Anglo-American human geography in the 1950s and the 1960s. The perceived advantage of distance over other key geographical concepts was that distance instantiates an objective physical property. As such, it could easily be measured, quantified, and deployed in comparative work in virtue of the fact that the units of measurement—the metric system, the imperial system, and so on—were standardized. Indeed, the aim of the proponents of the theoretical and quantitative revolution was to transform geography from an impressionistic, descriptive enterprise into a proper science. One part of being a proper science involves theory building and the guiding of empirical research by the goal of testing the predictions of those theories; another part of transforming geography into a proper science pertained to using the universal language of mathematics and statistics in order to reason quantitatively, and therefore precisely, about the geographical phenomena of interest. Distance thus became a key geographical concern, leveraged in various forms of quantitative modeling such as spatial analysis or locational analysis.

Prominent geographers of the times such as J Wreford Watson, William Bunge, John Nystuen, Peter Haggett, and Waldo Tobler have made claims about geography being a discipline concerned with distance. Emblematic of that generation's obsession with making geography a proper science is perhaps the formulation by Waldo Tobler of the first law of geography, stating that nearby things are more related to one another than to distant things. As it happens, the subsequent history of the reception of that law in geography has been ridden by irony and controversy. On the one hand, there have not been any second, third, and so forth laws to be added to that first law; on the other hand, the advent of the Internet, the progress in transportation and telecommunication, and

the intensification of globalization have made apparent all too many exceptions to that law to the point that its very status as a law has been undermined.

In the intervening decades, there has been recognition even among some of the proponents of the theoretical and quantitative revolution in geography that a strictly objectivist, physical notion of distance is not sufficient to capture the full complexity of human phenomena affected by, and affecting, distance. Thus, subjective aspects of distance were theorized in Gould and White's "Mental maps" (1974), Downs and Stea's "Maps in minds" (1977), David Ley's "A social geography of the city" (1983), Anthony Gatrell's "Distance and space" (1983), David Lowenthal's "The Past is a Foreign Country" (1985), as well as Stuart Corbridge's "Marxisms, modernities, and moralities: development praxis and the claims of distant strangers" (1993).

Distance and Subjectivity in Recent Human Geography

In more recent work, Simandan (2016) has proposed a wholesale reconsideration of the concept of distance in human geography that emphasizes subjective or psychological distance. This approach is inspired by construal level theory—an empirical, experiment-based research program in psychology that studies how humans experience distance subjectively. A key proposition of this approach is that the starting point or ground zero for experiencing distance is the self in the here and now. Psychological or subjective distance measures how near or how far objects and phenomena feel from this experiencing self in the here and now. An important finding has been that spatial distance is only one of four-tangled dimensions of subjective distance, the other three being temporal distance, social distance, and hypotheticality. Temporal distance measures the time elapsed in relation to the self in the here and now. We can thus speak of the recent past and the near future, as opposed to the distant past or the distant future. Social distance measures how strong or weak our social ties are, and, therefore, how close we feel other people to be our identity: one's spouse or child is socially closer than one's cousin, and one's friend socially closer than one's acquaintance. Hypotheticality measures how probable various imagined worlds and scenarios are. Thus, when we try to estimate how the future will turn out, we might say that a given course of events is a "distant" possibility (very unlikely), whereas another course of events is imminent (nearby, very probable, about to happen).

Experimental manipulations of the four dimensions of subjective distance have shown that they are closely linked: thinking of one tends to trigger the others. Thus, if we start thinking of distant strangers (social distance), we tend to imagine them far away (spatial distance), we are more likely to think in terms of possibilities and counterfactuals (hypotheticality), and we are more likely to abandon a focus on the present and start thinking instead of the past or of the future (temporal distance). The close linkage between the four dimensions of subjective distance is important conceptually in contemporary human geography because it reinforces a broader disciplinary trend toward fusing fundamental geographical categories such as time and space into time-space or TimeSpace. This fusing helps reveal novel ways of thinking through, and with, these fundamental categories, thereby opening up whole new ways of doing human geography.

