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# Categories, borders and boundaries

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**Abstract:** In recent years, categories have been a topic of substantial research in the social sciences and humanities. Although many problematic categories such as culture, gender and scale have been criticized, moving beyond them has proved to be surprisingly difficult. This paper attributes this difficulty to what is termed the paradox of categories and argues that the key problems with categories emerge from the contradictory ways their boundaries are intellectually and cognitively understood. By integrating poststructural insights into the role categories play in ordering modern society with research from cognitive science on the role categories play as containers in cognitive processes, this paper argues that the boundaries of categories should be understood as always inchoate – only partially formed and incomplete. The paper concludes that research into categories and boundaries is unnecessarily fragmented across a wide range of disciplines and proposes expanding boundary studies in geography to be the field that investigates the bounding processes that result in all types of categories.

**Key words:** borders, boundaries, categories, narratives, practices, process.

## I Introduction: rethinking categories and boundaries

What is sorely lacking is a solid theoretical base that will allow us to understand the boundary phenomenon as it takes place within different social and spatial dimensions. A theory which will enable us to understand the process of 'bounding' and 'bordering' rather than simply the compartmentalized outcome of the various social and political processes. (Newman, 2003: 134)

In recent years, there has been a rethinking of a whole range of taken-for-granted categories and concepts in geographical research. Notions of space, place, nature, scale, gender and identity, to name a few, have been

revisited. It seems that almost every key analytic concept has been deconstructed and problematized to the point that it is almost impossible to use any of these categories without qualifying them with 'scare quotes'. A brief review of some influential interventions from the past 15 years will make the point. Bill Cronon (1995) has argued that the way many environmentalists think about the category 'wilderness' as devoid of humans is neither accurate nor helpful in environmental conservation. Don Mitchell (1995) has questioned the usefulness of the category 'culture' in cultural geography by arguing that at times it is used to mean everything and at other times nothing, making it an empty concept. Nigel

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Thrift and Kris Olds (1996) have scrutinized the boundaries of the category 'economy' and suggested opening it up to include many other processes that have previously been thought of as outside the realm of economics. Wendy Larner (2003) has questioned whether the category 'neoliberalism' is useful because it refers to many different processes in different places. Sallie Marston, John Paul Jones and Keith Woodward (2005) have argued that using the category 'scale' establishes the perception of reified, hierarchical power relations even when it is acknowledged that scale is socially constructed and not a thing-in-the-world.

Although these interventions come from a wide range of the subfields of geography, they all make the similar argument that a particular concept or category is used in a way that is not completely accurate and that misuse has unintended consequences. After so many insightful critiques, we should not even have to acknowledge that every concept or category is socially constructed. Yes, there is a real world out there, but as humans who experience the world through our bodies and senses, we understand it only from a particular perspective based on our knowledge, position and relationship with it (Haraway, 1991). Each of these interventions also relies on the common sense notion that language is a system for simplifying the diversity of the world by categorizing and organizing it. Consequently, although language is meant to illuminate patterns in the world, it just as often obscures and hides the complexity of what may be actually happening. Even the most naturalized concepts are in reality not so natural, as critiques of everyday terms such as culture, wilderness and economy have shown. The question becomes, then, if we now acknowledge that all of these categories are socially constructed, why do we have such trouble moving beyond them? What provides these categories with their apparent stability and fixity when we know they are not fixed and stable at all? Part of the problem might be that, as Newman (2003: 134)

suggests, there is a tendency to analyze the 'compartmentalized outcome of the various social and political processes.' In other words, to analyze the categories rather than the 'process of "bounding" and "bordering"' of which these categories are the result. I will argue that these critiques, at a basic level, are about what I want here to term the inchoate process of bounding, and that the issues they raise do not necessarily result from a problem with any particular category itself, but rather with the paradoxical ways that the boundaries between categories are understood.

The following section of the paper considers categories in more depth by highlighting the renewed interest in categories across the humanities and social sciences. By then investigating two complementary engagements with categories, I will suggest why there has been substantial dissatisfaction with various categories in recent years and why we seem to have trouble moving beyond them. I discuss a particular aspect of the poststructural thought of Foucault, Deleuze and Guattari, who argue, in different ways, that modern, socially-constructed categories are imbued with uneven power relationships. I then turn to work by Lakoff and Johnson who make cognitive arguments about the role categories play in our minds. I conclude that the problem is not the categories themselves, but, rather, the way the boundaries around the categories are cognitively understood as closed and fixed even when we know intellectually that they are open and fluid. Consequently, I argue that the key process is the bounding and delimiting of the categories used to understand the world. In the middle section of the paper, I review several recent contributions in boundary studies that investigate the re-emergence of exclusionary bounding practices as part of the 'global war on terror', which complicates the narrative of a globalizing, borderless world. In the conclusion to the paper, I argue for a renewed focus on the inchoate process of bounding that stresses the incomplete

nature of categorization schemes and the importance of the bounding process itself, rather than its compartmentalized outcome as a particular category.

## II The paradox of categories

Geographers entered modern knowledge as a science of the classification of worldly facts. It has retained its list-like character in the popular imagination and for part of its teaching practice. But the academic geography enamored of by intellectuals has long since transcended this classificatory activity. (Peet, 1998: 292)

With these lines in *Modern geographical thought* – this is how he begins his conclusion – Richard Peet is suggesting that only non-rigorous geographers would be interested in how the world is classified; in the categories that order life. Of course, he is referring to the process of grouping things into categories and to the rote memorization of them by students in an introductory regional geography course. Nevertheless, I want to argue that the fundamental processes geographers should be interested in are precisely these classification and categorization activities.

Although scholarly inquiry into categories is not a recent phenomenon – Kant, Weber and Wittgenstein were all interested in them, albeit in different ways – the challenge posed by poststructural thought has reinvigorated the field. Brubaker *et al.* (2004: 31) note that in recent years, as the social constructedness of identity categories has been widely accepted, ‘categorization has emerged as a major focus of research’. Bourdieu (1977; 1991) saw substantial power in the ability to define identity categories by fixing the boundaries between them. He argues the power comes from the ability to ‘impose the legitimate definition of the divisions of the social world and, thereby, to make and unmake groups’ (Bourdieu, 1991: 221, emphasis in original).

