



# **Dialectical materialism: Marx's method in human geography?**

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## **Abstract**

Dialectical materialism, we argue is a philosophical praxis that guided Marx's critique of capitalist political economy. In this article, we have attempted a self-critique of human geography by explicating that dialectical materialism has been largely used as a metaphor within the discipline. The article has been inspired by the over-whelming use of the terms 'dialectics' and 'dialectical' in human geography. The purpose has been to lay down some of the basic tenets of dialectical materialism in Marx's work, and then lay down some human geography research that engages with dialectical materialism. We believe that philosophical introspection on methodology, particularly within the Marxist circles, is scarce. We argue that to develop a truly dialectical materialist human geography we must push dialectal materialism from metaphor to methodology. We also think that methodology and philosophy are inseparably tied and therefore, choice of research methodology is a reflector of the researcher's philosophy about reality and hence research praxis should be an important matter of discussion and introspection.

## Keywords

Materialism; human geography; radical geography; methodology; praxis

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## Introduction

The beliefs upon which we rest the objectives of our study form our philosophy, our own individual view of life and living. It is convenient, therefore, to designate the manifestation of these beliefs in geographical work as the *philosophy of geography*.

(David Harvey 1973a, 4)

With those words, Harvey embarked upon a very difficult journey of systematizing and synthesizing the methodology of geography in his *Explanations in Geography*. The book's argument is, however, far deeper and more complex than a simple assessment of the dominant tools of the day. The book calls for a serious disciplinary introspection of how theory, methodology, and the philosophy of doing science are inseparably linked. In other words, Harvey called for a deep academic soul searching of whether geography is indeed a science and, if so, what kind of science.

Since making that statement, Harvey's own ideas about geography have evolved, and so has US-based, Anglophone human geography. Positivism and the quantitative revolution (Berry and Garrison 1958; Ackerman 1963; Peet 1969; Taaffe 1974; Cox and Golledge 1981), the radical turn and Marxism, structuralism (Harvey 1973b; Blaut 1975; Santos 1975; Peet 1977a; 1977b; Walker 1978), post-structuralism (Gibson-Graham 1996; Doel 1999; Gibson 2001; Bonta and Protevi 2004; Crampton and Elden 2016), post-modernism (Bondi and Domosh 1992; Dear and Flusty 1998), post-colonialism (Sidaway 2000; Blunt and McEwan 2002; Robinson 2003; Gregory 2004), feminism (McDowell 1992; Rose 1993; Pratt 2004; Pratt and Hanson 2005), and queer theory (Binnie 1997; Browning 1998; Oswin 2010; Knopp 2017) have carved out well-established and popular niches. These were not easy changes or inclusions in the discipline because much of human geography until the 1960s and 1970s was invested in areal differentiation or least-cost location (Johnston and Sidaway 2004). Hartshorne-inspired areal differentiation used chorology as its methodology and collated and described information about the unique biophysical and biocultural characteristics of regions (Hartshorne 1939). Much of quantitative geography focused on distance-decay as its epistemological basis. Quantitative geographers, following Weber (1929) and Losch (1954), derived least-cost locations for factories (Smith 1966; Chorley and Haggett 1967), or following Christaller, estimated tributary area for retail stores (Berry and Garrison 1958; Berry and Harris 1970). In the rural context, quantitative geographers computed concentric land use zones following Von Thunen's model of commercial agriculture (Peet 1969). Peet and Thrift (1989, 5; Peet et al. 2011)

describe these dominant themes within quantitative geography as “conventional geographic theories” focused on “barn types” and “journey to shops.” In other words, much of human geography was invested in “objective, value-free and politically-neutral knowledge production” (Peet 1977a, 240). In the 1970s, radical human geography inspired by Marxism emerged as a response to the value neutrality of the regional and quantitative approaches.

The aim of radical human geography was socially relevant research that went beyond surface description or tracing spatial patterns of social processes. Instead, it explicitly positioned itself with the oppressed to expose capitalism's many exploitations (Peet and Thrift 1989). Blaut (1979) notes that the Cold War and McCarthyism stymied radical traditions in the academy, and it was the radical stimuli of the Vietnam War protests, race riots, and the Civil Rights Movement that slowly consolidated dissenting traditions within human geography. The idea that geographers are political beings energized the fledgling radical geography; thus, the issues they study, the theory they produce, and the methodology they adopt must be political. In fact, the purpose of socially conscious knowledge production should be to produce socially relevant research by challenging economic, political, cultural, and ecological exploitations. This dissent was directed at regional descriptions and quantitative traditions that dominated knowledge production until then. Many who contributed to the radical turn (for example, Peet, Harvey, and Blaut) were themselves trained in quantitative methodology. They were invested in Cartesian traditions of space as geometry, and neoclassical assumptions about profit and market. Disenchanted by neoclassical and Cartesian superficiality, and energized by the societal changes happening all around, they were interested in moving the discipline towards emancipatory politics (Peet 1977a). For the new radicals at that time, emancipatory politics meant revealing problems of the day (like poverty, inequality, racism, sexism, ghettoization) and suggesting social changes and transformations to mitigate such problems (Peet, Chatterjee, and Hartwick 2011). By using Marx's political economic approach (Blaut 1975; Peet 1977a; Harvey 2009) rather than neoclassical theory, chorology, or spatial statistics, they made a major ontological and epistemological shift. This dissenting, radical stance has endured, and human geography has evolved to include, among many radical/critical schools of thought, Marxism, post-structuralism, feminism, and postmodernism. Smith (2005, 889) extols this enduring radical tradition by declaring that “we still live today with the bountiful results of the broad social theory revolution in geography and the discipline is a far better place for it.”

Dissenting radical/critical traditions brought major ontological and epistemological shifts within human geography, but did they also revolutionize the method of doing critical/radical research? If critical/radical geographers go by Harvey's proclamation that our beliefs and worldviews inform the objectives of our study and form the philosophical basis of our disciplinary identity, they must also inform how we go about doing radical geography, i.e., our method. In other words, many human geographers adopted Marx theoretically and conceptually, and today

Marx is widely cited in human geography. Did radical/critical geography inspired by Marx, however, also adopt Marx's method, dialectical materialism? An exploration of recent literature in human geography reveals that human geographers have from time to time visited Marx's dialectical materialism (Collinge 2008; Doel 2008; Gidwani 2008; Ruddick 2008; Secor 2008; Sheppard 2008) as a philosophical praxis.<sup>1</sup> Often, dialectics has been used as a descriptor or a metaphor for signifying opposing or contradictory processes, relations, or things (Soja 1980; 1985; Mitchell 2002; Perkins 2006, Secor 2008). Sheppard (2008), in his deep introspection on dialectics, brilliantly argued that if Anglophone human geographers could distance themselves from their narrow Hegelian reading of dialectics, they could find it to be a useful socio-spatial theory compatible with contemporary post-structural or feminist traditions. An attempt to exclude dialectics and Marxian political economy from post-structural theory is, according to Sheppard, an artificial construction of difference. Sheppard argues that Bhaskar's interpretation of Marxian dialectics as non-teleological and partial totalities is closely aligned with Deleuze and Guattari's (1988) theory of assemblage. In other words, "dialectics and poststructuralism can be mutually constitutive" (Sheppard 2008, 2609).