Another important experimental finding is that the level of abstraction of people's mental representations covaries with subjective distance. Thus, the self in the here and now is experienced and represented in very concrete terms, it is rich in details, vivid, salient, with a strong, palpable feeling of presence. At the opposite end, things that are far away in subjective distance tend to be represented abstractly, by focusing only on their central features, and discarding all other details as irrelevant. The distant future or the distant past, an unlikely scenario, or distant strangers one has never met evoke abstract, schematic, simplified, impoverished mental images, that feel far less real and far less present than the self in the here and now.

Subjective Distance, Social Life, and Social Difference

The aforementioned finding has a number of implications for key problematics in human geography and social life. First, when people are primed to think of subjectively distant things, they are more likely to be preoccupied by desirability concerns (their goals, central aspirations, and core identities) and more likely to overlook feasibility concerns (the nuts and bolts of implementing a given plan and making it work from within the starting point of actually existing, concrete circumstances). This bias occurs because desirability concerns are inherently more abstract or superordinate than feasibility concerns: the means of doing something (a feasibility issue) are subordinate (or less abstract) to a given end or goal (a desirability issue). Second, the abstract mental representation of subjectively distant entities enables new ways of thinking about the social geography of stereotypes and prejudice. A stereotype is an abstract or caricatured depiction of what one deems to be the central characteristics of a given outgroup. As such, a stereotype is a tool that helps us make sense of distant others from a safe distance. One way of fighting inaccurate stereotypes and prejudice, more generally, is to reduce the distance from the stereotyped outgroup and get to know some of its members personally. This social process would translate mentally into a richer, more detailed, and more concrete representation of the outgroup, correcting the excessive simplifications brought about by knowing-at-a-distance. Note, however, that this ideal social dynamic often fails to operate in practice because of a reinforcing feedback loop or vicious circle: if we are prejudiced against a given social group, we tend to avoid interacting with that group, that is, we put distance between us and them, as a means to preempt social contact with the "undesirables." But that very distancing borne out of prejudice keeps the prejudice alive and reinforces it. This social geographical phenomenon is worth careful study precisely because it is more difficult to detect than more blatant phenomena of outgroup hatred and prejudice that make recourse to physical violence or verbal abuse. A racist or a homophobe might be increasingly likely to

perform their racism or homophobia by distancing themselves and thereby avoiding interaction with, say, Black people or gay people. This cold phenomenology of social intercourse is easier to hide and deny in an era when overt manifestations of prejudice are met with wide social disapproval.

Subjective Distance and the Ethics of Caring

The covariation between subjective distance and the level of abstraction of our mental representations has implications for moral geography because it opens up a window for understanding what people care about, and why. We tend to care the most about the self in the here and now. Distant others, distant futures, distant possibilities, or the fate of distant places preoccupy us far less: part of this caring decay via distance decay has to do with the fact that all these distant entities are represented schematically or abstractly, if at all, and therefore, feel far less real than the immediate present one inhabits. We can use this information to build alternative understandings and representations that can get people to care more about the things they should care more. Two quintessentially geographical examples will suffice.

One is Doreen Massey's work on developing a "global sense of place" (Massey 1991). This work was animated by a concern to get people to situate their existence in a given place through an understanding of that place as an intersection of broader global networks and flows. In that sense, any given place is constituted by its outsides, by that which only seems to be far away, but is in fact, immediate. Instead of looking inward and statically to a bounded sense of place, Massey wanted to develop a morally compelling vision of place as dynamic and open. In this vision, the global and the local do not correspond to the far and to the near, respectively. Instead, distance itself collapses, and one's sense of place should be global from the get-go. This is a normative and prescriptive stance because it bundles our fate in a given place with the fate of apparently distant strangers in apparently distant lands. We should care about what is happening elsewhere because our welfare is intimately tied with the welfare of others, across, and through the networks and flows that constitute and connect the world.

