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Commodifying what nature?

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Abstract: In this essay contemporary Marxist writings on the commodification of nature in capitalist societies are reviewed systematically. Recent research on commodities in human geography, cultural studies and related fields have been largely post- or non-Marxist in tenor and have paid relatively little attention to the 'natural' dimensions of commodities. By contrast, recent Marxist writings about capitalism-nature relations have tried to highlight both the specificity of capitalist commodification and its effects on ecologies and bodies. This fact notwithstanding, it is argued that the explanatory and normative dimensions of this Marxist work are, respectively, at risk of being misunderstood and remain largely implicit. On the explanatory side, confusion arises because the words 'commodification' and 'nature' are used by different Marxists to refer to different things that deserve to be disentangled. On the normative side, the Marxian criticisms of nature's commodification are rarely explicit and often assumed to be self-evident. The essay offers a typology of commodification processes relating to specific natures with specific effects to which a variety of criticisms can be applied. Though essentially exegetical rather than reconstructive, the essay tries to pave the way for a more precise sense of how the commodification of nature in capitalist societies works and why it might be deemed to be problematic.

Key words: Marxisms, natures, commodification, commodification effects, incomplete commodification, proxy commodification, materiality, critique, normative standpoints.

I Introduction

This review essay has one principal ambition: to inject some much needed clarity into Marxist debates about the nature of commodification and the commodification of nature. The clarity I seek is both explanatory-diagnostic and normative. In other words, my aim is to tease out the connective imperative between conceptualization and criticism. At least four reasons can be offered in support of this undertaking. First, it seems that more and more things conventionally labelled as 'natural' – in all the senses of that notoriously polyvalent term – are now being commodified. The human genome, animal organs, plant genes, bacteria and viruses are only a few of the many natural artefacts to assume a commodity-form in contemporary – and especially western – societies.[1] Second, this raises three difficult questions the answer to which is by no

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means obvious: namely, what is 'commodification'?; what 'nature' is being commodified?; and what is the material and moral significance of nature's commodification? The first question is especially hard to answer given the plurality of theoretical perspectives on commodification now in play. Since the key interventions of Appadurai (1986), Kopytoff (1986) and Thomas (1991), commodity analysis has become fair game for non-Marxists. In human geography, for example, there has been a veritable explosion of research into 'commodity chains' (Leslie and Reimer, 1999), the 'social geography of things' (Jackson, 1999: 104) and commodity 'displacements' (Cook and Crang, 1996). In theoretical terms, these commodity analyses have been largely post- or non-Marxist[2] and have attempted to 'decouple' the concept of commodification from its traditional, negative and rather exclusive associations – courtesy of successive Marxists – with capitalism and fetishism. This is all to the good, not least because it has focused attention on the total sociogeographic trajectory of commodities.[3] However, the unfortunate consequence is not just that the meanings of 'commodification' have greatly multiplied but that many commodity analysts now apparently believe there is one 'essential' Marxist notion of capitalist commodification to be opposed, criticized or eclipsed. What is more, though Appadurai, Kopytoff and Thomas are quite right that 'capitalist' and 'non-capitalist' commodities can rarely be disentangled in practice, it is still arguably important to identify analytically what distinct attributes things take on during the capitalist phase of their commodity existence.

Though capitalism may not be as all-pervasive as some Marxists are wont to argue, it remains a manifestly consequential way of making, moving and selling all manner of goods and services. The continued value of Marxism, it seems to me, is to inquire into the *specificity* of capitalism and its myriad effects – even as we acknowledge their overdetermination within wider sets of process, relations and events. This said, Marxists do not have a monopoly on the analysis of capitalism (Saunders, 1995), but they have certainly made it a prime focus for their analytical energies, in the process muddying the waters between their theoretical depiction of it and its 'real' nature (Gibson-Graham, 1996). In human geography and cognate fields, the study of society-nature relationships is one of the few topic areas where Marxism has retained a strong intellectual presence in recent years (Castree, 2002; O'Connor, 1998; Swyngedouw, 2000). This means that there is a set of elaborated arguments now available to help the academic Left understand the distinctiveness of capitalist appropriations of those things we conventionally call 'natural'. Both explicitly and implicitly, the commodification of nature within capitalist societies has been a central theme of this Marxian research. Indeed, compared with other contemporary commodity analysts in human geography, those of a Marxist persuasion have given the 'natural' dimensions of commodities perhaps the greatest attention. However, herein lies the potential confusion: for I want to show that contemporary Marxist analysts of capitalist-nature relationships refer to *several* linked but not necessarily synonymous things when they use the term commodification – and that these are more than variations on some putative 'core' conception supplied by Marx or his principal epigones. The assumption that there is or should be just one Marxian 'essential' reading of capitalist commodification is therefore misplaced. Both critics and devotees of Marxism should accept the fact that capitalist commodification means several things and attempt to scrutinize these separately rather than assimilate them to some overarching conception. Whether this diversity reflects the sheer complexity of capitalist commodification or simply

unresolved debates among Marxists is an open question.

This brings me to a third reason for writing this essay and to the second of my three difficult questions. 'Nature', Neil Smith (1996: 49) has observed, '. . . is not much of a Marxist category'. He may well be right, but Marxists must perforce use it to signify certain living and inanimate things (even as those things are acknowledged not to be the same as the concept naming them). What is more, the physical properties of those things are evidently important. If they were not, then Marxists would pay no special attention to their commodification within capitalist societies. Their commodification would, in other words, be considered substantively equivalent to that of 'non-natural' entities. However, as Thrift (2000: 96) rightly notes, 'not all commodities are equal'.[4] This matters because part of my argument will be that contemporary Marxists analysing nature's commodification have been referring to rather different sets of things when they use the portmanteau category 'nature'.[5] This attention to qualitative differences among so-called 'natural' entities is both salutary and, for the most part, quite conscious on the part of the Marxists whose work I consider here. My concern, though, is that these differences can easily be glossed when the one category 'nature' is used as a shorthand to refer to such substantively different things. We need to recognize not simply the materiality of nature but the irreducible *materialities of natures*, in the plural (cf. Castree, 1995). The reason is that the process of capitalist commodification is not necessarily indifferent to the natures being commodified. That is, the process of capitalist commodification (or its effects) might operate rather *differently* depending on which particular natures are being commodified. So the lack of clarity I detect in Marxian accounts of nature's commodification stems not just from the variety of uses of the latter term (commodification) but from the semantic promiscuity of the former term (nature) too.

Finally, all this explains my desire to explore the conjunction of explanation and critique in the Marxian work I consider in this essay – that is, my desire to address the third of my difficult questions. Marxism, of course, in all of its many contemporary permutations, regards itself as a 'critical' paradigm. Indeed, because the academic Left more generally has taken a keen interest in commodification in recent years there is an implied sense in which some or all aspects of the process are deemed to be 'wrong' or 'bad' by a range of commentators that extend beyond Marxists alone. However, as successive treatises show (Benhabib, 1986; McCarney, 1990; Sayer, 2000: part IV), the meaning of critique is anything but obvious and simple. This is why I wish to focus on how Marxists evaluate the commodification of nature in capitalist societies. Clearly, to the extent that these Marxists refuse to affirm or celebrate nature's commodification they *inter alia* have reservations about it. These reservations are, apropos my comments in the previous paragraph, somehow bound-up with the material differences among commodities with a strong 'natural' component to them. Thus, while nature might not be much of a Marxist category, it can, normatively speaking, be strategically useful in so far as it names very real things whose commodification is deemed to be problematic. As Delaney (2001: 489) puts it in another context, 'it is a . . . tool for justifying or critiquing aspects of . . . reality'. However, I will argue that the precise form of the Marxists' reservations is frequently implicit. This is unfortunate and very much in keeping with a long-standing Marxian habit (in geography and elsewhere) of avoiding systematic normative theorizing. If it is unclear exactly why the capitalist commodification of specific natures is objectionable, then Marxism's critical edge is evidently

blunted. As Sayer (2000) notes, this leads to an imbalance between Marxism's explanatory power and its critical credentials. In the case of the particular literature surveyed here it also leads to confusion. As with my attempt to pin down the multiple meanings of the terms 'commodification' and 'nature' in the Marxist work considered, it turns out that there are multiple normative arguments operative also. These deserve to be disentangled if Marxists, and those with a wider concern about the ecological and corporeal ills caused by capitalism, are to offer compelling criticisms of nature's commodification at this moment in history.

