Against network thinking: A critique of pathological sovereignty

Martin Coward
University of Manchester, UK

Abstract
This article advances a critique of network thinking and the pathological sovereignty that it gives rise to. The network is ubiquitous as a metaphor for understanding the social, economic and political dynamics of the contemporary era. Implicitly drawing on an analogy with communications infrastructures such as the telegraph or internet, the network metaphor represents global politics in terms of nodes related to one another through conduit-like links. I begin by demonstrating the widespread nature of network thinking and outline the way in which conventional metaphors structure both thinking and action. I then recreate an episodic history of network thinking in order to demonstrate the key entailments of the network metaphor. I argue that there are four entailments of network thinking: the prioritisation of connectivity; the identification of novel actors; de-territorialisation; and a lack of concern for contiguity and context. The article then outlines the corresponding political and ethical consequences that follow from these entailments, specifically: fantasies of precision; new threat imaginaries; unboundedness; and a failure to attend to culture and community. I contend that network thinking gives rise to a pathological sovereignty whose dual faces can be seen in drone strikes and invasive surveillance. Finally, I argue that thinking beyond the network requires us to foreground the importance of contiguity and context in understanding global politics. This article contributes both a novel theoretical framework for challenging the hegemony of network thinking and an ethical call for greater recognition of the harm caused by pathological sovereignty.

Keywords
Assemblages, critique, culture, metaphor, networks, pathological sovereignty

Corresponding author:
Dr Martin Coward, Politics, University of Manchester, Arthur Lewis Building, Oxford Road, Manchester, M13 9PL, UK.
Email: martin.coward@manchester.ac.uk
Introduction

The concept of the network has become ‘a familiar feature of international politics’ (Hafner-Burton et al., 2009: 559). Understood as a series of linked nodes, networks are characterised as de-territorialised, non-hierarchical, flexible and durable (Podolny and Page, 1998: 59; Powell, 1990). Networking is normally attributed to social, economic, technological and political forces associated with the dynamics of globalisation. In particular, networks are represented as capitalising on the space-time compression enabled by information technology to generate de-territorialised webs of relationships (Castells, 2010). As a consequence, the network implies the emergence of novel structures, dynamics and actors. In particular, it indicates the erosion and reconfiguration of the inter-state, and thus the international, order by transnational or global linkages and flows and the distinctive actors, organisations and politics that these generate.

The network is widespread in representations of contemporary politics. In the disciplines of Political Science and International Relations, the use of network analysis is ‘a growing part of the broader agenda’ of research (Ward et al., 2011: 259). Insofar as politics is understood as a ‘relational phenomenon’ (Lazer, 2011: 66), the network has been seen as offering an ideal representational, conceptual and methodological tool for the analysis of such relations (Hafner-Burton et al., 2009). Indeed, the growing importance of the network in the scholarly analysis of politics was recognised in the establishment of a section of the American Political Science Association specifically focused on Political Networks (Lazer, 2011), with its own annual conference.

At the intersection of academic research and media representations, the network has also served as a metaphor for an array of contemporary social and political phenomena. For example, discussions of political violence in the post-Cold War, and particularly the post-9/11, era have focused on the networked character of emerging threats. Warlords, paramilitaries, militias, terrorists, cybercriminals and even rogue nuclear scientists such as A.Q. Khan have all been described as networked threats (Albright and Hinderstein, 2005; Arquilla and Ronfeldt, 2001; Bunker, 2005; The Economist, 2004, 2008). This tendency to see emerging threats as networked is most commonly invoked in relation to so-called jihadi terrorism such as that attributed to Al-Qaeda (Barber, 2015; Krebs, 2002; Sageman, 2004). Such actors are typically represented as deriving novel capabilities and potency from their networked form, such as the ability to launch omnidirectional attacks, their resilience to efforts to interdict their activities, the capacity to evade surveillance by those that would counter them and an enhanced facility for learning, communication and finance.

The representation of networks as novel and potent principles of global order has been similarly prominent in discussions of global governance. Arising initially in relation to the emergence of distinctive transnational epistemic and activist communities, the concept of the network was deployed to understand the manner in which information technology and air travel were facilitating direct linkages between experts and activists (Keck and Sikkink, 1998, 1999; Slaughter, 2004). These links are represented as running across, rather than obeying, the territorial principles of the inter-state order, short-circuiting its hierarchical state-centric principles (Reinicke, 1999). Thus, global norms (and the legal and policy frameworks in which they are embedded) are increasingly set not
through intergovernmental, bilateral or multilateral negotiations, but through commu-
nities of diplomats, legislators and activists coalescing around particular thematic debates
(Price, 1998). Thus, according to Slaughter (2009: 95): ‘[t]he emerging networked world
of the twenty-first century … exists above the state, below the state, and through the
state. In this world, the state with the most connections will be the central player’.

The network has also been prominent in a range of attempts to grasp the nature of
contemporary, interconnected societies. As Albert-Laszlo Barabasi (2002: 7) remarks:
‘[t]oday we … recognise that nothing happens in isolation … [w]e have come to see that
we live in a small world, where everything is linked to everything else … [w]e have
come to grasp the importance of networks’. Similarly, Mark Wigley (2001: 83–84) has
noted: ‘[w]e are constantly surrounded by talk of networks. Every third message, article,
and advertisement seems to be about one network or another’. In response to this sense
of the ubiquity of networks, a number of authors have proposed the network as a general
principle for understanding what Castells (2010) called the ‘network society’. Rainie and
Wellman (2012: 7), for example, argue that the network represents a ‘social operating
system’ ‘because it describes the ways in which people connect, communicate, and
exchange information’. Vitale (2014: 6) argues that to grasp such networking of social
life, it is necessary to develop ‘networkologies’: ‘a new worldview … a philosophy of
networks for our hyperconnected age’. Vitale’s call resonates with Galloway and
Thacker’s (2007: 4) argument that ‘[t]he network … has emerged as a dominant form
describing the nature of control today, as well as resistance to it’. More recently, the
Institute for Public Policy Research portrayed the UK European Union (EU) referendum
result as a victory for ‘proper people’ and ‘a rejection of the networked world’ (Runciman,
2016), indicating that the network represents the political status quo.

The network has thus become pervasive in representations of contemporary social
reality in general, and global politics in particular. As De Goede (2012) notes, it has
become difficult to think outside of, or without, networks. As such, network thinking —
representing contemporary social and political phenomena primarily in terms of inter-
linked nodes — has become widespread. The network can thus be seen as what Lakoff
and Johnson (1980: 453) refer to as a conceptual metaphor: ‘where much of our ordinary
conceptual system and the bulk of our everyday conventional language are structured
and understood primarily in metaphorical terms’.

