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Essai: Is Actor Network Theory Critique?[1]

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Essai: Is Actor Network Theory Critique?

Abstract

In this essai we debate the extent to which Actor Network Theory (ANT) provides a meaningful contribution to the body of critical theories of organization. Critical approaches are commonly associated with a denaturalizing ontology, a reflexive epistemology and an anti-performative politics. In contrast, we suggest that ANT relies on a naturalizing ontology, an un-reflexive epistemology and a performative politics. This does not completely dismiss ANT as a useful approach to studying organizations. It does however question the contribution of ANT to developing a critical theory of organization.

Keywords: Actor Network Theory, critical theory, organization theory.

Introduction

Actor Network Theory (ANT), otherwise known as the sociology of translation, rejects the idea that 'social relations' are independent of the material and natural world (Latour, 2005). The contribution of ANT to organization studies lies in recognising that there is no such thing as a purely social actor or purely social relation (ibid). This contribution is significant in helping to bring the 'missing masses' (Latour, 1992) of non-human actors into the frame - an important and timely move given the influence of the linguistic turn in organization theory.

In this essai, we would like to explore the limits of ANT as a critical theory of organization. Our target is not ANT as an entire body of thought. Rather, we seek to interrogate how ANT has been used in the field of organization studies. ANT has been heralded as a promising direction for developing critical theories of organization after the so-called 'postmodern turn' (Calás and Smirchich 1999). By building on earlier critiques of ANT in organization studies (eg. Bloomfield and Vurdubakis, 1999; MacLean and Hassard, 2004), we argue that while ANT provides a valuable framework for the empirical analysis of the organizing process, it cannot provide a critical account of organization. To do this we draw on the long running debate about 'critique' in organizations studies (eg. Benson, 1977; Stablein and Nord, 1985; Alvesson and Willmott, 1992; Fouriner and Grey, 1999; Thompson, 2004; Grey and Willmott, 2005).

Notwithstanding the significant differences in the debate about 'criticality', some common themes connect the range of theories that generally attract the label 'critical'. According to Fournier and Grey (1999), these include a commitment to ontological denaturalisation, the pursuit of epistemological reflexivity and a politically anti-performative stance. First, denaturalisation involves recognising that the way things are is neither natural nor inevitable and therefore could be otherwise. Second, reflexivity involves rejecting the positivistic assumption that reality exists 'out there' waiting to be captured by the researcher in favour of recognising the role of the analyst in the construction of knowledge. Finally, an anti-performative stance involves moving beyond the sort of means-end rationality that reinforces existing power relations towards considering possibilities for new forms of social order.

Using Fournier and Grey's (1999) framework as a sensitizing heuristic, our aim is to examine the ontological, epistemological and political assumptions that underpin ANT. We argue that ANT is underpinned by ontological realism, epistemological positivism and political conservatism. This means that ANT can provide us with a realist account of the stabilization of networks of human and non-human actors, based on a positive theory of knowledge, and explain how power relations are constructed. While these features offer an important contribution to understanding the process of organizing, we suggest they make ANT less well-equipped for pursuing a critical account of organizations - that is, one which recognises the unfolding nature of reality, considers the limits of knowledge and seeks to challenge structures of domination. By enumerating these limitations, our intention if not to dismiss ANT but rather to invite scholars of organization to use ANT in a more focused and reflexive fashion.

Actor-Networks and Organizations

Organizations, according to ANT, are understood as networks of heterogeneous actors - social, technical, textual, naturally occurring etc - brought together into more or less stable associations or alliances (Law, 1991). The term 'actor' can therefore be used to refer to a person, a plant, a machine, a weather system or a germ. ANT's commitment to 'radical symmetry' involves viewing the power of humans and non-humans as equally uncertain, ambiguous and disputable (Callon, 1986). No agential priority is accorded to the institutional, conceptual, natural or material (Callon and Latour, 1992). A machine can therefore be thought of as having, in principle, the same degree of agency as a person. For example, ANT has been used to analyse how a workplace safety regime is constructed through connections between bureaucratic rules, concrete mixers, workers and inspectors (Gherardi and Nicolini, 2000). Law (1986) calls this process *heterogeneous engineering*. A heterogeneous engineer in a science laboratory, for example, brings together a complex of funding, research articles, scientific equipment, tables, diagrams, charts, research assistants and scientific allies to form a successful research programme (Latour, 1987).