This renewed focus on categories is not simply limited to group identity categories such as gender, ethnicity, race and nation. Richard Jenkins (2000: 7) writes that ‘all human knowledge is dependent upon

classification’. As Tuan (1977: 29) has observed, ‘things are not quite real until they acquire names and can be classified in some way’. Within the discipline of geography, Cloke and Johnston’s (2005) *Spaces of geographical thought* is one of the most recent contributions to the field. They write that ‘to survive in the world we simplify it’ (p. 1) through categories such as culture, nature and economy. ‘Without such simplifications, societies could not exist: they could not operate without placing people or things into categories’ (Johnston and Cloke, 2005: 2). Consequently, they argue that ‘the study of categories and of binary thinking is central to any intellectual activity, across all disciplines: we need to know about the categories being deployed in order to appreciate the society we are studying, and we need to deploy our own categories in order to undertake that study’ (Johnston and Cloke, 2005: 2; see also Bowker and Star, 1999). Categories, it appears, play an important role in all knowledge as the units through which we experience and understand the world.

### *I Poststructuralism and categories*

Poststructural and postmodern scholars, who are concerned with the detrimental effects of the ‘project of modernity’, have raised important questions about the process of categorization because they argue there is a concomitant destruction of alternative knowledges and ways of life as new power relationships are imposed (Deleuze and Guattari, 1987; Derrida, 1976; Foucault, 1971; Habermas, 1992; 1997). In recent years, claims to rational truth and universal knowledge, which are often present in scientific inquiry and modern thought, have received particular scrutiny. Habermas (1997) identified the problem:

The project of modernity as it was formulated by philosophers of the Enlightenment in the eighteenth century consists in the relentless development of the objectivating sciences, of universalistic foundations of morality and law, and of autonomous art, all in accord

with their immanent logic ... Partisans of the enlightenment ... could still entertain the extravagant expectation that the arts and sciences would not merely promote the control of forces of nature, but also further the understanding of self and world, the progress of morality, justice in social institutions, and even human happiness. (Habermas, 1997: 45)

Postmodern and poststructural critics of the project of modernity look for different ways of resurrecting, protecting, or recreating the nuances and differences that have been erased by these universal claims to rational knowledge.

Foucault (1971; 1977), drawing on Saussure's (1966) insights into the role language plays in constructing reality rather than simply reflecting it, as language is often assumed to do, suggests that naming the unknown and categorizing it brings it under control (see also Carter, 1989; Mitchell, 1990; 1991). Foucault, particularly during his archaeological and genealogical phases, was interested in the wider discursive formations through which life is ordered and organized, and through which power is exercised. Foucault recognized, as did Derrida (1976), that categorization systems are unfixed, and he was thus particularly interested in how the perception of fixity is established and maintained. In *Discipline and punish*, Foucault focused specifically on how society is ordered:

Disciplines are techniques for assuring the ordering of human multiplicities ... [It] could reduce the inefficiency of mass phenomena: reduce what, in multiplicity, makes it much less manageable than a unity ... [it] fixes; ... it clears up confusion; ... it establishes calculated distributions ... the disciplines use procedures of partitioning and verticality ... they introduce, between the different elements at the same level, as solid separations as possible ... [through] continuous registration, perpetual assignment and classification. (Foucault, 1977: 219–20)

Here Foucault argued that power comes from obscuring difference by forcing the multiple into manageable units (categories)

with solid separations (boundaries) between them. The key point is that categories do not simply mimetically represent the world but instead simultaneously *create it* and *limit it*.

The power to define categories comes from the ability to establish the boundaries between what is on the inside and the outside. Although it is often popularly suggested that modern democracies are based on the protection of individual freedoms, Giorgio Agamben (1998; 2005) has argued that the fundamental authority of the sovereign comes from the ability to create a state of exception by suspending the political rights of citizenship. The exclusion of an individual from modern political protections subjects them to what he calls 'bare life'. For Agamben (1998: 9) the state of exception 'constituted, in its very separateness, the hidden foundation on which the entire political system rested'. Agamben's work appears to fit precisely the current political situation where the boundaries between the categories good/evil are discursively drawn while the boundaries between other categories such as interrogation/torture, prisoner of war/enemy combatant, and terrorist/citizen are becoming increasingly evanescent (Ek, 2006; Gregory, 2004; 2006; 2007; Minca, 2005; 2006; 2007).

Other scholars, such as Deleuze and Guattari (1987), have argued that the way to challenge and destabilize the imposed modern order is through the 'deterritorialization' of words and meanings. Deleuze and Guattari's writing on postmodernism un-fixes, often quite playfully, the meanings of words through events and practices, in ways that challenge the idea of mimetic representation and opens up alternative avenues for political action. As Woodward and Jones (2005: 240) argue, 'deterritorialization, and the heterogenesis it produces, are processes that bring forth socio-spatial complexity that was disguised by the functional and categorical divisions of institutionalization'. Sparke (2005: xi) writes that 'deterritorialization meant unpacking the ways subjects had previously been treated

as containerized units' in order to challenge essentialized understandings of knowledge and truth.

As these poststructural insights into the power present in the process of categorization have become widely understood, there has been a substantial effort to interrogate various categories and, if possible, move beyond them. This has proved, however, to be a surprisingly difficult task. For example, as Brubaker (2002) has recently pointed out, even while arguing that ethnicities, nations and races are socially constructed, many scholars continue to use these same categories in their research in ways that reify them. The necessity of interventions (such as those referenced at the beginning of this paper) also points to the persistent problem of negotiating the role of categories in academic knowledge. Intellectually we know that categories, particularly binaries, obscure a vast array of differences by organizing diversity into a few distinct containers. At the same time, many scholars have found it quite difficult to think outside these sets of categories. Why have deterritorialization and other post-foundational strategies not been able to destabilize the order of things in any substantive way?

## 2 *Cognitive science and categories*

In order to understand why it appears to be difficult to get beyond particular categories, I want to turn to some recent work in cognitive science that investigates the role categories play in human cognitive mechanisms (Barth, 2000; Bowker and Star, 1999; Brubaker *et al.*, 2004; Lakoff, 1987; Lakoff and Johnson, 1999; Worchel and Austin, 1986). Like non-representational theories in geography (Rose, 2002; Thrift, 1996), much recent work in cognitive science has emphasized the embodiedness of human conceptual systems. Lakoff and Johnson (1999) argue that mind-body dualism – that is, the idea of a disembodied reason, itself an important tenet of many modern philosophical texts – is not

supported by research in cognitive science. They instead suggest that human concepts and categories are drawn from our shared, embodied experiences as beings that move through and perceive the world spatially, which 'create[s] our conceptual systems and modes of reason' (Lakoff and Johnson, 1999: 4). These conceptual systems are based on categories.