In sum, my aim is to survey a swathe of Marxist work in human geography and cognate fields on the commodification of nature in capitalist societies. I enter some muddy theoretical waters in the hope that the link between analysis and critique in the work surveyed can be rendered more transparent. The essay is largely exegetical rather than reconstructive. In effect, it is an extended answer to the following question: what kinds of capitalist commodification of *which* natures have contemporary Marxists identified and on what grounds do they take issue with them?[6] In answering this question, my argument will appear rather schematic and clinical at times. If this means I lose some of the flavour of the work I consider, the compensation, I hope, is that I achieve a degree of analytical clarity.

Before I proceed, a word on (i) what I mean by the term 'Marxism', (ii) the format of the essay and (iii) my intended audience. I have already alluded to the fact that we need to talk about Marxisms in the plural rather than Marxism in the singular. David Harvey's writings are not, for example, of a piece with those of Ted Benton or Elmar Altvater, despite their common grounding in Marx's later political economic writings. Things get even more complicated when one is dealing with authors who combine Marxian insights with all manner of other perspectives, which is why Marcus and Fischer (1986: 11) long ago observed that 'the label "Marxist" . . . has become increasingly ambiguous'. I have no magical solution to these demarcational difficulties. My approach is simply to focus on authors in human geography (and, to a lesser extent, in rural sociology and anthropology) who articulate what one might call 'full-blooded' Marxian arguments about capitalism and nature. That is, they use fundamental Marxian concepts such as use value, exchange value and value – albeit in different ways and not always exclusively – to specify what is distinctive about commodifying natural entities. These authors' arguments are sometimes predominantly theoretical (as in Harvey's case), sometimes more empirically grounded (as in Gavin Bridge's case). Even though this approach enables me to exclude several post-Marxist and part-Marxist analysts from consideration here, the number of authors whose work I could potentially consider is still very large indeed. This is why I choose a format for the essay that is more parsimonious than a blow-by-blow analysis of each and every relevant Marxist's writings. This format involves disaggregating Marxian work on capitalism, commodification and nature into distinct explanatory and normative modes, which are then briefly illustrated with reference to selected authors' works. This format has the advantage of identifying what the principal Marxian approaches to commodification, nature/s and critique currently are.[7] Overall, by focusing on Marxist theorizations of capitalism, nature and commodification I hope to address two audiences: first, those geographers with specific research interests in Marxism and nature; second, those geographers with a wider interest in commodification within and beyond capitalism. Without formally differentiating modes of commodification in relation to different

kinds of things, both audiences may remain destined to talk past one another using the very same terms and concepts.

II Capitalist commodification

As I mentioned, the heightened interest of critical geographers in commodification has been coincident with a proliferation in the term's meanings. However, there is one sense in which the concept is eminently clear and useful for Marxists and non-Marxists alike. Along with the inelegant word 'commodization', it highlights the fact that the commodity status of a thing, object, idea, creature, person or what-have-you is not intrinsic to it but, rather, assigned. As Nicholas Thomas (1991: 28) put it in his book *Entangled objects*, the term deconstructs 'the essentialist notion that the identity of material things is fixed in their structure and form'. Put differently, 'objects do not have a commodity status built into them' (Dant, 1999: 24). The question, therefore, is not 'what is a commodity?' but rather 'what kind of characteristics do things take-on when they *become* commodities?' The term commodification thus usefully connotes a process or state that is irreducible to the thing/s being commodified but which nonetheless affects them – and which may, reciprocally, be affected *by* them (Kopytoff, 1986).

Though some Marxists remain eager to specify the 'essential' character of capitalist commodification (e.g., Castree, 2001; Goddard, 2000) – usually by way of canonical references to the opening section of *Capital*, volume 1 – there is, in actuality, little consensus on the matter. Critics of Marxism frequently overlook this fact. For example, in their otherwise persuasive manifesto for a less negative, less capital-centric perspective on commodification, Cook and Crang (1996: 135) seem to take Harvey's (1989) well-known call to penetrate the veils of commodity fetishism as emblematic of Marxism *tout court*. Jackson's (2002: 8) recent essay on 'commercial cultures' does much the same. This is problematic for three reasons. First, it risks essentializing Marxism and distracting attention from genuine theoretical differences among Marxist theorists – Harvey being just one of them. Second, it also risks focusing on 'non-capitalist' commodities as if it is now perfectly clear – and thus no longer necessary to consider – what is 'capitalist' about commodities during this phase of their existence.[8] Finally, the bulk of post- or non-Marxist commodity analysts in critical geography and related fields have rarely paid attention to the 'natural' dimensions of commodities, whether these commodities be putatively capitalist or otherwise. Though there are some notable exceptions (e.g., Whatmore and Thorne, 1997), these analysts have in the main been concerned with commodity symbolism and identity politics.

In an essay on wetlands, Robertson (2000: 467) has recently argued that the term commodification has 'frequently been [used] without definition' by Marxists writing about nature.[9] He is, I think, right – but for the wrong reasons. Robertson implies that Marxists have rather assumed the meaning of commodification to be obvious and have therefore not troubled to thematize it overtly. By contrast, I would suggest that few contemporary Marxists writing on nature tease out commodification as a distinct theme because it is so deeply interwoven with their wider theorization of capitalism. Thus, when John Frow (1997: 132) commends 'Marxism's relational and historical theorization of the commodity' he is arguably reacting against those – for instance, Jon Elster and other analytical Marxists – who would separate it out as a discrete thematic. As we

shall see, the Marxists considered in this essay all adopt an expansive perspective on capitalist commodification.

This, though, raises the question of why I wish to talk about commodification at all. Why not talk about the 'valuation of nature' (Harvey, 1996: Chapter 7), the 'capitalization of nature' (M. O'Connor, 1994) or the 'production of nature' (Smith, 1996), as some of the authors whose work I consider below do? There are two reasons. First, whatever their other differences, the Marxists discussed here take it as axiomatic that capitalist social relations necessarily take the phenomenal form of commodities. Put differently, if, as many believe, capitalism is now encroaching into 'every nook and cranny of everyday, everynight life' (Pred, 1998: 151) then for the Marxists whose work I consider this encroachment takes the physical, tangible form of commodities.[10] Second, as with the recent non- or post-Marxist work on the topic, the term "commodification" is usefully dynamic and sharp-edged in its meanings. As Leys (2001: 87) puts it, 'When we speak of 'commodification' we normally have in mind not the one-off sale of a single item, but the conversion of a whole class of goods or services into commodities and a resulting stream of sales'. The commodification thematic thus draws our attention to the process, and therefore the propriety, of certain ontologically and categorially distinct things being seriously altered because of their potential, temporary, permanent or indeed 'denied' commodity status. To examine commodification is to view capitalism-nature relationships through an especially illuminating window.