The parallel between the notion of 'heterogeneous engineering' and the concept of 'organizing' makes ANT an understandably attractive theory for scholars of management and organization. Indeed, ANT helps us to understand how relationships

can be organized and stabilized to create a durable and robust network (Callon, 1991). For instance, a new manufacturing system works as long as the employees continue to 'buy in', the technical system continues to operate smoothly and the paperwork continues to flow (Harrisson and Laberge, 2002). However, the actor-network is only stable so long as all human and non-human actors remain faithful to the network. When employees in a manufacturing system withdraw their efforts, for example, the bureaucratic and technical systems begin to clog up (ibid). To ensure actors remain enrolled in a network, heterogeneous engineers seek to 'black box' existing networks (Latour, 1987) by stabilizing (albeit provisionally) the translation, closing controversies and making the cost of alternatives too high (Latour and Woolgar, 1986). For example, a product becomes 'black-boxed' when it moves from being a prototype involving a shifting coalition of actors to being an 'off the shelf' product that is too difficult and costly to modify. According to Latour (1987, 1991), these 'immutable mobiles' enable the forms of control-at-a-distance necessary for large-scale organization, whether in 16th century Portuguese navigation (Law, 1986) or a modern multi-national corporation.

The appeal of ANT to the organization studies community has resulted in a growing body of studies that use ANT to understand phenomena as diverse as professionalism (Dent, 2003), technology (Joerges and Czarniawska, 1998; Munir and Jones, 2004), information technology implementation (Bloomfield and Vurdubakis, 1994; Bloomfield, 1995; Doorewaar and Van Bijsterveld, 2001), anomalies (Bloomfield and Vurdubakis, 1999), consultancy (Bloomfield and Best, 1992; Legge, 2002), communities of practice (Fox, 2000), organizational safety (Gherardi and Nicolini, 2000), knowledge management (Hull, 1999), innovation (Harrisson and Laberge, 2002), economic markets (Callon and Muniesa, 2005), corporate greening (Newton, 2002), academic communities (Hardy, Phillips and Clegg, 2001), power (Clegg, 1989) and organizing in general (Czarniawska and Hernes, 2005). While this body of work is by no means homogenous and various readings of ANT exist within organization studies and elsewhere, the explosion of ANT-inspired studies makes it both timely and fitting to re-assess the contribution of ANT to the study of organization. We do this by analysing the ontological, epistemological and political underpinnings of ANT.

Ontology

Actor Network Theory (ANT) is widely valued for its apparently anti-essentialist or relativist ontology (Lee and Hassard, 1999). ANT seeks to resist explanations that appeal to the essential characteristics of actors, such as technologies (Harrison and Laberge, 2002) or publications (Hardy, Phillips and Clegg, 2001), by exploring how phenomena such as 'environmental crises' (Newton, 2002), or a 'safe workplace' (Gherardi and Nicolini, 2000) are produced through networks of artefacts, people and institutions. The aim is to de-naturalise these phenomena by viewing them as continually made and remade as opposed to existing 'out there' with inherent properties and characteristics.

Despite this avowed anti-essentialism, ANT in fact continues to rely upon the notion of inherent agential capacities when attributing properties to natural and material objects. For example, Grint and Woolgar (1997) expose the technological essentialism in Callon's (1986a) actor-network account of the French electric vehicle project. In attributing the breakdown of the network (at least in part) to the failure of a catalyst within the fuel cells, Callon thereby ascribes inherent properties to the catalyst. Similarly, studies of the financial markets seem to attribute major industry changes to technical inventions such as the stock-market 'ticker' or electronic trading systems (Callon and Muniesa, 2005). ANT therefore relies on the idea that natural objects and man-made artefacts have certain 'real' properties that explain the relative durability or weakness of the network (Mutch, 2002). This leaves ANT closer to the critical realist approach, where the 'content' (Mutch, 2002) or 'affordances' (Hutchby, 2001) of objects such as machines are allocated an explanatory role. From a critical realist position, essentialism allows us to identify the innate properties of an object (Miekle, 1985, Fleetwood, 2002) that explain why objects and artefacts have certain 'effects'.

To be clear, emphasising the social construction of the material world is not to slip into an 'idealist' position that denies the existence of reality beyond our ideas about it. Rather, it is to recognise that attempting to determine the nature of reality is an undecidable and therefore unhelpful task because we do not have unmediated access to reality beyond our historically and culturally-based meanings and distinctions (Tsoukas, 2000). A common counter-argument to this position is to appeal to reality-beyond-construction, such as when a person stumbles over a rock or bangs a fist upon

a table (Edwards, Ashmore and Potter, 1995). The value of anti-essentialism lies in exposing the consensual 'common-sense' that *constructs* the status of these arguments as evidence of the 'real' properties of objects. The table-thumper, for example, relies on the audience accepting that the part of the table hit represents the whole table, enabling instances to stand for categories (other tables and other man-made wood objects), and agreeing that one person's experience is representative of a universal scientific 'fact' (ibid). For the rock-stumbler, the so-called essential properties of the rock are again *achieved* by the story in which they are narrated. What may be simply a 'rock' for the accident-prone stumbler could become re-imagined as a sedimentary layer for a geologist, a precious stone for a jewel miner or an ornamental pebble for a landscape gardener, each with their own definitions of what a rock 'is' and 'does'. Place the same story in a different context and it is transformed from being an unwitting accident into a piece of slapstick entertainment deliberately crafted for the camera (ibid).