Although International Relations scholars have discussed both metaphors (e.g. Bell,
2012; Chilton, 1996; Hanne et al., 2014; Marks, 2011; Mio, 1997) and networks (e.g.
Riles, 2001) separately, there has been no sustained examination of the network as a
conceptual metaphor. In this article, therefore, I critically examine the emergence of the
network as a conceptual metaphor through which global politics is represented. I will
demonstrate that the network metaphor plays a constitutive role in a distinctive political
imaginary: a pathological sovereignty oriented towards interdiction and blind to contigu-
ity and, thus, culture. Not only is network thinking thus predisposed to embarking on
insensitive/ineffective interventions that fail to grasp the importance of culture; it is also
blind to the ordinary lives being lived outside, but contiguous to, the nodes and links of
networks. Network thinking is thus prone to violating these ordinary lives.

The article is divided into three parts. I begin by outlining the nature of conceptual
metaphors. Drawing on Lakoff and Johnson, I outline the way in which such metaphors
structure thought and action. Conceptual metaphors carry with them certain entailments — logical consequences of the way in which the metaphor structures thought. In order to understand these entailments, it is necessary to outline the components of the conceptual metaphor and the manner in which they — individually and together — structure thought in a particular way. Taken together, it is these entailments that define network thinking. Representations of contemporary social and political dynamics that share these entailments can thus be referred to as network thinking.

In order to understand these entailments and the network thinking they give rise to, the second section of the article outlines a brief history of the network metaphor, particularly in relation to global politics. I begin by outlining — in broad strokes — the way in which the metaphor of nodal interconnection has evolved from the 19th century to the contemporary period. Each element of this admittedly brief history reveals one or more characteristics of the conceptual metaphor of the network. Taken together, this history delineates the entailments of the concept of the network and the consequences of the way in which it structures thought and action. In particular, I will highlight four characteristics of the network that emerge in this history — the prioritisation of connectivity; the identification of novel actors; de-territorialisation; and a lack of concern for contiguity and culture — as well as the way in which they structure thought and action.

The third section examines the way in which these characteristics of network thinking give rise to a pathological sovereignty predicated on fantasies of precision and interdiction, but blind to contiguity and culture. I will show that the network metaphor is not simply a device for understanding; rather, insofar as it structures thinking, it also guides action. Whether is it is targeting insurgents, conducting anti-gang policing, establishing transnational epistemic communities or building transnational development coalitions, the network is constitutive of a distinctive politics.

I conclude by noting two important tasks for theorists of global politics. On the one hand, insofar as it underpins pathological sovereignty, there is a need to contest network thinking and the ethical consequences it entails. Such a contestation leads us, on the other hand, to the question of thinking beyond, or otherwise than, networks. Insofar as my argument suggests that network thinking shares a set of entailments, it also suggests that contesting network thinking will require reclaiming the relationality and connectivity central to critical representations of global politics in a metaphorical idiom other than the network. As such, I will conclude with a challenge for those deploying the network as a critical tool to think beyond its nodal-centric confines.

This article thus highlights both the constitutive power of conventional metaphor in general and the consequences of network thinking in particular. I challenge the widespread, uncritical use of the network as a descriptive term in International Relations. While we cannot think outside metaphors — and a central message of this article is the need for a critical reflexivity about metaphorical thinking — we can contest network thinking and seek to think beyond its pathologies. As a contribution to conceptual debates about the theoretical frameworks for representing contemporary global politics, this article suggests, therefore, that we pay closer attention to the metaphorical nature of our thinking. As an intervention in ethical/normative debates about the practical consequences of theoretical frameworks, this article advocates a sensitivity to contiguity and culture that challenges the fantasies of precision spawned by network thinking. Overall,
then, this article contributes both a novel theoretical framework for challenging the hegemony of network thinking and an ethical call for greater recognition of the harm caused by pathological sovereignty. Taken together, this theoretical framework and ethical call offer tools to challenge the conceptual status quo and open up new agendas for thinking about global politics in the contemporary era.

The power of conceptual metaphors

Metaphors ‘trigger a mental association between two things that is not immediately apparent through overt comparison by explicit analogy’ (Marks, 2011: 10). Metaphor thus comprises ‘understanding and experiencing one kind of thing or experience in terms of another’ (Lakoff and Johnson, 1980: 455). Metaphor has therefore been seen as a literary device used to colour expression or to capture otherwise hidden properties of people, ideas and things. As a consequence, ‘most people think they can get along perfectly well without metaphor’ (Lakoff and Johnson, 1980: 453; see also Black, 1962: 34). However, Lakoff and Johnson (1980: 454) argue that:

on the contrary … metaphor is pervasive in everyday life, not just in language, but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature. … If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do every day is very much a matter of metaphor.

An example is the metaphorical concept ‘time is money’. Such a concept metaphorically structures our thinking about time in terms of it being a finite resource and results in actions to safeguard the ‘use’ of ‘our’ time (Lakoff and Johnson, 1980: 457). Conceptual metaphors are thus not simple linguistic tropes; rather, they structure thought and action. Insofar as they become embedded into culture through regular, repeated use, they become ‘conventional’ metaphors that structure the concepts, thoughts and actions of those that use them.

Understanding the manner in which a conventional metaphor structures concepts, thoughts and actions requires the delineation of its entailment relations. Broadly speaking, these are the nested set of characteristics that define the meaning and scope of the conceptual metaphor and, importantly, are implied in its use. Just as ‘time is money’ implies that ‘time is a limited resource’ and thus a ‘valuable commodity’ (Lakoff and Johnson, 1980: 457), so ‘global politics is networked’ has implied entailments. Entailment relations are constitutive of a lens through which contemporary social, economic and political dynamics are represented. In particular, they act as a prism that shapes perceptions of the ontological characteristics of the world. Insofar as the entailments of conceptual metaphors are a series of ontological assumptions, they comprise an understanding of what entities can or cannot do — and thus what they should or should not do. According to William Connolly (1995: 1), the various inclusions and exclusions arising from such ontological assumptions comprise an onto-politics: assumptions ‘about necessities and possibilities of … being, about, for instance, the forms into which humans may be composed’. As such, I will argue that the entailment relations of conventional conceptual metaphors are onto-political.
Such an understanding challenges positivist assumptions about the relation of concepts and the world. On the one hand, it inverts the assumption that the referent object represented in a metaphor — such as a network — is ontologically real independently of our understanding of the world. On the contrary, a metaphor — such as a network — structures what we take to be ontologically real. When viewed through a prism such as the network, ‘the world’ is understood to be composed and structured in particular ways and to accordingly acquire specific capabilities and potentialities and, by extension, ‘pathologies’ (Alker, 2011: 355). On the other hand, it challenges the positivist assumption that concepts are simply ways in which the world is understood. On the contrary, insofar as the network is constitutive of an ontological prism, that, in turn, establishes certain political possibilities, and is, thus, a guide for action in the world. In other words, far from being ontologically real or a mere device for understanding that reality, a metaphor such as the network is a representational device constitutive of a particular onto-politics that guides action. This suggests that rather than asking what properties networks ‘possess’, we might instead ask what the consequences of representing the world as networked are.