In this section I explore the various meanings of commodification within the current Marxist literature on nature. I defer the issue of how commodification affects natural entities specifically (and vice versa) until the next section. In all cases we will see that these Marxists consider the quality of being exchangeable – favoured by Appadurai (1986) – as too thin a basis to specify what is entailed by *capitalist* commodification. For them, this form of commodification is historically particular, albeit practically entwined with other modes of exchanging goods and services (gifts, loans, etc.). At the most abstract level, these authors see capitalist commodification as a process where qualitatively distinct things are rendered equivalent and saleable through the medium of money. Particular commodity-bodies (use values) are thus commensurated and take on the general quality of exchange value. This said, the principal source which Marxists are often thought to draw upon for inspiration here – Marx's plenary account of commodification, as articulated in *Capital*'s opening pages – seems to have rather little to do with nature (except in the sense that the commodification of people, as labour power, has bodily consequences). Instead, it seems more concerned with how *social relations* take the peculiar form of qualitatively different but nonetheless exchangeable *things* (commodities). Marx's principal intent, according to several generations of commentators (e.g., Cleaver, 1979; Taussig, 1980), was to show that in capitalism exchangeable goods are nothing but an alien and displaced form of social labour. However, we will see that several contemporary Marxists not only display a healthy disregard for canonical rectitude but also tease out things only implicit or absent in Marx's later writings. So what, then, are the principal elements of commodification identified in the work of contemporary Marxists writing about nature?

1 Privatization

As mentioned above, all the authors whose work I review here consider the money-mediated exchange of distinctly different things as part of the specificity of capitalist commodification. However, within this seemingly simple definition lie several of the *differentia specifica* that, for Marxists, distinguish capitalist from non-capitalist commodification processes. As we shall see, some of these specific elements are not unique to capitalism when considered in isolation. Rather, it is their combination that gives them a capitalist colouration. The first of these I want to highlight is privatization.[11]

Privatization refers to the assignation of legal title to a named individual, group or institution. The title gives more-or-less exclusive rights of the owner to dispose of that which is named by the title as they wish. Though privatization is by no means a feature of capitalist societies alone, it is a well-known Marxian axiom that it is a precondition for capitalist commodification. The reason is that the exchange of things either via or for money cannot occur unless those things belong to different parties who are free to alienate those things. Privatization is thus as much about control over commodities – prior to, during and after exchange – as it about ownership in the technical, legalistic sense.

Examples of contemporary Marxists who emphasize privatization in their work on nature's commodification are not hard to find. Bakker (2000; 2001), in her research on the UK water industry, is among the most explicit. This is largely because her work considers the demise of water as a state-managed 'public good' and its transformation into a sellable commodity owned by several new water companies, like Yorkshire Water. Similarly, Jack Kloppenburg (1988), in his landmark book *First the seed*, emphasizes how emergent seed companies in twentieth-century America used the law to gain proprietary control over hybrid crop varieties. Prior to these privatization efforts seeds had either been a 'free good' among farmers or else a 'gift' from the US Department of Agriculture as part of its early ventures in crop hybridization. Likewise, any number of Marxian studies of 'Third World political ecology' accent the legal and physical conversion of communal or open-access resources to private resources (e.g., Schroeder, 1995). However, even where a writer's principal concern is not the epochal transformation of non-commodified into commodified goods, the question of privatization looms large. For instance, in the work of both Altvater (1993) and James O'Connor (1998) it is the *failure* to privatize nature while privatizing things whose use directly *affects* nature that, pace environmental economics, leads to so-called 'market failures'. The classic example here is atmospheric pollution, which is what Benton (1991) calls a 'naturally mediated unintended consequence' of the use of certain private goods (like cars).

2 Alienability

Like privatization, alienability is not, in itself, an exclusive dimension of capitalist commodification. It refers to the capacity of a given commodity, and specific classes of commodities, to be physically and morally separated from their sellers. Privatization does not necessarily imply alienability. Thus, a person may 'own' their internal organs but this does not mean that they or their society would sanction their sale to others who need or want them. Likewise, an indigenous community may 'own' lay knowledge of

rare medicinal plants but would not necessarily sell it to a pharmaceutical company. In capitalist societies, according to most Marxists, for a commodity to be exchangeable via money it must be alienable. Otherwise, it would be shielded from market exchange.

It is rather pointless listing which Marxists regard alienability as a key aspect of capitalist commodification. So axiomatic is it in their analyses that it is rarely teased out as a named facet. For illustrative purposes, I refer to two contributions on the commodification of 'external' and 'human' nature. In my analysis of the over-harvesting of north Pacific fur seals, I show how a res nullius resource rapidly became disposable property in the late nineteenth century. This entailed not just the physical dissociation of seal skins from seal bodies (which were left to rot on the Pribilof Islands), but the alienation of the former (in a legal and physical sense) by Bering Sea sealers to furriers in London. Dickens (2001), in his account of the commodification of human bodies, argues much the same. He observes how bodily components, like genes and limbs, are being priced and sold as if they had no organic relationship with the people who, individually and collectively, are their biological 'owners' (see Scheper-Hughes and Wacquant, 2002). In both cases, alienability is only possible because the commodity in question can be physically and ethically 'detached' from its seller.

3 Individuation

Individuation is linked to, but not the same as, privatization and alienability. It refers to the representational and physical act of separating a specific thing or entity from its supporting context. This involves putting legal and material boundaries around phenomena so that they can be bought, sold and used by equally 'bounded' individuals, groups or institutions (like a firm). As with privatization, capitalist commodity exchange is simply not possible unless commodities can be separated out as discrete ontological entities with their own qualitative specificities.

This recalls Harvey's (1974) well-known argument, following Spoehr (1956), that what counts as an individual resource is a matter of convention and a sociotechnical achievement. It involves a discursive and practical 'cut' into the seamless complexity of the world in order to name discrete 'noun-chunks' of reality that are deemed to be socially useful. Likewise, what counts as a commodity in capitalist society is socially determined and entails the arbitrary individuation of certain things or classes of things. Elaine Hartwick (1998; 2000) in her work on gold commodity chains, illustrates this well. Her analysis focuses on how gold *qua* gold long ago became the well-spring of an entire industry which legally, linguistically and physically ring-fences specific incarnations of this precious metal (rings, necklaces, etc.) as discrete entities to which a monetary price can be attached. Likewise, Swyngedouw shows how water has historically become separated out from its socio-ecological integument in capitalist societies. Similarly, Altvater (1993: 185) makes much of the 'splitting of complex ecosystems which simplifies them into legally definable and economically tradeable property rights'. One of his several examples is that of Amazonian hardwoods, where specific trees are cut down as if they can be readily disembedded from their immediate ecological context of plants, fungi, insects and so on.

4 Abstraction

Abstraction is subtly different from individuation. It is a process whereby the qualitative specificity of any individualized thing (a person, a seed, a gene or what-have-you) is assimilated to the qualitative homogeneity of a broader type or process. Following Cronon's (1991: Chapter 3) stunning account of the commodification of wheat in Chicago's hinterland, Robertson (2000: 473) has identified two linked elements of abstraction that are necessary to capitalist commodification. The first is functional abstraction. As Robertson shows in his study of wetland commodification in the USA, this involves individual wetlands being labelled as instanciations of the generic category 'wetlands' which stands over and above them. Specifically, the range of generic 'wetland services' each individual wetland provides can be catalogued by ecologists, thus 'severing the characteristic being measured from the messy uniqueness of the physical site' (Robertson, 2000). So functional abstraction involves looking for real and classifiable *similarities* between otherwise *distinct* entities *as if* the former can be separated out from the latter unproblematically. Functional abstraction is a precondition for a second form of abstraction, which is spatial. This involves any individualized thing in one place being treated as *really the same* as an apparently similar thing located elsewhere. Robertson illustrates this well. Federal attempts to conserve US wetlands, he shows, involve trading off the loss of wetlands in some places for their artificial creation in others – a trade-off that can be monetarily costed. What this means is that, in a very real and physical sense, 'wetlands in one place were made *replaceable* by wetlands in another place' (Robertson, 2000: emphasis added) as if the individual wetlands involved were somehow qualitatively the same *regardless* of their locational specificity.