We agree with Sheppard that dialectical materialism, in its broadened version, is an excellent theoretical basis for understanding reality from Marxist, feminist, poststructuralist positions, but our objective is a bit different. Theoretical introspection aside, we want to explore if critical/radical human geographers have deployed dialectical materialism as a methodological praxis. Human geography inspired by Marxism has never really outlined the characteristics of dialectical materialism as a method in radical/critical research, as we have done, for instance, for feminist methods (McDowell 1992), hermeneutics (Mayhew 2007), or deconstruction (Barnes 1994). While aligning with Sheppard's (2008) claim that dialectics can be a useful socio-spatial theory for a wide range of critical theoretical positions, we hope to push the discussion further by explicating how dialectical materialism can be a methodology in critical/radical human geography. Outlining dialectical materialism as a methodology is important because, as Harvey (1973, 4) noted, theory *and* methodology *together* inform the philosophy of doing geography. Therefore, if our theory does not inform our methodology and vice versa, then our radical philosophy is only half-baked.

If the point is to change the world (Marx 1845), then a radical theory without a radical methodology will be incapable of explicating the nuts and bolts of exploitation. Understanding exploitation is important for understanding unjust reality because it opens possibilities for envisioning a just reality. For example, we may agree theoretically with Marx that poverty is the result of inequality produced

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<sup>1</sup> For the purposes of this article, we acknowledge that our exploration of human geography literature is limited to the Anglophone world.

by the extraction of surplus value from the agrarian and industrial proletariat. But if we use neoclassical methods (e.g., GDP, GNP, poverty line, calorific intake) to analyze this, then not only would surplus value remain elusive, its theft would be invisible to us. Thus, we would conclude that because we cannot measure surplus value, it does not exist, and what does not exist cannot be stolen. Dependence on neoclassical methods will normalize arguments such as: people are poor because they are not competitive enough; or there is too much competition because there are too many people; or the soil is infertile and natural resources are scarce. Failing to conceptually explicate exploitation would mean that our imagination of justice would be confined to inculcating the entrepreneurial spirit, controlling the population size, or increasing soil productivity and extracting more from nature. Inappropriate method will bring inappropriate change.

Our objective in this paper, therefore, is to examine Marx's dialectical materialism and to understand how it has been used in critical/radical human geography. Unfortunately, Marx does not present us with long treatises on his methodology—he practices his dialectics in his critique of the political economy of capitalism. Therefore, while we use Marx's original works, we also rely on how others have read Marx's dialectical materialism. In examining dialectical materialism within human geography, we will demonstrate that much of radical/critical human geography has not been dialectical materialist in its methodology. In fact, dialectical materialism—more specifically the word “dialectic(s)” —has often been used as a metaphor, signifier, or descriptor in human geography research rather than as a method. Our final objective, therefore, is to push dialectical materialism in human geography from metaphor to method by teasing out some tenets of dialectical materialist human geography. If radical philosophy in research is a synthesis of radical theory *and* radical method, then dialectical materialist human geography can be a vibrant political praxis for not just describing exploitation but actually conceptualizing it and, hence, enabling change. When Marx (1845) said, “[p]hilosophers have only interpreted the world in various ways; the point, however, is to change it,” we assume that he intended to demonstrate, with his materialist dialectics, how this gap between interpretation and transformation (or philosophy and praxis) could be bridged. In the following section, we carry out a broad overview of how, and in what ways, the term “dialectics” or “dialectical” has been used in human geography. We also examine if some broad conceptual themes emerge within which uses of “dialectics” or “dialectical” can be subsumed. The effort is to systematize literature and provide more context to dialectics as a concept within critical/radical human geography.

### **Dialectics in geography**

A quick overview of the *Annals of the Association of American Geographers* indicates that “dialectic” or some version of the term has featured in at least one article title in every year between 2011 and 2014 (Bauder 2011; Johnson and Coleman 2012; Furlong 2013; Kobayashi 2014) and many more times

within the actual content of the articles. In *Antipode*, it appeared in one or more article titles in 2006 (Perkins), 2011 (McIntyre and Nast), 2015 (Apostolopoulou and Adams; Brincat and Gerber; Hayashi), and 2017 (Millar and Mitchell; Royle) and frequently in contents of articles that did not have the word *dialectics* in their title. In *Environment and Planning D: Society and Space (EPD)*, the term *dialectic* or *dialectical* appears in the content of at least one article in 2011 (Ruddick), 2014 (Tyner, Inwood, and Alderman), and 2016 (Tucker). *Environment and Planning A (EPA)* hosted a special issue on dialectics in 2008 with more articles in 2011 (Vallance) and 2012 (Mutersbaugh and Martin). When “dialectics” is typed as a keyword, 316 research articles appear in *EPA* since 1973 to May 8, 2018. The number is 391 for *EPD* from 1983, and for *Antipode* it is 389 articles since 1969 as of May 7, 2018. In the 2008 special issue published in *EPA*, Eric Sheppard (2008, 2604) comments: “Since 1989, however, the terms dialectic, dialectics, or dialectical have appeared in the titles, keywords, and abstracts of geographical journals included in the ISI database an average of six times annually, with bimodal peaks in the early 1990s and after the turn of the millennium.”

Some examples of the manner of usage of the terms “dialectics” and “dialectical” include, for example: dialectics of equity (Furlong 2013), dialectics of development (Jarosz 2010), production-consumption dialectics (Perkins 2006), socio-spatial dialectic (Soja 1980), dialectical difference (Engida 2015), spatial dialectics of reproduction and race (McIntyre and Nast 2011), dialectics of difference (Secor 2008), and dialectical landscape (Mitchell 2002). A closer reading of the actual use of the terms indicate that in most of these articles, the term “dialectics” is used as a signifier for mediation or interconnectivity between seemingly contradictory yet related process-pairs such as production and consumption or space and society. “Dialectics” is also used as a replacement word for “intersection” between seemingly discrete social differences like class, race, and gender (as in “dialectics of difference”).