Answering such a question requires that we examine the ways in which the network metaphor has been used over time. It requires that we trace the manner in which these uses overlap, supplement and reinforce one another. In what follows, therefore, I will examine how, in a series of iterations of the concept, scholars examining the intersection of economic, political, social and technological dynamics from the midpoint of the 20th century affirmed an ‘ideology of connectedness’ (Otis, 2011: 7). I will demonstrate the contingent overlap and resonance of such repeated iterations. My contention will be that while each iteration carries different entailments and inflects the notion of the network in different ways, the cumulative effect is to give contemporary uses of the metaphor a very specific set of entailments that has particular political and ethical consequences (in other words, an onto-politics).

**Network thinking: A brief history**

In order to outline the entailments of network thinking, I will focus on the way in which the network became a conventional metaphor in the latter half of the 20th century. This period is associated with a rise of transnational interconnection, for which the network is an ideal metaphor. However, in order to contextualise the history I will sketch out, it is worth first tracing the broad strokes of the emergence of the network metaphor itself. Here, two distinct yet interrelated points are worth making. On the one hand, the network is a particularly modern metaphor rooted in comparing organic and social processes with technological artefacts such as the telegraph or the internet. Insofar as a metaphor is an understanding of one thing in terms of another, it comprises an understanding of both bodies and societies in terms of the technologies of modernity. Second, the network metaphor is a distinctive way of representing connectivity — principally, as a set of nodes tied together by links along which ideas, communication, information and finance might flow. While this hub-and-spoke model originates in an analogy with the telegraph as a way in which a variety of actors might be tied together despite distances between them, it becomes a prism through which connectivity in general — whether through
wires or not — is represented. It is, therefore, important to go beyond the origin of the network in an analogy with modern technological artefacts to see how it becomes a metaphor for social interconnection in general. The history of network thinking is thus a history of both the analogies that shape initial understandings of interconnection and the emergence of a dominant understanding of connection as the linking of nodes by conduits.

Broadly speaking, network thinking originates in a series of metaphorical representations in the late 19th and early 20th centuries: first, of the body (the nervous system in particular) as analogous to the telegraph system (Otis, 2011); second, of the mind as analogous to the nervous system (and thus analogous to the telegraph); and, third, of collective entities (social bodies and ecosystems) as analogous to the organic body (and thus analogous to the telegraph system). Thus, the network metaphor was prominent in 19th-century neurology (Otis, 2011) and has been linked to early 20th-century ecology and psychoanalysis (Anker, 2001; Dagg, 2007). Similarly, Social Network Analysis (SNA) traces its ancestry to early 20th-century anthropological and sociological conceptions of social bonds (Freeman, 2004; Knoke, 2014; Scott, 1991). In each case, the network emerges as an answer to the question of how information or energy can be transmitted and have an effect over distance. Whether it is impulses along nerves, the circulation of energy through ecosystems or the communication of ideas in social bodies, the figure of nodes related via conduits — itself an analogy with modern technology such as the telegraph — is used to explain how impulses can be communicated from one part of a system to another. Emerging from this early story of network thinking is the idea that relationality comprises the linking together of discrete entities by conduits along which energy and information is transmitted. Entities are related because they feel the effects of flows transmitted from elsewhere. This metaphor is, therefore, distinctly modern insofar as it understands the network in primarily mechanical terms — the transmission of impulses along wires from node to node to have effects in another part of the system.

As the 20th century developed, this schema for thinking about relationality expanded along with the technologies of modernity. Indeed, the network finds analogies not just in the telegraph, but also in the railway, the telephone, air flight, road systems, streets, sewers and data cables. All are — despite their empirical complexity — effectively hub-and-spoke arrangements of nodes and links. The network thus becomes the dominant way to represent the flows that connect one entity to another. Processes as diverse as the flow of current across wires, the transmission of nerve impulses, data communication and interpersonal relationships are all represented as a node-and-link arrangement. Moreover, while this metaphor originates in an analogy with the large-scale infrastructure of modernity, it is revivified by the advent of globalisation. Representations of globalisation are dominated by the erosion of boundaries. The metaphor of the network is particularly well suited to representing the way in which entities distributed across the globe are linked to one another by conduits that cut across the boundaries of a Westphalian world. As such, the network goes from being a metaphor for the body, system or community, to being a way of seeing the various flows of a global world.

It is this latter stage of the evolution of the network metaphor that I want to focus on in the next section. I want to show how, from cybernetics to SNA, via global political economy, the network transformed from a way to represent the body by analogy with
modern technologies such as the telegraph, to being a way to represent flows on a global scale by analogy with the abstract figure of the node–link diagram. In this way, we can see how the metaphor developed through at least three phases in the latter half of the 20th and early part of the 21st centuries. In the first, we see the metaphor of the network emerge as a way of thinking about the connective infrastructures of both the body and society. Second, in the international political economy of globalisation, this representation of nodes and links is extended to represent transversal flows such as air travel and data transmission. Finally, this representation of interconnection in terms of the channeling of flows through conduits running between, and tying together, nodes is disembedded from geo-spatial coordinates to provide a general methodological principle for understanding relationality in the form of SNA. This is a trajectory that moves from analogous thinking with physical infrastructures to disembedded abstract representation of interconnection in general. This story will show how this trajectory reveals the entailments of network thinking and thus its onto-politics.

Organic and prosthetic analogies in understanding global interconnection

In the post-Second World War period, cybernetics was conceived as an understanding of the manner in which any particular totality is constituted by interconnective information flows along both human and machine pathways. Although not explicitly understood as such, the key entailment of the network metaphor thus emerges in Norbert Wiener’s original formulation of cybernetics, specifically, that wholes are composed of related but distinct components, interconnected by links along which a variety of flows (information, money, people, energy, etc.) are transmitted (Wiener, 1961). Societies are thus, as Karl Deutsch noted in his engagement with the implications of Wiener’s work for understanding international politics, “‘communication grids’ with multiple, interdependent nodes’ (Alker, 2011: 355) and it is only once connected by the pathways of transmission (or feedback for Wiener) that they become what they are.