5 Valuation

The question of how things take on specific forms of value – the fourth aspect of commodification to be considered here – gets us into familiar Marxian territory. For Marx, of course, one of the key things that characterizes capitalist commodities is that their worth is measured in terms of labour value – even though it appears that their value is intrinsic rather than assigned. However, whether or not they adhere to the labour theory of value in a strict sense – and not all do – most contemporary Marxists writing on nature take it as axiomatic that commodity valuation is a 'blind' social process in capitalist societies that has a distinct 'logic' to it.

Any particular thing can be valued in numerous ways simultaneously – ethically, practically, aesthetically and so on. We can talk of a thing's 'use value', 'existence value' or 'functional value', for example (Foster, 1997). However, in capitalist societies, these and other expressions of value are manifested in the peculiarly colourless, contentless medium of money. Capitalist commodities are thus monetized: they have a price and can, to all intents and purposes, consequently be rendered commensurable with things not only in the same taxonomic class of goods but in different ones too (e.g., money can buy you anything from a carbon credit to a medicinal plant to an alligator). It is for this reason that Harvey (1996: Chapter 7), in *Justice, nature and the geography of difference*, dwells at some length on the way that money becomes the *ultimate* representation of value in capitalist societies. However, it is important not to fixate on money alone (cf. Robertson, 2000: 474–78). To do so would be to focus on market exchange in isolation

from its specific economic context. In capitalist societies, that context involves producing things under conditions where economic growth, technical innovation and competition are norms – all predicated on the exploitation of labour. In other words, money is one 'moment' of a process of producing wealth that Marx called 'capital'. Neil Smith (1984), in *Uneven development*, is very explicit on this regarding what he called 'the production of nature'. There he emphasized that commodities become mere means to the end of accumulation for accumulation's sake. For Smith what makes capitalist commodities into commodities is thus that their production, distribution and exchange is driven primarily by the profit imperative. That is, their qualitative particularities notwithstanding, they are subject to a process that requires them to earn rent for those producing and selling them. This process is generated by and, in turn, conditions the actions of myriad distanciated and proximate economic actors. In effect, both Kloppenburg (1988) and Boyd (2001) – in their work on the commodification of seeds and chickens respectively – illustrate Smith's thesis at the empirical level. They show how 'natural' entities become physically altered 'all the way down' to suit the profitability requirements of the agro-foods companies who manufacture them. This is what Watts (2000: 300) calls the 'real subsumption' of nature to capitalist accumulation.

6 Displacement

The sixth and final aspect of capitalist commodification identified by Marxists currently writing about nature is displacement. Displacement is part and parcel of the 'blind' process of profit-driven commodity production and sale described above. It leads to the fetishism so famously described by Marx, the deconstruction of which geographical critics like Cook, Crang and Jackson see as being very much *the* Marxist position on commodification. Displacement is about something appearing, phenomenally, as something other than itself. Put another way, it involves one set of phenomena manifesting themselves in a way that, paradoxically, occludes them.[12]

In relation to nature, Elaine Hartwick (1998) has perhaps done the most to highlight the displacements – geographical, temporal and phenomenal – that are, in her view, part and parcel of capitalist commodification. Where Marx, in *Capital* 1, was concerned to 'penetrate the veils' of commodity exchange in order to disclose the labour exploitation at the site of production (cf. Harvey, 1989), Hartwick has been keen to show what happens to nature at this site too. Hartwick's point, like Marx's, is that the spatiotemporal separation of commodity producers and commodity consumers in capitalism means that the latter cannot 'see' what is 'contained' in the physical form of the commodities they purchase. In Hartwick's (1998) work on gold, the glitter of precious metal is the necessary phenomenal form in which both labour exploitation and the ecological degradation caused by mining make themselves visible. Capitalist commodities thus constitutively conceal an intertwined process where workers *and* the environment are harmed systematically (barring state intervention or corporate restraint). It follows that these commodities are not *things* but, in fact, *socio-natural relations*. Yet, for Hartwick, we mistake these relations for things and fail to see how they become an alien power over us.

In various combinations, these six aspects of commodification, according to the Marxists whose work I review here, help us understand what is specific about the money-mediated exchange of things in capitalist societies. All of them imply an opposite archetype. For instance, alienability implies non-alienability, individuation implies non-individuation, and so on. In an ideal-typical (neo-liberal?) world of 'pure' capitalist commodification any and all commodities would be subject to the six aspects of commodification highlighted without any material or moral resistance. These aspects and their implied opposites are rarely specified as a sextet in any individual author's work (Robertson, 2000, comes the closest) and could, perhaps, easily be brought within a single interpretive frame. Regardless, they indicate that capitalist commodification is a complex, polymorphous process that is promiscuous in space and time. When previously uncommodified things become subject to this specific form of commodification then, in very material ways, they may change. In turn, material change can have physical and moral consequences for people and non-humans. However, to grasp the character and import of such change we need to attend quite carefully to exactly what 'nature' is being commodified.

III Commodifying natures

At one level it may seem invidious to try to separate out so-called 'natural' entities for analytical consideration. After all, at some level *all* commodities, capitalist or otherwise, are rooted in aspects of the environment or the human body. However, there are at least two good reasons why Marxists (and others[13]) have sought to move beyond this rather banal sense in which nature figures in all acts of commodification. In the first place, there is the issue of the material specificities of those myriad things we conventionally call natural. In other words, there is the question of whether commodifying *these* specific things has physical and ethical consequences that might not be altogether desirable. If Colin Leys (2001: 107) is right that 'every commodity has particular characteristics that give rise to particular consequences in the course of commodification' then, clearly, this is a very important question. In the second place, those entities we call natural – including our own bodies – *become* commodities (and may, in turn, cease to be commodities); their commodity status is not intrinsic to them but the result of the conscious and unconscious actions of people in specific circumstances. As the flip-side to a focus on the materiality of those things that are commodified, this draws our attention to the material specifics of the commodification process itself (the subject of the previous section).

Nature is, of course, a weasel-word. Since the key contributions of Williams (1980) and Smith (1984), Marxists have rarely used the term in literal, non-reflexive ways. Nonetheless, we have already seen that they still use it as a shorthand to refer to an astonishing variety of things, from wetlands (Robertson, 2000) to animals (Castree, 1997) to seeds (Kloppenburg, 1988) and more. This semantic promiscuity can make it very hard to understand whether the specific natures in question make a difference – and of what kind – to how capitalist commodification unfolds. Though Michael Watts (1999: 306) is right to argue that 'there is more to [capitalist] commodities than their physical properties', we miss something important if we ignore those properties altogether. Below, I distinguish four broad categories of 'nature' that appear in Marxist

writings on commodification. The degree to which Marxists fill out the content of these categories, as we shall see, depends very much on the level of theoretical abstraction at which they are working. Let me stress that my aim is not to scrutinize the multifarious ideological work that the concept of nature does – Williams, Smith and others have already done that.[14] Rather, I am inquiring into the different ontological referents the term nature has in the literature surveyed here. Clearly, this is not a matter of me determining whether Marxists have attached the term to the 'right' referents. Reference is, of course, a matter of convention. My concern here, then, is to distinguish ontologically between things that are named by the same term and whose *differences* thereby risk being overlooked by unwary readers. As Delaney (2001: 499) puts it, 'the problem is that, simply by regarding all of physicality as "nature", we render its multitudinous manifestations as being in an important ... sense the "same", even as the actual material referents shift'.

What is at issue here is whether and how the materiality of those things we choose to call 'natural' matters – both to the process of commodification itself and in terms of its wider physical consequences.[15] For some Marxists, the question of materiality has been front-and-centre of the analysis. Notable here is George Henderson's (1999) magisterial work on 'natural barriers' to commodifying agriculture, which builds on the germinal contribution of Mann and Dickinson (1978). For other Marxists, by contrast, the materiality of nature seems to be less of an issue (see, for example, Smith, 1984). Let us, therefore, try to identify which natures 'matter' for which Marxists and why.