Another ubiquitous use of “dialectics” is in conjunction with terms such as “space,” “spatial,” “territorial,” and “landscape.” In most of these cases, the term dialectics is an adjective to unfreeze space from its supposed stasis in order to demonstrate its evolutionary and dynamic nature. In other words, “dialectics” indicates that space is a process. For example, “spatial *dialectics* of reproduction” (McIntyre and Nast 2011) could easily be rephrased as “spatial *process* of reproduction” without changing much of the author’s original intent. In other words, “dialectic” is preferred over “process” because it seems to hint at something more complex, deep, or systemic. For Mitchell (2002, 381), “dialectical landscape” (borrowed from Kobayashi 1989) signifies the dynamism of space, but space is conceptualized more concretely as landscape. Landscape is not *in situ* but rather dynamic and, hence, dialectical. Its dynamism stems from its interconnectedness with other landscapes. It is in connecting myriad landscapes (often landscapes of oppression) that we connect lifescapes. Thus, dialectical landscapes connect lives and, in so doing, transform stable spaces as sites of collective action against

oppression. In other words, Mitchell invokes dialectics to signify movement, dynamism, opposite of stasis, and connection or mediation among supposedly separated entities like other landscapes. Mitchell's use of the term "dialectics" serves dual purposes: it complicates the mainstream notion of landscape as something fixed, frozen, and durable by alluding to something more fluid, and it also brings variegated space (landscape) in conversation with others.

In this section, our purpose has been to indicate the prevalence, popularity, and breadth of usage of the terms "dialectics" (or "dialectical"), and to pinpoint two broad trends of this usage: as a metaphor for intersection and interconnectivity, and as a metaphor for signifying space as dynamic. Both are useful templates for understanding human geography's engagement with dialectical materialism. The next section is an exploration of Marx's dialectical materialism. We hope that in juxtaposing dialectics in geography (this section) with dialectics in Marx (next section), we explicate how Marx and Marxist geography meet and deviate.

### **Marx's dialectical philosophy**

Based on readings of Marx's original work and interpretations of his work by Marxist scholars, we identify attributes like material, historical-geographical, society as a whole, and interrelations as important entry points for understanding dialectical materialism.

#### ***Material***

In the introduction of *Grundrisse*, Marx (1993) outlines the method of political economy. He is very clear about the concreteness of society as existing outside our head, our ideas, and our interpretation. In other words, the material world exists. And the "thinking head appropriates the world in the only way it can" (Marx 1993, 100). Unlike Hegelian interpretations where the "real/concrete" is a product of thought (Hegel 1953, 2009), in Marx's method, thought appropriates the concrete and reproduces it conceptually in the mind as concrete abstraction. The mind, however, never produces the concrete (Marx 1992). Therefore, Marx contends that Hegelian dialectic "must be inverted, in order to discover the rational kernel within the mystical shell" (Marx 1990, 103). Lefebvre (2009) argues that Marx, in critiquing Hegel, fully unites idealism and materialism, and this unity is not just a mechanical unity of bringing ideas and materiality together. For Lefebvre, Marx's dialectical materialism is humankind's struggles, actions, thoughts and knowledge in an indivisible living actuality, called the praxis. Hence, Marx (1859) is often quoted stating that "[t]he mode of production of material life conditions the general process of social, political and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness." Human existence is about transforming the material world through laboring and simultaneously interpreting these acts of labor to inform consciousness. The concrete acts of laboring are conceptualized intellectually to produce concrete abstractions, which are not just products of

thought. The very process of our existence, therefore, produces history (and we may add, geography), or in other words, “active species life” (Marx, 1964, 276-7).

### ***Historical-geographical***

Human history evolves through a materialist dialectic of laboring and conceptualizing. Thus, “this society by no means begins only at the point where one can speak of it *as such*” (Marx 1993, 106). And society is not constituted merely because of conceptualization or idealization. Therefore, understanding capitalism is a historical/geographical process because the history of human existence is imbricated in it. It is also about understanding other modes of production (e.g., hunting-gathering, pastoral, feudal and more) because capitalism eventuates spatio-temporally from these other modes of production. No mode of production is discrete or ahistorical, instead it contains seeds from which its “other” emerges (Mandel 1976). Therefore, understanding capitalism requires understanding the “humanization of man himself” (Marx and Engels 2002, 132) and the humanization of women. History, hence, is the material dialectical manifestation of human transformation into species being and of the humanization of nature itself (Marx and Engels 1967). For Marx, humans are not just natural beings or biophysical components; rather, they are “species being” or “human natural being” (Marx and Engels 2002, 131). In other words, humans are simultaneously nature (or part of nature) and social beings. By existing, producing, and knowing, humans create history and geography consciously. Consciously producing a “world of objects” (Marx and Engels 2002, 131) is a totality larger than the sum of individual actions. It is, therefore, in the evolution of the “species being” (or the human natural being) that human geography and history are realized. Nature too is not just a collection of natural stuff or raw material as in bourgeois political economy. In the production of history and geography, nature is already humanized and produced. Human and nature are so inextricably intertwined that nature is human’s “inorganic body” (Marx and Engels 2002, 131).

This is how Marx substantiates human-nature relations:

It was ‘in creating a *world of objects* by his practical activity, in his *work upon inorganic nature*’, that Man proved himself ‘a conscious species being’. ...‘the universality which makes all nature his inorganic body’. Through this production, nature appeared as ‘*his work*’, industry as ‘the open book of Man’s essential powers’, and the object of labour as ‘*the objectification of Man’s species-life*. Man would therefore be able to see himself ‘in a world that he has created.’

...History was the process of Man becoming species being. Thus, ‘history itself is a real part of *natural history*—of nature developing into Man’ (Marx and Engels 2002, 131).



A snippet from human existence is (always) already historical and geographical. This existence is simultaneously natural and social and is inherently a story of objectification of human labor or the divorce of humans from their species being (Marx 1975). The methodology of dialectical materialism for Marx is not a sequential analysis of historical events taking place in time, or the description of battlefields in different geographical sites, but rather exploring the ordinary, though exploitative processes of everyday life.