This analogical relation of the human and the machine central to early theories of cybernetics also resonates in the ‘network fever’ that Mark Wigley has traced in the work of urbanist and architect Constantinos Doxiadis (Wigley, 2001). Wigley argues that Doxiadis’s network thinking should be situated in the context of conversations in the summer of 1963 with Buckminster Fuller and Marshall McLuhan. These conversations were informed by McLuhan’s contention that technology comprises a prosthetic augmentation of human capacities (McLuhan, 1964). Conceived of as prosthesis, technology relocates human capabilities outside the body — voice, for example, is no longer simply a matter of projection of sound begun in the throat of the speaker, but something encoded and decoded by telephone receivers and carried by wires or fibre-optic cables. Conceived of as such, human life becomes enmeshed in a web of intersecting prostheses of which the wires that carry telecommunications and the roads that carry cars are the exemplary instances. As such, the machinic and the organic are not simply used as analogies for one another (as they are in the nervous system–telegraph comparisons); rather, the organic and the machinic come to be hybridised into a general network of communication carrying energy, information, bodies, material and so on.
This vision of networked life rejects the idea of self-contained entities and turns instead to the various ways in which functions are externalised in technological prostheses. For example, as Wigley (2001: 88) notes, Doxiadis’s idea of urban architecture was one in which ‘[b]uildings are but “shells” … [w]hereas buildings house function, networks are pure function … [i]f modern architects are serious in their commitment to function, they will have to reduce their fixation on shells and become responsible for networks’. This externalisation of interconnective dynamics thus valorises the relational links that comprise the network while representing the entities that are connected as mere ‘shells’ that mark the convergence of these links. In different, yet resonant, ways, Wiener, McLuhan and Doxiadis thus establish the network as a conceptual metaphor for thinking about 20th-century society through their representation of social interconnection in terms of machinic and organic interconnection.

**Life in the space of flows: The networked nature of globalisation**

While Wiener and Doxiadis are emblematic of the manner in which machinic analogies were used in the 20th century to explain the relations that constituted subjects and societies, the next phase of network thinking was a product of late 20th-century globalisation. In the last quarter of the 20th century, dynamics of interconnection were perceived to be challenging the boundaries that had defined the state-centric order that had governed much of 20th-century understandings of global politics. As the scope and scale of the Internet, air travel, transnational capital and supranational governance increased, interconnection was elevated to prominence in understanding global political dynamics. Broadly understood under the rubric of globalisation, this understanding of social and political dynamics in terms of infrastructural, informational or economic flows set the scene for the reiteration of the network metaphor. For example, urban political economists such as Saskia Sassen (2001) and Peter J. Taylor (2004) argued that global cities were constituted not by their relation with territorially contiguous regions, but by their interconnection with other global nodes in a ‘world city network’. According to Sassen and Taylor, global cities are linked in circuits of exchange that are constitutive of the character of these urban nodes. Such an understanding of global urban political economy stresses the importance of interconnection and reduces individual cities to nodes or relays in global circuits.

Manuel Castells further developed the notion that the contemporary period is characterised by global interconnection in his account of the ‘network society’. According to Castells (2010: 442), the contemporary period is characterised by ‘flows … sequences of exchange and interaction between physically disjoined positions held by social actors in the economic, political, and symbolic structures of society’. Echoing Doxiadis, Castells (2010: 442–443) argues that in this ‘space of flows’, ‘no place exists by itself, since … positions are defined by the exchanges of flows in the network’. The global network envisaged by Castells is thus a set of nodes linked by flows. Place has no meaning of its own; rather, it gains meaning insofar as it is interconnected in a network. Moreover, the space of flows is one in which contiguity of place is forfeited to the dynamics of connection and exchange that link different nodes together. Flows of interconnection vault between distributed nodes without regard to what lies between. Castells thus paints a
post-territorial vision of space in which the network links various places while rendering others bypassed by, and invisible to (and thus forgotten by), the global circuits of wealth and power. The obvious model for the conceptual metaphor of the network society is air travel or, perhaps better, telecommunications — the latter being a series of discontinuous presences linked by data flows.

The space of flows is the ideal milieu for the emergence of the ‘network enterprise’. Defined in contrast to the hierarchical, industrial corporation and comprised of ‘horizontal networks … interconnected sets of decentralized components … having significant autonomy’ (Duffield, 2002: 154), the network enterprise represents the triumph of flexible accumulation and just-in-time production over Fordist, industrial models. The network enterprise conveys the sense that successful actors in the contemporary period are comprised of distributed, flexible, semi-autonomous entities whose main defining characteristic is their interconnection by flows of information, capital, materials and labour.

**Social networks: Embedding metaphor in method**

Parallel to these representations of the social, economic and technological organisation of the globalised world, the concept of the network has also become a methodological principle for sociological analysis (Freeman, 2011). Indeed, SNA has become a fully fledged methodology for representing social interactions on a number of scales. This marks a phase of network thinking in which the metaphor moves from being a representation of empirical phenomena in terms of conduits and hubs, to being the representation of interconnection in terms of nodes and links as a general, abstract mechanism for thinking about all relationships.

According to Walter Powell (1990), the network was initially used by economists as a critical device to indicate that the spectrum of socio-economic activities was poorly captured by the existing analytic binary of hierarchy and market. Where markets refer to short-term relationships comprising free actors choosing to buy or sell on a per-transaction basis without constraints of external power relations, hierarchies refer to organisations (classically firms, but also states) with well-defined vertical integration designed to formalise long-term, repetitive relationships (Powell, 1990: 300–305). Typically, it has been argued that the ideal-type concepts of market and hierarchy form the poles of a spectrum on which economic exchanges can be positioned. However, Powell (1990: 299) argues that the idea of a spectrum between market and hierarchy ‘fails to capture the complex realities of exchange’. Specifically, Powell argues that there are non-market, non-hierarchical relationships characterised by forms of interconnection that defy vertical integration but permit longer-term relationships — potentially across firms and/or states — than markets allow for. Referring to these relationships as ‘networks’, Powell (1990: 301) argued that they are ‘neither a market transaction, nor a hierarchical governance structure, but a separate, different mode of exchange, one with its own logic’. Powell’s argument is not simply a naming of a new actor or structure, but rather a methodological provocation pointing to a type of relationship that raises novel research questions.

Powell’s argument resonates with the emergence of SNA as a distinct methodology, particularly in sociology. Indeed, Powell’s identification of the network as an actually
existing, but under-researched, aspect of socio-economic life that demands distinctive research approaches is a validation of the central contention of SNA that social relationships comprise a complex set of linked nodes. SNA ‘takes the metaphorical idea of interaction as forming a network of connections and gives this idea a more formal representation in order to model structures of social relations’ (Scott, 2012). SNA has given rise to a number of techniques (and software packages) for visually representing these relationships as a series of lines (or edges) between points of interconnection (nodes, usually represented as spherical). These visual maps resemble complex webs or multiple conjoined hub–spoke models depending on the complexity of the analysis (see, e.g., Easley and Kleinberg, 2010). SNA has thus become a conventional metaphor guiding research into social collectivities — normally organisations — as diverse as cities, governments and terrorists (Giuffré, 2013; Knoke, 2015; Rhodes, 1990). Insofar as it has become a methodological tool, it elides its metaphorical nature — particularly its representation of the world through the hub–spoke model first seen in concepts of the communicative interconnections forged by the telegraph — presenting itself as a simple description of social, economic and political reality.