Lakoff and Johnson argue that 'every living being categorizes' because of the way our brains are organized. In human brains, and the brains of all animals, there are far fewer connections between parts of the brain than there are neurons and synapses in each part. Thus, in order for information to move between parts of the brain it has to be grouped into manageable units, that is, it must be categorized. They further argue that we do not categorize in any way we want, but rather our categories are 'a consequence of how we are embodied' which establishes 'what kinds of categories we will have and what their structure will be' (Lakoff and Johnson, 1999: 17–18). Echoing the points made by many poststructural scholars, they note too that 'there is no reason whatsoever to believe that there is a disembodied reason or that the world comes neatly carved up into categories or that the categories of our mind are the categories of the world' (Lakoff and Johnson, 1999: 29). This agreement between cognitive science and poststructural thought is important because scholars approaching the question of categories from completely different perspectives end up with the same conclusions about the disconnection between conceptual categories and the world around us. For Lakoff and Johnson (1999), although our conceptual categories are often inexact, we still cannot "get beyond" our categories and have a purely uncategorized and unconceptualized experience. Neural beings cannot do that' (p. 19).

The final key point that emerges from Lakoff and Johnson's work is what they call the container schema. They argue that,

cognitively, humans perceive categories to be containers. Consequently, we imagine categories to have a definite inside, boundary, and an outside, like a container (Barth, 2000: 27–8; Lakoff and Johnson, 1999: 31–2). Lakoff (1987: 284) uses the image of a liquid being poured into a cup to illustrate the container schema. As the liquid is poured in, it homogeneously spreads to the edges without passing through them, creating a sharp division between what is on the inside and on the outside. Both Weber (1968), in his discussions of open and closed social relationships, and Wittgenstein (1958), in his references to the definition of a game, recognized what I see here as a major conceptual problem related to the container schema. Because we cognitively think of categories as containers, we consequently imagine all categories to be inherently closed, with fixed, stable boundaries between them. Yet, intellectually, we know that these boundaries are almost always fluid and permeable.

In order to illustrate this point, Wittgenstein (1958: 34–38) uses the example of the game. He argues that we all know what a game is and what is not a game, which makes it seem to be a closed category. In our minds we can imagine a container into which we can place all things that are games. However, defining a game precisely is difficult. Is a game played on a board? Do you have to keep score? Is it played between two people? Are there teams? What about something like solitaire? The list could go on and on. The point is that although in our minds we think of the category ‘game’ as a container with rigid boundaries that allow us to mentally place some things into the container and to place others on the outside, when you try to define it the category’s boundaries turn out to be quite open. Instead of a container there is, according to Lakoff and Johnson, a cognitive system or, according to Foucault, Deleuze and Guattari, a socially constructed system that simplifies, organizes and limits the diversity of the world.

### 3 *The paradox of categories*

The paradox of categories, then, is that when we are trying to think of the boundaries between categories as open and porous – which, intellectually, we know they are – we tend cognitively to understand categories as closed and bounded containers. Several problems arise out of this paradox. On one hand, categories appear to be necessary in order to understand the world around us. Indeed, it seems that without categories the diversity of the world would be incomprehensible. On the other hand, these same categories, as Foucault and others have demonstrated, are the instruments through which order is established and power exercised. Categories appear to play a crucial role in how we make sense of the world while, at the same time, these categories limit and control those same experiences. Consequently, rather than suggesting, as Peet has done, that in order for geography to be respected as a discipline it needs to shed its association with categories and categorization, I would propose that geography should re-emphasize its connection with these topics through an analysis of the inchoate process of bounding that delimits the categories that shape daily life and academic work.

### III **The inchoate process of bounding**

It is wrong to look for boundaries between preexisting social entities. Rather we should start with boundaries and investigate how people create entities by linking those boundaries into units. We should not look for boundaries of things but things of boundaries. (Abbott, 1995: 857)

The paradox of categories provides an important intellectual challenge for contemporary research in academia generally, and the discipline of geography particularly. On one hand, the ongoing process of bounding marks off categories as distinct by creating imaginary lines, which produces the perception of difference. On the other hand, once a

particular set of categories has been created, there appear to be significant problems with the ways divisions between them are cognitively and intellectually understood. In both instances, the key problems associated with the paradox of categories revolve around boundaries.

In the following sections, I make a distinction between the terms boundary and border, which have often been used interchangeably in the literature (Ackelson, 2005; Newman, 2003). I prefer boundary to be a broad term that refers to any type of division whether it is a semantic divider between categories or a line-on-the-ground political division. I reserve the term border specifically for the latter case of territorialized line-on-the-ground political borders. In reviewing the literature in boundary studies, however, I try to maintain the original terminology of the author while making it clear when it differs from my own views. In the concluding sections, I revisit this issue to expand on the relationship between categorical boundaries and political borders.

### *1 Bounding as inchoate process*

Fredrick Barth (1969; 2000) was one of the first scholars to emphasize the importance of boundaries and the boundary-making process rather than the particular category itself. Barth (1969: 10) argued that the focus should be on '[t]he ethnic boundary that defines the group, not the cultural stuff that it encloses'. He suggested that rather than thinking of boundaries as fixed divisions, scholars should 'explore the different processes that seem to be involved in generating and maintaining ethnic groups' (Barth, 1969: 15) by investigating the construction of the boundaries between them. As Barth later put it, 'a boundary is a particular conceptual construct that people sometimes press upon the world' (Barth, 2000: 19). Andrew Abbott (1995) addressed this argument by contending that the boundary must come before what is inside can even be understood as an entity. In his processual ontology, 'it [does] not really matter what these boundaries were, at first.

They began as simple, inchoate differences. They were not boundaries of anything' (Abbott, 1995: 868, emphasis in original). Abbott argued that the 'thing-ness' of any entity is not pre-given but, rather, is only the result of the contingent process of linking up these locations of difference. As he noted in the quote at the beginning of this section, 'we should not look for boundaries of things but things of boundaries' (Abbott, 1995: 857).

