Online Research @ Cardiff

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/87220/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

O'Mahoney, Joe ORCID: <https://orcid.org/0000-0003-4040-3894> 2016.
Archetypes of translation: recommendations for dialogue. International Journal of Management Reviews 18 (3) , pp. 333-350. 10.1111/ijmr.12103 file

Publishers page: <http://dx.doi.org/10.1111/ijmr.12103>
<<http://dx.doi.org/10.1111/ijmr.12103>>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies.

See

<http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.

Archetypes of translation: recommendations for engagement

Abstract

This paper reviews 128 works on translation in management studies and identifies four perspectives (diffusion, actor-network theory, Scandinavian Institutionalism, and organisational boundaries) which are argued to be underpinned by four relatively disparate theoretical archetypes (scientism, actualism, social constructivism, and symbolic interactionism). It is argued that, individually, these archetypes possess strengths and weaknesses in understanding translation, yet are relatively incommensurable, which mitigates against inter-perspective dialogue and the insights that this might promote. With illustrations, the paper suggests that the stratified and emergent ontology proposed by critical realism can provide a more inclusive foundation for inter-disciplinary engagement on translation, which combines many strengths and ameliorates several weaknesses of the individual archetypes.

Key words: translation, philosophy, communities of practice, boundary objects, critical realism, Scandinavian Institutionalism, social constructivism, interactionism, actor network theory.

Introduction

Over the last fifteen years, 'translation' has become a popular theoretical device in management and organisation studies for understanding how change is effected through temporal and spatial movement (Czarniawska, 2010; Doorewaard and Van Bijsterveld, 2001; Mueller and Whittle, 2011). Yet, there is considerable variation in what researchers claim translation is and does, in terms of both the object and process of translation (compare, for example Sterling, 2003; Roepke et al., 2000; Bartel and Garud, 2009). Some for example, use

the term metaphorically, as 'translating strategy into practice' (Sterling, 2003: 31); others see translation as creating 'a link that did not exist before' (Bartel and Garud, 2009: 108), and others still take the word to concern the process by which 'actors convince others to join their cause' (Luoma-aho and Paloviita, 2010: 50).

To some extent, this diversity is a strength - certainly, some forms of 'interpretative flexibility' are important in contributing to the spread of ideas (Astley and Zammuto, 1992). Yet, there are also potential disadvantages in different uses of a term: many studies, including those cited above, do not acknowledge alternative interpretations of 'translation'. Without clarifying exactly what is meant, this can cause confusion or misunderstanding concerning exactly what is being argued: in their analysis of re-readings of DiMaggio and Powell's (1983) classic paper, Mizruchi and Fein (1999: 658) argue that disparate interpretations 'do matter....If one fails to consider alternative accounts [this can] not only misrepresent the theory on which one's analysis is based, but also provide a limited and biased picture of the processes one is trying to describe'. Moreover, as those in communication studies have argued, when a word or concept is too strongly embedded in a particular philosophy, discourse or community, it not only becomes difficult for other traditions to engage with the term, but also for researchers within that community to gain novel insights from 'outside' their grouping (Lattuca, 1996).

This paper argues that an important reason for the differences in interpretations of translation is the variety of theoretical archetypes by which they are underpinned. By 'theoretical archetypes' I mean the assumptions which inform the ontological, epistemological, and methodological choices that researchers make (Parker, 1998: 33). These archetypes form guiding principles for researchers rather than strict templates, but provide relatively coherent logics by which the world is understood and described by researchers (Al-Amoudi and O'Mahoney, 2015). Although these archetypes are often implicit rather than explicit, it is often possible to tease out the theoretical assumptions of researchers by exploring their methodologies, language and theory building (for example, O'Mahoney, 2011). These archetypes are important, not only because they tend to inform the 'domain level' theorising and methodologies by which academics conceptualise their fields of study (Fleetwood, 2005) but also because differences in archetypes can lead to

‘social scientists remaining in their methodological and philosophical siloes’ (Kyriakidou and Èzbilgin, 2006: 306). Certainly, in studies of translation, a wide variety of philosophical and methodological traditions are drawn upon, from Latour (1987; 2007) and Sérres (1982), to Strauss (1959) and Blumer (1962), but, as we shall see, what these different foundations mean for translation is not always clear. I therefore seek to answer the following research questions: *What are the theoretical archetypes of studies of translation? What are the consequences of these different archetypes for studies of translation? How can these archetypes of be developed to enhance translation studies?*

To answer these questions 128 articles about translation are reviewed from which three arguments are generated. First, the paper identifies and describes four overlapping theoretical archetypes which underpin different interpretations of translation: the scientism archetype evident in diffusion studies, which tends to count management innovations and correlate this with independent variables such as geography, personal networks or adopter characteristics; the actualist philosophy of Latour’s actor-network theory (ANT) which traces the networks that link and construct empirical events; the social constructivist archetype in ‘Scandinavian Institutionalism’ which emphasises the translation effects of local discourses and micro-politics; and the symbolic interactionist philosophy which underpins inter-group communication across organisational boundaries.

Second, I show that whilst each perspective emphasises something important about translation, each possesses weaknesses that stem from their philosophical assumptions. Moreover, these assumptions mean the archetypes are all but incompatible, and thus often fail to engage with each-other, missing opportunities for a richer and more inclusive understanding of translation in a variety of forms. Finally, the paper points to, and illustrates, the potential of critical realist philosophy as a foundation for more constructive dialogue between archetypes. Critical realism (CR) is based upon an emergent, stratified ontology which accepts epistemological relativism. This foundation allows it to incorporate many of the strengths of the archetypes (e.g. including different theoretical concepts such as discourse, social structure and networks) whilst ameliorating many of their weaknesses. CR, I argue, provides a basis upon which different types of translation might be studied through a

variety of different methods, encourages inter-disciplinary dialogue, and opens possibilities for new research directions.

The paper is structured as follows: after detailing the methods, I review the literature and abduct four philosophical archetypes which underpin different perspectives on translation. It then details each archetype and illustrates how they often mitigate against constructive engagement with other perspectives. Finally, the paper argues that critical realism may offer a more ecumenical ontological foundation for translation studies, and detail three illustrations of critical realism engaging with themes of translation.

Methods

Literature Review

The research undertook a structured literature review (Tranfield et al., 2003) based on ABI/INFORM databases. The review used the search terms 'Translat*' (to cover translation, translating, translate) and 'Manag*' (to cover manager, managing, management) in *Anywhere But Full Text*. This returned 15,081 results, which were narrowed down by limiting the search parameters to scholarly peer-reviewed articles written in management and organisation journals between 1990 and 2014. This left 348 articles for which the title and abstract were read. This review identified and removed articles concerned with translation in a technical sense (e.g. 'the paper was translated into French'; 'foreign currency translation'). Book reviews were also removed from the results. The remaining 156 articles were reviewed in more detail. It became apparent that many (n=83) of the articles used 'translation' only in a colloquial or metaphorical sense - primarily passing statements (usually in the abstract) concerning the importance of 'translating' strategy (or vision or rhetoric) into practice (or action or reality) - these were set aside. This left 73 articles which focused on the translation of management knowledge in various forms.

It later became evident that this 'top down' structured review was not entirely representative of the translation literature, for three reasons. First, because many influential pieces on translation in management studies had been published in books rather than

journals; second because the ABI/INFORM database of management journals excluded some fields which have made important contributions; third, because several pertinent papers did not include the key words 'translat*' or 'manag*' in their title or abstract¹. To ameliorate this, a bottom up 'snowball' search for influential articles was made (Greenhalgh and Peacock, 2005) using a manual search of the bibliographies of the 73 articles to identify other work on translation (which generated 45 new pieces), the recommendations of three seminar audiences (six new pieces) and two reviewers of this paper (four new pieces). In total, this added a further 55 pieces (28 articles and 27 books or chapters) which included the influential edited collection by Czarniawska-Joerges and Sevón (1996) and many articles published in communications journals focused on boundary objects². The full details of these publications may be found in the online version of this article on the publisher's web site.

