

Power and all its guises: Environmental Determinism and locating ‘the crux of the matter’

Abstract

Can we theorise the relationship between discourses that antagonise each other? In a recent article, Arponen *et al.* (2019) demonstrate the tension between two different research models, and spotlight the compelling impact these methods have on archaeological interpretation. In response to their observations, this paper theorises how we can understand the position of the researcher in relation to the events they analyse. Using Michel Foucault’s (1972) approach to the ‘discursive formation’ and Karen Barad’s (2007) agential realism theory, in this reaction I argue that focusing on a single and most important point (the crux) is problematic, and theoretically outline how creating conceptual space for polymorphous causality can aid the analysis of a ‘dispersion of events’ (see Foucault 1972, 22).

Key words: causality, environmental determinism, agential realism, discourse, discursive formation, rupture.

Introduction

Does the environment shape – or determine – human action or does human agency play a vital role in the events that come to pass (see Arponen *et al.* 2019)? Perhaps we can simply put a stance on the matter down to opinion, but a significant problem arises when one discourse negates the possibility of the other. In their article ‘Environmental determinism and archaeology. Understanding and

evaluating determinism in research design', Arponen *et al.* indicate that certain discourses (for example, the 'parallelistic form of research design') are prohibiting the growth of the idea that human actions co-constitute the 'human-environment relation' (2019, 8). They observe that different discursive methods yield different narratives for the same event (2019, 9); noting that, on one hand, there is environmental determinism and how humans respond to 'external events', on the other, there is socially produced vulnerabilities at community-level before the 'external event' (2019, 9). One thought provoking example offered in the paper is the case of the 2010 Haiti earthquake; the researchers refer to the work of Oliver-Smith who argues that colonialism and capitalism had created a 'grave state of vulnerability' that was unequally distributed amongst the Latin American and Caribbean populations (2019, 8). Oliver-Smith describes how undernourishment and inadequate building codes, for example, 'led to the construction of extreme vulnerability' at Haiti (Arponen *et al.* 2019, 8). In response to this research, Arponen *et al.* observe how the anthropology of hazards examines the social situation before the event, whereas archaeological research 'takes primary interest in the social system *after*' (2019, 9; their emphasis). In their paper, they argue that what the researcher takes to be 'the crux of the matter' (the most important point) meaningfully impacts upon the analysis and interpretation of the event (2019, 9). Thus, analytical models are ethically loaded because they directly correlate with what the researcher identifies as the 'crux'. This issue – which, from my perspective, could be framed as the representationalist issue – is crucial, and is the aspect I shall attend to in this reaction via three points.

Firstly, I will tackle the 'crux of the matter' by outlining how Karen Barad's (2007) agential realism theory avoids the issue of representationalism by theoretically incorporating the position of the researcher in the analysis of the event. Secondly, using the language and theory of Foucault (1972), I will highlight how Arponen *et al.* in their discussion of the anthropology of hazards and paleo-environmental archaeology, draw into high contrast two 'discursive formation[s]' (Foucault 1972, 38)

and these appear to highlight a contemporary rupture in the discourse. Thirdly, having observed the rupture, I shall critically reflect on how ‘polymorphous’ causal models liberate academic discourse from perpetuating systems of oppression that are fundamentally rooted in ‘sameness’ (Foucault 1972, 21).

Representationalism and Performativity

Representationalism is increasingly becoming a subject of much debate in archaeology (see Arponen and Ribeiro 2018). Despite a general movement towards an antirepresentationalist stance in the field, there are several different hypotheses outlining how we might move past this predicament (on ‘holism’ see Arponen and Ribeiro 2014; on a ‘more-than-representationalist archaeology’ see Harris 2018). Representationalism is linked to Newtonian physics and born out of a Cartesian mindset that begins with the assumption that there are separate entities that we can measure without interfering with, and said entities (or traditionally ‘objects’) can be located through a ‘measurement procedure’ (Barad 2007, 106). Underlying this assumption is the understanding that we can obtain representations through our knowledge-making practices that confirm the ‘intrinsic properties’ of the object (Barad 2007, 106). I argue that if we take representationalism to be an ontological (and not just epistemological) issue it is possible to theoretically explain the relationship between discourses that antagonise each other (see Harris 2018, 88; Barad 2007, 28).

When Arponen *et al.* argue that ‘disciplinary preferences relating to the dominant or emerging *paradigms*’ are linked to ‘*methodological* choice’ they highlight the role of the researcher who actively shapes the event through their research design and interpretation (their emphasis, 2019, 2). Agential realism is a theory that actively acknowledges the conditions of emergence and the role the analyst plays in the interpretation of the event by asserting that ‘matter and meaning are mutually’ and co-

productively ‘articulated’ (Barad 2007, 152). The theory indicates that we should consider ‘the practices or performances of representing’ in conjunction with ‘the productive effects of those practices and the conditions for their efficacy’ (Barad 2007, 49). I argue that Arponen *et al.* detect two different ‘practices’ of representation, and whilst they indicate the efficacy of environmental determinism through the observation that ‘the drivers of change in human societies’ are externalized in such models (2019, 4), they actively challenge this discursive formation through the description of an alternative means of interpretation (the anthropology of hazards). To understand the wider implications of this observation, I shall unpack the discursive formation using Barad (2007) and Foucault (1972; 1991) in the next section.