Why, then, is this essentialism problematic for organization scholars? By attributing organizational outcomes to the effects of a technology, for instance, ANT is unable to understand how or why the 'same' technology can be interpreted and used in different ways (cf Bijker, Hughes and Pinch, 1987). This requires an explanation of how certain meanings become attributed to objects and artefacts. This includes questions that ANT is not well-equipped to address, such as: Who decides what the content or affordances of a particular technology are? Why does one version come to dominate over others? How are users 'configured' to accept (or otherwise) the preferred reading (cf Woolgar, 1991; Kline and Pinch, 1996)? By reducing organizations to the effects of the essential properties of the non-human world, ANT hinders our ability to examine the stabilisation of an organization as a constructed achievement (Cordella and Shaikh, 2006). By forfeiting this deeper analysis, ANT is left vulnerable to universal statements about the characteristics of objects and artefacts that are abstracted from the context of their development and use. In contrast, careful empirical observation has the potential to reveal the multiplicity of meanings and uses around (seemingly) 'the same' artefact (Bijker, Hughes and Pinch, 1987). While this 'healthy scepticism' has been developed by proponents of ANT within sociology (Michael, 1996; Law and Singleton, 2005), actor-network studies of organization have yet to follow suit. This limitation is significant for organization theorists if we

want the analytical tools to understand how and why technological artefacts can be 'enacted' in different ways in different organizational contexts (Orlikowski, 2000).

As well as vowing to pursue an anti-essentialist project, proponents of ANT often declare their commitment to anti-dualism with regard to the traditional separation of human and non-human. Indeed, one of the central tenets of ANT is that it holds 'no a priori distinction between the social and the technical' (Gherardi and Nicolini, 2000: 334). ANT's ontological equality brings into the frame those actors traditionally left out of social scientific analysis, such as accountancy systems (Quattrone, 2004), water bottles (Czarniawska and Joerges, 1996) and germs (Latour, 1988). Yet by suggesting that it is possible and desirable to distinguish between the human and non-human, albeit only for the purposes of analysis and to demonstrate their interconnection, ANT recreates the dualism it seeks to overcome (Callon and Law, 1997; Bloomfield and Vurdubakis, 1999: 627).

The point missed by ANT is that the separation between human and non-human is neither natural nor inevitable but is instead the outcome of a 'labour of division' (Bloomfield, and Vurdubakis, 1994; Hetherington and Munro, 1997). For instance, we can only identify a technology because we split it off from human actors (Haraway, 1996). To label an activity or object 'technical' is to define particular boundaries and associated moral orders (Rachel and Woolgar, 1995). Within organizations, these categorisations can enact particular allocations of responsibility, resources and rewards (ibid). The divisions relied upon by ANT are therefore taxonomical conventions that accompany institutionalised patterns of categorisation and ordering (Foucault, 1974) as opposed to ontological boundaries between different categories of reality (cf Fleetwood, 2005). While on the one hand ANT stresses that actors do not have fixed boundaries (Callon and Law, 1997), it continues to rely on precisely these assumptions when partitioning of the world into, for instance, hotel managers and guests (people), weighty fobs and keys (material artefacts) and signs (texts) (Latour, 1991).

By dividing the natural and material from the social, ANT is left with the impossible task of trying to gather evidence about the properties of non-human elements without involving human participants: that is, without the aid of respondents or researchers. In

simple terms, if artefacts do not speak for themselves (Grint and Woolgar, 1997) then defining the properties of an object must be a human act (Bloomfield and Vurdubakis, 1994), making the so-called 'non-human' realm in fact fundamentally *social*. The boundary between the human and non-human is therefore an outcome of the boundary-setting practices of the participants *including the ANT analyst*, not the stable starting-point of the analysis (Rachel and Woolgar, 1995). The result is that ANT recreates and reinforces the very dualisms it claims to deconstruct.