Analysis

In order to answer the first research question, the 128 publications were coded in three ways (Appendix 1). First, according to their metadata (i.e. date, journal, author etc.). Second, around the statements they made about the process, target and outcome of translation. The latter was achieved by recording instances of *what* was being translated (e.g. material entity; an idea), *how* it was being translated (e.g. by being copied; evolving) and the *outcome*. Similar instances were grouped together and given higher level codes. Third, the theoretical assumptions of the pieces were elicited through in-vivo coding and abduction (O'Mahoney and Vincent, 2014): in most cases, papers were explicit in their assumptions (for example claiming an anti-essentialist position or by citing Latour), and these claims were recorded as in-vivo codes. Where papers were less than explicit, the author undertook abduction (interpreting the assumptions made in the papers with reference to extant literature on social science research and theory³). From this process, four slightly overlapping theoretical

---

¹ I am grateful to an anonymous reviewer for emphasising this point and pointing me in the direction of new material.

² It should be noted that including a bottom-up 'snowballing' approach to a literature review can mean more analyses are included, but the replicability of the study is decreased.

³ The abductive process involves examining the 'most plausible explanation' of why events occur, usually drawing on extant theorising. In this instance, recent social science theory and research texts such as Porpora

archetypes were abducted which accounted for 85% of the publications – the remainder either did not engage sufficiently with theory to be categorised, or overlapped two positions. The overlap generally concerned two areas. Firstly, some papers claimed one position - usually a Latourian-inspired ANT analysis (for example, Lindberg and Czarniawska, 2006; Malsch et al., 2011) but actually performed something else - usually a social constructivist analysis. Secondly, three papers combined Scandinavian Institutional and Organizational Boundaries approaches. For the most part, however, there was a fairly clear distinction between positions that could be seen in the paper's own claims, the terminology used, and authors cited.

(2015) and Al-Amoudi and O'Mahoney (2015) were drawn upon and compared to the assumptions made in the sample to identify the theoretical bases upon which they built.

Figure 1 Coding and Analysis Process

To answer the second question, the papers were examined to see how different theoretical archetypes enabled and constrained the studies in question. This involved a descriptive step examining how the ontology, epistemology and methodology of any archetype were related, and how these influenced the focus of researchers in their analyses. This was achieved by describing how the codes for each archetype were linked with the relevant process, outcome and target of translation. For example, social constructivist studies often expressed anti-essentialist claims to study the discursive translation of management ideas into a local context, often conflating discourse (epistemology) with reality (ontology), and generally using discourse or conversation analysis to study these phenomena.

The final research question was answered in two stages. First, using the outcomes from the second research question, a comparative step examined the differences between the archetypes to explore their similarities and differences. For example, both ANT and diffusion studies prioritised the empirical events that occur, but neither tended to focus upon less visible factors such as communication or discourse, that were prioritised by the other perspectives. Secondly, opportunities for developing and engaging the archetypes were examined abductively in a review of the extant literature on social and organisational

philosophy and theory (e.g. Marxism; Bourdieu; network analysis) with a view to finding theoretical positions that might provide a basis for combining, reconciling or extending the archetypes detailed above. This also involved examining theories that had proved useful in overcoming siloes in other debates. It was through this process that critical realism was identified as having potential to contribute, partially due to its inclusive ontology, but also because elsewhere it had brought disparate perspectives together (e.g. Chouliaraki and Fairclough, 2010; Bentall and Pilgrim, 1999)

In the next section I examine the four overlapping theoretical archetypes in more detail explaining what each means for translation, and the opportunities and limitations of each position.

Archetypes of Translation

Diffusion studies: the archetype of scientism

Statistical studies of the diffusion of management innovations accounted for fourteen of the papers identified in the search. Most of the fourteen texts, reflecting much of the wider work in this area, studied the diffusion of management innovations from a statistical perspective, using ‘extensive’ methods (Sayer, 2010) such as surveys, and often paralleling studies of diffusion in the natural sciences such as pathology, epidemiology or demography (Rahmandad and Sterman, 2008). Studies typically count instances of say, TQM, ISO standards, or BPR, in journals, newspapers or internet searches (e.g. Ehigie and McAndrew, 2005) and correlate their temporal and geographic spread against independent variables such as geography, personal networks, or the characteristics of the adopters (e.g. Ceci and Lubatti, 2012). The innovation itself, generally presented at the population level, is often depicted as, or assumed to be, relatively unchanging. When change to an innovation *does* occur in these articles, it is generally through the evolutionary process of variation, selection, and replication (e.g. Scarbrough et al., 2015). It is in this context of Darwinian or ‘memetic’ evolution, that ‘translation’ is used in this sample, though often in a colloquial or undefined manner (e.g. O’Mahoney, 2007). As noted by others (e.g. Czarniawska, 1998), this form of ‘translation’ concerns changes to the properties of an innovation at a population level as it

diffuses through what is often presented as the rational choices of managers (e.g. Iwai, 1984).

Although there are exceptions (e.g. Rogers, 1995), these studies tend towards what some might call a 'positivist' ontological underpinning. However, as 'positivism' means many things, some have argued that 'adopting this label may embroil us in a distracting debate about which version of positivism we have in mind' (Fleetwood and Hesketh, 2006: 1979), and instead use the word 'scientism' to describe the effort to describe the application of natural science methods to social science. Certainly, the methods used in these papers are empiricist and atomist, focusing on the recording of discrete events, and often assuming a relatively unproblematic correlation between epistemology (data such as citations) and empirical reality. This 'naïve realism' is such that 'the appeal to facts...involves collapsing statements into their referents, thought objects into real objects. It thereby appears to appeal to the facts themselves, the way the world is, in an unmediated fashion' (Sayer, 2010: 42). This perspective also tends to assume a degree of objectivism - an unproblematic match between empirical reality and the reporting of that reality (through surveys or citation counts) to the researcher. Methodologically, the analyses in the sample tend to be based upon statistical regression or correlation analyses, which take the relationship between empirical variables to illustrate generalisable laws that would be expected to apply to other examples of diffusion (for example, Schmittlein and Mahajan, 1982).

For translation, the diffusion framing often implies that change is 'subject to the laws of physics' (Czarniawska, 2012: 12), such that when variables A, B and C are in alignment, an innovation or idea will spread, or be implemented, 'successfully'. For example, Waarts and van Everdingen (2005) argue that national culture – or more precisely, Hofstede's (2001) measures of national culture - 'highly significantly' *explain* variance in the diffusion and adoption of ERP systems, with the generalisation that 'we can safely conclude that national culture does influence the individual adoption decisions of companies' (p.608). Even ignoring the fact that most of Hofstede's measures were taken in 1980 and in this paper are used to explain adoption rates in 1998, there are at least three more issues with the research assumptions in the paper. First is that the proxy measures of ERP diffusion are 'explained' by their correlation to measures of culture. Regardless of the accuracy of both these measures

(and for the latter there is considerable critique) the correlation or relation between two sets of events (reports of ERP and completed questionnaires about culture) are taken to be causal with no understanding of *why* or *how* the two may be related. This form of empiricism can only generate ‘thin’ (Fleetwood and Hesketh, 2010) explanations based upon the conjunction of events rather than an explanation of *why* these events might be related.

Second, this empiricist conception of culture also misses its recursive implications - influencing the (self-reported) categories that are being measured by the authors. For example, if we found that national culture influenced the way people completed questionnaires, or even reported innovations, then the potential of the analysis to achieve its aims is questionable. Absent too is a discussion of reverse causality such that the factors which may be associated with ERP (such as large profitable companies, developed economies, educated managers, neo-liberal governance) may have an impact on culture. Finally, the conception of the individuals implied in this studies (the person that fills out the questionnaire, decides to adopt the innovation, or reports on the innovation) is particularly one-dimensional, or often invisible - it is assumed that the individual acts according to the cultural mores of their society. Such a depiction of culture is an example of what Archer (2000) terms ‘downwards conflation’ – the theoretical derivation of personal characteristics (such as decision-making) from macro-level entities such as culture or social structures. All this is not to say, of course, that regressions are not useful – the paper certainly points to phenomena that are worth further investigation, however, the underpinning empiricism in studies of diffusion means it is often of limited use in *explaining* why an idea or innovation is translated (or otherwise).