The Discursive Formation

When we can detect a pattern of statements emerging such that we might recognise a ‘discourse’ we identify a ‘discursive formation’ (Foucault 1972, 38). By highlighting how the researcher who focuses on humans responding to an external event produces a different narrative to the researcher who acknowledges the sociocultural situation that informed the same event, Arponen *et al.* illustrate two fundamentally different approaches that yield very different interpretations – two discursive formations. In both methods the event is not simply being described but defined – and here I mean (using the language of Barad) that the boundaries of the event are being drawn by the researcher in relation to the event through the analytical model (or apparatus) they employ (Barad 2007, 147). I propose that a Baradian inspired analysis would view the different approaches (for example, anthropology of hazards and palaeo-environmental archaeology) as different types of ‘measurement’; she explains ‘there is something fundamental about the nature of measurement interactions such that, given a particular measuring apparatus, certain properties become determinate, while others are specifically excluded’ (2007, 19). Reflecting on this point, it seems that the anthro-

pology of hazards brings forth vulnerabilities at community-level whereas environmental determinism spotlights the key role changing climates have on humans, while actively excluding the impact of variable human experiences.

Whilst both analyses are occurring retrospectively, one measurement places the crux after the event, and the other places the crux before the event (Arponen *et al.* 2019, 8-9); both commit to Newtonian causality (cause-effect). I propose that a polymorphous causal model (as outlined by Foucault) would recognise both discourses (1991, 58). It seems important to state that *how* these interpretations are produced and relate to each other should also be considered (as a 'system of dispersion' Foucault 1972, 37-38); it is not a matter of either/or, but how the 'patterns of difference' in the discourse emerged (Barad 2012, 50; see also Foucault 1991, 62). These two different approaches to the same event reveal 'dispersed events' (Foucault 1972, 22) that are collectively valuable to our understanding of the matter at hand. Rather than one model being apolitical and the other political (cf. Arponen *et al.* 2019, 20) - I maintain that *all discourse is political* (see Barad 2007, 146).

On Determinism

Clearly, the Arponen *et al.* (2019) paper demonstrates that there is a dispersion of events that can help us understand the matter at hand; there is a cluster of correlative events that are entwined and it would seem foolish to portray the matter through slicing and compartmentalizing the events arbitrarily. Foucault queries determinism and un.masks Newtonian causality as problematic, offering instead a polymorphous structure of relations (Foucault 1991, 58; polymorphous here means 'many forms'); he writes: 'I would like to substitute this whole play of dependencies for the uniform, simple notion of allocating causality; and by suspending the indefinitely extended privilege of the cause, to render apparent the polymorphous interweaving of correlations' (Foucault 1991, 58). In

response to *Arponen et al*, I suggest that by embracing a polymorphous causal framework that accommodates entwined correlational clusters (a system of dispersion) we can ensure the complexities of a situation are not oversimplified. We might consider that there are different methods of analysis entwined with particular discourses (as identified by *Arponen et al.*) and these discourses tend to be focused on continuities – sameness – and are organised by a ‘principle of coherence’ (Foucault 1972, 22). By drawing these two discourses into high contrast, I propose *Arponen et al.* have hit upon a rupture (or a ‘discontinuity’) in the archaeological discourse, and this observation is a good thing, as it means we are not perpetuating a ‘total history’ that falsely links events in a seamless unilinear fashion. Rather, by recognising a dispersion of events (a correlation of clusters) – instead of a crux – we can begin to reveal the complexities of the situation.

Conclusion

Failing to acknowledge the integral role the researcher plays in the (re)production of grand narratives (or, to quote Foucault (1972, 9), ‘total histories’) built on the foundations of Newtonian causality is an issue we can frame as representationalism. *Arponen et al.* forgivingly interpret environmental determinism as a methodology that has a ‘weakness or blind spot’ (2019, 3). It seems pertinent to state that offering a hypothesis for the existence, flux and flow of past communities is one thing; monopolising human stories through the reproduction of dominant discourses that restrict the circulation of alternative narratives, is another; this is by no means a symptom of weakness, but an expression of power, and one that should not go unchallenged.

Note

1. Disaster research post-1980 has evidenced the complex and entwined nature of the phenomena, and increasingly acknowledged the ‘historical and social processes’ that inform the event (Oliver-Smith 1996, 314). Oliver-Smith has particularly contributed to evidencing the historical processes that have actively contributed to vulnerabilities, and this is why the researchers argue that the anthropology of hazards place a focus on the ‘social system prior to the external event’ (Arponen *et al* 2019, 9). Nonetheless, it seems vital to note that the discipline also acknowledges that ‘disasters have historical roots, unfolding presents, and potential futures according to the forms of reconstruction’ (Oliver-Smith 2010, 32-33).

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Biographical note

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