### *Society as Whole*

Because Marx insists that we begin with the “real and the concrete” in our understanding of society (Marx 1993, 100), one way of approaching reality is to begin with “the population,” which is the basis of the social process of production. Marx, however, was quick to point out the limitation of this beginning. The limitation emerges from “the population” merely being an abstraction. If we do not include the classes into which “the population” is divided, then we begin with serious limitations. And then again, class is an empty phrase, a mere abstraction, if we do not understand it in the context of wage labor and capital, which are also abstractions and need to be contextualized. “Thus,” says Marx, “if I were to begin with the population, this would be chaotic conception of the whole, and I would then, by means of further determinations, move analytically towards ever more simple concepts, from the imagined concrete towards thinner abstractions until I arrived at the simplest determinations” (Marx 1993, 100). Thin abstractions and simple determination, according to Marx, are mistakes that bourgeois economists make. Alternatively, Marx’s method involves understanding the whole, “the population,” not as an abstraction (“imagined concrete”) but as a concrete, “rich totality of many determinations and relations” (class, surplus value, wage relations, etc.) (Marx 1993, 100). In this alternative approach, “the population” is not an abstraction because the parts (i.e., determinations, such as wage relation, surplus value, and class) always already constitute this whole at the same moment as the whole constitutes these parts (Marx 1993, 100). Hence, there is no possibility of step-by-step analytical distillation of the whole into its constitutive parts. The whole must, from the very first moment, be understood as a concrete abstraction.

Ollman (2003), following Marx, clarifies that dialectics is a way of thinking about reality in its full range of interactions and changes. Dialectics is not a mechanistic triad of thesis-antithesis-synthesis, a formula, or a hidden engine that can explain how reality operates. “The dialectic, as such, explains nothing, proves nothing, and causes nothing to happen” (Ollman 2003, 12). Yet, dialectics does help us, first, to go beyond the appearance of reality. In other words, it allows us to go beyond the observation of ‘facts’ to understand how something arises, and how it relates to a context beyond itself. For example, commodity is not a thing or stuff in Marx’s approach. It is a process that is related to the production of value and embedded in exploitation. Commodity possesses congealed labor, value, use value, and exchange value (Marx 1990). Exploitation, value, use value, exchange value,

and congealed labor are material abstractions oozing the commodity's human context. This human context, according to Marx (1990, 353) consists of scenarios such as the following:

Children of nine or ten years are dragged from their squalid beds at two, three, or four o'clock in the morning and compelled to work for a bare subsistence until ten, eleven, or twelve at night, their limbs wearing away, their frames dwindling, their faces whitening, and their humanity absolutely sinking into stone-like torpor.

The exchangeable or marketable product that comes out of this child labor is the commodity. It is not the starting point or the cause for anything, nor is it the end state. One cannot, therefore, start at the "first step," like raw material as a thing, and arrive at the commodity as a new thing. Neither can one start with the commodity as a thing, and dissolve it into the barest factors of production that made it. Therefore, Ollman (2003, 14) clarifies the ontological difference between dialectical and non-dialectical research when he claims that "[u]nlike non-dialectical research, where one starts with some small part and through establishing its connections to other parts tries to reconstruct the larger whole, dialectical research begins with the whole, the system, or as much as of it as one understands, and then proceeds to an examination of the part to see where it fits and how it functions, leading eventually to a fuller understanding of the whole from which one begun."

This conceptualization or framing of the whole is what Harvey (1996, 53) means when he says that "parts and wholes are mutually constitutive." And because of this mutually constitutive nature, dialectics does not make cause-effect arguments. In the context of parts and whole being mutually constitutive, dialectical materialism dissolves Cartesian dichotomies such as separation between object-subject, mind-matter, concrete-abstract that have become common sense in positivist and empiricist traditions.

### ***Interrelations***

Unlike analytical traditions, where reality can be fragmented into self-contained segments to be analyzed internally and then connected externally to other fragments, Marx's dialectics is about internal connections. According to Marx, bourgeois political economy "teaches us nothing... because [it] does not grasp the way in which movement is connected" (Marx 1964, 106-7). Since it fails to show internal connections, it does not explicate exploitation but instead understands society as competitions between greedy individuals based on their human nature. Because it avoids connections, it treats private property and its emergence as accidental, inequality as unfortunate, and competition as necessary. On the other hand, for Marx (1964, 107), interrelations that constitute the whole are fundamental to understanding process:

...we have to grasp the essential connection between private property, greed, and the separation of labor, capital and landed property; between exchange and competition, value and the devaluation of men, monopoly and competition, etc.—the connection between this whole estrangement and the *money* system.

Therefore, for Marx, bourgeoisie political economy conceals the estrangement within society by fragmenting it so that labor is analyzed as disconnected from production, production from private property, exploitation from profit, and so on. These disconnects obfuscate that exploitations which arise out of “objectification of labor” (Marx and Engels 1967, 131) and “estrangement” (Marx 2002, 107; 1975, 322).

Unlike dialectical method, analytical traditions extend the bourgeois view of the world. Sayers (1991), in his important critique of Cohen's (1978) *Karl Marx's Theory of History*, makes a distinction between *analysis* and *dialectics*. Analysis involves the disaggregation of the whole into discrete component parts that are then defined in isolation as fragmented aspects of a totality. Sayers (1991, 142) claims that “[t]he effect of [analysis] is to produce a fragmented and atomized picture of reality” where “[t]hings are what they are; they have their being purely in themselves and quite independently of the context of their relations.” Dialectical philosophy, on the other hand, is the exact opposite of analysis because “concrete and particular things are always and essentially related, connected to and interacting with other things within a larger totality. This context of relations is internal and essential to the nature of things, not external and accidental. By contrast, the analytical approach—with its logic of external relations—has the effect of removing things from their context and producing an abstract account of them. It has the effect of fragmenting the world into a “disconnected series of atomic particulars...” (Sayers 1991, 143). Therefore, contexts, interconnections, and unity within a larger whole, where the context of relations are not imposed from outside but are internal and organic, are the very essence of dialectical materialism. Within analytical traditions, a simple system like a machine can be dismantled and put together as a physical object. Severed from social relations of production, analysis will treat the machine as an inanimate object only. But a complex reality, like a family will never be appropriately comprehended by analysis if the father is studied severed from his relationship with the mother, and the children from their parents. Dialectics depends on contexts and interconnections to provide the essence of reality.

Understanding reality as interconnected does not imply that dialectical philosophy is opposed to distinctions. In fact, dialectical philosophy understands that an important aspect of comprehending reality involves making distinctions. Unlike the analytical method, however, dialectical materialism insists that different, similar and opposed parts are in unity.

The overall purpose of Marx's dialectical materialist method is not to prove or test the hypothesis that capitalism exists. Hypothesis testing or proving, according to Harvey (1996, 67), is a positivistic-analytical stance. The purpose of dialectical materialism is rather to show "in what forms, over what domains (within what bounds) and with what effects it operates and what transformative possibilities exist." In the next section, we will explore the variety of ways in which Marx's dialectical materialism has been deployed within critical/radical human geography.