Actor Network Theory (ANT): the archetype of actualism

Latourian ANT studies take a very specific approach to translation, which is represented in around 33 articles in our sample.⁴ Here, translation primarily concerns the attempts of actors to change the interests or representations of other actors in order to enrol them into

---

⁴ It should also be noted that a few papers that used translation in the full Latourian sense did so, not for illustration, but for critique (e.g. Letiche and Hagemeijer 2009).

an empirical network (e.g. Luoma-aho and Paloviita, 2010; Greener, 2006). Translation for ANT is profoundly anti-essentialist, acting on empirical relations (seen as temporary 'events') between actors that are accorded properties through these connections (Latour and Woolgar, 1986; Latour, 2007). The ontology of ANT, therefore, is 'proudly' actualist (Harman 2009: 16), rejecting social structures or invisible motivations in favour of highly empiricist commitments to tracing 'what happens' in local contexts (Latour, 1987). Whilst, *ontologically* realist, ANT is epistemologically constructivist (Lee and Hassard, 1999; see also, Elder-Vass, 2008), in that whilst real objects exist 'out there' they come *into* being through the practices of science (Latour and Woolgar, 1986). Indeed, as it is the *network* which lends properties and powers, humans and non-humans are treated *symmetrically*: things are only what they 'come to be in a relational, multiple, fluid, and more or less unordered and indeterminate (set of) specific and provisional practices' (Law and Mol, 2008: 365). For this reason, ANT often de-centres the human from its accounts, and emphasises the agency of 'material actors'.

In our sample, ANT studies used intensive methods such as ethnomethodology (Sayer, 2010) suited to 'following the network'. For translation, this often resulted in an emphasis on *interessment* - the translation and institutionalisation of the interests of actors to enable the spread or implementation of innovations. *Interessment* in our sample primarily concerned the use of rhetoric, persuasion, and argument to shift the interests of actors in order to build alliances that enabled 'successful' implementation of innovations (e.g. Robinson et al., 2010). Often such efforts involved the creation of an 'obligatory point of passage' whereby the representation, and thus construction, of actors is colonised by one group (e.g. Luoma-aho and Paloviita, 2010). Other ANT papers focus on the translation of an entity *through* an actor-network. For example, Sandhu et al. (2008) detail the differentiated translation of a balanced scorecard implementation through a network of human and non-human actors. This approach is consistent with ANT, but focuses not on the establishment of an actor-network, but the subsequent spread of 'tokens' across that network (Latour, 2007).

Following an actor-network, however, requires methods sensitive to chains of empirical instances of translation, often spanning geographical and temporal distance. As such methodological largesse is beyond the scope of many papers, some (e.g. Bruce and Nyland,

2011) focused instead on the translation of agentic interests in enrolling one specific actor. More importantly, however, the ontological strictures of ANT caused many of the reviewed papers to encounter difficulties. Harrison et al. (2002), for example, use ANT to examine a change project at a multinational company. Based on a view of ANT that, 'to obtain the consent of actors and form an alliance with them, their desires and needs must be interpreted', the analysis sought to understand how the innovation was 'presented, discussed and debated' and how the interests of actors were translated using 'appeals, persuasion and use of convincing language' (p.148). To achieve this, the authors highlight how *interessement* was attempted by emphasising messages of job security and higher wages. However, the highly actualist ontology of ANT, which rejects the concept of social structure, results in an analysis which excludes the wider social forces that might play a significant role in understanding the workers' capacity for resistance such as national culture, employment levels, firm ownership, national laws, and class. For example, the ability of, say, migrant workers to resist a change in China (Smith and Pun, 2006) is probably significantly less than the skilled engineers Harrison et al. studied in Canada – yet as the analysis focused solely on how the innovation was presented and debated, we are given little idea of if, and why, this might be the case.

In highlighting the importance of empirical networks in enabling and constructing change, ANT's methodology provides powerful insights into *how* translation happens; However, by rejecting social structures, and the power which this implies, *why* translation happens is often left unanswered⁵ (Elder-Vass, 2008; Porpora, 2005). For example, both Guilloux et al. (2013) and Strong and Letch (2013) use ANT to describe *how* the translations of interests that enabled IT-led change in their cases. Yet, both struggle to explain *why* key actors such as regulators played such a powerful role without recourse to structural explanations. Others, such as Harrison et al. (2002) struggle to restrict their analysis only to actual events, often using emergent concepts such as roles, routines or social structures which Latour explicitly rejects. This limitation is especially evident when seeking to understand the complexities of

---

⁵ This is a tension that Latour embraces and 'very deliberately seeks to elide "how" and "why" questions' Bijker WE and Law J. (1992) *Shaping Technology/building Society: Studies in Sociotechnical Change*, USA: MIT Press.. Yet, clearly the answer to (for example) 'how was TQM implemented?' provides little insight into the question 'why was TQM implemented?'

change in organisations, which are by their nature highly structured and emergent phenomena (Mutch, 2007).

Scandinavian Institutionalism: the archetype of social constructivism

Another common perspective in our sample, with 41 publications, was that of ‘Scandinavian Institutionalism’, a term created by Czarniawska and Sevón (1996). This perspective tends to focus on the local (re)construction or institutionalisation of management innovations or fashions, often through micro-politics or discourse (e.g. Czarniawska, 2012). Whilst many of these pieces claim a Latourian heritage (e.g. Lindberg and Czarniawska, 2006; Malsch et al., 2011) they are actually much closer to social constructivist theorising rejecting empiricism and focusing on the discursive and political re-embedding of knowledge in local contexts. Empirically, some focus on the translation activities of ‘carriers’ of management ideas such as management consultants, publishers, gurus and business schools as they seek to (re)package and sell ideas (e.g. Sahlin-Andersson and Engwall, 2002); whilst others have explored the processes that agents enact when translating, for example the rules that inform ‘editing’ activities when translating ideas into practice (e.g. Morris and Lancaster, 2006). Translation for these writers, therefore, is understood ‘as a process wherein new practices or fashions become institutionalized in different fields at different points of time and space’ (Morris and Lancaster, 2006: 209).

Social constructivism in these papers encompasses a range of approaches but ones which generally adhere to a relativist epistemology which rejects the ‘grand narratives’ or generalisable laws associated with scientism, and suggests that knowledge of an extra-discursive ‘external’ world is not possible, ‘either because it is claimed there is no external reality outside of texts or discourses (strong social constructivism) or because if there is an objective reality, we can know nothing about it (weak social constructivism)’ (O'Mahoney and Vincent, 2014: 724). Here, discourse is emphasised through the inclusion of many social constructivist theorists in these papers, especially Foucault (e.g. Bruce and Nyland, 2011; Mueller and Whittle, 2011; Malsch et al., 2011). Such an inclusion emphasises that it is not just management ideas that are subject to the anti-essentialism of social constructivism: organisations, subjects, and indeed the social world are also subject to the constructive

effects of discourse. As such, Scandinavian Institutionalism often shares implicitly with ANT a commitment to decentring or deconstructing the anthropocentrism of other perspectives.