The network in practice

The network can thus be said to have become a pervasive metaphorical concept in the representation of global politics in the latter part of the 20th century and early part of the 21st century. As representation, it is not simply a post hoc rationalisation of past or present empirical events, but also a prism through which to view the future potentialities and possibilities of global politics. Representation is, therefore, more than simply understanding after the fact; it is constitutive of a conceptual framework that, insofar as it affects thought about the possibilities of the world, also affects action in the world. Indeed, to be thought of as a conventional metaphor, network thinking would have to be not only a category of analysis — as powerful as this might be in establishing the network as an onto-political prism. Rather, it would also have to underpin the thoughts and actions of various actors in global politics. ‘Time is money’ is not just a phrase used by those analysing actors’ behaviour; rather, it is an everyday metaphor underpinning actors’ thoughts and actions. In a similar manner, it is important to show that the network is not simply a category of analysis, but also an everyday concept constitutive of thought and action and thus the practices of global politics. While an exhaustive account of the ways in which the network translates in everyday practices of global politics is not the aim of this article, it is possible to outline several key ways in which the network — and specifically its node–link understanding of relationality and connectivity — has been constitutive of particular practices. Two areas are of particular note: the use of link analyses for security and crime prevention; and the rise of the network as a form of organisation for transnational actors such as the EU or development non-governmental organisations (NGOs).

On the one hand, variants of SNA have been influential in the detection, interdiction and prosecution of perceived threats. The metaphor of the network comprises a representation in and through which it is possible to trace relations of influence as well as identify key agents. As such, it has been incorporated into both security and policing practices. Thus, for example, social network or ‘link’ analysis has been reported to have been the
basis for the identification of targets for drone strikes (Devereaux, 2015; McNeal, 2013),
counter-insurgency doctrine in Iraq and Afghanistan (Knoke, 2013; McChrystal, 2011),
the capture of Saddam Hussein in 2003 (Hougham, 2005; Reed and Segal, 2006) and the
Sri Lankan government assault on Tamil Tiger forces in 2008/09 (Mac Ginty, 2010). Beyond the military domain, SNA has similarly been used for understanding gang activity (Home Office, 2016a). Indeed, the UK Home Office publishes its own ‘How To’ guide to enable officials to use SNA (Home Office, 2016b).

On the other hand, the network metaphor has shaped the emergence of transnational supra- and non-state organisations, such as the European Environment Information and Observation Network or the Sustainable Development Solutions Network. These loose collections of actors are organised in a manner that eschews traditional inter-state relations and cuts across state boundaries (Zito, 2009). The interlinking of nodes in a hub-and-spoke model has been a powerful image in the discourses that have shaped the resulting organisations. Indeed, these organisations are constituted by the idea that the links between nodes can connect the latter without having to obey the traditional strictures of national boundaries, thus surpassing the limits of state governments in an era of — in the case of climate change — global challenges. Moreover, they draw upon the idea that the resulting interlinked entity is both more flexible and wide-ranging than a state — bound as it is to a territory — can ever be. In relation to evolving needs and circumstances, this transnational flexibility is prized.

As such, then, we can see that the network metaphor is not simply a scholarly post hoc rationalisation of empirical events. The representation of interconnection in terms of the relation of nodes via conduits such as wires and/or cables is not simply a way to understand the world. Rather, it shapes the way the world is seen and thus actions in the world. Representing the world as networked impacts on the way in which particular organisations act in the world, particularly the way they identify and prosecute perceived threats or the way they eschew certain relationships in favour of others. In this way, the network becomes not simply an explanatory device, but a conceptual metaphor that shapes thought and action. In other words, the world is not networked per se; rather, representing interconnection in terms of the node-and-conduit structure of modern infrastructures has a particular impact upon thought and action. To understand its impact, we need to investigate the entailments of network thinking.

The entailments of network thinking

The network metaphor contains a set of nested propositions/assumptions about what a network is and the consequences of imagining aspects of the world through this prism. In order to understand the precise nature of this prism — the way it inflects thought and action — we need to examine what Lakoff and Johnson (1980: 457) refer to as the entailment or subcategorisation relationships that are implied in every use of the concept. In the various iterations discussed earlier, we can see four specific entailment relations implicit in the network as conceptual metaphor.

First, networks are defined by relations of connectivity. Broadly speaking, these relations are understood as being like the wires that compose communications infrastructures, implying that the key dynamic in networks is the linking (and thus tying together)
of nodes and the communication (modelled on the transmission of information across telegraph wires as pulses of energy) that such links enable. A correlate of this prioritisation of links is that nodes are understood to have no substantive content. The interconnections of the network are constitutive of the nodes that they connect. The node is treated as a black box with little analytic value. Thus, it is not so much the individual that matters, but how they are related to others. Put differently, an individual node has no specific characteristics or interest for the researcher until they are linked into a network. This is highlighted by policing and intelligence approaches to counterterrorism loosely based on SNA. Agencies usually aim to detect potential threats through a focus on relationships, but if an individual avoids forming relationships, they can remain undetected, as so-called ‘lone wolf’ attacks illustrate.

Second, networks give rise to novel actors. Broadly speaking, these actors are understood to be distributed, non-hierarchical, semi-autonomous entities bound into flexible, strategic relationships. As such, the network metaphor conjures into existence organisations that are defined by, and thus capable of special adaptation to, interconnected milieus. Normatively, this gives rise to the sense both that some actors are more capable than others at capitalising on the dynamics of networking and that networks give rise to particular types of agency. Non-governmental agencies, post-Fordist firms and globalised terror groups have all been thought to fit this description.

Third, the network is post-territorial insofar as it attributes no value to contiguity. Nodes are interconnected without regard for the places that might be in-between, or next to, them. As such, this gives rise to a topology that has no defined volume. Although networks are visualised as having certain dimensions, these are wholly arbitrary. In effect, maps of networks disguise the topological nature of networks by giving nodes apparent spatial positions. However, since the links are the key part of the maps, the placing of nodes is nothing more than a visual convention. Territory in the orthodox geographic and cartographic sense is, therefore, not the measure of the network. What matters in orthodox senses of territoriality is the idea of contiguity. Territory is seen as a series of adjacent places arranged on a planar surface that can be subdivided into containers around subsets of places. However, the network surpasses such senses of territoriality. In networks, nodes are not contiguous and the links between them have no sense of having to cross distance (a series of adjacent places). Indeed, insofar as they are mediated by information technology, they are seen as largely instantaneous and thus distanceless.