My point—a key point—is that all categories are not pre-given things-in-the-world but, rather, the result of this contingent and ongoing process of linking up locations of difference. Consequently, I argue there is an inchoate process of bounding that precedes the creation of all categories, concepts and entities. It is *inchoate* because it occurs over time as the boundary is just beginning to form, is incomplete and is bounding an entity that is lacking structure and organization. Employing 'inchoate' emphasizes the process of bounding rather than the already finished and fixed boundary. Boundaries are never finished or fixed, even if they appear to be, and must be re-fixed and reiterated to reify that perception. It is a *process* because of this ongoing necessity for re-fixing, rewriting and renegotiating the boundaries. It is about *bounding* because without boundaries nothing could ever be anything. Boundaries concomitantly take diversity and organize it and take homogeneity and differentiate it.

### *2 Creating boundary studies*

Boundaries and bounding processes have, of course, been a core topic of research in political geography for many years (Hartshorne, 1936; Jones, 1943; Minghi, 1963; Newman, 2003; 2006; Newman and Paasi, 1998; Paasi, 1996; 2005; Prescott, 1987; Rumley and Minghi, 1991). The review of the field of boundary studies that follows serves the dual purpose of outlining the different ways that boundaries have been approached historically in the discipline of geography, and providing an example of the paradox of categories and the inchoate process of bounding using the



category 'boundary studies' itself. The term 'boundary studies', as with any category, operates as a container into which particular topics or research can be categorized as either boundary studies research or not. Despite the apparent fixity of the parameters of the discipline at any particular time – indeed most authors define the limits of the field explicitly in their papers – the boundaries of what constitutes the category 'boundary studies' have been constantly shifting and changing (see also Gieryn, 1999). The boundaries of the field have experienced a never-ending process of becoming that defines what constitutes 'boundary studies' and what does not – a process in which, of course, this paper is but part.

In many ways, the field of boundary studies mirrors the shifting empirical and theoretical focus of the discipline of geography as a whole (Peet, 1998). Early work in boundary studies was concerned with a problem that had developed concomitantly with the establishment of the modern political system of territorially sovereign states (Murphy, 1996). As it became clear that demarcating political boundaries between states was a contentious undertaking, a new field of study emerged to understand why selecting political borders was problematic and to suggest methods for removing ambiguity from the process (Boggs, 1932; 1940; Holdich, 1916; Johnson, 1917; Jones, 1943). Before these works, the category 'boundary studies' did not exist. For that reason, a central concern of these authors was defining the term 'boundary' and establishing the limits of what constituted 'boundary studies'. In these early texts, the boundaries of the field were restricted to international political borders and the research was targeted towards the geopolitical elite, as Jones (1943: 101) writes, 'diplomats, lawyers, surveyors, cartographers, and engineers'.

As regional geography took hold in the wider discipline, those interested in boundaries wrote survey articles that classified and organized the various types of international

political borders that had emerged around the world (Hartshorne, 1936). Although all of these early texts were still firmly in the grip of the modernist project, there was already recognition by some that the effort to remove ambiguity completely was destined to fail. Jones, for example, concluded his article on boundary making thus: 'No map can be a replica of the earth and no text can reproduce the earth in words ... the writer confesses his fear that, being human, he has left vaguenesses [sic] and ambiguities in this critique of vagueness and ambiguity' (Jones, 1943: 117). Even in the earliest texts, there was debate about where to draw the limits of boundary studies. Boggs lamented that 'studies of the principles of boundary making have hitherto been confined, unfortunately, almost wholly to international boundaries' (1932: 48). He suggested that the same theories and principles could also be applied to internal boundaries within states. The renegotiation and contestation of the boundaries of the field 'boundary studies' had begun.

By the early 1960s, the boundaries of the types of research that could be categorized as 'boundary studies' had shifted and expanded. Minghi (1963: 414) concluded in his review of the field that '[t]here has been no previous attempt to categorize boundary studies in the geography literature'. He then delimited eight types of research that qualify as 'boundary studies': research that investigates disputed areas, the effect of boundary change, the evolution of boundaries, boundary delimitation and demarcation, exclaves and tiny states, offshore boundaries, boundaries in disputes of natural resources, and internal boundaries. Although Minghi's early work recognized that change and evolution are possible with boundaries, research on boundaries in this period was still limited to line-on-the-ground borders and relied on a relatively static understanding of political boundaries. This view would remain in place until the late 1980s. Prescott's 'comprehensive treatment of the world's political frontiers and boundaries' (1987: 1) marks the end of this

phase of boundary studies in which the boundaries of the field were limited to 'boundaries which are *lines*' (1987: 1, emphasis in original). In the early 1990s, a period which saw the end of the cold war, the emergence of the concept of globalization, and post-foundational and poststructural critiques gaining a wider audience in academia, the meaning of the term 'boundary' and the parameters of the field of 'boundary studies' were again contested and again rewritten.

### 3 *Boundaries in a borderless world*

The field 'boundary studies' was reinvigorated in the 1990s by the triumphant proclamations that borders and boundaries would cease to matter in the globalized world that would be created at the end of the cold war (Newman, 2006; Newman and Paasi, 1998). As Francis Fukuyama (1992) famously declared, 'Man' had reached the 'end of history'. It was argued that as more countries became liberal democracies, the world would become increasingly borderless as restrictions on economic transactions and mobility were reduced (Ohmae, 1990; 1996). Others argued that 'we need to think ourselves beyond the nation' and other exclusive group identity categories as we move into a cosmopolitan, global community (Appadurai, 1996: 158). At the time, advances in transportation and unprecedented access to information had brought what Harvey (1989) termed time-space compression and it did appear that boundaries were being broken down. The Berlin wall was taken down in a single night without a shot being fired. The countries of eastern Europe were able to join the European Union and passport controls were removed in many places. Free trade agreements such as NAFTA were signed around the world.

Newman and Paasi have charted the changes in the field in the 1990s and categorized the new trends in the practice of 'boundary studies' as inquiries into: '1) the suggested "disappearance" of boundaries; 2) the role of boundaries in the construction of

sociospatial identities; 3) boundary narratives and discourse; and 4) the different spatial scales of boundary construction' (Newman and Paasi, 1998: 191). In concluding their review, they set out a six-point agenda for 'boundary studies' in the 21st century:

- 1) Geographical studies of boundaries should reinsert the spatial dimension of these phenomena more explicitly back into the discussion ...
- 2) Geographers should become more aware of the multi-dimensional nature of boundary studies ...
- 3) The implications of creating or removing boundaries should be understood through a multi-cultural perspective ...
- 4) Boundary studies should be approached historically as part of a dynamic process, rather than as a collection of unrelated unique case studies ...
- 5) The idea of nature should be expanded within the context of boundaries ...
- 6) The study of narratives and discourse is central to an understanding of all types of boundaries, particularly state boundaries. (Newman and Paasi, 1998: 200–1)

Newman and Paasi's review again rewrites the boundaries of the field of 'boundary studies' by incorporating research into many processes that were previously outside the boundaries of the category. Their contribution – still an important text a decade after its publication – laid the foundation for the rapid expansion of boundary studies research into bounding narratives and practices. Even so, they defined the main areas of research in terms of political borders and the social boundaries surrounding them, a definition which continued to limit the types of research that fitted into the container of 'boundary studies'.