Using intensive methods suited to identifying and understanding discourses, such as interviewing or discourse analysis, this perspective enabled important insights into translation. For example, understanding management innovations as constructed through local discourses, as well as having constructive effects, calls attention to translation as dependent on the politics and rhetorics of legitimation that actors deploy in organisations (e.g. Czarniawska-Joerges and Sevón, 2005). However, this focus, especially if kept within the bounds of social constructivism, can be limiting as well as enabling. The focus on the local and discursive for example, can miss the non-local, structural and population-level framing of an innovation that can help explain its success or failure (Fleetwood, 2005). For example, Frandsen (2010) when examining the translation of accounting practices to a hospital, show how discourses of accounting ‘discipline’ nurses’ work and ‘create truths about them as individuals and their abilities’ (p.338). Whilst enlightening, this argument misses not only some of the important structural aspects of the case that we discussed regarding ANT (such as unionisation), but its anti-essentialist ontology means that the characteristics of any particular innovation – its price, whether it works, whether it is easy to implement – are sacrificed to the discursive representation of the innovation: such as whether management say it works. Moreover, this anti-essentialism also applies to the nurses themselves whose ‘truths’ are created by the accounting discourse. As many have argued (e.g. Thompson and Ackroyd, 1995; Sayer, 2010) this form of social constructivism makes resistance to these translated ideas difficult to conceptualise as it empties the individual of non-discursive properties.

Organisational Boundaries: the archetype of symbolic interactionism

21 papers from our sample used translation to explore how groups communicate and co-operate across organisational boundaries (Wenger, 1999; Bechky, 2003). Translation, for these papers, is necessary as ‘objects and methods mean different things in different worlds [and] actors are faced with the task of reconciling these meanings if they wish to cooperate’ (Star and Griesemer, 1989: 388). Methodologically, these papers tended towards

interpretivist methods such as ethnography or participant observation, which are suited to understanding the meanings which different communities generate. Empirically, the sample focused on different professional, hierarchical, or occupational 'communities of practice' that have disparate understandings of concepts such as the customer (Sturdy and Fleming, 2003), innovation (Dougherty, 1992) or project deadlines (Yakura, 2002). In the sample, translation often involved 'boundary objects' which provided a basis for communication as they 'inhabit several intersecting social worlds *and* satisfy the informational requirements of each of them' (Star and Griesemer, 1989: 393). Boundary objects might include engineering diagrams (Henderson, 1991), accounting systems (Briers and Chua, 2001) or strategy tools (Spee and Jarzabkowski, 2009). The sample also included work on boundary brokers – usually individuals acting as translators between different communities (e.g. Pawlowski and Robey, 2004) - and common spaces which promote communication between team members (Kellogg et al., 2006).

In contrast to approaches that seek either to atomise or decentre humans, interactionism focuses on the construction of meanings through human relationships and related emergent phenomena such as consciousness and language (Blumer, 1986). Interactionism has its theoretical roots in the American pragmatist tradition (Peirce, 1998) which emphasises an epistemological emphasis on the usefulness of truth statements to the groups using them. The heritage of the 'boundaries' school can be traced through citations in the papers to the symbolic interactionism of Strauss (1959) and Blumer (1962), extending the ethnomethodological approach of Mead and Dewey. Such approaches prioritise rather than decentre the human from their analyses and often imply some form of realism (see, for example, Annels, 2010: 21; Weigert and Gekas, 2003; Denzin, 2008: 53). In our sample, most analyses also implied a realist stance, accepting that things such as roles, production systems, or technology impinged upon social interactions, sense-making and meaning construction. For example, boundary objects were taken to be 'both concrete objects and abstract concepts' (Swan et al., 2007) and were argued to be 'embedded in social structures' (Pawlowski and Robey, 2004). However, the focus of the articles was much less on external realities but on the local construction of shared meaning by different groups, thus, epistemologically, the papers tended towards relativism. As understanding human meanings

is important here, such approaches tended to use methods from ethnomethodology, anthropology, or other in-depth qualitative research.

Empirically, the interactionist research in the sample allowed insights into the processes by which meanings are translated between groups to enable their co-operation, and especially the role of different boundary objects in achieving this. However, the emphasis on the distinct communities of practice within organisations, as opposed to its wider social and cultural context, can mean that important commonalities are over-looked. For example, Bechky (2003), sought to 'link the misunderstandings between engineers, technicians and assemblers on a production floor to their work contexts, and demonstrate how these communities overcome such problems co-creating common ground' (p.312). Her ethnography shows how employees 'demonstrat[ed] that their understanding of a problem could be integrated into the context of other communities' whilst her analysis emphasises that 'the words [of one group] were incomprehensible to those who did not share an understanding of the context of the situation' (p. 317) because 'engineers has a conceptual, schematic understanding... while assemblers has a physical, spatio-temporal one'. Yet, Bechky's analysis, and those of others in the review, tends to neglect the wider context as it fails to include many commonalities of these groups. They are English-speaking - not only from the USA, but, more specifically, Silicon Valley - degree educated and professional, and most likely from a similar class background. Moreover, they are all employed by the same company, and as such are constrained by common social structures, for example, organisational rules, cross-departmental routines and employment contracts. Such commonalities not mean not only that there are many other opportunities for creating shared meanings but also that wider social structures might play an important part in enabling the communicative practices that the paper seeks to highlight.

Table 1   Theories of Translation

Archetype (# of papers)	Underlying theory	Ontological concepts	Epistemological assumptions	Methodological preferences	Translation as...	Human as....	Strengths	Weaknesses
Diffusion (14)	Scientism	Essentialism; Atomism; Naïve realism;	Objectivism	Quantitative extensive methods; regression analysis, correlations;	Spread / evolution of an entities such as innovations in time or space.	Rational decision-makers (often treated as a variables).	Macro-level view; rationality of the agent; evolutionary dynamic.	Confuses survey / citation data with empirical reality; Produces ‘thin’ explanations; Humans excluded or presented as rational actors.
Actor-Network Theory (33)	Actualism	Entities as events; Change through empirical networks; Realist.	Constructivist	Intensive methods; ‘Follow the network’; Ethnomethodology;	Modification of actors interests or representations / passing of ‘tokens’ though a network.	A ‘symmetrical’ actor enacted through the network.	Empirical networks; De-centres the human; Agency of the material; Obligatory points of passage.	Treats humans as equivalent to non-humans; Difficulty with ‘why’ questions; Excludes non-empirics (e.g. motivations; interests; structures)
Scandinavian Institutionalism (41)	Social constructivism	Discourse; anti-essentialism;	Relativism	Intensive methods; Discourse analysis; Deconstruction; Interviewing;	The local re-embedding and (re)construction of management knowledge	Constructed and constructing subjects	The socially constructed nature of innovations; micro-level politics.	Focus on the local can miss the wider macro-level view; Focus on discourse means structure and the material get ignored; Difficulties conceptualising resistance.
Organisational Boundaries (21)	Symbolic interactionism	Realism; Communicative relationality; Construction of meaning.	Relativism; Pragmatism;	Interpretivist intensive methods (e.g. anthropology; ethnography)	Construction of meanings between groups through boundary-spanning / boundary-objects	The focus for generating communication, meaning and understanding	Boundaries; Inter-group communication ; The power of objects in enabling co-operation;	Ignores commonalities from wider social & cultural context; Tends to under-play social structures (e.g. rules; routines; roles)

The ontological origins of archetypal difficulties

The limitations of each archetype detailed above originate, I argue, from the ontological and epistemological principles of each archetype which not only limit their methodological power, but also their ability to engage with each-other. The naïve realism of scientism which equates epistemology with ontology means that, for many diffusion studies, explanations only come in the form of statistical correlations (Fleetwood and Hesketh, 2010; Lawson, 2003). The actualist ontology and constructionist epistemology of ANT denies any reality other than events and their relations, and treat all actors as 'symmetrical'. This means that the translation of actors' interests can only be explained with reference to their actions rather than their thoughts, interests, identities or motivations (McLean and Hassard, 2004). The anti-essentialist ontology and constructivist epistemology of the Scandinavian Institutionalists means that non-discursive factors get downplayed and the potential of workers to resist the translations of managers and consultants are often ignored (Fleetwood and Ackroyd 2004). Finally, the relativism inherent in symbolic interactionism and its focus on communication, means that it is often overly focused on the 'micro-level' and misses the macro-level structures that can influence the ability of groups to communicate (Porpora, 2015).

