Narratives, path dependence and case studies

Narrativas, "path dependence" e estudos de casos

Luis Araujo[*]

ABSTRACT

The purpose of this article is to reflect on the use of narratives in case studies. The main argument developed here is that constructing narratives embodies important theoretical assumptions about the nature of the world and temporal processes. A secondary argument concerns the difference between lay and academic narratives. Although social scientists have little choice but work with linear narratives and standard stories as primary empirical material, theoretically informed narratives should strive to construct more subtle and nuanced narratives about the social world.

Key words: Narratives; Case studies; Industrial networks.

This article addresses one issue that seldom concerns case researchers: how should we write up case studies? The standard recipe for writing up case studies is to produce a narrative that connects and synthesises the range of empirical data collected from a variety of sources (see e.g. YIN, 1994). My starting point is that the problem of how to write up case studies is not simply a matter of stylistic choice. Writing up case studies is about constructing theoretically informed stories that illustrate and enliven empirical material. A narrative is a particular form of explanation that embodies particular assumptions about the nature of the world it describes. Two questions follow: 1) how to work with and configure a range of empirical material into a coherent narrative?; 2) what kind of narrative should we aim for, given the ontological assumptions we hold?

As we will see later, the answers to these two questions are interrelated and require a careful consideration of how theory and methods interact. The basic argument here is that an industrial networks approach – the theoretical perspective of interest here – is underpinned by a number of ontological assumptions and these should inform the way we conduct research and write up case studies. The principle adopted here is the same as the one espoused by Abbott (1998, p. 173) for sociology: "Our theories, our explanations, our methods, and our research programs should resonate with and support each other".

LAY AND ACADEMIC NARRATIVES

The meaning of the word "narrative" is not devoid of ambiguity. Sayer (2000), for example, distinguishes between a broad and narrow use of the term. Narrative in the broad sense is concerned with writing texts and with giving an account in terms of a succession of events, in the narrow sense.

Griffin (1993, p. 1097) offers a useful definition:

> Narratives are analytic constructs (or "colligations") that unify a number of past or contemporaneous actions and happenings which might have otherwise been treated as discrete or disparate, into a coherent relational whole that gives meaning and explains each of its elements and is, at the same time, constituted by them... Narratives are made up of the raw materials of sequences of social action but are, from beginning to end, defined and orchestrated by the narrator to include a particular series of actions in a particular temporal order for a particular purpose.

The appeal of narrative in the narrow sense relies on its ability to depict a succession of events as causally linked to each other. In short, it relies on the logic of historical explanation that seeks to impute causality to a succession of events. This parallels the debate between historians and social scientists on the nature of explanation and the scope of generalisation from single cases.

Historians usually refrain from transforming complex and intricate stories into more abstract and selective accounts couched in theoretical terms. Social scientists prefer to sacrifice historical detail to analyse structures and mechanisms abstracted from the specific contingencies that bring these structures and mechanisms to life. Case studies present specific problems in this regard. As Bennett and George (1997) argue, because case studies have followed the practice of historians they have inherited a number of tendencies more akin to the historian rather than the social scientist's craft. In particular, as Sayer (2000, p. 143) notes, it is tricky to balance the synchronic or configurative dimensions of narrative with the more traditional episodic or temporal succession aspects.

To complicate matters, there is also a marked difference between what Sayer calls lay and academic narratives, both focusing on the same object domain. This parallels the distinction introduced by Giddens (1976) between lay and social science accounts of reality (the double hermeneutic problem). Social scientists confront a world that is already imbued with meaning attributed to it by social actors. The task of social science is to mediate and transcend these universes of meaning with its own theoretical schemes. Over time, social science concepts can be appropriated and become integral features of the conduct of social actors.

Most of the case studies we conduct have to grapple with these problems. First, we construct our cases mostly on the basis of data collected from personal interviews complemented by secondary sources. We then attempt to transcend and integrate this material by mediating the data with our theoretical frameworks. Finally, we attempt to construct theoretically informed narratives that combine both synchronic and episodic dimensions.