As Newman and Paasi (1998) pointed out, even in the late 1990s the suggestion of a world without borders and boundaries was met with incredulity by many geographers (Andreas and Snyder, 2000; Nevins, 2001; Newman, 1999; Ó Tuathail, 2000; Ó Tuathail and Dalby, 1998). Some noted that the expansion of the European Union did not represent a removal of political borders but, rather, a shifting and intensifying of the borders in new places (Balibar, 2004;

Kaiser and Nikiforova, 2006; Scott, 2002; van Houtum *et al.*, 2005). Others argued that time-space compression only happened selectively, and that the unprecedented access to information and transportation that was removing limitations for some was creating substantial boundaries for others (Amoore, 2006; Gregory, 2004; Massey, 1994: 157–173; Sparke, 2006). Ó Tuathail (2000: 140) noted how '[t]he development of borderless worlds does not contradict but actually hastens the simultaneous development of ever more bordered worlds characterized by stark inequalities and digital divides'.

In the first decade of the 21st century, instead of a softening of borders between states and boundaries between group identity categories, there has been a shifting, redeploying and hardening of these as part of the 'global war on terror' (Anderson, 2002; Coleman, 2004; Gregory, 2004; Gregory and Pred, 2007; Oza, 2007). Rather than removing boundaries and opening borders, governments are re-evaluating immigration and border controls in order to prevent contact with dangerous 'others' (Ackelson, 2005; Amoore, 2006; Andreas and Biersteker, 2003; Häkli, 2007; Lyon, 2003; Sparke, 2006).

Sparke (2006) has argued that in the post-September 11th era, at the Canada–United States border, programs designed to expedite border crossing times for frequent travelers in the business community have curtailed the citizenship of others who are excluded from the programs. He (Sparke, 2006: 153) calls this the 'neoliberal nexus of securitized nationalism and free market transnationalism', a phenomena which closely mirrors the uneven bounding that Ó Tuathail (2000) and Massey (1994) predicted. Similarly, Amoore (2006) suggests that the US-VISIT program, which requires biometric passports for entry into the United States, limits mobility and results in a hardening of boundaries between the categories of what are deemed 'legitimate' and 'illegitimate'

reasons for travel (see also Häkli, 2007). For Amoore, risk profiling in the war on terror is based on the idea of 'a world that would be safer if only ambiguity, ambivalence and uncertainty could be controlled' (Amoore, 2006: 337). Such policies, which represent a continuation of the modern ordering processes Foucault (1971) described, rely on the belief that anomie can be eliminated or excluded from the spaces of modernity by categorizing, organizing and controlling diversity.

#### **IV Re-categorizing boundary studies, again**

One of the essential characteristics of modern biopolitics (which will continue to increase in our century) is its constant need to redefine the threshold in life that distinguishes and separates what is inside from what is outside. (Agamben, 1998: 131)

The increased volume of research into bounding processes in the first decade of the 21st century suggests that, rather than entering a borderless world, boundaries are becoming more important than ever in a wide range of contemporary contexts (Newman, 2006). The recent interest in exclusive categories and boundaries should not be understood as a negation of post-foundational approaches that attempt to destabilize the inherited categorical order. Rather, it should be seen as an affirmation of the crucial role categories and boundaries play in how the world operates and an example of how boundaries shift, fold, harden and soften over space/time. Instead of demonstrating that boundaries and categories are fixed and natural, the renewed interest in boundaries exposes their inchoateness. The necessity of re-narrating and constantly patrolling boundaries is evidence of their incompleteness, a fact which allows for further contestation and re-evaluation (Butler, 1990; 1993). Nevertheless, the move towards a focus on the inchoate process of bounding is not a move beyond categories

and boundaries. Society as a whole, and its constituent individuals, cannot function without being able to identify and differentiate a whole range of ideas, things and people by placing them into particular categories. Instead of a move beyond categories, the focus on bounding processes is a move beyond accepting the stability and fixity of any particular categorical scheme.

The category 'boundary studies' provides a clear example of this process. The boundaries of the category were always inchoate – just forming as new critiques and reformulations were made. However, at any particular moment the category 'boundary studies' operated like a container into which research could be classified as boundary studies or not. The boundaries of all categories provide a paradox because they are never fully formed although they cognitively operate as if they are. Even if it is widely acknowledged that a particular category is only an approximation, when it is used, the boundaries of the category are reified like the walls of a container. Agnew (1994) has termed the tendency in geopolitics and international relations to use states as fixed categories of analysis 'the territorial trap'. For Brubaker the continued use of identity categories like ethnicities, nations, and races is what he terms 'groupism'; the 'tendency to take discrete, sharply differentiated, internally homogeneous and externally bounded groups as basic constituents of social life, chief protagonists of social conflicts, and fundamental units of social analysis' (Brubaker, 2002: 164).

Although both the state as a container of political space and the nation as a container of social space are widely understood as modern socially-constructed categories, they strongly frame the way we see the world (Ó Tuathail and Dalby, 1998). When we use these categories, they operate as containers into which people and places can unambiguously be grouped as members of the particular category or not. The fluid and permeable boundaries of the categories thus gain the appearance of fixity and permanence (Jones,

2006; 2007; 2008). My argument is that this same problem applies to the boundaries between all categories, not just states and nations. Why, then, should boundary studies only investigate these two specific examples of boundaries?