In addition to seeking an anti-essentialist and anti-dualistic stance, ANT has also sought to move beyond deterministic models that trace organizational phenomena back to powerful individuals, social structures, hegemonic discourses or technological effects. Rather, ANT prefers to seek out complex patterns of causality rooted in connections between actors - the 'hybrid collectif' (Callon and Law, 1995) - as opposed to the individual nodes in the network (Czarniawska and Joerges, 1996). ANT-inspired organization theorists have tended to focus on how a robust network of actors is constructed and maintained. The assumption is that once an actor-network has become irreversible or 'black boxed' and the passage-points have become 'obligatory', the 'enrolled' are unable to escape the network. For example, once a strong actor network is constructed around a new technology (eg. Bloomfield and Danieli, 1995) or management fashion (Doorewaard and van Bijsterveld, 2001), the possible behaviours of enrolled actors become increasingly delimited. Those translated by the network become functionaries or 'intermediaries without discretion' (Munro, 1999: 433), determined by their position in the network.

By focusing on how actor-networks become determinate and irreversible, ANT studies miss the opportunity to uncover the limits to causality and recognise that relations of power in organizations are, as du Gay (1996) phrased it, 'congenitally failing operations'. The fact that resistance has been documented in most cases of organizational change (eg. Prasad and Prasad, 2000) reminds us that there is always some aspect of the subjects' world that is not translated by an actor network. Power relations are inherently fragile and never completely envelope the subject (Jones and Spicer, 2005). As Knights and McCabe (2000: 426-7) suggest, "power is rarely so exhaustive and totalising as to preclude space for resistance and almost never so coherent as to render resistance unnecessary or ineffective". Indeed, power only exists

to the extent that resistance is possible. In ANT terms, then, we live in a world of 'translators' but not in a world that is 'translated'. 'Centres of discretion' can emerge alongside 'centres of calculation' (Munro, 1999). Networks, and their products, can be re-interpreted long after they are supposedly stabilised.

It is important to note that many of the foundational ANT studies in sociology examined the breakdown or failure of actor networks, including Callon's (1986) study of scallop fishing, Latour's (1996) study of the electric light vehicle project and Law's (2000) work on transitives. Followings these early leads, a few studies have sought to account for the role of resistance to existing actor networks through the formation of 'anti-plans' (Tryggestad, 2005) and 'counter-enrolment' (Vickers and Fox, 2005). However, these accounts of resistance continue to attribute a significant degree of intentionality and rationality to the 'anti-planners' and 'counter-enrollers'. This renders it difficult to account for a) actions that disrupt the network but are not responses to any translation process, b) resistance that is aimed at disrupting translation but ineffective, and c) the unintended effects of translation.

Our discussion calls into question the claim that ANT provides an important contribution to anti-realist theories of organization (Calás and Smirchich, 1999). Despite frequent claims that ANT is anti-essentialist, anti-dualist, and anti-determinist, we have found that ANT actually provides an essentialist account of the capacity of objects and subjects, a dualist division between objects and subjects and has been used to construct deterministic accounts of actor networks. ANT appears to naturalize organizational processes by appealing to innate capacities and characteristics that exist independently of human interpretation, by relying on artificial divisions between the social and natural world and by suggesting that the power of well-engineered networks is total and determinate. This means ANT is unable to develop an account of how the capacities of actors are emergent and interpretively flexible, how the split between humans and non-humans is created in social practice and how actors escape the process of translation. Ultimately, this leaves ANT ill-equipped to pursue an anti-realist project of calling into question or 'denaturalising' the objective nature of social reality (see also: Mutch, 1999).

Epistemology

ANT is often positioned as an approach that embraces epistemological relativism (Law, 1991) and is resolutely reflexive. This is because many of the foundational studies sought to examine empirically how truth was produced (rather than discovered) in scientific work (eg. Latour, 1986). By viewing scientific truth as the outcome of a struggle to construct an actor network that ensures the domination of a particular theory, ANT departs from the positivist assumption that the scientific method is a value-free way of uncovering reality. Hence, ANT is often positioned as a reflexive approach because it rejects the claims to objectivity typical of scientists – or, in the case of organization studies, strategists, accountants, managers etc. Instead, ANT seeks to tease out understandings that actors have of their own lived reality (Latour, 2005) by allowing actors "to define the world in their own terms" (Latour, 1999: 20) and seeking to "struggle against producing its own vision of the world" (Lee and Hassard, 1999: 398).

Following these claims we would expect ANT studies to produce explanations of the world that resonate with those given by local actors. In contrast, most analyses produced by ANT fail to match the kinds of descriptions and explanations that members would provide themselves. For example, few fishermen would be likely to attribute agency to scallops (cf. Callon, 1986), few scientists would agree that their knowledge claims are relative (cf. Latour, 1986) and few financial analysis would be likely to claim that computer systems create the price of equities (cf. Callon and Muniesa, 2005). The gulf between the complex neologisms used by ANT and the terminology used by actors in the field is of course not unique to ANT. However, the agnosticism practiced by ANT means that it risks disregarding the cultural distinctions that are meaningful to members of a given social group.