We will devote the remainder of this section to discuss the first problem – i.e. lay vs. academic narratives. Tilly (1999) has coined the term "standard stories" to refer to the character of some narratives, both lay and academic. The way to construct a standard story is familiar:

> […] start with a limited number of interacting characters, individual or collective. Your characters may be persons, but they may also be organisations such as churches and states or even abstract categories such as social classes or regions. Treat your characters as independent, conscious, and self-motivated. Make all significant actions occur as consequences of their deliberations or impulses. Limit the time and space within which your characters interact. With the possible exception of externally generated accidents – you can call them "chance" or "acts of God" – make sure everything that happens results directly from your characters' actions.

As Tilly explains, our interviews benefit enormously from the ability of our respondents to package masses of detail and experience into standard stories. Our first analytical task is often to cross-check standard stories against each other and to consult supplementary sources of evidence to iron out discrepancies and gaps in these stories.

The same mode of explanation is often used in academic narrative, too. Tilly (1995, p. 752) characterises some forms of explanation of political processes in a similar way: "… 1) assume a coherent, durable, self-propelling unit; 2) attribute a general condition or process to that unit; 3) invoke or invent an invariant model; 4) explain the behaviour of that unit on the basis of its conformity to that invariant model".

Why are standard stories so pervasive? Bruner (1990) argues that cognition itself seems to have a paradigmatic as well as a narrative dimension. In the paradig-

matic mode, concepts are manipulated and related through operators in an abstract problem space. In the narrative mode, we see situations as populated with actors and events arranged in a meaningful temporal sequences.

What is the significance of standard stories for the move from lay to academic narratives? Put simply, the superficial attractiveness of standard stories masks their inadequacy for academic narrative, and especially for a narrative that takes relational analysis seriously. As Tilly remarks, some processes are amenable to explanations that resemble standard stories. But most social, economic and technological processes involve causal factors that are indirect, incremental, unintended, collective or mediated by non-human factors.

A proper relational analysis, as espoused within industrial networks, has to dismiss the ontological basis of standard stories. Industrial networks theory focuses on the interaction and relationship as the elementary unit of analysis and attempts to move to broader systemic effects via the notion of connectedness – the original definition, borrowed from Cook and Emerson (1994) is that "…a network is a set of two or more connected actors". In standard stories and some academic narratives (e.g. transaction cost economics), actors are self-propelling units with hard-wired properties (e.g. self-seeking opportunism with guile) that operate quite independently of the relationships they enter into. Our ontological assumptions, I suggest, are neither the atomistic actors nor pre-existing and rigid structures but the interaction between and among different types of entities (BUNGE, 2000). A focus on relationships and networks or a relational logic gets us away from these two extremes and to an investigation of how entities are constituted in interaction with each other.

One consequence of our theoretical focus is that we tend to study processes where connectedness effects are often distant and transmissible through a variety of mechanisms and routes to distant parts of networks. For example, changes in a focal relationship often have a series of intended and unintended effects on other connected relationships (DUBOIS, 1998). Changes in one focal relationship may be transmitted to other parts of the network in a variety of ways (see EASTON and LUNDGREN, 1992; EASTON and ARAUJO, 1997). Furthermore, actors may have a very limited view on how and why changes in other parts of the network are affecting them.

As Axelsson (1993) argues, business networks are largely invisible and non-transparent to outsiders and insiders alike. Network knowledge is largely and tacit and – we would argue – conjectural. Network structures are revealed through action, experiment and trial and error. Connectedness is thus discovered in practice and may depend on a variety of linkages (e.g. actors, activities, resources).

Jervis (1997) dedicated a book-length study to exemplifying how systemic effects create problems for standard forms of explanation in international relations. Jervis argues that we cannot understand systems by examining only the attributes

and goals of its basic building blocks. Many crucial effects are indirect and delayed. The relations between any two actors are partly determined by each actor's relations with others. Interactions are central to the functioning of the system but cannot be understood through additive operations (i.e. by summing up the interactions of parts to understand the whole). Many outcomes are unintended as a result of complex interconnections that are not fully comprehended by the actors. Actions can neither have only one meaning (i.e. they can be interpreted coherently from multiple perspectives) nor have univocal consequences (i.e. you can never do only one thing). Regulation is difficult and may only be achieved by localised and modest interventions (AXELROD and COHEN, 1999).

In short, standard stories are ill equipped to deal with the phenomena we are trying to understand. The causal processes responsible for network dynamics stand in direct contrast to the causal mechanisms that populate standard stories – i.e. self-motivated actors, deliberate actions, absence of indirect connections, action with univocal consequences. Case studies of industrial networks face the problem of working with standard stories as their raw, empirical material but having to construct more complex narratives that can relate causes invoked by standard stories with other causes that are remote, indirect, unintended or mediated by non-human factors (e.g. resource ties).