Despite the fundamental role which boundaries and categories play in ordering, organizing and limiting everyday life, there is not a singular field of study that investigates them. Feminist theorists have been concerned with gender boundaries (Butler, 1990; 1993). Sociologists have critiqued ethnic and racial boundaries (Brubaker, 2002; Loveman, 1999). Those studying the history of science have described the boundary work that establishes the authority of science (Gieryn, 1999). Environmental geographers have investigated the boundaries between the categories nature and culture (Watts, 2005; Whatmore, 2002). Others have considered the boundaries of categories as diverse as musical styles and the diagnoses of medical conditions (Mol and Law, 2005). As the interventions cited above demonstrate, the boundaries of categories such as 'wilderness' (Cronon, 1995), 'culture' (Mitchell, 1995), 'economy' (Thrift and Olds, 1996), 'neoliberalism' (Larner, 2003) and 'scale' (Marston *et al.*, 2005) have each been criticized in geography in the past decade. Yet – and despite the depth of interest in categories – these various interventions have thus far been neither connected nor understood, at a basic level, as research into the same phenomenon.

I propose that the boundaries of the field 'boundary studies' be again expanded to make it the field that investigates these bounding processes that result in all different types of categories. Boundary studies should fill this gap by moving away from a singular focus on political borders and their related social boundaries to investigate the more general bounding processes involved in all types of categorization. What needs to be done is a wider analysis of the bounding processes that mark the shifting threshold of inside and outside across a whole range of modern

categories. This analysis should recognize the paradoxical role categories play cognitively as containers with fixed boundaries while emphasizing the inchoateness of bounding processes.

Although I have argued that international political borders should not be the only area of research in boundary studies, 'border studies' should continue as a significant subset of the field. Political borders have become a crucial site where the boundaries between the categories modernity/barbarity and civilization/anarchy are drawn and most fiercely patrolled in the modern era. Borders provide a visual reminder that reinforces the container schema by solidifying the inchoate boundary between categories such as nation and state. Once the boundary is reified, either as a line on a map or as a fence on the ground, the category it is meant to represent appears to come more fully into being (Winichakul, 1994). The recent securitizing of political borders around the world can be seen, then, as a further effort to provide stability to the inchoate boundaries defining these modern categories. These are important issues for border studies – as a subset of boundary studies – but they should by no means be the only types of boundaries and categories to be researched. Instead, once such bordering practices are seen as one aspect of larger categorization processes, then the comprehensive theory of boundaries and bounding processes, which Newman (2003: 134) feels is so sorely lacking, might be possible to imagine.

## V Conclusion

There is always something that cannot be described. (Thrift, 1996: 34)

Categories shape the world around us. Everything inside an office or outside in a forest can be categorized and organized in some way. Humans have spent generations categorizing history into eras, dirt into soil types, plants and animals into phyla and species, and people into classes, ethnicities,

nations and races. Scholars in cognitive science have argued this is an embodied practice that allows humans and other creatures to survive in the world by sorting out the diversity present into a manageable system. Without being able to categorize items as food or not food, for example, an organism would not be able to survive (Lakoff and Johnson, 1999). Poststructural scholars have argued that these same categories allow power to be exercised as the world is ordered and organized in particular ways that are favorable to a select group of people. Scholars from both fields, although approaching the question of categories from different perspectives, end up with the same conclusions about the disconnection between conceptual categories and the wider world. Categories do not simply mimetically represent the world but, instead, simultaneously create it and limit it. The result is a paradox in which categories cognitively fit neatly into containers even while intellectually the boundaries between them appear to be messy and inexact. Here I have argued that thinking of the boundaries of categories as inchoate – as never fully formed – allows a move away from this paradoxical relationship and creates a space to contest categorization schemes.

I have also proposed that the inchoate process of bounding that results in the categories that shape, organize and control everyday life – which are already at the center of many academic pursuits across a range of disciplines – should be thought of collectively as the field 'boundary studies'. However, linking together inquiries into bounding processes and categorization schemes as a unified field of boundary studies does not imply that bounding processes occur uniformly over space/time. Although I suggest that all categories cannot be thought of as such without first having boundaries, regardless of how ambiguous and blurred, to mark them off as distinct, the everyday narratives and practices that establish boundaries and create the perception of a particular set of categories cannot be generalized. The bounding process

that results in the understanding of the boundary between the categories 'white' and 'not-white' in the United States is not the same as the bounding process that results in the boundary between the categories of 'mountain' and 'hill'. At the same time, none of these four categories has any meaning without the perception of a boundary between them. Consequently, the inchoate process of bounding, although particular and unique in each context, is essential to both. By thinking of research into categorization from across academia as a single endeavor, the currently fragmented insights into bounding processes can be consolidated in the field of boundary studies.

Geography, given its attention to context, difference and particularity, is the ideal discipline in and through which we may investigate the complex bounding processes of categorization. A boundary, after all, is fundamentally a spatial phenomenon. It allows an entity or idea to be spatially differentiated and identified. Political geographers have long made this point in terms of how territoriality is employed to carve up the space of the world into places as states, regions, or scales. Here I have argued that cognitive bounding processes should also be within the domain of geography. The container schema takes abstract undifferentiated ideas and reifies them as distinct categories by creating mental boxes with solid boundaries into which they can be placed. This insight into how categories cognitively operate as containers is crucial to understanding why particular categories are able to retain the appearance of being fixed and permanent even while it is widely accepted that they are not. These containers then frame the way the world is ordered, organized and understood. If geographers only look at this second step – the territorialization of categories at different scales and sites in the world – then the previous bounding processes of categorization have been overlooked and left unexplored. Rather than allowing boundary studies to be 'another missed boat' (Dicken, 2004), geographers

should work to establish geography as the discipline that is fundamentally concerned with the inchoate bounding processes of categorization.

The xenophobic and exclusionary categorization of the present era brings the importance of investigating bounding processes into sharp focus. The narration of the 'global war on terror' by politicians, journalists and commentators as a struggle of modernity against barbarity and right against wrong allows these framings of the world to be sedimented into the public discourse (Gregory, 2004; Gregory and Pred, 2007). It is the shifting and blurring of boundaries between the inside and outside of these categories – from terrorist/civilian, modern/traditional, to here/there – that organizes and limits the world around us. Although these boundaries are often problematic, it is not possible to simply get beyond categories and create a world that is unbounded and uncategorized. At the same time, this does not mean that inherited categories must be uncritically accepted. Instead, by emphasizing bounding processes – rather than categories that appear fixed and finalized – scholars can demonstrate that particular framings that rely on exclusive categories are not as immutable as they often appear. By recognizing the inchoate nature of the bounding process and the flexible and open categories that are produced, we can begin to understand the paradox of categories as we interrogate the bounding of the containers that order the world.