Finally, the network metaphor de-emphasises factors arising from contiguity, such as culture and community. According to network methodologies, the node is disembodied from surrounding, contiguous matter and relationships. The surrounding milieu adjacent to a particular entity (person or thing) that gives it a particular meaning can be referred to as either culture or community. Both culture and community establish milieus that communicate, as ‘structures of feeling’ (Williams, 1977), values that inform individual thought and action. Since nodes are constituted by links that disregard contiguity, the milieu in which any given node is embedded is given little analytic value. The network metaphor thus remains largely blind to the constitutive role played by culture or community.

Thus, we can see four nested propositions entailed in the repeated reiteration of the network as metaphor. While each iteration may not entail each proposition equally, taken
together, they form an ontological prism to which each use of the network metaphor more or less approximates. The prism of the network metaphor thus entails an onto-politics: a judgement about the nature of the world and the way in which some entities can be included in a political order and others excluded. The network is thus not merely a descriptive-analytical term, but rather a conventional metaphor that impacts the way we think about and act in (and on) the world.

**The political and ethical consequences of the network metaphor**

The four entailments of the network metaphor have corresponding political and ethical consequences. First, insofar as nodes can be accurately triangulated by their relations to other nodes and yet are disembedded from relations of contiguity, those tasked with interdicting the threat posed by network topologies and actors are tempted to envisage their actions as having effects isolated to individual nodes. If the purpose of interdiction is thus to sever particular relations and affect the capacity of the network, the temptation is to believe that this can be accomplished by the removal of individual nodes. Since such nodes are conceived as having no contiguity with their surrounding environment, it encourages the sense that removal can be done in a precise manner that has little collateral effect outside the relations of the network.

The focus on nodes and their removal leads to a fantasy of precision. This fantasy is predicated on the notion that triangulation accurately identifies the correct target (i.e. the individual or node that, if removed, will disrupt the ability of the network to continue operating). Moreover, insofar as the network metaphor disembeds the node from its contiguous surroundings, it leads to a temptation to believe that the removal of nodes can be done without errors. The focus on nodes thus introduces the idea that with the right knowledge to identify a node in a network, force can be applied precisely to disrupt its links or incapacitate it without any errors or damage to the node’s surroundings. This perception that network analysis allows for the accurate, error-free identification and removal of nodes is, however, a fiction: nodes are embedded in contiguous surroundings — families and communities, for example — and removal often entails significant risk or harm to that which surrounds them. As such, we might say that this perception of precision is a fantasy: an imagining that the impossible — exact, accurate, error-free interdiction — is indeed possible. The obvious consequence of such a fantasy is the aerial targeting and use of guided munitions characteristic of Western warfare in the post-Cold War period.

Second, the novel actors entailed by network thinking give rise to distinctive threats. Thinking about international politics in the contemporary era is often predicated on the assumption of what David Campbell (1998: 17) has referred to as the ‘globalisation of contingency’ or the complexification and/or transgression of existing markers of certainty. In the context of contingency, Campbell (1998: 49) notes, the constitution of identity rests on an ‘evangelism of fear’ — a discursive rendering of the self through the demarcation and defence of its boundaries against that which would threaten its existence. The network contributes to this evangelism of fear insofar as both its interconnective dynamic and organisational form have the potential to challenge existing territorial
orders. As such, when refracted through these discourses of contingency and fear, the
new topologies and actors constituted by the network are also construed as implying
potential new threats. Thus, both terrorism and organised crime have been seen as threats
because of their supposed networked form.

Third, networks have no internal or external boundaries, only more or less effective
relationships. As Barabasi (2002: 30) notes: ‘we live in a small world. Our world is small
because society is a very dense web’. Network thinking thus ‘has the ability endlessly to
generate investigative leads. … Through weak ties and distant connections’ and, as a
consequence, ‘there is no natural outside to the network’ (De Goede, 2012: 228). This
means that networks are, in principle, infinitely extensible. This is a consequence of the
de-territorialising dynamic entailed in network thinking and gives rise to a temptation to
interdict perceived enemies wherever they may be globally (Coward, 2014: 217). Such
temptation dissolves the territorial basis that underpins much of international law with
the effect of, for example, eroding the normative principles designed to contain and/or
ameliorate warfare.

Finally, since the network metaphor de-emphasises the importance of contiguous mat-
ter, as a consequence, it is blind to culture or community. Neither culture nor community
are simply the result of an aggregate set of relations between nodes. Both are taken to
comprise an environment, a structure of feeling (Williams, 1977), in which any given
member is immersed. As such, disembedding nodes from the influence of contiguous
context and defining them simply according to their relations makes network thinking
blind to the cultural and communal factors that play a vital role in informing the behaviour
of both individuals and the collectivities to which they belong. As a consequence, network
thinking finds it hard to understand cultural factors that enable the explanation or under-
standing of actors. Thus, for example, SNA-driven counter-extremism policies focus on
the relationship that actors have, rather than the culture in which they are immersed. As
such, they often fail to understand processes of alienation or the spread of ideas.

The pathologies of sovereignty

The consequence of the onto-politics of network thinking is a pathological sovereignty
that is tempted towards violence by fantasies of precise application of force, unrestrained
by boundaries such as territorial limits and yet incapable of understanding, or intervening
in, the generative dynamics of culture and community. Such sovereignty is pathological
insofar as its behaviour can be said to be extreme or abnormal. In taking network think-
ing to its extreme conclusions, a mode of sovereign decision-making emerges that is
abnormal insofar as it is inured to ethical rules that might otherwise apply.

There are at least three ways in which we can see such pathological sovereignty
in contemporary global politics. First, as the regular killing of civilians in aerial strikes
in Afghanistan and Pakistan show (e.g. Woods, 2013), blindness to contiguity leads
sovereigns to violate the principle of discrimination between combatants and non-
combatants. While the lack of reliable statistics makes the scale of such collateral killing
difficult to ascertain, it is clear that there have been a significant number of deaths as a
consequence of being adjacent to a targeted individual (Columbia Law School, 2012).
These deaths are not accidents of targeting, but a consequence of the focus on nodes in
networks at the expense of those that might be contiguous to these individuals. Thus, for example, taxi driver ‘Mohammad Azam was killed on 21 May while unwittingly taking Taliban leader Mullah Akhtar Mansoor from the Iranian border to Quetta’ (Baloch and Boone, 2016) when he was hit by a missile strike on his passenger.