### **Geographers' dialectic**

In this section, we take a close look at Harvey and Sojas's dialectics. We explore Harvey's work under "capital and dialectics" because understanding the political economy of capitalism is the overriding theme in Harvey's work. We explore Soja's work under "space and dialectics" as Soja's is an explicit mission to include space within the realm of radical/critical theory. We also explore a whole range of radical/and critical research under "landscape, scale, image and dialectics." This section is a sympathetic critique of dialectics and dialectical thinking within critical/radical human geography juxtaposed against what we gleaned from Marx's work in the previous section. Collinge (2008, 2613) refers to Harvey's and Lefebvre's approach as "humanistic dialecticism," and considers Ed Soja and Neil Smith as a "second generation" reinforcing dialectical thinking.

### ***Capital and dialectics***

Castree (1996, 346) adopts a critical stance and argues that Harvey's is a "systematic dialectic" claiming to maintain a creative tension between explanatory-diagnostic and epistemologically reflexive moments. It is Castree's assertion that this tension is often unsustainable with Harvey's "categories illegitimately imposing themselves onto a reality, which they simply make in their own image" (1996, 357-8). In other words, Harvey's analytical propensity to *explain* the world often impinges on his well-meaning desire to be reflexive. Thus sometimes, according to Castree, the result is the imposition of conceptual categories on reality, i.e., theory structuring reality rather than the other way around. A close examination of some strands of Harvey's scholarship becomes imperative because of his overwhelming influence as a Marxist geographer and because of the amount of ink that has been spilt in supporting or critiquing his work.

In *Social Justice and the City*, Harvey (2009) lays out, possibly for the first time, the dialectics of Marxian political economic enquiry for a geographic audience. In doing so, he clarifies that Marx's purpose is to show how capitalism (whole) shapes elements and relationships (surplus value, wage relations) within itself in such a way, that it (whole) reproduces itself. But the elements and relationships are not always in harmony, they are sometimes in contradiction, and out of these contradictions come conflict. Resolution of conflict leads to transformation of the whole and the parts. Harvey (2009, 289-90) clarifies "that

research has to be directed at discovering the transformation rules whereby society is constantly being restructured, rather than to finding “causes,” or to identifying “stages” or “descriptive laws” governing the evolution of totalities independent of their parts.” The purpose is to draw attention to the inner transformation of society. There is, therefore, a prior intellectual commitment to process rather than thing or system. Capital is a process rather than a thing; when one writes “capital does” or “capital creates,” it does not mean that capital is an independent variable with some causal powers. Rather, the flows of capital circulation, conceptualized as a whole, are important for understanding social transformation (Harvey 1996, 62-63). In Harvey’s work, circulation of capital that materializes the whole of society is not a nebulous assemblage, it is structured. Harvey (2009, 292) clarifies that “some structures are regarded as more basic than others within the totality. Structures can therefore be ranked in order of significance.” From this clarification, it follows that economic basis of society or the realm of production has some primacy, although it by no means is independent of the superstructure. But, in a conflict between evolution of economic basis and superstructure, it is the latter that has to adapt. In *Justice, Nature, and Geography of Difference* (1996), Harvey uses *moments of production* and other moments rather than economic basis and superstructure. He still insists that, although moments of production internalize relations with all other moments, “*the* transformative moment in the whole process resides in the moment of production and that is where we have to concentrate our attention” (1996, 64). In other words, relationality of the process of capital circulation is the basis of dialectical enquiry. And some structures/moments in this relation are more significant than others. Relationality does not automatically signify structural relativity.

In his most recent book *Seventeen Contradictions and the End of Capitalism*, Harvey (2014) states that he intends to separate capital from capitalism. His objective is to look at the flow and accumulation of capital, the blood stream (the engine) that brings to life the body of capitalism (the ship). Just like a biologist, who segregates different parts of the ecosystem and studies them as externally related to each other, Harvey (2014, 10) “isolates and analyzes” the contradictions of capital as segregated from capitalism. Harvey (2014, 112-130) acknowledges in the chapter titled “Division of Labor” that contradictions of capitalism and capital interact. He cites the example of labor market segmentation where gender, race, and ethnicity become prominent distinctions within capitalism that capital finds useful. Again, in the chapter on “Disparities of Income and Wealth,” Harvey (2014, 164-181) acknowledges how class is often mediated by race, and capital is not innocent in such mediations. In other words, the “external influences” on the body (capitalism) shapes the blood stream (capital), and vice versa; however, for the purposes of this book, he prefers to isolate capital and understand its flows, contradictions and conflicts independent of capitalism.

Harvey’s (2014) isolation of capital, we argue, marks a departure from the relational, holistic basis of Marx’s dialectic. Dialectics, as we have seen, abhors

“isolation and analysis.” To sever capital from capitalism, blood stream from the body, or to even understand it through mechanistic metaphors like “engine” and the “ship” is antithetical to Marx’s dialectical method, and even Harvey’s earlier dialectical stance. For Marx and in Harvey’s previous work, capitalism is the whole. One begins with the whole and understands the parts, not through discrete isolation and analysis, but in their relational concreteness to arrive at a better conception of the whole. Therefore, dialectical enquiry, even while stressing the significance of some moments, cannot willfully ignore or isolate the concreteness of determinations like gender, race, and religion. To ignore the whole or the concreteness is to make class and production vacuous, which is an exercise in analytical simplicity. To isolate from the whole and analyze is a product of thought, and not reality. Such an approach is incapable of comprehending how production structures exploitations of all kinds. Harvey himself said as much in *Limits to Capital* (2006, 446):

The dialectical mode of thinking, at least as I construe it, precludes closure of the argument at any particular point. The intriguing configurations of internal and external contradiction, which I commented upon in the *Introduction*, force the argument to spin onwards and outwards to all manner of new terrain.

Despite slippages in *Seventeen Contradictions*, Harvey is probably the first human geographer to introduce Marx’s dialectics and philosophically adopt it into geography as research praxis.

### ***Space and dialectics***

Ed Soja’s work, what Collinge (2008, 2613) calls “second generation,” is actually more inspired by Lefebvre, and often positioned critically with respect to Harvey’s approach. Through his article, Soja (1980) popularized the hyphenated adjective “socio-spatial” and clarified that the social and the spatial are inseparably conjoined. Soja’s dialectics draws inspiration from Lefebvre’s (1991) spatial ontology where social phenomena (i.e., reality) are perceived-conceived-lived through space. While Harvey’s dialectics attempts to explicate capitalism as a process, Soja’s dialectics explicitly identifies that process as a spatial one. A capitalist social reality produces its own spatial moment and its reversal would require revolutionizing the spaces capitalism has produced. Lefebvre (1991, 73) introduces the concept of “social space”:

(Social) space is not a thing among other things, nor a product among other products: rather, it subsumes things produced, and encompasses their interrelationships in their coexistence and simultaneity-their (relative) order and/or (relative) disorder.