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#### **References**

- Abbott, A.** 1995: Things of boundaries. *Social Research* 62, 857–82.

- Ackelson, J.** 2005: Constructing security on the US–Mexico border. *Political Geography* 24, 165–84.
- Agamben, G.** 1998: *Homo sacer: sovereign power and bare life*. Stanford, CA: Stanford University Press.
- 2005: *States of exception*. Chicago, IL: University of Chicago Press.
- Agnew, J.** 1994: The territorial trap: the geographical assumptions of international relations theory. *Review of International Political Economy* 1, 53–80.
- Amoore, L.** 2006: Biometric borders: governing mobilities in the war on terror. *Political Geography* 25, 336–51.
- Anderson, J.** 2002: Borders after 11 September 2001. *Space and Polity* 6, 227–32.
- Andreas, P. and Biersteker, T.** 2003: *The rebordering of North America*. New York: Routledge.
- Andreas, P. and Snyder, T.,** editors 2000: *The wall around the West: state borders and immigration controls in North America and Europe*. Lanham, MD: Rowman and Littlefield.
- Appadurai, A.** 1996: *Modernity at large: cultural dimensions of globalization*. Minneapolis, MN: University of Minnesota Press.
- Balibar, E.** 2004: *We, the people of Europe? Reflections on transnational citizenship*. Princeton, NJ: Princeton University Press.
- Barth, F.** 1969: *Ethnic groups and boundaries: the social organization of cultural difference*. London: Allen and Unwin.
- 2000: Boundaries and connections. In Cohen, A., editor, *Signifying identities: anthropological perspectives on boundaries and contested values*, London: Routledge, 17–36.
- Boggs, W.** 1932: Boundary functions and the principles of boundary making. *Annals of the Association of American Geographers* 22, 48–49.
- 1940: *International boundaries: a study of boundary functions and problems*. New York: Columbia University Press.
- Bourdieu, P.** 1977: *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- 1991: *Language and symbolic power*. Cambridge: Harvard University Press.
- Bowker, G. and Star, S.** 1999: *Sorting things out: classification and its consequences*. Cambridge, MA: MIT Press.
- Brubaker, R.** 2002: Ethnicity without groups. *European Journal of Sociology* 43, 163–89.
- Brubaker, R., Loveman, M. and Stamatov, P.** 2004: Ethnicity as cognition. *Theory and Society* 33, 31–64.
- Butler, J.** 1990: *Gender trouble: feminism and the subversion of identity*. New York: Routledge.
- 1993: *Bodies that matter: on the discursive limits of 'sex'*. New York: Routledge.
- Carter, P.** 1989: *The road to Botany Bay*. Chicago, IL: Chicago University Press.
- Cloke, P. and Johnston, R.,** editors 2005: *Spaces of geographical thought: deconstructing human geography's binaries*. London: Sage.
- Coleman, M.** 2004: US statecraft and the US–Mexico border as security/economy nexus. *Political Geography* 24, 185–209.
- Cronon, W.** 1995: The trouble with wilderness; or getting back to the wrong nature. In Cronon, W., editor, *Uncommon ground: rethinking the human place in nature*, New York: W.W. Norton and Company, 69–91.
- Deleuze, G. and Guattari, F.** 1987: *A thousand plateaus*. Minneapolis, MN: Minnesota University Press.
- Derrida, J.** 1976: *Of grammatology*. Baltimore, MD: Johns Hopkins Press.
- Dicken, P.** 2004: Geographers and 'globalization': (yet) another missed boat? *Transactions of the Institute of British Geographers* 29, 5–26.
- Ek, R.** 2006: Giorgio Agamben and the spatialities of the camp: an introduction. *Geografiska Annaler: Series B, Human Geography* 88(4), 363–86.
- Foucault, M.** 1971: *The order of things: an archeology of the human sciences*. New York: Pantheon.
- 1977: *Discipline and punish: the birth of the prison*. New York: Pantheon.
- Fukuyama, F.** 1992: *The end of history and the last man*. New York: Free Press.
- Gieryn, T.** 1999: *Cultural boundaries of science: credibility on the line*. Chicago, IL: The University of Chicago Press.
- Gregory, D.** 2004: *The colonial present: Afghanistan, Palestine, Iraq*. Malden, MA: Blackwell.
- 2006: The black flag: Guantánamo Bay and the state of exception. *Geografiska Annaler: Series B, Human Geography* 88, 405–27.
- 2007: Vanishing points. In Gregory, D. and Pred, A., editors, *Violent geographies: fear, terror, and political violence*, New York: Routledge, 205–36.
- Gregory, D. and Pred, A.,** editors 2007: *Violent geographies: fear, terror, and political violence*. New York: Routledge.
- Habermas, J.** 1992: *The philosophical discourse of modernity*. Cambridge, MA: MIT Press.
- 1997: Modernity: an unfinished project. In d'Entrevés, M.P., and Benhabib, S., editors, *Habermas and the unfinished project of modernity: critical essays on the philosophical discourse of modernity*, Cambridge, MA: MIT Press, 38–55.
- Häkli, J.** 2007: Biometric identities. *Progress in Human Geography* 39, 139–41.
- Haraway, D.** 1991: *Simians, cyborgs, and women: the reinvention of nature*. New York: Routledge.
- Hartshorne, R.** 1936: Suggestions on the terminology of political boundaries. *Annals of the Association of American Geographers* 26, 56–57.
- Harvey, D.** 1989: *The condition of postmodernity*. Malden, MA: Blackwell.