Whether intentional or not, ANT's ethnocentrism (Bloomfield and Vurdubakis, 1999: 8) implies that it offers a 'superior' or 'expert' view, leaving members explanations regarded as either 'naïve' or 'wrong'. A commitment to understanding and respecting emic meanings, on the other hand, would help to temper the tendency for ANT to be used as a 'grand narrative' (Lee and Brown, 1994). Indeed, scholars of organization would generally expect an in-depth study of an electronics factory, for instance, to reveal some of what the researcher understood to be the meanings and understandings prevalent amongst the factory workers (cf. Harrisson and Laberge, 2002). Moreover,

where ANT succeeds in gaining power over and above these member interpretations, a more reflexive analysis would treat this as an accomplishment that requires explanation. For example, a more rigorous commitment to reflexivity would treat all accounts as in principle equal, including the one produced by the analyst (Alvesson and Sköldberg, 2000).

As well as claiming to understand social life in terms used by members, ANT offers itself as a way of disrupting simple correspondence models of social reality. Indeed, the central contribution of ANT to the sociology of science is the argument that scientific theories do not hold or 'stick' due to their correspondence with nature, as per the positivist tradition. Rather, theories must be made to work – through the construction of a robust network of faithful human and non-human actors (Latour, 1986). However, this worthy critical suspicion does not seem to resonate with ANT itself, which was founded on the premise of a linear model that purports to capture the reality of translation (Cordella and Shaikh, 2006). For instance, Callon's (1986) foundational study of scallop fishing charts the four 'stages' through which the actor network was produced. This four-stage model has then been applied, albeit in slightly modified forms, in an array of subsequent studies (eg. Gherardi and Nicolini, 2000; Hardy, Phillips and Clegg, 2001; Doorewaard and van Bijsterveld, 2001; Harrisson and Laberge, 2002; Legge, 2002; Munir and Jones, 2004).

While Callon's four moments may be a useful interpretation of scallop fishing, it is problematic to assume it can be transported wholesale into other settings such as academic publishing (Hardy, Phillips and Clegg, 2001), management fashions (Doorewaard and van Bijsterveld, 2001) or corporate greening (Newton, 2002). Indeed, the un-reflexive application of the four-stage model to other settings belies a positivistic attempt to verify the universality of Callon's original account (Cordella and Shaikh, 2006). The danger is that studies of organization are reduced to a series of deductive tests that confirm or refute the four-stage model of translation, as opposed to being a process of inductive theory generation theory that is grounded in and emergent from the empirical data. To be clear, our argument is *not* that data can be 'theory free'. Indeed, the generalisation of empirical findings is also a widespread practice amongst organization scholars (including social constructionists) and can produce valuable insights. Our argument is rather that such theory-testing clashes with

ANT's commitment to a 'ruthlessly' empirical approach to studying associations (Latour, 2004a). Subscribing to a four-stage model implies that translation is something that exists 'out there' to be captured and represented by the researcher (Cordella and Shaikh, 2006). An alternative approach, we suggest, is to view the four-stage model as an analytical heuristic or sensitising concept employed by the researcher to make sense of complex observations, without blinding the analyst from the empirical complexity of each individual case. For example, translation could feasibly involve more than just four steps and could be ongoing, iterative, disorderly and disjunctive rather than a linear one-way process.

In addition to claiming to engage members' understandings and develop non-correspondent models of reality, ANT claims to provide the analyst with ready-made reflexivity (Lee and Hassard, 1999) by seeking to explain how heterogeneous engineers *produce* truth through the mobilisation of networks of actors. The argument is that theories do not become accepted because they are 'true', they are 'true' because they become accepted. Indeed, ANT has been used by organization scholars to trace how the production of scientific truth in organisation studies is conditioned by the actor networks in which it is produced (eg. Hardy, Phillips and Clegg, 2001). However, ANT has been less willing to reflect upon its own career as a scientific truth. For example, the history of ANT could be read as a story of journals, courses, research grant, writers and reviewers becoming enrolled into a durable network. ANT has developed its own obligatory passage points, defended itself from rival actor networks and enrolled new academic fields into its network. The popularity of ANT within organization studies (including, one could argue, this essai itself) is testimony to its network-extending effects.