One consequence of these ontological strictures is that in our sample, there were few examples of papers in one archetype citing those from another. As researchers from each tradition come to a problem with an *a priori* assumption of what exists, how it can be known, and what, for example, humans are, it is perhaps not surprising that inter-archetype engagement is rare. These siloes matter because they have resulted in a 'colonisation' of translation types by archetype: evolutionary or population-level forms of translation are the domain of scientism, the translation of actors' interests is dominated by actor-network theorists, the translation of management ideas into local contexts is primarily undertaken by social constructivists, and the translation of meanings across disparate groups seeking to co-operate is colonised by interactionists. As Joseph and Roberts (2003) note, philosophical incommensurability can mean some perspectives miss out on important or useful analytical insights that their own perspective cannot provide.

The potential of critical realism

As critical realism has been used elsewhere to provide a foundation for ontological dialogue (e.g. Chouliaraki and Fairclough, 2010; Bentall and Pilgrim, 1999), we explore its potential to act in a similar manner here. Critical realism (CR) is an ontology which holds that reality at exists at different emergent 'levels' which are dependent upon, but irreducible to each-other (for example, atoms, cells, organisms, minds, teams, organisations, society). It argues that reality is stratified, and distinguishes between the real (underlying causal mechanisms), the actual (empirical epiphenomena) and the empirical (perceptions of the actual). It therefore distinguishes between the 'transitive' (our theories and talk about the world) and the 'intransitive' (the world itself). Whilst CR is ontologically realist, it is epistemologically relativist, but with a commitment towards judgemental rationality (the ability to judge between better and worse theories about the world). CR holds that entities (e.g. organisations, ideas, money) have properties and powers (e.g. to employ, to change behaviours, to purchase) which affect other entities, and exist independently of our talk about them. Moreover, we should note that with reference to methodology and 'domain level theory' (i.e. theorising at a field or subject matter level), CR is quite ecumenical: 'there are no specifically CR methods of research....there is a valid and important place for all the methods sociologists have employed - although not necessarily in the way they have employed them' (Porpora 2015: 63).

CR theorising is useful for translation theory because it helps integrate the strengths of our different archetypes whilst ameliorating the weaknesses. If we take the strengths first, we can see from Table 2, that each strength (taken from Table 1) relates to a different theoretical aspect of critical realism with which it can engage.

Table 2   The possibilities of CR for engaging the strengths of translation archetypes

Archetype (underlying theory)	Archetypal Strengths	Theory category	Critical realist engagement
Diffusion (Scientism)	Macro-level view	Emergent levels	Emergence accepts the population view of ideas / innovations, and, suggests these are dependent on but irreducible to individual instances.
	Rationality of the agent	People & relations	People are entities that possess a number of properties and powers, one of which is rationality (e.g. Archer, 2000)
	Evolutionary dynamic	Domain level theory	CR is agnostic to domain level theorising providing there is sufficient evidence to generate the theory.
Actor-Network Theory (Actualism)	Empirical networks	Stratified ontology	The empirical networks in ANT are, for CR, the domain of the ‘actual’.
	De-centres the human	People & relations	CR promotes a complex view of the human as emergent (cells, organs, minds, action, rationality etc.).
	Agency of the material	Entities, Powers & Mechanisms	As above, CR accepts that material entities have powers and properties.
	Obligatory points of passage	Domain level theory	CR is agnostic to domain level theorising providing there is sufficient evidence to generate the theory.
Scandinavian Institutionalism (Social constructivism)	The socially constructed nature of innovations	Transitive vs. Intransitive	CR accepts that ideas and innovations are partially, but not entirely socially constructed. CR would also argue that ideas have a material and structural nature (Porpora 2015).
	Micro-level politics	Emergent levels	CR accepts the local, micro-level politics whereby ideas are negotiated. However, it would also add that these activities (re)produce structural relations (e.g. of power).
Organisational Boundaries (Symbolic interactionism)	Boundaries	Domain level theory	CR is agnostic to domain level theorising providing there is sufficient evidence to generate the theory.
	Interactions between different groups	People & relations	CR holds that relationality is a key emergent property of people and groups. This includes discursive, structural and material interactions (Donati and Archer, 2015).
	The power of objects in enabling co-operation	Entities, Powers & Mechanisms	CR accepts both the (intransigent) material reality of objects, and the properties and powers that this implies, as well as the (transigent) shared discourses and theories by which these objects are understood.

Here, we can see that CR's proposition of reality existing at different emergent levels allows its acceptance of macro-level entities such as social structures and populations of management ideas / innovations, as well as micro-level entities such as people, identities, and actions. Its commitment to a stratified ontology means that it accepts the domain of the actual favoured by scientism and ANT, but also the 'empirical' domain of discourse and communication. Moreover, CR's conception of people accepts the powers of agency suggested by ANT, but also the potential to be rational suggested by scientism. Yet CR also accepts that what *appears* rational to people is affected by discourse, culture and communication (Archer, 2000). Finally, we should note the agnosticism CR has for methodology and domain-level theorising: unlike the other archetypes, CR does not have a preference for any specific approach to studying or theorising translation. Thus, CR can integrate at least some of the strengths of the different archetypes.

Concerning the weaknesses in the four archetypes (taken from Table 1), these can be grouped into five areas which CR addresses (Table 3). The first concerns a reductionist ontology which accepts only one form of reality. For ANT and diffusion studies, this is the empirical actor-network, whereas for social constructivism, it is discourse⁶. The critical realist commitments to an emergent ontology, to entities (with properties) and to causal mechanisms, means that discourse, events, materiality, people and relations are all ontologically permissible but *not* conflated. The second, is the exclusion of either a micro (diffusion studies) or macro (ANT, Scandinavian institutionalism, organisation boundaries) view on reality. As we saw earlier, both are important in understanding the processes of translation. For CR, the macro and micro are not conflated, but are mutually dependent (for example, actors are distinct from, but reproduce, social structures). The third, related to the first two, is an inadequate conceptualisation of humans, which are either ignored or reduced to a single phenomenon such as action (ANT), rationality (diffusion) or discourse (Scandinavian institutionalism). By committing to emergence, CR accepts that humans are

---

⁶ This statement is subject to an ongoing debate concerning the ontological commitments of social constructivism (e.g. Fleetwood 2005). My simplified position on this is that if an author acknowledges the influence of an extra-discursive realm, they commit to some form of realism, and the onus is on them to be as precise as possible as to these commitments.

multi-layered complex entities, with properties and powers that cannot be reduced to one dimension.

The fourth is that by failing to distinguish between epistemology and ontology both Scandinavian institutionalism and scientism generate ‘flat’ views of the world which struggle to find an explanation for why change occurs in their measures (either discourse or statistics) other than by referencing back to those entities. By making a distinction between the two, CR can not only posit that changes to discourse or statistics occur because of change at the level of the real, but also that our discourses or statistics may be mistaken or simply wrong. Explanation for CR comes from generating approximations of the causal mechanisms that exist through retroduction and abduction. This provides critical realism with the capacity to provide richer explanations of *why* empirical events occur without resorting to mere correlations or descriptions, our last issue.

Table 3: Categorising the weaknesses of translation archetypes

Archetype (underlying theory)	Weaknesses	Problem category
Diffusion (Scientism)	Confuses survey / citation data with empirical reality;	No distinction between epistemology and ontology
	Produces ‘thin’ explanations	Lack of explanatory power
	Humans excluded or presented as rational actors.	Limited conception of humans
Actor-Network Theory (Actualism)	Treats humans as equivalent to non-humans	Limited conception of humans
	Difficulty with ‘why’ questions	Lack of explanatory power
	Excludes non-empirics	Reductionist / conflationary ontology
Scandinavian Institutionalism (Social constructivism)	Focus on the local can miss the wider macro-level view;	Reductionist / conflationary ontology
	Focus on discourse means structure and the material gets ignored	No distinction between epistemology and ontology
	Difficulties conceptualising resistance.	Limited conception of humans

Organisational Boundaries (Symbolic interactionism)	Ignores commonalities from wider context;	View limited only to the micro-level
	Tends to under-play social structures	View limited only to the micro-level

Yet, the inclusiveness of critical realism should not be seen as a mere umbrella term or a garbage bin. CR's ontology allows it to accept entities and processes from a variety of other perspectives, but it insists that none of these are adequate by themselves – that an answer to *why* things are translated necessitates a multi-level, non-conflationary answer. Such a statement prompts us to explore what form a CR approach to translation might take.