1 Nature as external

Many Marxists who write about nature-capital relations do so with specific reference to what Smith (1984) called 'external nature'. This is the non-human nature we collectively call 'the environment'. Of course, this nature is not seen by Marxists as being *absolutely* external. As Harvey (1974) argued, non-human nature is always defined relative to the specific societies that utilize it. Even with 'human nature' – that is, the body (see section 3 below) – excluded, the types of nature one can consider are potentially endless. Contemporary Marxists, it seems to me, have considered two principal categories of 'external nature'.

a Environmental inputs and outputs – commodification effects: Environmental inputs and outputs are those that feed directly into, and which result from the production of, capitalist commodities. They are what environmental economists call 'externalities' that are found at both the input and output ends of the production process. James O'Connor (1998), Benton (1991) and Altvater (1993) have, perhaps, done the most to emphasize the ecological damage attendant upon the commodification of some things but not others (see also Webber, 1994). O'Connor's well-known thesis about the 'second contradiction of capitalism' argues that the non-commodification of the 'conditions of production' exposes them to indiscriminate and secular degradation. Thus, when a single hardwood is felled in the Amazon the loss of proximate flora and fauna is not given an economic value and is thus economically 'irrelevant'. Likewise, atmospheric pollution from cars is not normally costed into their production and sale prices. If you like, the materiality of the commodification process 'ignores' the material specifics of

environmental inputs and outputs as if they did not exist or did not matter. On top of this, a focus on commodity displacement, apropos Hartwick, shows that the actual purchase and consumption of commodities fails to make apparent the ecological externalities attendant on their production.

b Environmental commodification: If environmental inputs and outputs suffer from not being commodified – which is to say, suffer collateral damage due to *other* things being commodified – then we can also consider the direct commodification of external nature. Here, 'pieces' of the environment become privatized, individuated, alienable and so on. According to M. O'Connor (1994) and Escobar (1996), more and more of the environment is becoming directly commodified now that the economic and social costs of non-commodification are becoming apparent (e.g., as in acid deposition, ozone layer thinning, etc.). External nature has, in short, become 'an accumulation strategy' for capital (Katz, 1998: 48). Bioprospecting and ecotourism are prominent recent examples of this, but it has always been true of primary industries like mining and agriculture. We can distinguish two types of environmental commodification in the literature: 'real' and 'proxy'. The former, unlike the latter, does not involve artificially fabricating a market for the commodities in question. Let us take in each in turn.

Bridge (2000), to take one of many possible examples, illustrates real environmental commodification graphically in his research on the US copper industry. He shows the material contradictions that arise when external nature is treated as if it were a 'true' commodity: that is to say, as *completely* privatizable, alienable, separable, etc., without remainder. These contradictions affect both nature and the commodification process. For example, Bridge shows that a preference for high-grade ores leads not only to their absolute depletion (an irreversible entropy increase) but also to long-term rises in production costs (and thus the price of copper). These costs are partly due to the large waste streams generated by copper production, which also raises social and ecological issues about where the waste should be disposed of and who should pay (in more than just a monetary sense). In this sense, Bridge's analysis recalls Polanyi's (1957: 72) idea of fictitious commodities that cannot 'be detached from the rest of life'. These commodities are only partly commodifiable because their material form at some level 'resists' complete commodification. Thus, when Harvey (1996: 155) says there is something 'inherently anti-ecological' about capitalist commodification, he is arguably highlighting the contradictions between the materialities of nature and those of the commodification process.

Proxy commodification of the environment is rather different to real commodification. It involves, as it were, 'artificially' commodifying a currently non-commodified entity or set of entities. In the language of environmental economics, it is about compensating for 'missing markets'. Cost-benefit analysis and contingent valuation exercises are two well-known mechanisms of achieving proxy commodification and can serve as precursors to the creation of real markets (for example, in pollution permits). Not all acts of proxy commodification fall strictly under most or all of the six commodification criteria to be found in the Marxist work reviewed here. For example, putting a monetary value on the world's biodiversity – as Constanza *et al*. (1997) (in)famously did – obviously does not imply that this biodiversity is alienable en masse or that it can literally be individuated. However, in other cases – as with the Kyoto carbon credit scheme – proxy commodification can pave the way for real commodification where

most of the six dimensions might be in play. Harvey (1996: 152–53) is one of several Marxists to be strongly critical of proxy commodification. Among other things, he observes that the monetary values placed on things like ecosystem services are completely arbitrary and unable to deal with their 'real' ecological value.

2 Nature as internal

The distinction between 'external' and 'internal' nature is slippery and I use it here as a heuristic. By 'internal' nature I do not mean the nature of the human body – to which I will turn below – but those circumstances where nature is brought firmly within the commodification process. So nature here loses its 'independent' capacity to resist commodification and approaches the archetype of a 'pure' commodity described earlier.

Some of the most interesting Marxist work in this area has been done on agriculture. Here, Marxists have identified those elements of nature whose material intransigence has been overcome deliberately through technological innovation. Kloppenburg's (1988) and Boyd's (2001) research on seeds and chickens respectively are excellent examples here. Their commodification is real rather than merely formal because both types of 'natural' entity lose their naturalness and become subject to the requirements of production. Thus hybridization, genetic modification, the use of growth hormones and so on become means of 'designing' commodities – that is, 'producing' nature in something like Smith's (1996) sense. However, this internalization of nature is not problem-free. It can, for example, meet with social resistance (for instance, farmers protesting at having to pay for seeds). Likewise, it can generate 'manufactured risks', such as chicken flu or, in cattle, BSE. These social and ecological problems are like Bridge's (2000) contradictions in copper mining, only now thoroughly internal to the commodification process rather than arising from commodification's confrontation of a putatively external nature.

3 Nature as the human body

Human bodies are not, of course, purely natural. Butler (1993) and Shilling (1993), among others, have shown that human biology is not free from cultural, social or technical influence. Likewise, it is only through a process of theoretical abstraction that one can separate the body out as a physical thing from the identities and personalities of the people who 'inhabit' it. So when I distinguish 'human' from external nature I am not implying that the former is a domain of pure, non-social physicality. Provisos aside, there are obvious reasons to separate out the body for special attention as a category of 'nature'. These have to do with the material specifics of the body compared to those of other species or inanimate parts of nature. Humans are, of course, 'exceptional' in physiological terms, notwithstanding our close genetic and anatomical relations with simians. This physiological specificity is bound up with our language skills, our capacity for emotion, our psychological complexity and so on. Accordingly, the body is typically treated as morally sacrosanct in most societies: it deserves – and indeed receives – special analytical and normative attention. Among other things, it has long been the site of heated debates over the limits that should be placed on 'the market' and

commodification. Chief among these debates have been those over prostitution, surrogacy and slavery.

The kinds of technical innovations mentioned briefly in the previous subsection mean that today, of course, the body is fungible as never before. Limbs, organs and genes are just a few of the bodily 'things' that are now, via technical manipulation, potentially available for purchase and sale with a capitalist economic context. Though Harvey (1998) has recently turned his attention to the body, he does not do so with much of an eye for the biological and moral issues.[16] Where he does – in *Spaces of hope*, for example (Harvey, 2000: Chapters 10 and 11) – he resorts to a rather abstract notion of 'species being' redolent of the early Marx. Dickens (2001), by contrast, puts corporeality front-and-centre in a more grounded way, recalling some of Edward Yoxen's work in the 1980s on the bodily transgressions of technoscience (e.g., Yoxen, 1986). One of Dickens's principal theses is that human biology is becoming a commodity like any other to the point where, in the near future, whole persons will be commodified, not just parts thereof. Specifically, once the moral objections are slowly overidden, he sees gene splicing, germ-line therapy and the like creating new genetic classes where 'haves' can buy the 'right' genes for their offspring. Though, in this case, the 'barriers' are primarily ethical not physical, they are intimately connected to the material specificities of the human person. Indeed, overriding these barriers itself involves the acceptance of other ethical claims – like the idea that pricing a person or parts thereof is a moral good either in itself or because of the other benefits it confers (e.g., the possibility of living a life free of 'genetic disease').