Rather than engaging in the reflexive work of explaining how it produces scientific truths, ANT seems to pursue a paradoxical strategy of claiming that it speaks the truth by revealing what 'actually happens' in the production of scientific knowledge (Law, 2003). Indeed, Latour (2005: 144) urges scholars to "just describe the state of affairs at hand". Accordingly, organization scholars have used ANT to claim to reveal the 'true nature' of information technology projects (Doorewaard & Bijsterveld, 2001), factories (Harrisson and Leberge, 2002), accounting systems (Quattrone, 2004), and knowledge management (Hull, 1999) for example. This 'ontological gerrymandering'

(Woolgar and Pawluch, 1985; Bloomfield and Danieli, 1995) means that ANT treats the truth-claims of others as relative while representing its own findings as the product of absolute truth. As Cordella and Shaikh (2006: 17) argue, ANT sees reality as "emerging out there" in comparison to the interpretive tradition of viewing reality as constructed through processes of interpretation, which include the analyst. The upshot is that ANT exercises a kind of limited reflexivity - it is reflexive about the truth produced by other scientific fields without extending this reflexivity to itself (Alvesson and Sköldberg, 2000). A more rigorously reflexive analysis would recognise the possibility of multiple versions of the process of translation, without assuming that the researcher holds the authoritative 'Gods eye' view (Lee and Brown, 1994).

Despite claims to the contrary, we have argued that ANT fails to provide a thoroughly reflexive theory of knowledge. Proponents of ANT claim that it pursues an engagement with members' local knowledge, rejects the positivistic paradigm and interrogates reflexively the conditions of truth. In contrast we have argued ANT relies on the assumption that social life can be observed objectively by scientists using esoteric concepts, can be understood through a process of scientific verification and can be explained without a reflexive examination of the philosophical and political assumptions that accompany the researcher. While this positivism is not problematic per se, it is problematic insofar as scholars of organization might assume that to adopt ANT is to adopt a 'ready-made' reflexive epistemology. We have suggested that ANT tends to impose its own theoretical lexicon, attempts to verify and generalise a linear model and engages in limited reflexivity about its own claims to truth. What this means for the field of organization studies is that ANT is unable to provide a thoroughly reflexive account of how, as field of knowledge, it is implicated in the production of power/knowledge relationships.

Politics

Alongside claims to having a denaturalizing ontology and a reflexive epistemology, ANT often claims that it pushes forward a radical account of power by recognising the inherently political nature of the most mundane, taken-for-granted and technical decisions (Callon, 1986; Clegg, 1989). For example, ANT studies have shown how apparently objective issues such as scientific truth are the product of ongoing

negotiation and politicking designed to advance the interests of the network-builder (eg. Latour, 1986; Hardy, Phillips and Clegg, 2001). This has led proponents to claim that ANT provides a radical approach to organizational politics that rejects the idea that existing power relationships are natural and just and thereby opens up spaces for seeing and doing things differently.

One of ANT's founding principles was to propose a radical equity of human and non-human actors. The principle of generalised symmetry asserts that the concept of 'actor' should also be extended to non-human actors, such as technological artefacts. This has profound implications for how we conceive of and enact political action. It means asking questions such as: Who are the representatives of non-human actors? What political rights do non-human actors have? What might a parliament of things look like? (see: Latour, 2004). While this attempt to invite non-humans into the polis is a worthy gesture, it runs the risk of displacing the defining human characteristics of the polis as a space of meaningful, purposeful, self-aware and non-repetitive action (Mutch, 2002).

Hannah Arendt (1958) argues that political action is fundamentally non-routine because it involves attempting to bring into being new relations between people. This stands in contrast to the kind of repetitive action characteristic of non-human actors like an automatic door closer (Latour, 1988a), an accounting system (Quattrone 2004), or a concrete mixer (Gherardi and Nicolini 2000). To describe the functional repetition of a material mechanism as 'agency' is more the outcome of ANT's 'anthropomorphisation' (the attribution of human desires and intentions) than a reflection of the action itself. Furthermore, functional repetition of this kind has a tendency to bolster rather than challenge established political structures. By claiming that the repetitive action of an automated system is of the same status as political action, ANT degrades our understanding of action by obscuring the fact that it is only through the intervention of humans that agency - and thus political transformation of social arrangements - can occur. In fact, it is questionable whether acts that do not challenge and question our daily activity actually deserve the name 'action'. For organization scholars in particular, it seems dangerous as well as difficult to attribute the same degree of agency to a door closer and humans in the struggle against institutionalised systems of capitalist domination.