Second, pathological sovereignty is incapable of an adequate understanding of the generative cultural factors that are a condition of possibility for nodes to join such networks in the first place. Thus, for example, drone crews may spend a significant amount of time watching a particular target. However, they learn very little about the milieu in which that target lives. Indeed, drone crews and the intelligence operations that support them are focused on building up an understanding of patterns of life as opposed to any cultural knowledge. Isolated from the target’s milieu by the lack of an audio feed, and lacking detailed understanding of indigenous language or culture, the crews are focused on identifying and targeting individuals. This is reproduced in other areas of counter-insurgency and counter-radicalisation operations. These operations seek to identify individuals through their links to other individuals without understanding how the milieu in which they are embedded provides part of the explanation of how they might become active in a conflict in the first place. As such, this sovereignty is predisposed to violent and destructive interdiction rather than contextual interventions to dissipate the dynamics that lead to so-called ‘terror networks’ in the first place.

Finally, insofar as networks are taken to have no outside, pathological sovereignty gives rise to the intrusive surveillance revealed by Edward Snowden (Lyon, 2015). This surveillance is predicated on the idea that it is possible to identify the nodes and links that will reveal the deeper organisational relationships of threatening network actors. However, pathological sovereignty is tempted to try and complete its work by a sense of the contemporary informational architecture being amenable to this kind of surveillance — big data can be mined for the relational links that identify nodes. Moreover, the programs designed to amass this information pay no heed to the territorial boundaries that had previously marked the extent of territorial jurisdiction. Such surveillance has passed from simple espionage — which targets state institutions and actors — to unbounded global surveillance designed to trace networks whatever their geo-spatial location.

It is important to note that these behaviours are not simply accidental or aberrant instances where sovereignty has, for some reason, deviated from its normal course of action. Rather, such fantasies of precision, failures to recognise contiguity and temptations to boundless interdiction are the outcome of the way in which network thinking affects sovereignty. The network metaphor thus produces a form of sovereignty that tends towards the kinds of actions described here each and every time. It is in this sense that such sovereignty is pathological — just as disease alters and reconfigures bodily function to produce a pathological state, so network thinking reconfigures sovereignty such that it exhibits these pathological behaviours.

Recognising the role of network thinking in, for example, counterterrorism or surveillance gives greater explanatory purchase on pathological sovereignty than extant paradigms for understanding practices of state sovereignty. For example, the unboundedness of network thinking and its temptation to interdiction explain why, contrary to the expectations of realists, the US has maintained an expansive global presence that ignores principles of proportionality and mutual recognition of sovereignty. Indeed, while it is
possible to explain collateral deaths via a utilitarian — or perhaps proportional — calculus, the expansion of the US drone programme is out of all proportion to the needs of homeland security. Moreover, it fails to respect the principles of sovereign territorial jurisdiction on which the state system was built, reshaping it for the needs of a power guided by the post-territorial vision of network thinking. Similarly, while espionage has long been a feature of inter-state relations, the global surveillance that underpins the link analysis at the heart of contemporary US and UK counterterrorism operations is out of all proportion to inter-state rivalry. No longer focused on understanding perceived competitor states, such surveillance is designed to amass data on entire populations in order to build network diagrams of relations between individuals in order to identify key nodes in threatening organisations.

Moreover, the recognition of network thinking as a conventional metaphor goes beyond constructivist understandings of the ideational frameworks that guide actors in the international arena. Metaphor is more than simply an ideational framework; rather, it is an ontological prism. The network is not, therefore, just a way in which the world is thought about by extant actors in the world; rather, the network is constitutive of the very actors in that world. States do not just see the world ‘as if’ it has nodes and links in it; rather, the world for network thought is made up of nodes and links. As such, constructivism fails to grasp the depth of the ontological (and thus political) character of network thinking. Therefore, in order to understand precisely how pathological sovereignty emerges, it is important to recognise the constitutive role of network thinking.

**Conclusion: Responding to network thinking**

Network thinking — the ubiquitous use of the network metaphor in various representations of the social, economic and political dynamics of the contemporary era — thus entails a pathological sovereignty. There are, of course, many ways in which lives can be violated in contemporary global politics. Network thinking represents only one of these. However, the onto-politics of network thinking generate a distinctively pathological sovereignty — one tempted to boundless interdiction by fantasies of precision fuelled by a blindness to contiguity. Thus, while this pathological sovereignty does not exhaust the various regimes of violence, exclusion and deprivation that characterise contemporary global politics, it does explain a widespread set of pathological, interdictory tendencies of contemporary sovereignty.

Pathological sovereignty is neither an accidental nor consciously malign consequence of network thinking. As I have noted earlier, the entailment relations (or internal logic) of the network metaphor are constitutive of a pathological reconfiguration of sovereignty. Whatever the intent behind individual uses, the network metaphor implies a prioritisation of nodes, de-territorialisation, unboundedness and a blindness to contiguity. This prioritisation of nodes comprises an onto-politics that is always already constitutive of the pathologies of interdiction and blindness to contiguity described earlier. Exposed to network thinking, therefore, sovereignty will always exhibit this pathology, just as the body exposed to the same disease will always exhibit the same symptoms. Thus, it is a case not of separating good uses of the metaphor from bad, but rather of recognising how each and every instance in which global politics is represented in terms of nodes and
linking conduits carries entailments that, insofar as they become conventional, naturalise the onto-politics that underpin pathological sovereignty. Challenging pathological sovereignty requires, therefore, contesting the seeming naturalness of network thinking and reimagining the relationships that it aspires to represent in its various node-relation graphs and maps. Such a challenge requires contesting the network metaphor in all its varied forms and reimagining the varied flows and relations of the contemporary era through a metaphor other than that of the network.

The principle pathology of the network metaphor is the disavowal of contiguity. As I have argued, contiguity can be taken to refer to the cultures and communities from which nodes are disembedded by the network metaphor. Indeed, nodes are an artificial construct produced by highlighting the intersection of two or more relations and stripping out any sense of culture or community in which it might be situated. Yet, cultures and communities are the material and discursive contexts that are constitutive of the relationships traced in a network diagram. Nodes are related because they share common understandings that enable communication or constitute identities with particular dispositions towards one another. The latter is particularly important since the question of how a particular node enters the network is the clearest blind spot for methods such as SNA. While, for example, SNA graphs of relations among a terrorist organisation tell us how communications show joint enterprise, it cannot tell us how each of these nodes became articulated into the network in the first place. Since ‘there is no outside to the network’ (De Goede, 2012), network thinking is unable to think about how nodes transition from outside the network to inclusion in its links. As such, pathological sovereignty is blind to the milieus that are constitutive of the dispositions of the individuals it targets.