4 Nature as information

The fourth major category of nature whose commodification contemporary Marxists attend to is nature as information. This may seem odd at first sight: how can 'nature' be information when we typically think of it as physical and tangible? The response is that nature is being de- and re-materialized in all sorts of ways, such that the distinction between 'real' nature and its 'artificial' relations is not simply blurred but 'absolutely fragile' (Parry, 2002: 680). The 'internal natures' already mentioned are, of course, artificial 'second natures', but what they share with 'external natures' is a tangible physicality. By contrast, nature as information – while equally physical – is materially different. It is based in, but not the same as, the whole variety of internal, external and, for that matter, human natures one could conceive of. A good example of an informational nature is a genetic database. This database could not exist without the 'real' genes it describes. However, unlike these genes, this information is as infinitely decomposable as it is easy to move. A strand of DNA can, for example, be analysed in multiple ways to yield myriad bites of information. In turn, access to this information, or indeed the information itself, can become a commodity available for sale and purchase in the form of computer disks, e-mail attachments and so on (Bowker, 2000).

Mark Poster (1990), though not strictly Marxist in his outlook, was among the first critical theorists to inquire into the commodification of information. In relation to nature specifically, Brush (1999), Frow (1996; 1997) and Escobar (1996) are among several authors who have criticized the way exchange value is being attached to information about human and non-human nature. Frow, for instance, looks at the

infamous John Moore case in the USA, where a cancer patient found that genetic information contained in some of his cells was subject to a patent that he unsuccessfully contested. The other two authors, by contrast, explore the ambivalent potentialities of indigenous groups in the South selling folk knowledge of agronomy and medicine to western lifescience companies. The potential is ambivalent because, while commodifying this knowledge generates much needed revenue for poor communities, the 'leakiness' of knowledge between proximate indigenous groups raises vexed issues about precisely which groups have the 'right' to earn rent on what is a protean and shared entity.

We are now in a position to describe more precisely the nature of commodification and the commodification of nature. I have decomposed Marxist writings on nature commodification into their several component parts, distinguishing six facets of commodification and four ontologically distinctive natures. Though I do not do it here, these nature categories can easily be decomposed further to reveal important material differences among 'natural' entities. We can now synthesize these insights to identify the principal modalities of nature commodification at work in the literature being reviewed here. These interconnected modalities have already been mentioned in passing above, but it is as well to consider them together formally. Note that the four modalities identified below can, theoretically, transect more than one of the four categories of nature discussed above.

To summarize, first we can talk of *commodification effects*. These are physical effects that impact upon non-commodities because of the commodification of certain other things that are proximate or related to those non-commodities. For example, if one indigenous group commodifies folk knowledge, then it might prevent a nearby indigenous group from earning revenue by selling a similar kind of knowledge. As we have already seen, atmospheric pollution is another important commodification effect, but there are many more one could consider. Second, there is *incomplete commodification*. This refers to those cases where nature puts barriers in the way of complete commodification. These barriers can be either 'internal' or 'external' to the commodification process, as we saw above, and can be found in both human and non-human nature. In each case, the barriers are relative to the commodification process. The materiality of 'produced' or relatively autonomous natures can, in turn, produce ecological, corporeal and social effects that lead to problems for those selling the commodities in question. Third, as already explained, *real commodification* involves the physical privatization, alienation, individuation, etc., of an entity in an actual market. Robertson's wetlands, Kloppenburg's seeds and Dickens's genes are all examples of real commodification. Real commodification is increasingly the norm for more and more aspects of informational and non-informational natures. Finally, we can distinguish *proxy commodification*, which can be a precursor to real commodification or coexist with it. As explained, it involves treating uncommodified entities *as* commodities by way of manufactured markets via cost-benefit analysis and other techniques.

Though very schematic, this typology suggests two important things. First, it indicates that commodification works rather differently depending on the specific nature in question. Even if all the Marxist authors I have mentioned were to specify all six facets of commodification in their respective accounts – which they do not – commodification would not be indifferent to the natures commodified. Thus, as we have

seen, some natures 'resist' complete commodification (physically and morally), while others are more readily subsumed. The flip-side of this, and the second point to note, is that different natures have different types and degree of 'agency'. This agency can work either with or against the commodification process and thus is of real material importance. Thus, many seeds can be made compliant via hybridization and genetic modification, while the commodification-effects of automobiles, by contrast, are 'runaway', manufactured threats like atmospheric pollution. What this means is that real analytical discrimination must be used when examining the capitalist commodification of natures. The form and material outcome of the process depends on the *articulation* of *specific* natures with some combination of the six dimensions of commodification identified earlier.

IV Normative questions: from explanation to critique

In this penultimate part of the essay we turn from explanatory to normative issues.[17] The two are, of course, intimately linked. Only the most unorthodox, reconstructed Marxists separate 'facts' and 'values' and suppose that analysis can be evaluation-free. This is not to say that the 'ought' can be derived from the 'is' in a 'strong' or highly specific sense – though some, like Bhaskar (1986) appear to believe this can, in fact, be done. Yet it is to suggest that some notion of problems and solutions, however ill defined, is implicit to most forms of Marxian analysis. In the present context, Peter Jackson (1999: 96) has complained about the 'rhetoric of moral outrage and blanket disapproval' that, in his view, has traditionally accompanied Marxian commodity analyses. Meanwhile, an author more sympathetic to historical materialism and its variants – Andrew Sayer (2000: Part IV) – is characteristically honest about their normative shortcomings. For him, they revolve around a studied refusal to explore rigorously not just the normative standpoints from which criticisms are launched but also the feasibility of the alternate realities implied in the criticisms. As if to confirm his argument, Peffer's (1990) important work is virtually unique as a contemporary exercise in systematic normative argumentation by a Marxist. In the present context, we can therefore ask: are Marxists right to be largely negative about the commodification of some or all aspects of nature (if, indeed, they *are* largely negative)?; whether they are negative or ambivalent, what *reasons* can be offered to justify their particular readings of nature commodification in capitalist societies?; are these reasons *defensible*?; and are the implied alternatives to commodification *practicable*?

In asking these questions, I am recalling Marxism's founding aspirations to be a critique of political economy rather than an economics.[18] Providing clear answers to them is vital for a number of reasons. First, if Marxian explanations secrete criticisms, then we need to know just what, precisely, is *wrong* with the capitalist commodification of specific natures and *why*. If critique is left implicit then it becomes that much harder to offer reasoned arguments about the ills of commodification. Second, Marxist criticisms will ultimately count for very little if the alternatives they imply or suggest are infeasible. Though there is something to be said for utopian-anticipatory thought experiments (see, for example, Harvey, 2000: Part III), their power is attenuated in the absence of more practical propositions for change. In this section I want to lay bare the, for the most part implicit, normative arguments made by Marxists in relation to the

capitalist commodification of nature/s. The distinctions made in the previous sections between different categories of nature and its commodification become especially important here. For Marxian evaluations vary – and, where they do not, perhaps *should* vary – depending on the kind of nature being commodified. Intentionally or not, this introduces a degree of complexity into the logics of Marxian criticism. It is as well to grasp this normative variance rather than expect one or other exclusive Marxian mode of evaluation to be operative.