Notice the parentheses around “social”—the implication here is that space is always already social. Indeed, a truly dialectical eye should not see social and spatial as separate or even hyphenated. The purpose of dialectical materialism is to

understand the geography *and* the history of capitalism not as separate but as co-produced moments; therefore, for Lefebvre, space is not a "thing" understandable through an isolate-and-analyze approach. Space *is* (social) reality and can be understood as an exploration of the complex interrelationships of the process of (capitalist) production. Lefebvre, following Marx, urges us to understand reality as the production of value and the theft of surplus value. But this does not happen *on space*, but is inherently *spatial*. A dialectical approach to reality is also a dialectical approach to space and can be achieved through a triad of spatial practice, representation of space and representational space. These are not sequences through which reality is approached, but are the simultaneities of existence.

Inspired by Lefebvre's spatial ontology, Ed Soja urges Marxist geographers to engage with space in a dialectical manner:

In the development of Marxism, the spatial structure has remained, for the most part, externalized and incidental, a mere reflection of a deliberately despatialized concept of the "social." The social-spatial dialectic thus represents a call for the reinclusion of socially produced space in Marxist analysis as something more than an epiphenomenon. The argument, however, is taken one step further by suggesting that the vertical and horizontal expressions of the relations of production under capitalism (i.e., relations of class) are, at the same time, homologous, in the sense of originating in the same set of generative structures (e.g., the relation between labor and capital); and dialectically linked, in that each shapes and is simultaneously shaped by the other in a complex interrelationship which may vary in different social formations and at different historical conjunctures. There is no permanent and rigid dominance of one over the other in all concrete historical and geographical circumstances (Soja 1980, 224-225).

The essence of the above argument is that space is not simply a mere reflection, a stage, or geometry, or pattern. Instead, space is an active moment in the process of accumulation. The vertical is seen as the exploitative class relations that exist between the bourgeois and the proletariat—the social division of labor. The horizontal is the core-periphery, or spatial, division of labor between centers of accumulation (the global north) and centers of exploitation (the global south). Soja emphasized the implications: exploitation of the periphery means the working class of the periphery may be subsidizing the laboring class of the core. In other words, proletariats exploit proletariats, and therefore, the simple notion of bourgeois versus proletariat class struggle is rendered problematic. The production of space mystifies class struggle or, in other words, the horizontal (space) impinges on the vertical (class). These are important observations on capitalist accumulation and have encountered much debate within the annals of dependency and world systems theory (Amin 1974).

The socio-spatial dialectic is thus the tool through which the spatial (horizontal) is explicitly brought into the picture. The problem, however, is that Soja approaches dialectics analytically. First, he assumes that the “social” and “spatial” are discrete containers that may be dialectically re-engaged through a hyphenated link. He also assumes that inflecting the vertical with the horizontal relations of production would result in a dialectical approach to global capitalism. However, the social and spatial are not discrete containers, they are always already inflected, and there is therefore no reason why they should, in theory, be treated as discrete and separate. Second, disintegrating reality through concepts like the vertical and horizontal, where the vertical is assigned to the social (in this case, class relations) and the horizontal to space, proves problematic from the point of view of dialectical materialism. Once reality is abstractly separated into conceptual worlds of the vertical and the horizontal, conceptual violation has already been committed. Neil Smith (1979, 379) aptly summarizes this impasse when he says that, “Soja perceived the problem precisely but is unable to solve it practically since he is unable to submerge the social-spatial dichotomy. In proposing the ‘socio-spatial dialectic’ he solves it philosophically using a severe dose of terminological overkill.”

### *Landscape, scale, image, and dialectics*

Don Mitchell’s (2002) “dialectical landscape” argues against a static-frozen approach where landscape is a mere secretion of brick and mortar. He argues that landscapes are imbued with power and privilege, and that they are complicit in exploitation or empowerment. Mitchell’s dialectical metaphor makes explicit the contradictory nature of seemingly innocent edifices that pass as geographic landscapes. His metaphor also hints at the possible contradiction between the essence of a landscape and its appearance. The study of morphology, therefore, is both a material and a representational act—that is, the process of understanding the material form and then representing it in maps or diagrams. To understand a landscape dialectically would involve penetrating its surface appearance and explicating the ideologies of exploitation that produced it so that unjust landscapes can be replaced with just landscapes. As Mitchell (2002, 385) says, “the great value of dialectical thinking is that it forces us to understand hidden as well as obvious worlds, material practices as well as ideological impositions.” In dialectical landscapes, dialectics is treated as a way of thinking and not so much a cohesive methodology. Dialectics, according to Mitchell, involves a certain way of comprehending reality that understands more deeply the duality between the material and the ideological than non-dialectical ways of thinking. In many ways, Mitchell treats “landscape” like Marx treats “commodity”—not as a thing but as a process. What prevents “dialectical landscape” from becoming a full-fledged dialectical methodology is that the dialectical metaphor is not probed deep enough to understand the morphology of capitalism as a whole.



Heynen and Perkins (2005, 99) use the term “scalar dialectics” in understanding urban environment. They argue that “scalar dialectics” as a concept best highlights processes and their relations across time and space. In other words, urban environments, although explored as case studies, are not isolated sites; they are complexly conjoined with neoliberal processes. Neoliberalism in one place is complexly tied to other cities, regions, nations, as well as to the past and future. “Scalar dialectic” captures these connections and relations. And though it is a great metaphor for capturing relationality across scales, “scalar dialectic” is hardly a methodology.

Roy (2011, 259), although not a geographer, is a popular influence in urban geography. She describes the contemporary world-class city as the phantasmagoria of post-colonial development possessing a “dialectical image.” Here the “dialectical image” means that the world-class city in all its globalizing glossiness contains within it contradictions like dissent and discontent towards globalization. Roy arrives at this metaphor from Benjamin's (1999) approach to modernity, which involves understanding modernity and antiquity not as discrete temporal stages, but rather as spliced with each other to be read-off from the urban form. Roy's work therefore, is also an excellent example of a metaphoric rendering of “dialectics” to conceptualize the globalizing urban form.