What might a critical realist approach to translation look like?

If we examine the CR's claims detailed above, we can see that these can generate questions for the different archetypes with which they may traditionally struggle (Table 4).

Table 4   **Examples of critical realist questions for the archetypes of translation**

Archetype (underlying theory)	CR Commitments		
	Stratification (transitive / intransitive)	Complex view of the human	Emergence, Entities and properties
Diffusion (scientism)	Why do different instances of translation vary? How is the <i>name</i> of different innovations understood differently in different contexts? What <i>causes</i> the claimed correlations? What factors inhibit and enable these?	What role does human agency have in mediating observed correlations? How do humans which contribute to the study (e.g. by completing questionnaires) vary?	What is the thing that is being diffused / evolved / translated? What are its properties and how are these changed when it is diffused?
ANT (actualism)	Why do actors involved in translation act the way they do? How does power influence the process of translation? What causes translation to occur?	In what ways does human agency differ to that of non-humans in the translation process? Prior to their translation, how are human interests formed?	What is the thing being translated? How and why does it change when it is moved over a network?
Scandinavian institutionalism (social constructivism)	What are the non-discursive factors that are important in the case? What contextual factors allow discourses to act the way they do? What wider social and structural factors that contribute to translation?	What role does the human play in translation? What powers does this role entail and upon what are these dependent? How do workers resist the translation activities of managers?	Is the thing being translated entirely discursive? Does it have any (e.g. material, structural or psychological) pre-conditions or dependencies?
Organisational boundaries (symbolic interactionism)	What social, cultural and organisational mechanisms enable and inhibit the ability of groups to communicate and translate?	What properties of humans and groups enable and constrain communication? Why are some humans better than others at communication?	What are the ontological properties of a boundary object? How do these change over time? Upon what are they dependent?

These questions are, of course, not necessarily ones that have not been asked (or indeed, answered) by the different archetypes. However, they emerge from CRs stratified and emergent ontology and challenge the archetypes to be more explicit about their theoretical

assumptions. It is important to note that CR does not question the focus of, or even the arguments made by, these archetypes. Rather it questions the ontology and epistemology of translation: what is the thing being translated? What are its properties and which of these change? What causes these changes to occur? What are the possibilities and limits of the translation process – and how are these known? These both challenge the archetypes to ask *what makes a difference?* Rather than starting with an *a priori* answer (i.e. discourse, communication or networks), and also encourage a greater variety of methods to provide insights into a number of potential causal factors, not simply those that are traditionally important within that archetype. In order to achieve these, a CR methodology seeks to use data that is suitable for the research question rather than start with specific methods (O'Mahoney and Vincent, 2014). Such methodological pluralism can incorporate material, discursive and communicative aspects of translation at different levels, enabling for example, a management ideas which is not only sensitive to the micro-politics of the company which seeks to appropriate them, but crucially how these are inter-related with the structural socio-economic context in which that company is embedded. This is achieved, in CR, through retroduction and abduction, which allows the 'best guess' the causes of the events that are researched.

Below, I provide three differing examples of how this might work in practice. An illustration of the potential of CR to engage disparate traditions is provided by Ocasio et al. (2015). They explicitly use CR in arguing that translation is one of four causal mechanisms 'that shape the constitution of institutional logics'. They show that translation enables narratives to 'establish linkages across local practices that either reproduce or challenge....existing logics' (p.32). The stratification and emergence in CR allows their theorisation that 'although institutional logics scale up and thereby emerge from situated communicative events distributed throughout organizations and institutional fields, they have an ontological reality distinct from communication' (p.30). Crucially for the authors, CR allows 'practices', 'narratives' and 'sense-giving' to be distinguished and causally linked but without conflation – concepts, as we have seen, that tend to be embedded in social constructivism, symbolic interactionism, and actualism. The integration of these disparate ontological phenomena within a CR framing provides an illustration of the potential for a similar project for

translation that may combine but not conflate discourses, events, sense-making and social structures.

An empirical example is provided by Ferner et al. (2012) who take a critical realist approach to theorising how different forms of power inform the cross-national spread of employment practices in multi-nationals – but avoid using the term ‘translation’. Crucially, their literature review does not focus only on one form of translation but provides a multi-level, contingent and historical overview of the transfer of practices by multi-nationals. This allows a view of translation which is contingent rather than prescriptive: ‘transfer is not an either/or issue; there may be degrees of transfer. The transferred practice may be modified in the course of implementation, or it may be ‘hybridized’, that is, combined with host practices. The paper then goes on to detail what this contingency depends upon. Moreover, the stratified ontology of CR allows a multi-dimensional view of the key causal mechanism (power) which includes resource, process and discursive formations, operating at a macro-institutional and micro-organisational level. Their analysis can be seen to incorporate dimensions from ANT (in the importance of actors’ interests in shaping management practices), Scandinavian Intuitionism (in how discursive power has effects on transfer), and interactionism (showing how meanings ‘collide’, and are negotiated between headquarters and subsidiaries). Again, the integrative capacity of CR is emphasised.

Finally, for an example of how critical realism might augment a quantitative approach to understanding management innovations, we can examine the Workplace Employment Relations Survey (Kersley et al., 2013) which has been undertaken six times since 1980 in an attempt to trace changes in HR practices in the UK. Although the central methodological feature of the projects is a survey of HR practices, the design of the research is aimed at understanding the empirical reality of workplace practices and why they change. Concerning the first aim, the self-completion survey of HR directors is supplemented with face-to-face interviews to ensure that the categories are well understood. This is in contrast to many surveys which assume that diverse respondents understand a phrase the same way. Aware of the slippage between ontology and epistemology, especially when the latter is framed from a position of power, researchers also interview union representatives, and a sample of up to 25 employees at each workplace. This methodological sensitivity allows the

researchers to distinguish between epistemology and ontology, for example, that whilst HR Directors frequently state that team-working is commonplace, it is rarely the case in practice (Collinson et al., 1998). Finally, we can emphasise that the analyses of the results combine descriptive statistics (avoiding regression analyses) with retroduction and abduction to argue that changes in the adoption and implementation of management ideas is contingent not only on macro-level mechanisms, such as the state of the economy, union representation, and forms of employment (Wanrooy et al., 2013) but also micro-level factors such as leadership and management skills (Whitfield, 2000).

In these examples, the ontological commitments of critical realism to stratification and emergence enable a wider and more inclusive forms of analysis. This allows, not only an inclusion of different types of translation (interests, ideas, populations, meanings) through a variety of methods (surveys, interviews, case-studies, ethnographies), but also using a variety of analytical themes working at macro-, meso-, and micro-levels.

Conclusion

This paper has argued that there are four meanings underpinning ‘translation’ in the management literature, each based upon relatively distinct theoretical archetypes. The incommensurate assumptions of these positions means that potential insights from alternative traditions are often overlooked. Further, the paper has argued that as an emergent, stratified and non-conflationary philosophy, critical realism can provide a foundation which accepts, and does not conflate, insights from the four archetypes whilst overcoming some of their weaknesses. For translation theory, this is important for three reasons. Firstly, because it clarifies extant theorising on translation, identifying common ontological, epistemological and methodological groupings in the literature, and identifying their strengths and limitations. Second, because the proposal to use CR allows different forms of translation to be included in the same analysis, and for different perspectives to be included to generate insights. This enables possibilities for greater engagement between disparate traditions. Finally, because this more ecumenical underpinning means that authors are less likely to transgress the philosophical position they claimed: network analysts may

legitimately may talk of roles or routines and discourse theorists of social structures and objects.