Nature has, of course, been the focus of some of the most original and explicit normative thinking in recent times. Deep ecologists, animal liberationists and bioethicists are just some of the many who are prepared to offer systematic arguments for or against the treatment of non-humans or new technical incursions into human biology. It is ironic, then, that Marxism – a tradition of thinking that is characteristically critical of that which it studies – has been so muted in its evaluations of how environments, bodies and ecologies are impacted by capitalism.[19] Ted Benton (1993) and David Harvey (1996) are almost alone in explicitly linking diagnosis and critique in their writings on nature – a subject Peffer (1990) does not consider. Benton grounds his discussion of animal rights in a theory of human needs, adapted from Doyal and Gough (1991). Harvey, adapting Iris Young's (1990) work, argues for a kind of justice predicated on liveable local and global environments for all. Even then, both authors attend more to normative standpoints than they do to practical alternatives. Benton and Harvey aside, the value judgements and normative recommendations secreted by Marxian explanations of nature commodification remain, for the most part, implicit and poorly articulated.[20] Yet these judgements and recommendations undoubtedly animate – in an oddly muted way – the work of those Marxian authors I have discussed here. This results in a surprising imbalance between analysis and critique.[21] In an illustrative rather than exhaustive way, I will now highlight the range of normative arguments in play and ask some questions about the defensibility of these arguments. Ultimately, a comprehensive analysis is necessary – one that looks at each aspect of commodification in relation to different natures, weighing the problems in each case. What follows is thus nothing more than a suggestive precursor to such an analysis.

1 Normative standpoints

Critique would, of course, be impossible without normative standpoints. These standpoints are the 'benchmark' against which an object of analysis is evaluated. They vary according to the theoretical and political perspective of the analyst, but this does not necessarily make them reducible to the analyst's personal predilections. Normative standpoints can be historically and geographically specific or transhistorical and geographically universal. They can be internal to the objects of analysis or else be introduced externally to them. They can be simple and vague or else complex and detailed. They can have cognitive, ethical and/or aesthetic referents. Finally, they can apply to certain things but not others (such as humans but not non-humans) or, instead, be ecumenical in scope. Logically, there is no requirement that any given critic should work with just one normative standpoint; only if a critic held several standpoints simultaneously that were, in fact, contradictory, would one have cause for logical and practical concern.

Already it is clear that considering normative standpoints gets us into a potentially complicated territory; but it is a territory that Marxist analysts of nature's commodification should be exploring in a very explicit way. That this has not yet happened in the main is relatively easy to illustrate. I organize my comments in three related subsections: the first is on types of normative standpoint; the second is on justifications for these standpoints; and the third is a reflection on the first two.

a Modes of critique: Sayer (2000: 159) argues that critical theorists typically operate with one or both of two types of normative criticism. The first is a cognitive-explanatory critique, where if a belief is shown to be false it is considered *ipso facto* 'wrong'. The second is a needs-based critique grounded in the identification of human and/or non-human suffering or harm. However, at least two more modes of critique can be identified (Benhabib, 1986; McCarney, 1990). One is immanent critique, where the object of analysis is shown to fall short of its own normative standards. The other is a dialectical critique where the object of analysis is shown to be internally contradictory and thus, in a sense, 'auto-critical'. These four broad types of normative argumentation are not mutually exclusive but nor can they be readily collapsed one into the other. Each of them raise important questions about the logic of critique. For instance, while immanent critique might expose the failings of something according to its own standards (never mind different or more exacting ones), are these standards themselves to be aspired to or else superseded? Somewhat differently, how are 'needs' defined in a need-based critique and *whose* needs are being considered? Those of a putative 'global humanity' or those of a particular community?

These and similar questions are difficult to answer and yet are implicit in all the four modes of critique distinguished above. These modes all feature in different Marxists' work on nature commodification. However, with the exception of Benton and Harvey, they are rarely named explicitly or defended. There are two dimensions to this: one the lack of justification of one mode of critique over another; the other, the lack of explicit justification of any mode in its own right. For instance, Hartwick's is very much a cognitive-explanatory critique. The logic of this critique is clear enough: show consumers the socionatural violence attendant upon gold production and something like a Damascene awakening might occur. However, the exposure of falsity does not, in itself, necessarily imply that something is 'bad'. Consumers might carry on consuming willy-nilly, even if they are shown what commodities really 'embody'. What is more, is Hartwick's cognitive-explanatory critique to be preferred to a dialectical critique of gold mining (a critique she does not offer) and if so why? Similarly, the explanatory logic of Bridge's account of commodifying copper is clear but its critical dimensions not overtly justified. He shows the material contradictions that result from treating copper as if it can be readily extracted from its geological and biospheric integument, but an exacting reader of his work might ask: what is wrong with contradictions? Why, for example, is the creation of waste streams from copper production negatively evaluated? Do not *all* forms of production increase entropy? The answers to these questions are not at all self-evident. For instance, it may be the case that socioecological contradictions will, pace O'Connor, help to generate crises of capitalism and thus move us into a post-capitalist future. Equally, though, it may be the case that the robustness of capitalism means that we must somehow learn to live with these contradictions and ameliorate their worst effects. These two answers imply rather different judgements of the

'goodness' and 'badness' of the contradictions arising from the commodification of 'external nature'.

b Normative justifications: So much for modes of critique. Within and between these modes there are several conceivable normative standpoints that could, theoretically, inform the act of critique. For example, depending on the object of analysis, an immanent critique could be predicated on any number of grounds; likewise, a needs-based critique could be underpinned by universal or contingent principles. The point, then, is that the *specific* justifications for critique – *whatever* the mode of critique deployed – need to be rendered transparent. Again, this is rarely the case in Marxian work on nature's commodificaton. Let us take just three of the several authors whose work has already been mentioned in this essay (Benton and Harvey excepted). Dickens (2001), in his account of the commodification of the human body, implies that the formation of 'genetic classes' and underclasses is wrong. Though we may instinctively agree with him, he does not explain *why* this is so. Is it because all people should enjoy equal life chances when they are born? Is it because the human body should not be commodified because people are not objects that can be bought and sold? Both questions imply very different normative standpoints, but they remain largely unanswered and unjustified in Dickens's account. Robertson (2000), in his wetlands research, is equally inexplicit in the normative sense. Clearly, he regards the economic trading-off of qualitatively unique wetlands in the USA as in some sense problematic. What is more, he offers reasons for his concern. For instance, he argues that individual wetlands cannot, in reality, be commensurated because of their site-specific nature. Beyond this, however, it is not clear why their commodification is 'bad'. Is it because some local communities are losing their local wetlands? Is it because trading wetlands offends against the plant, animal and microbial species that constitute them? Is Robertson's standpoint anthropocentric, ecocentric or some synthesis of the two? Finally, Kloppenburg (1988), in his account of seed commodification, offers at least two reasons why this is an objectionable process. First, it has disenfranchized farmers and 'stolen' a previously free good from the public domain; second, it has been associated with the rise of monocultures and the widespread use of pesticides and herbicides. These reasons are clear enough, but the particular normative standpoints they imply remain somewhat buried and unjustified. For example, it is assumed to be self-evident that monocultures are undesirable. Yet they are linked to high yields, while their implied opposite – a world of mixed, non-chemical agriculture – might not so readily feed current population numbers. Likewise, though farmers must pay for hybrid and genetically modified seeds, these seeds can also produce higher yields for these farmers. So how are these pros and cons to be weighed?

c Complexity, abstraction and ambivalence: I am not, let me be clear, acting as apologist for some of the worst aspects of the capitalist commodification of nature. I am also, in one sense, being unfair here because I am calling authors to account for something they did not set out to do: that is, undertake systematic normative argumentation. Even so, it is hopefully clear that assuming, or even asserting, normative standpoints – both at the level of modes of critique and specific normative justifications within and between these modes – simply leaves too many important questions unanswered. In the present context, we can synthesize the insights of the previous two

subsections to draw three conclusions about the implied normative standpoints the Marxian authors considered here adopt. First, these standpoints are *highly diverse*. Indeed, some of them may be incommensurable. This is not necessarily a problem – there is, after all, no God-given requirement for a singular Marxian reading of commodification's ills – but it does introduce real complexity into the assessment of nature's commodification within capitalism. Second, the implied normative standpoints are frequently vague or else *highly open-ended*. Again, this is not necessarily a problem. For instance, though abstract, the implied contrast space to be found in Altvater's (1993) work is clear enough to be aspired to and openly debated: that is, a world where Amazonian hardwoods, say, are not ripped from their ecological context willy-nilly. However, if the standpoints are *too* abstract, then they risk becoming vacuous. To avoid this, it is often necessary to properly spell out and justify the standpoints in question. This remains to be done for much of the work reviewed here. Finally, between, and even within, the work of the authors I have considered, normative standpoints might be *contradictory* or *ambivalent*. This then raises the difficult issue of how to reconcile, or else work with, these contradictions and ambivalences. For example, though Harvey (1996) is highly critical of nature's commodification under capitalism, like Marx he acknowledges that it is not an unremittingly bad thing. After all, it has contributed to the high standard of living many people worldwide currently enjoy. How, then, can normative arguments be two-sided without becoming incoherent?