By collapsing human and non-human action, ANT also misses the *meaningful* character of human action (Munir and Jones, 2004: 570). Collins and Yearly (1992) suggest that humans deserve an ontologically distinct category for their ability to use language and other symbolic forms to generate and interpret meaning. This in turn limits the potential of ANT to contribute to our understanding of sense-making, interpretation and narrative (Weick, 1995, Czarniawska, 1997) – key themes in organization studies. It also means that ANT cannot account for *how* and *why* the strategies used to enrol actors tend to differ (Amsterdamska, 1990). For example, why are microbes unlikely to be convinced by the arguments used to enrol funding bodies into the scientist's network, and vice versa? As such, ANT misses the point that the domain of politics is properly reserved for human relations and lacks the conceptual tools to understand how systems of domination might be resisted.

In addition to claiming to provide a radical equalization of agency, ANT also claims to provide a radical account of power. In place of a single dominant social group, ANT claims that power operates in and through a heterogeneous network of people and things (Latour, 2005). For instance, corporate environmental management is understood to occur through the development of a network of technologies, texts, people and institutions (Newton, 2002). Despite the assertion that power is a function of networks rather than actors, the politicians at the centre of most ANT studies are usually portrayed as human agents with a single motive: to rationally pursue their self-interests by building durable networks that bolster their power. For instance, senior managers are seen to enrol various actors to ensure their favoured technological innovation is adopted (Harrisson and Laberge, 2002). Actors are hereby presumed to advance their interests in a Machiavellian manner through the formation of strong alliances (Amsterdamska, 1990).

While this kind of rational interest-seeking motive may be an accurate description in some cases, it misses the opportunity to understand action that does not fit this description. Such Machiavellian assumptions not only leave ANT with an overly rationalistic and cynical understanding of the human actor (Laurier and Philo, 1999) but also incorporate a form of 'ontological gerrymandering' (Woolgar and Pawluch, 1985) about the concepts of interests and motives. For example, Hassard, Law and

Lee (1999) claim that the central motivation for enrollers is to "ensure that participants adhere to the enroller's interests rather than their own" (p. 388). Thus while the enroller is assumed to have a single motive (to construct a durable network) and inherent interests (furthered by the construction of the network), the enrolled are understood to have their interests constructed or 'translated' as they come to see their situation in terms that allies them into the network.

According to this logic, the enroller possesses essential interests, following the humanistic tradition, while the enrolled have their interests translated, in the constructivist tradition. In our view, this is both contradictory and inadequate because it ignores the critical tradition in social science that has interrogated the nature of so-called 'interests' and 'motives'. First, as Willmott (2003: 86) argues, interests can be seen as "recurrently constructed and partially pursued, rather than affirmed and realised as a predetermined, essential destiny". Second, as Scott and Lyman (1968) argue, motives are not an inherent driver of action but rather can be seen as a form of moral storytelling used to anticipate and deflect questioned conduct. In other words, ANT tends to *presume* rather than problematize what motivates an action and what purpose the action serves. This leaves ANT unable to pursue a more 'critical' agenda that moves beyond the assumption that actors possess 'real' interests (along with the assumption that actors' own understandings are merely the expression of 'false consciousness') or 'definite' motives. A more critical approach could, for instance, expose the power at work in the construction of interests, desire and subjectivity (Knights and Willmott, 1989) or reveal the interactional 'work' that is accomplished by the imputation or avowal of motives (Scott and Lyman, 1968). It would also enable us to understand action that appears to be self-defeating, altruistic or even unrelated to any conception of interests.

As well as providing a radicalization of politics and introducing new conceptions of the actor, some more recent variants of ANT seek to provide a normative political position by suggesting that the non-human *should* be brought into the sphere of political deliberation (Latour, 2004a). This, it is argued, would mean a more equal distribution of political rights, opportunities and voice. However, by producing descriptions of existing networks of actors in an apparently neutral, apolitical manner, ANT actually reinforces the state of affairs that it describes. Indeed, Law (2003)

recognises the possibility that ANT simply reproduces rather than challenges the hegemony of the networks they describe. For organization studies, this makes ANT ill-suited to the task of developing political alternatives to the imaginaries of market managerialism (Parker, 2002).

Three further concerns arise from ANT's limited version of politics. First, the focus on translation brings a bias towards the 'victors', which further marginalises the voices of those who find themselves excluded from networks (Leigh-Star, 1991, Lee and Brown, 1994). Second, opting for a flat ontology means that ANT ignores the hierarchical distribution of opportunity (Reed, 1997). The power to translate, it seems, is not evenly distributed. Third, by reducing 'right' to 'might', ANT remains indifferent about the specific *means* through which power is established (Amsterdamska, 1990). For instance, coercion, corruption and intimidation are not distinguished on any normative basis from persuasion, negotiation and reward.