Key to contesting network thinking would thus be a conceptual vocabulary that foregrounds the importance of contiguity. To a certain extent, this is what attempts to highlight the collateral effects of drone strikes or the importance of cultural factors in counter-radicalisation seek to achieve. In both cases, there is an attempt to re-contextualise the individual in cultures and communities and ensure that they are understood as more than a node in relays of communication or exchange. However, there is a significant danger that such re-contextualisation might simply be deflected or co-opted by pathological sovereignty.

On the one hand, attempts to highlight the importance of culture or community can be deflected by arguments about the efficacy of network thinking. Indeed, advocates of networked counterterrorism approaches, for example, will argue that the question is not whether their work adequately captures the day-to-day existence of particular communities, but rather whether they can identify relevant targets for intervention. Thus, proponents of network thinking might argue that the node is simply a contentless placeholder designed to simplify complex relations in a way that allows analytic suspension of the noise that characterises everyday life and the foregrounding of particular interactions. Such an analytic suspension of contiguity is, it might be argued, a fiction of sorts that has efficacy. Insofar as this efficacy is the aim, proponents might argue, it is unfair to expect network thinking to provide a rich picture of sociocultural life. As such, proponents might defend network thinking on the basis of a knowing suspension of contiguity for analytic purposes.
This defence echoes with Waltz’s maxim that a theory should be judged on its explanatory power and that the latter is improved by parsimony. Indeed, since theories do not reproduce reality in all its detail, they are parsimonious tools to explain particular events. As such, the question is not what network thinking elides, but whether it has explanatory efficacy (Waltz, 1979). However, this defence of network thinking fails to acknowledge the entailments of its use of this metaphor. The node is not simply a theoretical convenience; rather, it is part of a conventional metaphor with all the onto-political commitments that I have delineated. As such, arguing that the node is simply a theoretical device fails to grasp the way in which it structures thought and affects actions. One might use nodal analysis for purposes of efficacy, therefore, but one has to accept the onto-politics that this entails. As such, arguing for the analytic convenience of nodal analyses elides all the ethical and political questions that my treatment of it as part of a conventional metaphor has raised.

On the other hand, network thinkers can co-opt re-contextualisation in an attempt to move from a thin description of networks to a thicker, more culturally attuned, one. Here, network thinking can be supplemented by paying attention to contextual factors. In some senses, this is what the human terrain programme in Iraq attempted to accomplish: rather than a wholesale re-evaluation of counter-insurgency policy, it aimed to supplement impoverished thinking with attention to social detail. Pathological sovereignty might thus attempt to deflect or co-opt attempts to contest the ethical and political entailments of network thinking.

Contesting network thinking — and, by extension, pathological sovereignty — thus requires thinking beyond the network metaphor. While the very force of my argument precludes thinking outside metaphor itself, it begs the question of whether different metaphors, with different entailment relations, might afford more desirable ethical and political consequences. Recent discussions of assemblage as a theory, concept or principle resonate with the attempt to imagine relationality beyond the network metaphor (see, e.g., Anderson and McFarlane, 2011; Anderson et al, 2012; McFarlane, 2011). At stake here is the manner in which the network is predicated on an understanding of connectivity in terms of a conduit that connects nodes but is disembedded from that which it traverses. In contrast, assemblage theory conceives of the social as a heterogeneous ensemble of contiguous materials. Assemblage is not a tying together, but a putting into contact. As such, the elements of the assemblage are understood as contiguous to one another, not apart in the way that nodes are. In this sense, assemblage theory recognises the contributions of attempts to represent the heterogeneous interconnections of contemporary global politics such as Actor Network Theory, but tries to think beyond the latter’s commitment to the network metaphor.

If we are to challenge network thinking, however, we must go further than simply substituting a metaphor of conjunction for one of connection. Rather, we must show how contiguity might be represented, not as the simple addition of cultural factors to thicken an anaemic network metaphor, but as an integral aspect of an assemblage. One way is to think about culture and community as the atmospheres that suffuse and emanate from assemblages. In this sense, they are not interstitial supplements to nodal constellations, but rather a generative force, which is not simply the missing matter that fills the empty
spaces, but rather the structure of feeling that envelops and animates an assemblage (Adey, 2014).

Thinking beyond the network is thus an important task in an era where relationality at a variety of scales is a defining feature of contemporary politics. Being together via various technologies and infrastructures, sometimes across vast distances, lends itself well to being imagined through the image of nodes interconnected by conduits. The network is thus a powerful, resonant metaphor for the contemporary era. However, this article has challenged the widespread use of the network metaphor as a descriptive term for understanding contemporary international relations. Indeed, I have argued that while we cannot think (or act) without metaphors, we should expose their conceptual entailments to critical scrutiny. If we subject the network metaphor to such scrutiny, we see that its consequences are a pathological sovereignty predicated on fantasies of the precise application of force and blind to the damage it causes to the ordinary lives lived around the nodes it targets.

Thinking beyond the network involves overturning this hub-and-spoke, conduit-based image in favour of metaphors that foreground culture and community, not as a supplement to be added to network graphs, but as something that suffuses and animates the various sprawling assemblages that characterise the social, political and economic dynamics of the contemporary era. In doing so, it is possible to argue for an understanding of global politics that highlights culture and community as constitutive structures of feeling, a richer understanding than the denuded model of the network. Such an understanding of contemporary global politics challenges pathological sovereignty by showing both that contiguity means that violence always has collateral effects and that the cultural and communal atmospheres that animate global politics are an indispensable constituent of any thinking about contemporary social, economic and political dynamics.

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Notes

1. For an example of the topological visualisation of networks, see Krebs (2002).
2. Here, I realise that there is some similarity with Latour’s concept of plasma — ‘that which is not yet formatted, not yet measured, not yet socialised, not yet engaged in metrological
chains’ (Latour, 2005: 244). However, the contiguous discourses and materials I am referring to are not unformatted. For Latour, plasma is the undifferentiated, pluripotential background from which the social emerges in the form of networks. The social is inside the network for Latour and plasma is everything that is simply outside of our experience of the social. However, as I discuss it here, there is much more to the social than can be accounted for in the ‘tiny conduits’ (Latour, 2005: 241) of the network. This is particularly the case for SNA’s impoverished networks composed simply of the intersection of functional relationships such as communication or exchange, stripped as they are of the rich sociality of Latour’s actor-networks.

3. A similar defence has been mounted by Rational Choice theorists in respect of critiques of the sense in which they use the concept of rationality.

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**Author biography**

Dr Martin Coward is a Reader in International Politics at the University of Manchester, UK. He works at the intersection of International Political Theory and Security Studies and is particularly concerned with questions of war, violence, (in)security, identity and community. To date, his research has focused on the conceptual understanding of (in)security and organised violence in an urban context, particularly the ‘urbanisation of security’, attacks on critical infrastructure and urbicide. His current research addresses the political and ethical entailments of the trope of the network, particularly insofar as it legitimates various forms of violence.