A second geographical example is how we think about global climate change itself in relation to distance. Geographers have already written a significant corpus of scholarship about the roles of technological progress and reduced trade costs in the acceleration of the process of economic and cultural globalization and the profoundly altered sense of distance brought about by that acceleration (the metaphor "global village" comes to mind). Much less has been written about how climate change itself will reshape how we think and process what is near and what is far. The melting of the Arctic ice cap predicted by climate change models, for example, will allow shortening the shipping route between Europe and Asia by 7000 km, allowing vessels to go through the Northwest Passage (in the Arctic Archipelago, in Northern Canada) instead of the Panama Canal.

The rise of an ecological consciousness has led to self-conscious preoccupations with using distance and proximity to help reduce one's carbon footprint, by, for example, eating only locally grown food, or minimizing long-distance travel. But more important perhaps is the deployment of the four related dimensions of subjective distance discussed in Simandan (2016) to get people to care about global climate change itself. The general idea is that if climate change is portrayed as something not fully certain, that may occur slowly, in the distant future, and that will affect future generations, people are unlikely to care about it. In order to increase the importance given to this global phenomenon, each of the four dimensions of subjective distance needs to be leveraged, as follows.

First, hypotheticality: an emphasis on the consensus of scientists that global climate change is happening and is "real" should help diminish the perception that climate change is a mere possibility, and therefore, not a pressing concern. Second, temporal distance: ongoing data showing that changes are already happening now and that many more are imminent would get people to care more than the display of forecasts depicting the world's climate by the (distant) end of the 21st Century. Third, spatial distance: a careful inventory of how climate change is affecting each and every corner of the world would dispel the false reassurance that there is a "here" where we are safe from it, as opposed to a "there" where it will be a problem (e.g., excessive focus on rising sea levels and how they will impact primarily populated coastal areas or islands of low altitude). Fourth, social distance: if we placed the emphasis on the fact that climate change is not a possibility, but a reality; not something happening in the distant future, but something already well underway; and not something affecting only some parts of the world, but a truly global phenomenon, then it becomes apparent that it will affect us, and not only distant strangers and future generations (social distance). In sum, the four-tangled dimensions of subjective distance can be deployed in critical pedagogy, participatory action research, and political activism as vectors of caring, moral behavior, and progressive politics.

Novel Ways of Conceptualizing Distance: The Case of Urban and Economic Geographies

If we step back from the specifics of the four interrelated dimensions of subjective distance discussed in Simandan (2016) and broaden our focus to include more isolated work on the concept of distance within particular subdisciplines of human geography, we notice a number of common trends. The general tendency is to problematize prior assumptions about the friction of distance to go beyond purely objectivist notions of distance and to add nuance and richness to our understanding of distance by exploring multiple dimensions or facets of it.

Economic and urban geographies have a long record of theoretical and empirical work about the crucial role of distance and proximity in the dynamics of cities and markets. The foundational insight is that there are multiple economic and social benefits

for people (and firms) to reduce distance from other people (and firms) so as to diminish the costs of interaction and exchange. This process of deliberate reduction of distance in order to reap the benefits of proximity is called agglomeration, and its results are well-known geographical phenomena such as cities and industrial clusters. As Scott and Storper (2015: 4; emphasis added) point out, “agglomeration occurs because [economic] activities entail divisions of labor and other interdependencies as expressed in transactional relationships whose costs are *distance dependent* and because they can reap functional synergies by clustering together in geographic space.”

More specifically, agglomeration is a process consisting of sharing (the economies of scale and scope that result from providing urban services as public goods), matching (the advantages for efficient pairing of workers and jobs when there are available large numbers of people and firms in the same space), and learning (the dense flows of information and knowledge exchange made possible by the interaction of a big number of people in the same space). The efficiency-generating advantages resulting from reducing distance and thereby creating agglomerations explain the process of urbanization as well as various related forms of concentration of economic activity (clusters, districts, hubs, industrial regions, and so on). Even if agglomeration “is the basic glue that holds the city together” (Scott and Storper, 2015: 6), it is a “process and outcome [that] goes far beyond the narrow question of the technical foundations of economic geography, for it is a quasi-universal feature of human existence” (Scott and Storper, 2015: 6).