To sum up, our discussion of the political underpinning of ANT questions the assertion that ANT provides a 'radical' political framework. ANT claims to provide a unique normative position by encompassing the non-human realm and a critical stance that exposes the power and politics underlying actor-networks. However, we have argued that ANT actually degrades the meaning of political action by elevating the status of non-human actors, reduces meaningful action to utility maximisation and evades a commitment to emancipation, however local and small-scale. The upshot is that ANT brings with it a tendency to legitimise hegemonic power relations, ignore relations of oppression and sidestep any normative assessment of existing organizational forms. For scholars of organization, then, ANT is limited to the description of surface-level power relations (Winner, 1993) without the ammunition both to construct other possibilities and empower actors to pursue them.

Conclusion

We started this essai by asking what the limitations of ANT might be for developing a critical theory of organization. We noted that ANT claims to provide an ontologically relativist, epistemologically reflexive and politically radical account of organization. Our discussion has suggested that ANT actually tends towards an ontologically realist, epistemologically positivist and politically conservative account of organizing.

For proponents of ANT, the reply to this argument might be 'so what?' We would therefore like to conclude this essai by arguing that these philosophical underpinnings have important implications for what ANT can (and cannot) do for organization studies.

ANT's commitment to realism, positivism and conservatism makes it valuable for the task of conducting detailed empirical studies of organization. Yet these commitments, we suggest, make ANT poorly equipped to address some of the key questions that would enable a critical account of organization. In fact, Bruno Latour (2004a, 2005) has more recently attempted to distance ANT from the idea of critique by arguing that critical theory should be abandoned in favour of the production of detailed descriptions. In his recent 'introduction to actor-network-theory', Latour (2005) argues that ANT is first and foremost a call for close empirical study of associations: 'If I were you, I would abstain from frameworks altogether. Just describe the state of affairs at hand' (Latour, 2005: 144).

In this essai, we have argued that the use of ANT in organization studies fails to contribute to the development of critical approaches to organization. Despite claims to the contrary, we have shown that ANT relies on a naturalizing ontology. This departs from the principle that radical thought must seek to denaturalize social reality. We have also seen that ANT relies on a predominantly un-reflexive epistemology. This departs from the radical principle of being sceptical about claims to knowledge, including claims made by the researcher. Finally, we have argued that ANT relies on a conservative politics. This departs from the radical principle of anti-performative politics aimed at emancipatory social change, however local and small-scale (Stablein and Nord, 1985, Alvesson and Willmott, 1992). Thus, at least according to Fournier and Grey's (1999) definition, ANT falls short of contributing to critical approaches to organization studies.

The criteria constructed by Fournier and Grey (1999) and elaborated in this essai are of course not definitive and also not without their problems (see eg. Thompson et al, 2000, Thompson, 2004). The relativist approach to epistemology/ontology and the critical/emancipatory approach towards politics in particular generate clear tensions. Indeed, these tensions represent an ongoing feature of debates within 'critical'

approaches and are elucidated most clearly in the debate between Parker (1999) and Thompson et al (2000). How can knowledge and reality be doubted while claims are made about the reality of organizational inequalities and injustices? Can relativism be reconciled with concrete plans for alternative arrangements that offer a 'better' way of organizing? Do constructionist and postmodern approaches reduce all voices to mere examples of discourse and lead to moral nihilism? Should we avoid 'performative' engagement or actively seek to construct organizations in a different way? Our aim here is not suggest an alternative grand, all-encompassing theory. If these tensions represent "the burden borne by all critical theorizing" (Knights and Vurdubakis, 1994: 192), they can serve positively to spark a reflexive commitment to resisting excessive claims to emancipation (ibid). We therefore use the critical agenda put forward by Fournier and Grey (1999) not as a final and complete taxonomy for the evaluation of 'criticality', but as a way of scrutinising the assumption that ANT offers a promising avenue for the pursuit of a critical theory of organizations.

To sum up, our argument is not that ANT should be rejected *per se*. ANT is clearly a useful method for understanding how actors are enrolled, how truth claims are constructed and how objects and artefacts enable organized action. Our aim is not to discourage the adoption of ANT in organization studies but rather to encourage those using ANT to be clear about the ontological, epistemology and political commitments it brings with it. This point is particularly important if ANT is to be used in a 'pick and mix' fashion and combined freely with others, such as Foucauldian theory (see for example Newton, 1996; Fox, 2000). Our discussion has shown that these theories may not be as philosophically and politically compatible as first thought. In conclusion, we invite those members of the organization studies communities interested in developing a critical theory of organization to resist translation by Actor Network Theory.

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