- Holdich, T.** 1916: *Political frontiers and boundary making*. London: Macmillan.
- Jenkins, R.** 2000: Categorization: identity, social process and epistemology. *Current Sociology* 48, 7–25.
- Johnson, D.** 1917: The role of political boundaries. *Geographical Review* 4, 208–13.
- Jones, R.** 2006: Whose homeland? territoriality and religious nationalism in pre-partition Bengal. *South Asia Research* 26, 115–31.
- 2007: Sacred cows and thumping drums: claiming territory as ‘zones of tradition’ in British India. *Area* 39, 55–65.
- 2008: Searching for the greatest Bengali: the BBC and shifting identity categories in South Asia. *National Identities* 10, 149–65.
- Jones, S.** 1943: The description of international boundaries. *Annals of the Association of American Geographers* 33, 99–117.
- Kaiser, R. and Nikiforova, E.** 2006: Borderland spaces of identification and dis/location: multiscale narratives and enactments of Seto identity and place in the Estonian–Russian borderlands. *Ethnic and Racial Studies* 29, 928–58.
- Lakoff, G.** 1987: *Women, fire, and dangerous things: what categories reveal about the mind*. Chicago, IL: University of Chicago Press.
- Lakoff, G. and Johnson, M.** 1999: *Philosophy in the flesh: the embodied mind and its challenge to western thought*. New York: Basic Books.
- Larner, W.** 2003: Neoliberalism? *Environment and Planning D: Society and Space* 21, 509–12.
- Loveman, M.** 1999: Is ‘race’ essential? *American Sociological Review* 64, 891–8.
- Lyon, D.** 2003: *Surveillance as social sorting: privacy, risk and digital discrimination*. London: Routledge.
- Marston, S., Jones, J.P. and Woodward, K.** 2005: Human geography without scale. *Transactions of the Institute of British Geographers* 30, 416–32.
- Massey, D.** 1994: *Space, place, and gender*. Minneapolis, MN: University of Minnesota Press.
- Minca, C.** 2005: The return of the camp. *Progress in Human Geography* 29(4), 405–12.
- 2006: Giorgio Agamben and the new biopolitical *nomos*. *Geografiska Annaler: Series B, Human Geography* 88(4), 387–403.
- 2007: Agamben’s geographies of modernity. *Political Geography* 26, 78–97.
- Minghi, J.** 1963: Boundary studies in political geography. *Annals of the Association of American Geographers* 53, 407–28.
- Mitchell, D.** 1995: There is no such thing as culture: towards a reconceptualization of the idea of culture in geography. *Transactions of the Institute of British Geographers* 20, 102–16.
- Mitchell, T.** 1990: Everyday metaphors of power. *Theory and Society* 19, 545–77.
- 1991: *Colonising Egypt*. Berkeley, CA: University of California Press.
- Mol, A. and Law, J.** 2005: Boundary variations: an introduction. *Environment and Planning D: Society and Space* 23, 637–42.
- Murphy, A.** 1996: The sovereign state system as political-territorial ideal: historical and contemporary considerations. In Biersteker, T. and Weber, C., editors, *State sovereignty as social construct*, Cambridge: Cambridge University Press, 81–120.
- Nevins, J.** 2001: *Operation gatekeeper: the rise of the ‘illegal alien’ and the remaking of the US–Mexico boundary*. New York: Routledge.
- Newman, D.,** editor 1999: *Boundaries, territory and postmodernity*. London: Frank Cass.
- 2003: Boundaries. In Agnew, J., Mitchell, K. and Toal, G., editors, *The companion to political geography*, Malden, MA: Blackwell, 122–36.
- 2006: The lines that continue to separate us: borders in our ‘borderless’ world. *Progress in Human Geography* 30, 143–61.
- Newman, D. and Paasi, A.** 1998: Fences and neighbours in the post-modern world: boundary narratives in political geography. *Progress in Human Geography* 22, 186–207.
- Ohmae, K.** 1990: *The borderless world: power and strategy in the interlinked economy*. New York: Harper Business.
- 1996: *The end of the nation-state: the rise of regional economies*. New York: Free Press.
- Ó Tuathail, G.** 1996: *Critical geopolitics*. Minneapolis, MN: Minnesota University Press.
- 2000: Borderless worlds? Problematising discourses of deterritorialization. In Klotz, N. and Newman, D., editors, *Geopolitics at the end of the twentieth century: the changing political map*, London: Frank Cass, 139–54.
- Ó Tuathail, G. and Dalby, S.,** editors 1998: *Rethinking geopolitics*. New York: Routledge.
- Oza, R.** 2007: Contrapuntal geographies of threat and security: the United States, India, and Israel. *Environment and Planning D: Society and Space* 25, 9–32.
- Paasi, A.** 1996: *Territories, boundaries and consciousness*. New York: John Wiley and Sons.
- 2005: Generations and the ‘development’ of border studies. *Geopolitics* 10, 663–71.
- Peet, R.** 1998: *Modern geographical thought*. Malden, MA: Blackwell.
- Prescott, V.** 1987: *Political frontiers and boundaries*. Chicago, IL: Aldine.
- Rose, M.** 2002: The seduction of resistance: power, politics, and a performative style of systems. *Environment and Planning D: Society and Space* 20, 383–400.
- Rumley, D. and Minghi, J.,** editors 1991: *The geography of border landscapes*. London: Routledge.
- de Saussure, F.** 1966: *Course in general linguistics*. New York: McGraw–Hill.



- Scott, J.** 2002: A networked space of meaning? Spatial politics as geostrategies of European integration. *Space and Polity* 6, 147–67.
- Sparke, M.** 2005: *In the space of theory: postfoundational geographies of the nation-state*. Minneapolis, MN: Minnesota University Press.
- 2006: A neoliberal nexus: economy, security and the biopolitics of citizenship on the border. *Political Geography* 25, 151–80.
- Thrift, N.** 1996: *Spatial formations*. Thousand Oaks, CA: Sage.
- Thrift, N.** and **Olds, K.** 1996: Refiguring the economic in economic geography. *Progress in Human Geography* 20, 31–37.
- Tuan, Y.** 1977: *Space and place: the perspective of experience*. Minneapolis, MN: Minnesota University Press.
- van Houtum, H., Kramsch, O.** and **Ziefhofer, D.**, editors 2005: *B/ordering space*. Oxford: Ashgate.
- Watts, M.** 2005: Nature:Culture. In Cloke, P. and Johnston, R., editors, *Spaces of geographical thought*, London: Sage, 142–74.
- Weber, M.** 1968: *Economy and society: an outline of interpretive sociology*. Berkeley, CA: University of California Press.
- Whatmore, S.** 2002: *Hybrid geographies: natures, cultures, spaces*. London: Sage.
- Winichakul, T.** 1994: *Siam mapped: a history of the geo-body of a nation*. Honolulu: University of Hawai'i Press.
- Wittgenstein, L.** 1958: *Philosophical investigations*. Oxford: Blackwell.
- Woodward, K.** and **Jones, J.P.** 2005: On the border with Deleuze and Guattari. In van Houtum, H., Kramsch, O. and Ziefhofer, D., editors, *B/ordering space*, Oxford: Ashgate, 235–48.
- Worchel, S.** and **Austin, W.** 1986: *Psychology of inter-group relations*. New York: Nelson-Hall Publishers.