2 Future alternatives

Normative standpoints always imply alternatives to that which is criticized – however hazy and notional these implied alternatives might be. As Sayer (2000) argues, it is important to render these alternatives explicit so that their nature and feasibility can be scrutinized. Critique will count for little if future alternatives are largely or wholly impractical. I do not want to dwell on the question of future alternatives here, mostly because virtually none of the Marxists writing on nature commodification make any stab at exploring them. This is symptomatic of a wider reluctance among Marxist intellectuals to offer 'blueprints' for change. Yet 'blueprints' need not be unduly programmatic or detailed. At the very least, Marxist critics of nature's commodification will need to attend to two distinctions – one of them quite venerable – that can help them think about practical alternatives. The first relates to the type of changes one might make to current commodification practices. Benhabib (1986) makes a useful distinction between a 'politics of fulfillment' and a 'politics of transfiguration', which roughly translate to reformism versus revolution. The former entails the 'best' of the current situation and working it through to its full potential; the latter, obviously, implies qualitative change and is far harder to achieve. In the present context, an example would be the choice, viz. Dickens's argument, between placing ethical limits of commodifying human bodies within capitalism or abolishing commodification altogether in a postcapitalist scenario. The second useful distinction relates to the feasibility of change – whether it is reformist or otherwise – and is made by Sayer (2000: 162). He separates the question of whether enough people or institutions could be mobilized to achieve a desired goal from that of the feasibility of the goal itself (e.g., could one relate

to natures without the use of money in any economic system?). The two are related but not synonymous and require careful consideration in their own right. Of course, even when sensitized to these and other useful distinctions, any Marxist attempt to think practically about alternatives to nature commodification will be hazardous. As Billig *et al*. (1988) rightly point out, socionatural life is 'dilemmatic'. That is, changing one thing for the 'good' can have complex, unintended and counter-intuitive material and ethical consequences. As Fraser (1997: Chapter 3) shows in a different context, these befuddling consequences can and should be thought through systematically so that pipe-dreams can be disentangled from plausible propositions for change.

V Conclusions

In this essay I have sought to cut through some of the confusion that can arise when trying to understand how Marxists critically theorize the commodification of nature in capitalist societies. I have suggested that the polyvalence of the terms 'commodification' and 'nature' can obscure real differences in Marxian interpretations of the reciprocal relations between the phenomena the terms refer to. Furthermore, I have argued that Marxian criticisms of the commodification of nature have been rather too implicit and that they vary substantively depending on which natures are under consideration. What, then, is the upshot of my attempt to elucidate specific modalities in the commodification-nature-criticism nexus in the literature surveyed?

In the first place, it indicates that, contra some of their critics, not all Marxists work with the same conceptions of commodification and its effects. Second, my review has suggested that claims about the capitalist commodification of nature – in the singular – are only viable at a high level of theoretical abstraction. It is important that we pay close explanatory and normative attention to the material properties of different natures. Otherwise we risk missing the variety of ways commodification plays out, depending on the nature in question. Finally, this essay has shown that Marxists are much better at analysing the commodification of natures than justifying their critiques. It is, perhaps, the time to fill this normative gap so that the specificity of capitalist commodification can be resisted on robust critical grounds. The upshot of all this is, I hope, to pave the way for a more rigorous understanding of capitalist commodification, its effects on nature and the problems thereof. Capitalism remains a major threat to ecologies and bodies of all kinds, from the micro to the macro scale. If one is unable to explain exactly how and why, however, then it is left to capitalism's apologists to commodify everything to the point that placing limits on the process – or even replacing it – will seem but a utopian dream.

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Notes

1. The term natural artefacts may seem contradictory or paradoxical, but I use it here because in this essay I wish to consider both 'real' and 'artificial' natures.
2. They take inspiration from Baudrillardian semiotics, actor-network theory and Derridean deconstruction, to name a few.
3. Which may involve consideration of how things are de- and subsequently re-commodified and which thus explores the sites of commodity production, distribution, purchase and consumption with equal vigour.
4. Which is why Marxist and other critical theorists have long pondered whether it is right to commodify people (as in slaves and labour-power, for example) and land.
5. As well as its close semantic relative (but not synonym) 'environment'.
6. As such, the essay is written in the same spirit as Demeritt's (2002) survey of arguments about the social construction of nature. Demeritt aims to shed some light on the increasingly confusing nature of these arguments by specifying the multiple meanings of the terms 'social construction' and 'nature'.
7. So, to reiterate, I am more interested in various modes of Marxian explanation and critique rather than the work of individual authors *per se*. When I use an author's work to illustrate a particular way of critically theorizing nature's commodification, I am not therefore implying that it cannot be interpreted in other ways.
8. Though some things, of course, never become – or are never *allowed* to become – capitalist commodities. For instance, slavery is no longer permitted worldwide (at least *de jure*) because the permanent sale of a whole, living person is considered immoral.
9. In the rest of this essay, when I use the terms commodity, commodities and commodification I am usually referring to them in their *capitalist* form specifically as depicted by the Marxian authors whose work I discuss.
10. By physical I do not simply mean 'hard' objects. Ideas, for example, can be commodified and they are palpably 'physical' too.
11. The terms I use in this and the following five subsections to describe commodification are not necessarily ones used by the authors whose work I consider.
12. Note that I am not using the term displacement in quite the same way as Cook and Crang (1996) do in their much-cited contribution. I prefer the term to the usual Marxian parlance of 'alienation' because this latter term connotes an alienated human or worker 'essence' to be reclaimed and it is also easily confused with the term 'alienability' which I have already used in this essay.
13. Such as Hodgson (1997) who presents an institutional critique of the commodification of nature.
14. Nor do I wish to analyse the epistemological question of how Marxists figure the knowledge-reality relationship in their writings on nature: see Castree (2002) for a preliminary stab at this.
15. The moral consequences will be dealt with separately in the essay's next and penultimate section.
16. In this context, it might be worth contemporary Marxists with interests in the body revisiting the 1970s debates over slavery among Marxist historians.
17. The arguments in this section of the issue are directly inspired by Sayer's (2000: Part IV) lucid critique of the normative failings of critical social science.
18. Two of the most full-blooded normative critiques of commodification in recent times have not been penned by Marxists: see Radin (1996) and Anderson (1993).
19. Symptomatically, in a critical review of ethical and moral stances towards nature, Whatmore and Thorne (1997) scarcely mention any Marxists at all.
20. I will use the terms 'critique' and 'criticism' interchangeably below, despite the fact that some Marxists (e.g., McCarney, 1990) wish to retain a substantive distinction between them.
21. What is more, it has left the space of normative theorizing about nature to be filled by bio- and ecocentrists on the one side, and liberal and conservative managerialists on the other.

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