The longstanding interest of economic geographers in what makes some cities and regions more innovative than others has led to several recent conceptual contributions that dissect the role of distance and its converse, proximity, into a number of distinct dimensions that together help explain the economic geography of knowledge creation and innovation. In an influential paper, Ron Boschma (2005) thus identified five different types of proximity: geographical (objective physical distance), cognitive (the degree of overlap between the mental models and knowledge of economic agents), organizational (the extent of past cooperation or shared history between organizations in a region or cluster), institutional (the degree of overlap between two cultures, in regard to routines, values, and social norms), and social (kinship ties and friendship and acquaintance ties). Reflecting on the ongoing impact cast by Boschma’s five-pronged framework on economic geography’s increasingly multi-dimensional thinking about distance, Rodríguez-Pose noted that “these different types of distance may be—although this is not always necessarily the case—completely detached from geographical proximity. Physical distance remains in the frame, but has lost its original halo as the one and only shaper of economic interaction” (Rodríguez-Pose, 2010: 349).

More recently, Balland et al. (2015) have extended Boschma’s earlier proximity framework to account for “co-evolutionary dynamics between knowledge networking and proximity” (p. 907). They describe for each of the five proximity dimensions how they “might increase over time as a result of past knowledge ties” (p. 907). In this dynamic framework, distance and proximity are approached through the lens of five specific social and economic processes: learning for cognitive proximity, agglomeration for geographical proximity, integration for organizational proximity, institutionalization for institutional proximity, and decoupling for social proximity. Even as they emphasize the dynamic character of their framework, Balland et al. note that the five distance/proximity dimensions are not equally dynamic. Instead, they speculate that cognitive proximity is likely the most dynamic, whereas geographical proximity is probably the least dynamic and offer the following rationale for this hypothesis: “One can learn from several actors at the same time, and move cognitively closer to them without necessarily facing a strong arbitrage ... but very often with the dynamics of geographical proximity, moving to a new location comes at the expense of another (previous) location” (Balland et al., 2015: 914). In other words, in the case of geographical proximity “actors face a strong arbitrage: being closer from some actors almost automatically means being more distant to others” (ibid: 914).

In contradistinction to Balland et al. (2015), Roel Rutten (2017) has criticized in a more radical way both the proximities approach and territorial innovation models to argue instead that “geographical proximity has both a distance and a place element” (Rutten, 2017: 160). According to him, the distance element is “more accurately seen as a dynamic trade-off between effort, preference, and dependency” (page 169), whereas the place element describes both urban externalities and traditional agglomeration advantages. In this novel framework, the economic geography of innovation requires an explicit articulation of place and distance and a dynamic understanding of both.

Conclusion

Even as distance has long been recognized as one of geography’s key concepts, it has become increasingly evident that it is a contested and contestable concept. It is not the centrality of distance as a theoretical lens for doing geography that is at stake, but the exact meaning we give to the concept of distance and the ends to which we apply it. Times have changed and geography has changed with them. If an objective, measurable, physical notion of distance was important to the aims of the theoretical and quantitative revolution that transformed geography more than half a century ago, a subjective notion of distance increasingly reveals itself as important to the ongoing project of politicizing geography and redefining it as “critical.” As suggested in the present contribution, a multidimensional understanding of distance seems to be a dominant trend not only in geography at large but also in several of its subdisciplines. This broader, more nuanced, and more generous framing does not abandon the earlier preoccupation with objective distance, but goes beyond it, to reveal the complexities that arise once we start accounting for human subjectivity, for the situatedness of our knowledge claims, and for the ethical and political dimensions of distance and distancing.

See Also: Agglomeration; Environment; Landscape; Place; Region; Scale; Space; Subjectivity.

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