There are limitations to this analysis which may prompt further research. First, it should not be assumed that CR provides any panacea for philosophical incommensurability, for it is itself an evolving, and often difficult philosophy, and one which has received some criticism (e.g. Parker, 1998). It may be useful to undertake an empirical 'stress-test' of CR in relation to different forms of translation to ascertain if its theoretical promise is fulfilled. Moreover, as CR is a relatively nascent project, especially in this field, I would urge CR theorists to engage in empirical studies of translation and its causes. Nor should it be assumed that CR is the only ontology that may offer novel theoretical insights into translation, there are several theoretical perspectives in the philosophical literature which may have promise for developing our understanding of translation, for example negative ontologies, sociomateriality, and postcolonialism. Finally, it should be noted that the proposal of using CR as the basis of greater engagement may not appeal to purists in any of the theoretical positions that have been described. For these, there is perhaps a challenge to respond to the critiques detailed in this paper to develop their positions in creating a more inclusive basis for future translation studies.

Appendix 1 Coding Structure

1. Important cited authors	Czarniawska; Callon; Latour; Bechky; Hargadon; Sutton; Boje; Schultz; Giddens; Bourdieu; Sérres; Foucault; Harré; Potter; Letiche; Rorty; Weick; Berger & Luckmann; Durkheim; Archer; Wittgenstein; Goffman; Garfinkel; Searle; Rescher; Carlile; Strauss.
2. Process of translation	Transformative translation (i.e. one entity or population is changed) Mimetic translation (i.e. one entity is copied, but changed) State translation (i.e. one entity's state is changed) e.g. rhetoric into reality Interest translation (i.e. one entity's interests are changed) Representation translation (i.e. one entity defines / speaks for another) Meaning translation (i.e. the meaning of one entity is changed, but it is assumed that non-discursive elements do not change) Evolution (i.e. change through replication, selection and reproduction) Other / ambiguous
3. Outcome of translation	The original entity is (un)changed by the translation A copy of the entity is (un)changed by the translation The translator is (un)changed by the translation The translated entity is (un)changed by the translation The network / sociality is (un)changed by the translation Translation as implementation (e.g. of strategy into practice) The population changes or evolves. Other / ambiguous
4. Target of translation	Material entity; idea; actant; meaning (only); meaning (all); interests; spokesperson; actor; population / evolution.
5. Theoretical assumptions	Essentialism; anti-essentialism; Constructionism; Constructivism; Discourse; Processual; Human interaction; sense-making; meaning-making; Emergence; Actualism; structuralism; post-structuralism; epistemological relativism; positivism; empiricism; stratification; open-systems; closed-systems; experimentation; complexity; systems / systemic; meaning-making; socio-materiality; statistical modelling; absence; social structure; agency / actors; interpretivism; subjectivism, objectivism; realism; open systems; closed systems; extensive / intensive methods.

References

- Al-Amoudi I and O'Mahoney J. (2015) Ontology: Philosophical discussions and implications for organization studies. In: Willmott H, Mir W and Greenwood M (eds) *Routledge Companion to Philosophy in Organization Studies*. London: Routledge, 1-26.
- Annels M. (2010) Grounded theory method. In: Atkinson P and Delamont S (eds) *SAGE Qualitative Research Methods*. London: Sage, 13-27.
- Archer MS. (2000) Being Human: The Problem of Agency. 42: 323.
- Astley WG and Zammuto RF. (1992) Organization science, managers, and language games. *Organization Science* 3: 443-460.
- Bartel CA and Garud R. (2009) The Role of Narratives in Sustaining Organizational Innovation. *Organization Science* 20: 107-117,273-274.
- Bechky BA. (2003) Sharing meaning across occupational communities: The transformation of understanding on a production floor. *Organization Science* 14: 312-330.
- Bentall D and Pilgrim R. (1999) The medicalisation of misery: A critical realist analysis of the concept of depression. *Journal of mental health* 8: 261-274.
- Bijker WE and Law J. (1992) *Shaping Technology/building Society: Studies in Sociotechnical Change*, USA: MIT Press.
- Blumer H. (1962) Society as Symbolic Interaction. In: Rose A (ed) *Human Behavior and Social Process: An Interactionist Approach*. New York: Houghton-Mifflin, 62-98.
- Blumer H. (1986) *Symbolic Interactionism: Perspective and Method*: University of California Press.
- Briers M and Chua WF. (2001) The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society* 26: 237-269.
- Bruce K and Nyland C. (2011) Elton Mayo and the Deification of Human Relations. *Organization Studies* 32: 383-405.
- Ceci F and Iubatti D. (2012) Personal relationships and innovation diffusion in SME networks: A content analysis approach. *Research Policy* 41: 565-579.
- Chouliaraki L and Fairclough N. (2010) Critical Discourse Analysis in Organizational Studies: Towards an Integrationist Methodology. *Journal of Management Studies* 47: 1213-1218.
- Collinson M, Rees C, Edwards PK, et al. (1998) *Involving Employees in Total Quality Management: Employee Attitudes and Organisational Context in Unionised Environments*: Department of Trade and Industry London.
- Czarniawska-Joerges B and Sevón G. (1996) *Translating Organizational Change*: Walter de Gruyter.
- Czarniawska-Joerges B and Sevón G. (2005) *Global ideas: how ideas, objects and practices travel in a global economy*: Liber & Copenhagen Business School Press.
- Czarniawska B. (1998) Changing organizations in a changing institutional order: The reform of warsaw's governance system. *Studies in Cultures, Organizations and Societies* 4: 1-34.
- Czarniawska B. (2010) Translation impossible? Accounting for a city project. *Accounting, Auditing & Accountability Journal* 23: 420-437.
- Czarniawska B. (2012) Operational Risk, Translation, and Globalization. *Contemporary Economics* 6: 26.
- Denzin NK. (2008) *Symbolic Interactionism and Cultural Studies: The Politics of Interpretation*: Wiley.
- DiMaggio P and Powell W. (1983) The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review* 48: 147-160.
- Donati P and Archer MS. (2015) *The Relational Subject*: Cambridge University Press.
- Doorewaard H and Van Bijsterveld M. (2001) The Osmosis of Ideas: An Analysis of the Integrated Approach to IT Management from a Translation Theory Perspective. *Organization* 8: 55-76.
- Dougherty D. (1992) Interpretive barriers to successful product innovation in large firms. *Organization Science* 3: 179-202.
- Ehigie BO and McAndrew EB. (2005) Innovation, diffusion and adoption of total quality management (TQM). *Management Decision* 43: 925-940.

