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Scale as epistemology

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In his paper, Kevin Cox addressed the question of scale, particularly with regard to local politics. He adds two important points to the debates on scale; first, that when thinking about scale we should make an analytical distinction between what he calls 'spaces of dependence' and 'spaces of engagement', and, second, that we should think of scales not as areal units but as networks of interaction. Spaces of dependence are the somewhat fixed, localized arenas within which individuals are embedded by their social, employment, or business interests. Spaces of engagement are those sets of relations that extend into spaces of dependence, but also beyond them to construct networks of association, exchange, and politics. They structure relations within "broad fields of events and forces" (Cox, 1998, p. 3), although Cox makes the point that spaces of engagement are not necessarily 'larger' than spaces of dependence. Their form in practice is contingent upon the particular networks and associations in any given instance.

The distinction Cox has introduced between spaces of dependence and spaces of engagement is important because it points to the great variety of contingent ways scale can be constructed. Further, he shows that 'jumping scales' may not mean simply moving from the 'local' to the 'global'. Rather, jumping scales may be conceptualized as a political strategy of shifting between spaces of engagement, which may be broader or narrower than spaces of dependence in any particular instance. Then, to illustrate the varied ways in which groups of locally dependent residents draw from regional, national, and even international discourses to enhance their success in political struggles, Cox provides a series of five case studies, ranging from political struggles over resource extraction in England and FHA housing regulation, to South African township relocation.

These case studies elaborate a variety of juxtaposed and overlapping geographic scales. For instance, in the first example, a land use conflict ensues around the extraction of gravel deposits from the English village of Chackmore. The local opponents in this case were pitted against a national land use plan specifying that these resources were important for national mineral needs, thus making local opposition to the plan very difficult. The local opposition group, however, successfully fought the national land use plan by asserting an alternative discourse of national heritage, centered around Stowe Park, a site that

was widely recognized for its ornamental landscaping. In this case, the local issue was fought nationally, but only in part, because at no time was the local opposition group (CAGE) removed from the dispute, and the scale 'jump' evident in the group's arguments did not eliminate the importance of the local, it merely added to the political-discursive mix. One scale did not replace the other, because scale is not so much an area as it is a network.

In another example, Cox describes the struggles around the federal standardization of planning, subdivision and mortgage regulations in the US in the 1930s. The FHA's mortgage insurance program stimulated housing demand, which pleased local real estate brokers, but the insurance program also led to standardized urban planning regulations. These regulations stabilized the housing market, allowing community builders to invest in large subdivisions with a greater level of assurance that they would be able to reap the profits of their infrastructural commitments. These two different groups, real estate brokers and community builders, could both be considered local, and both benefitted from the topdown regulations, but in very different ways. Real estate brokers benefitted because mortgage insurance stimulated housing demand; community builders benefitted because stricter land use planning procedures helped ensure that incompatible adjacent land uses would not devalue their product. Thus, local interests, even in the same location, do not necessarily map neatly, one on to the other. 'The local', like scale, is a complicated concept that cannot be reduced to one 'level' or interest. Similarly, the introduction of regional, national, or even global issues into a local debate cannot purge it of its particular local circumstances. Jumping scales is not synonymous with a leap up, rather one must consider all scales as mutually implicated in any conflict. The connection between spaces of dependence and spaces of engagement is a sustained and often contradictory tension that cannot be reduced or resolved to one level.

Cox has complicated the question of scale in this paper through his introduction of spaces of dependence and spaces of engagement, and through his focus on the intersections between local politics and a constructed concept of scale. I agree when he suggests that it is important to question the concept of scale, and I also agree that recent work on the social construction of scale has been especially productive. With that in mind, I would like to raise a question that emerges from the present discussion. Cox has suggested that we must move away from thinking of scale as an area or a circumscribed space—we should think of scale as a network, or a strategy linking local struggles to regional, national, or global events. In making these scale jumps or building these networks, local groups practice politics by actively reshaping the discourses within which their struggles are constituted. They show the commonalities between their political goals and other more pervasive political goals, thus discursively linking their cause to another cause in ways that work to their advantage. In effect, these local groups are practicing a representational strategy. They discursively re-present their political struggles across scale, and in so doing, they help to recast opposition itself. They show that a 'local' struggle, for example, may also be represented as a global struggle, and when it is done so, the local struggle may strike a chord with many people who will argue on its behalf.

One may look at these examples as evidence that the construction of scale proceeds through representational practices—scale may thus be understood as situated relationally within a community of producers and readers who give the practice of scale meaning. Further, this construction is continually contested—in fact, scale is the result of contestation, and how it is resolved at one moment may be quite different from how it is resolved at some later time. Scale is therefore both historically specific and subject to change, not simply in terms of concepts such as 'globalization' and the technologies and

material practices that produce it, but rather in terms of the very concept of scale itself. To understand scale in this way, however, raises another question: if scale is continually contested, then how shall we conceive of the category of scale itself? If scale is a representational practice deployed by participants in struggles, a practice situated within a community of producers and readers who actively negotiate and construct it, then what is its ontological status? Does scale exist beyond that community as a fundamental structure of the world, or is it a mode for apprehending the world that is tied to a particular historical/geographical context? Furthermore, does it make any difference whether we see scale as a fundamental ontological category, or as an epistemology, and if it does make a difference, then what is that difference? I would argue that scale is an epistemological category, rather than an ontological one, and that the difference is an important one, for reasons I will explain.