Dialectics in geography has ranged from being a philosophical-methodological stance to a source of inspiration for impactful metaphors. We think, Harvey, despite slippages into realms of analysis, closely follows Marx's dialectical materialism in explicating capitalism. Lefebvre remains true to Marx's method, but also illuminates how capitalism is spatial. Soja positions himself critically against established Marxist traditions (particularly Harvey's), and asks for an overt inclusion of space in dialectical inquiry of society. Others, inspired by Marx, have used dialectics as a metaphor for describing landscapes, cities, and environmental contradictions. Inspired by these critical readings of dialectics in geography placed in context with Marx's dialectical materialism (section titled “Marx's dialectical philosophy”), we are able to reimagine metaphors as method. In the next section, we explore the intellectual entry points that propel “dialectics as metaphor” towards “dialectics as method” in critical/radical human geography.

### **From metaphor to method: Transformative praxis**

There are useful nuggets that can be extracted from the discussions above (sections titled: “Marx's dialectical philosophy” and “Geographers' dialectic”) to lay out some tenets of dialectical materialism as a methodological approach in human geography. We argue that since the conceptual is not separate from the material, a push towards a dialectical materialist human geography that illuminates the whole of material exploitation will be conceptually and materially transformative to society.

The above discussion on Marx's method (section titled: "Marx's dialectical philosophy") indicates that dialectical materialism cannot be either an inductive or a deductive process of collection and organization of facts proceeding towards generalization (Sayers 1991). Because dialectical materialism must understand reality in its full range of connections and interrelations and avoid causal explanations (Marx 1964; Cohen 1978; Ollman 2003), it is important that we as radical/critical human geographers clarify that our objective is not to generalize or extrapolate. Instead, regardless of our topic of research, if as critical/radical human geographers we want to imbibe Marx in our work, it is imperative that we also follow Marx's method in illuminating the human condition in its full range of interrelations. Imbibing Marx means fully explicating how our slice of reality (culture, resource, urban, political) is a moment in capitalist exploitation. Just like the commodity form reveals the theft of value, "objectification of labor," and hence, usurpation of "species being" (Marx and Engels 2002 (1888)) leading to exploitation (Marx and Engels 1970; 2002 (1888)), a dialectical materialist research must contextualize the class, racial, gender, and sexual basis of *capitalist* exploitation.

Therefore, as Harvey indicates through his work, there should be a prior commitment to process. For Harvey (2017), capital is the process that has no causal powers, and it is in conceptualizing the flows of capital that exploitation as a whole can be understood, hence paving the way for social transformation. Failing to do so means aligning with a bourgeois political economy, which in its inability to show connections, never strikes at the heart of exploitation (Marx 1964). Unraveling exploitation is life-altering. Dialectical materialism does not merely *describe* unfortunate incidents; instead, through the entire context of connections, it demonstrates the systemic basis of class inequality, white supremacy, and patriarchy *within* capitalism. It therefore creates possibilities for political praxis that goes beyond altruism and charity, and instead pushes for systemic transformation through wealth redistribution, land reforms, social welfare programs, and affirmative actions. If the point is to change the world (Marx 1845), then a commitment to dialectical materialism will expose that exploitation exists, and that it has taken place. In explicating the systemic contexts of exploitation, dialectical materialism disrupts intellectual endeavors that explain oppression as the absence of entrepreneurial zeal (Acs and Armington 2006; Qian, Haynes, and Riggle 2011), or lack of resource (Kaplan 1994; Drake 1997), or too many people in the world (Malthus 1798; Harding 1968), or unfavorable geographic landscape (Diamond 1999; 2013; Sachs 2005).

In attempting a critical reading of Soja's "socio-spatial dialectic" (1980) and by drawing inspiration from Lefebvre (1991), dialectical materialist human geography should reveal the spatial (geographical) without severing it from the social. Therefore, the social cannot be reduced to a set of socio-economic factors operating on the spatial (place, regions, nations). Instead, like Marx and Engels (2002), a dialectical materialist human geography must demonstrate the

imbrication of human and nature, unfolding not as a hyphenated duality, but as an inflected human condition. This human condition revealed by dialectical materialist human geography is simultaneously social and spatial, human and natural, historical and geographic, and causality cannot be attributed to one or the other.

While contextualizing the history and the geography of capital, critical/radical research must avoid Cartesian abstractions of distance, scale, hierarchy and size. Hence the process of capital accumulation and associated exploitation is neither “vertical” nor “horizontal” (Soja 1980, 224-225)—“vertical” and “horizontal” are imagined abstractions, not concrete abstractions. The mind does not produce the concrete (Marx 1992), and hence our conceptual abstractions should not impinge on reality. Accumulation and exploitation are moments within capitalism. In a dialectical materialist human geography, capitalism cannot be conceived as the larger scale (the global, the higher, the top-down) within which our study of a city, or a nation, or a neighborhood is smaller, or lower-order, or bottom-up. This again would be an exercise in Cartesian abstraction and analytical fragmentation.

Separating space-society and conceptualizing space as Cartesian containers hinder political praxis. Separating space from society means acknowledging that space has a discrete identifiable role in societal process. Unfortunately, the reality of poverty, race, sexism, androcentrism, and homophobia may be too complex for discrete distillation of unique spatial complicities. It does not mean that space had no role; it simply means that we lose sight of exploitation, and render space static when we try to disintegrate space from process. What matters for a transformative praxis like Black Lives Matter is the understanding that historic geographic context of systemic racism produces police brutality against African-Americans in capitalism's present. And, capitalism's present includes protecting classist and racist status quo. Whether geography's role is discretely identifiable from history is redundant. Otherwise, social movements like Black Lives Matter are reduced to place-based events happening now (in geography), disconnected from the historicity of systemic racism. This is precisely what Marx (1993) wanted us to avoid when he said that we cannot speak of society as if it has begun when we arrived as such. For example, if we consider police shootings in Sacramento as discrete from police shootings in Tampa, then geography is reduced to spatial interactions between distinct locales, and society begins ahistorically devoid of institutional racism. Social movements analyzed discretely would be spatial movements severed from the history-geography of injustice that concretized through time beyond the present, and in spaces beyond the “local.” And because Marx envisioned a praxis that would not just describe the world, he approached geography historically, and space as a process so that political praxis can remain unbound.

Since radical/critical human geographers must begin with the whole or as much of the whole as we understand (Marx 1993; 1996; Ollman 2003), dialectical materialism abhors reductionism, and so must our research. Dialectical materialist

human geographers must, therefore, carefully avoid Harvey's slippages where capital is conceptually isolated from capitalism (Harvey 2014), or where the economic base, although connected to the superstructure, has primacy over it (Harvey 2009), or where "moments of production" (economic) internalize transformation above and beyond other moments (Harvey, 1996, 64). Instead, radical/critical human geographers can capture Harvey's more dialectical moments where he deftly talks about space economy and capital as uneven development and imperialism (Harvey 2006, 415-439), and new imperialism as "accumulation by dispossession" (Harvey 2003, 150) thereby expertly capturing the "whole" of capitalist exploitation. When the whole of capitalist exploitation is captured without fragmentation, then nature, space, and society fully imbricate as the "human condition," and analytic-mechanistic conceptualizations like the base-superstructure (Harvey 2009) and capital-capitalism (Harvey 2014) dissolve away.