- Elder-Vass D. (2008) Searching for realism, structure and agency in Actor Network Theory. *The British Journal of Sociology* 59: 455-473.
- Ferner A, Edwards T and Tempel A. (2012) Power, institutions and the cross-national transfer of employment practices in multinationals. *HUMAN RELATIONS* 65: 163-187.
- Fleetwood S. (2005) Ontology in organization and management studies: a critical realist perspective. *Organization* 12: 197-222.
- Fleetwood S and Hesketh A. (2006) HRM-performance research: under-theorized and lacking explanatory power. *The International Journal of Human Resource Management* 17: 1977-1993.
- Fleetwood S and Hesketh A. (2010) *Explaining the Performance of Human Resource Management*: Cambridge University Press.
- Frandsen A-C. (2010) The role of disciplining/translating accounting practices in patient-centred care. *The International Journal of Public Sector Management* 23: 381-391.
- Greener I. (2006) Nick Leeson and the Collapse of Barings Bank: Socio-Technical Networks and the 'Rogue Trader'. *Organization* 13: 421-441.
- Greenhalgh T and Peacock R. (2005) Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ : British Medical Journal* 331: 1064-1065.
- Guilloux V, Locke J and Lowe A. (2013) Digital business reporting standards: mapping the battle in France. *European Journal of Information Systems* 22: 257-277.
- Harrisson, D; L and M. (2002) Innovation, identities and resistance: The social construction of an innovation network. *Journal of Management Studies* 39: 497-521.
- Henderson K. (1991) Flexible sketches and inflexible data bases: Visual communication, conscription devices, and boundary objects in design engineering. *Science, Technology & Human Values* 16: 448-473.
- Iwai K. (1984) Schumpeterian dynamics: An evolutionary model of innovation and imitation. *Journal of Economic Behavior & Organization* 5: 159-190.
- Joseph J and Roberts JM. (2003) *Realism Discourse and Deconstruction*: Taylor & Francis.
- Kellogg KC, Orlikowski WJ and Yates J. (2006) Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science* 17: 22-44.
- Kersley B, Alpin C, Forth J, et al. (2013) *Inside the workplace: findings from the 2004 Workplace Employment Relations Survey*: Routledge.
- Kyriakidou O and Ėzbilgin M. (2006) *Relational Perspectives in Organizational Studies: A Research Companion*: Edward Elgar Publishing Limited.
- Latour B. (1987) *Science in action: How to follow scientists and engineers through society*: Harvard university press.
- Latour B. (2007) *Reassembling the Social: An Introduction to Actor-Network-Theory*: OUP Oxford.
- Latour B and Woolgar S. (1986) *Laboratory Life: The Construction of Scientific Facts*: Princeton University Press.
- Lattuca LR. (1996) *Envisioning interdisciplinarity: processes, contexts, outcomes*: University of Michigan.
- Law J and Mol A. (2008) The actor-enacted: Cumbrian sheep in 2001. In: Knappet C and Malafouris L (eds) *Material agency: towards a non-anthropocentric approach*. New York: Springer, 57-96.
- Lawson T. (2003) *Reorienting Economics*: Routledge.
- Lee N and Hassard J. (1999) Organization unbound: actor-network theory, research strategy and institutional flexibility. *Organization* 6: 391-404.
- Lindberg K and Czarniawska B. (2006) Knotting the action net, or organizing between organizations. *Scandinavian Journal of Management* 22: 292-306.
- Luoma-aho V and Paloviita A. (2010) Actor-networking stakeholder theory for today's corporate communications. *Corporate Communications* 15: 49-67.

- Malsch B, Gendron Y and Grazzini F. (2011) Investigating interdisciplinary translations: The influence of Pierre Bourdieu on accounting literature. *Accounting, Auditing & Accountability Journal* 24: 194-228.
- McLean C and Hassard J. (2004) Symmetrical absence/symmetrical absurdity: Critical notes on the production of actor-network accounts. *Journal of Management Studies* 41: 493-519.
- Mizruchi MS and Fein LC. (1999) The Social Construction of Organizational Knowledge: A Study of the Uses of Coercive, Mimetic, and Normative Isomorphism. *ADMINISTRATIVE SCIENCE QUARTERLY* 44: 653-683.
- Morris T and Lancaster Z. (2006) Translating Management Ideas. *Organization Studies* 27: 207-233.
- Mueller F and Whittle A. (2011) Translating Management Ideas: A Discursive Devices Analysis. *Organization Studies* 32: 187-210.
- Mutch A. (2007) Making connections: agency, reflexivity and structure. 2-3.
- O'Mahoney J. (2007) The Diffusion of Management Innovations: The Possibilities and Limitations of Memetics. *Journal of Management Studies* 44: 1324-1348.
- O'Mahoney J. (2011) Embracing essentialism: A realist critique of resistance to discursive power. *Organization* 19: 723-741.
- O'Mahoney J and Vincent S. (2014) Critical realism as an empirical project: a beginner's guide. In: Edwards P, O'Mahoney J and Vincent S (eds) *Putting Critical Realism into Practice: A Guide to Research Methods in Organization Studies*. London: Oxford University Press.
- Ocasio W, Loewenstein J and Nigam A. (2015) How streams of communication reproduce and change institutional logics: The role of categories. *Academy of Management Review* 40: 28-48.
- Parker I. (1998) Social Constructionism, Discourse and Realism (Inquiries in Social Construction series). 176.
- Pawlowski SD and Robey D. (2004) Bridging user organizations: Knowledge brokering and the work of information technology professionals. *MIS Quarterly*: 645-672.
- Peirce CS. (1998) *The Essential Peirce, Selected Philosophical Writings, Volume 1 (1893–1913)*, Indianapolis, IN,: Indiana University Press.
- Porpora D. (2005) Do realists run regressions? In: Lopez J and Potter G (eds) *After Postmodernism: An Introduction to Critical Realism*. London: Athlone Press, 260-269.
- Porpora DV. (2015) *Reconstructing Sociology: The Critical Realist Approach*: Cambridge University Press.
- Rahmandad H and Sterman J. (2008) Heterogeneity and Network Structure in the Dynamics of Diffusion: Comparing Agent-Based and Differential Equation Models. *Management Science* 54: 998-1014.
- Robinson S, Lockett N, Smith S, et al. (2010) The story of a university knowledge exchange actor-network told through the sociology of translation: A case study. *International Journal of Entrepreneurial Behavior & Research* 16: 502-516.
- Roepke R, Agarwal R and Ferratt TW. (2000) Aligning the IT human resource with business vision: The leadership initiative at 3M. *MIS Quarterly* 24: 327-353.
- Rogers EM. (1995) *Diffusion of innovations*, New York: Free Press.
- Sahlin-Andersson K and Engwall L. (2002) The expansion of management knowledge: carriers, flows, and sources. 373.
- Sandhu R, Baxter J and Emsley D. (2008) The Balanced Scorecard and its Possibilities: The Initial Experiences of a Singaporean Firm. *Australian Accounting Review* 18: 16-24.
- Sayer A. (2010) *Method in Social Science: Revised 2nd Edition*: Taylor & Francis.
- Scarbrough H, Robertson M and Swan J. (2015) Diffusion in the face of failure: the evolution of a management innovation. *British Journal of Management*.
- Schmittlein DC and Mahajan V. (1982) Maximum Likelihood Estimation for an Innovation Diffusion Model of New Product Acceptance. *Marketing Science* 1: 57-78.
- Serres M, Harari JV and Bell DF. (1982) *Hermes*: Johns Hopkins University Press.

- Smith C and Pun N. (2006) The dormitory labour regime in China as a site for control and resistance 1. *The International Journal of Human Resource Management* 17: 1456-1470.
- Spee AP and Jarzabkowski P. (2009) Strategy tools as boundary objects. *Strategic Organization* 7: 223-232.
- Star SL and Griesemer JR. (1989) Institutional ecology, translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science* 19: 387-420.
- Sterling J. (2003) Translating strategy into effective implementation: Dispelling the myths and highlighting what works. *Strategy & Leadership* 31: 27-34.
- Strauss A. (1959) *Mirrors and Masks*, Glencoe, IL: The Free Press.
- Strong M and Letch N. (2013) Investigating cultural heritage data integration with an ANT perspective. *Vine* 43: 322-340.
- Swan J, Bresnen M, Newell S, et al. (2007) The object of knowledge: the role of objects in biomedical innovation. *Human Relations* 60: 1809-1837.
- Thompson P and Ackroyd S. (1995) All quiet on the workplace front? A critique of recent trends in British industrial sociology. *Sociology* 29: 615-633.
- Tranfield D, Denyer D and Smart P. (2003) Towards a methodology for developing evidence-informed management knowledge by means of systematic review'. *British Journal of Management* vol: 14no13pp207.
- Wanrooy Bv, Bewley H, Bryson A, et al. (2013) The 2011 workplace employment relations study: first findings. London: ESRC.
- Weigert A and Gekas V. (2003) Self. In: Reynolds L and Herman-Kinney N (eds) *Handbook of Symbolic Interactionism*. London: Rowman Altamira, 267-289.
- Wenger E. (1999) *Communities of Practice: Learning, Meaning, and Identity*: Cambridge University Press.
- Whitfield K. (2000) High-performance workplaces, training, and the distribution of skills. *Industrial Relations: A Journal of Economy and Society* 39: 1-25.
- Yakura EK. (2002) Charting time: Timelines as temporal boundary objects. *ACADEMY OF MANAGEMENT JOURNAL* 45: 956-970.