Once we accept that participants in political disputes deploy arguments about scale discursively, alternately representing their position as global or local to enhance their standing, we must also accept that scale itself is a representational trope, a way of framing political-spatiality that in turn has material effects. And, if scale is a trope, then we can no longer see it as neutral or transparent in how it represents. Every trope carries with it its own rhetoric, its own ability to shape the meaning of space (Duncan, 1996). This power is admirably illustrated by J.B. Harley in his work on deconstructing the map (Harley, 1992). Harley suggests that, while maps may present the appearance of a direct mirror of the world, this appearance is simply the result of a set of technical practices which are themselves a rhetoric, a form of persuasive communication (Harley, 1992). Regardless of the appearance of realism, all maps practice, "selection, omission, simplification and classification", and these steps are, "all inherently rhetorical" (Harley, 1992, p. 243). It is the power of selection and simplification—or categorization—that gives representations their persuasive power. The strategies of presentation (bow they present what is left in and what is left out) themselves construct a particular form of knowing. They both encourage certain meanings and constrain or limit other meanings (Norris, 1987); 'true' meaning can never simply pass through a trope, it is always shaped.

Let me now turn to an example of how this shaping works through the practices of scale. This example pertains to the construction of scale as a concept for knowing the city that both enables and limits the questions which can be asked about the city. In doing so, I highlight the work of Söderström, who has written on the growth of urban planning over the last two centuries, and on the ways in which the practices of planning have shaped the way the city is understood (Söderström, 1996). Urban planners introduced practices such as the geometrical plan, zoning, and social cartography, and these practices were instrumental in changing the way the city was known and represented. The more that urban information was presented through maps and zones, the more the city was understood only by way of these sorts of spatialized and geometrical systems, until what was considered 'true' about the city was altered in practice. Aggregate maps of poverty, delinquency, or housing, to name a few, came to been accepted as *the* most accurate understanding of what the city truly *was*.

We could easily interpret these developments as examples of a shift in scales—from the neighborhood scale to the metropolitan scale, for example—but in so doing, we would be making the assumption that scale exists as an ontological category. We would be assuming that both a neighborhood scale and a metropolitan scale exist, and that political struggles can ensue over the conflicts between or about them. However, we might also cite this change as an example of the deployment of scale itself as an epistemological frame for apprehending the political-spatiality of the city. With reference

to the planning practices just described, Söderström notes that the continual graphic aggregate presentation of urban information,

tended to displace the contract of visual trust that the observer established with urban space: it was no longer in the immediate vision of the street or square that one could put one's trust, but in the mediated vision offered by graphic inscription. It was not the gaze that the ordinary citizen could direct upon the districts of [the city] which would reveal the truth about these areas, but the observation of the social map of those same districts (Söderström, 1996, p. 272).

As a result, the particularity of an "ordinary gaze" became "by definition unrepresentative" (Söderström, 1996, p. 272). Thus, the continual re-presentation of the city as homogenous spatial units, as inter-related zoned segments, and as geometrically ordered functional regions, recreated the object of the city until it was effectively apprehended only through these terms.

The creation of scale as a trope for understanding the city did not merely shift politics from one level to another. Rather, it recast what was true or knowable about the city within the frame of scale. Certain questions about the city simply became un-askable. The truth of an 'ordinary gaze' became less 'true', while other questions about zones, for example, became more readily askable. This is not simply a jump in scales, it is a fundamental change in the way the city was known and apprehended. Judging from Söderström's work on the city, we might be inclined to offer that a notion of scale as a mode of understanding may not have existed prior to its normalization through the planning practices. This implies that we may be best served by approaching scale not as an ontological structure which 'exists', but as an epistemological one—a way of knowing or apprehending.

This example also demonstrates the importance of questioning just what it is that we do when we invoke the concept of scale to understand spatial-political practices. It also shows, as Cox has suggested, that we must not take scale for granted. As epistemology, scale may be intimately linked to our knowledge of power and space. And, as a concept, it will also be contextualized both socio-culturally and historically. In the urban planning example I have just described, a scale-driven graphic representation of the city may have emerged along with other forms of modern social control, such as demographic surveys and public health regulations (Söderström, 1996). As a representational trope, scale may be implicated in enabling particular relationships of power and space that advantage some social groups but disadvantage others. Just how this concept is tied to the particular social and historical contexts within which it is situated is an important question, one that we should continue to ask. It is scale's taken-for-granted quality that provides its power, for the rules of social order and the practices of representation go hand in hand, and scale is an element of both. As Harley reminds us, often, "the rules of society and the rules of measurement are mutually reinforcing in the same image" (Harley, 1992, p. 237).

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