Economics, politics, and culture are not impervious containers of reality, nor are they layered so that thin veneers of politics and culture can be scratched to reveal the deep bedrock of economics. A critical reading of Harvey's dialectics can inform radical/critical human geographers that economics, politics, and culture may not always be equally important in every context. And indeed, the purpose of dialectical materialist research is not to demonstrate the degree of inflection of each moment (economics, politics, and culture), or prove that one moment is the root cause for other moments, but to reveal how exploitation manifests in its (political, cultural, economic) entirety. Failing to see that whole can lead into a political praxis that demands piecemeal emancipation. Thus, cultural marginalization will be addressed with diversity quotas and symbolic representation without the need for social redistribution. And social redistribution may happen without addressing identity violation. Political praxis may move towards identity politics severed from labor and class conceptualizations and labor movements may disregard identity marginalization.

Marx's method can inform a human geography that is radical in its conceptual imagination because it is radical in its material transformation. To achieve the above, radical/critical human geographers must push from dialectics as metaphor towards dialectics as method. This push would mean the difference between describing the world and changing it.

## **Conclusion**

In this article, we have attempted a philosophical-methodological exploration of dialectical materialism. The purpose is to understand some aspects of Marx's dialectical materialism, how it has been used in radical/critical human geography, and what can be learnt from these to arrive at some tenets of dialectical materialism as a research method. While there is substantial interest in the concept of dialectics, and in the philosophical basis of dialectical materialism within human geography, there is a dearth of discussion on dialectical materialism as a research methodology in critical/radical human geography. We believe that dialectical

materialism, when adopted as a method, can create a revolutionary human geography leading to transformative politics. Dialectical materialism does not describe, it does not explain from the position of an expert, Instead, it explicates reality in its full complexity of relations and connections, and it is in this revelation that exploitation is illuminated. Dialectical materialism, therefore, reveals the materialization of exploitation and hence provides possibilities for reproduction of just material realities—theory and politics are inextricably linked towards a transformative politics.

Marxian dialectics, we argue, is a philosophical praxis that guided Marx's critique of capitalist political economy. It is a materialist dialectic in the sense that the "whole" political economy of capitalism is concrete, "a rich totality of many determinations and relations" (Marx 1993, 100), but it is not produced by thought. The determinations and relations, like wage, value, labor and surplus value constitute the parts of the whole (capitalism), just as the whole constitutes the parts. In Marxian dialectics, therefore, one must begin with the whole and arrive at a deeper conceptualization of it without fragmenting it into isolated parts. Parts cannot be broken and understood as self-contained for convenience's sake and then put together to re-assemble the whole—that would be an analytical practice as opposed to a dialectical praxis. The whole is not understood as sitting in a discrete point of time. In other words, the reality examined is always a result of historical-geographical metamorphosis. The historical-geographical transition transforms nature and human nature, and hence, society. Therefore, treating society as a whole, and looking at the internal connections and interrelations (in time and space), reveals the complexity and richness of society. Since Marx was deploying dialectical materialism to understand capitalism, he revealed the complexity of exploitation that arises from "objectification" of labor, the production of value, use value, exchange value, and then, the theft of surplus value (Marx 1964; 1990; Marx and Engels 2002)

In assessing geographers' dialectic, it is our contention that Harvey comes closest to using Marx's materialist dialectic as research praxis. Harvey's treatment of the spatial fixity and mobility of capital constituting the whole of capitalism (Harvey 2006) is perhaps the closest one has come to examining capitalism, geography, and contemporary crisis amongst others, in a dialectical way so that time and space are not rudely disrupted. We point out instances where he deviates from this praxis, hopefully to demonstrate how geographers can use Harvey's approach to re-orient Marx's methodology. We also explore how Soja, inspired by Lefebvre's (1991) spatial triad, calls for a spatial approach to capitalist reality. In doing so, he coins "socio-spatial dialectic" (Soja 1980, 207) in an effort to indicate the important ways in which space produces exploitation. Acknowledging Soja's creative use, we take a critical approach to Soja's dialectic because of the way in which it dichotomizes reality into analytical containers like "social" and "spatial"—an impasse that Lefebvre carefully avoided.

We contend that some of the more contemporary works in critical/radical human geography are replete with rich discussions on dialectics; however, much of this contemporary work on dialectics uses dialectics as a metaphor to convey contradictions, inter-connections, and relations between things/processes. We use these various readings of dialectics/dialectical materialism to arrive at our final section, which attempts to lay out some of the characteristics of dialectical materialism as a methodology in radical human geography, and hence, illuminating the possibility for transforming society.

It is our contention that dialectical materialism as methodology entails an ontological commitment to critiquing capitalism or the many ways in which capitalism exists. Our individual human geographic research exists in full range of relations with the systemic reality of capitalism, and therefore, looking at various exploitations (class, gender, racial, ethnic) without acknowledging that systemic reality would be a mistake. In that sense, our research is not an isolated lens looking at a discrete process, but a compound eye that explicates a critique of capitalism through our research moment.

Lessons learnt from Marx, and how Marx has been used in radical/critical human geography, teaches us that society and space are not discrete containers. Just like nature and human nature are one and the same, society and space are never really separate in the material world, and therefore, their separation in the intellectual world is analytical reductionism. Dialectical methodology, we contend, must steer clear of Cartesian notions of hierarchy, verticality, and horizontality, where our research becomes a “lower order,” a thing, or a “local” within a “larger” global capitalist system. Because parts and wholes are mutually constitutive, these Cartesian distinctions are irrelevant. This means our research has tremendous possibilities— they are not a smaller view, an isolated case, or a small fragment, they, in their interrelations and connections, are reality incarnate.

Our critical reading of Harvey’s *Seventeen Contradictions* reveals that while cultural, economic, and political distinctions exist, the purpose of such distinctions is to show the inflection of cultural, economic, and political processes in producing exploitation and not attributing causality or dominance.

We hope that because Marx’s method is not descriptive, or explanatory, but is actually illuminative of exploitative conditions in its entirety, adopting it in radical/critical human geography will inspire a revolutionary political praxis that can conceptually-materially transform the world. We hope that we have laid out the starting points for such a conceptual material revolution.

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