The issue of how to move from standard stories to more complex, theoretically informed stories is outside the scope of this paper. Partly, this movement can be achieved by looking at relationships and networks in terms of layers of actors, resources and activities. If a narrative is constructed at these three levels and their interrelations are illustrated, we can bypass some of the dangers of standard stories, namely the tendency to privilege actor level explanations. We will tackle the issue of explanation in case studies in the following section.

NARRATIVE AS A FORM OF EXPLANATION

Sayer (2000, p. 142) argues that the problem with narratives (in the narrow sense) is that they suffer from a tendency to underspecify causality in the processes they describe. Because narrative is not primarily concerned with explaining the nature and operation of structures, it tends to conflate temporal succession with causality. In other words, by privileging events and their temporal ordering it glosses over how events themselves and their connections are governed by deeper mechanisms and structures.

This comment brings us to the issue of causal mechanisms in case study research. How do we build narratives that are sensitive to both the episodic and the

synchronic aspects? This problem is central to how we write up studies of industrial networks. Dynamics is key to understanding how networks are structured and change over time. Our case studies often involve technological (e.g. LUNDGREN, 1994) or institutional change (e.g. ARAUJO and BRITO, 1998) over long periods of time. For example, our concern for developing explanations of network change has led to dialectical models of network change (HÅKANSSON, 1992) as well as attempts to incorporate the notion of path dependence in network change (HÅKANSSON and LUNDGREN, 1997; HÅKANSSON and WALUZEWSKI, 2002; ARAUJO and HARRISON, 2002).

As mentioned earlier, good historical narratives also attempt to establish causal rather than simply sequential links between events. Roberts (1996) discusses the thorny issue of how historians link a series of events into a coherent narrative. He asks:

> […] by what logic does the historian decide which events belong, and which do not belong, in the causal sequence that leads to the event to be explained? How, amidst a sea of simultaneous events and a score of possible motives, does the historian decide which events and which motives matter and which do not? (*ibid*, p. 38)

Roberts's solution is to draw up what he calls colligatory chains, drawing on earlier uses of the term colligation, to explain how sequences of events are related to each other. In Roberts's (1996, p. 105) words, the logic of colligation is "... those rules that guide, or ought to guide, the historian in tracing the course of events that leads up to the explanandum event and thereby explains why it has occurred".

The way to link together events and account for their causes is to work back towards the discovery of the authors of those events, their purposes, beliefs and desires as well as the reasons underlying those desires and beliefs. In essence, the job of the historian is to construct a robust version of events that places actors at the origin of events and awards a prominent role to their desires and beliefs. To paraphrase Tilly, this is a sophisticated version of standard stories but still a standard story. And, as we have seen earlier, one that does not serve well the relational logic of industrial networks.

One way to dig ourselves out of these difficulties in order to write case studies that are sensitive to both synchronic and sequential order of events is, I suggest, to pay more attention to the notion of trajectories and path dependence in our narratives. In the past, we have rejected the notion embedded in standard stories that self-propelling actors are the main causal mechanism in explaining outcomes, and propose instead that causal mechanisms to explain change lie in relational pathways. For example, Håkansson and Snehota (1995, p. 271) argue that:

It is common to assume that change in a market system is either an answer to changes in external conditions or the effects of the entrepreneurial acts of individuals. The change factor is thus assumed to be either endogenous to the collective actor (the company) or exogenous to the whole system (the network). We profess that change in a business network is to a large extent endogenous in relation to the network but exogenous to the single actor.

So far, the notion of path dependence has been deployed mainly as a shorthand for stating that evolutionary processes are sensitive to initial conditions and turning points – in short, to affirm that "history matters". Path dependence is a property of sequences of events. It provides a broad framework for understanding the systematic as well as the contingent association between sequences of events. In explaining path dependent sequences, we are forced to dig deeper into the causal mechanisms that account for the sequential as well as the logical association between events (GOLDSTONE, 1998; HAYDU, 1998).

Path dependence suggests that there is more to the world than events. The world has ontological depth (SAYER, 2000, p. 15). Events are the products of mechanisms that derive from the properties of objects acting in specific spatio-temporal contexts. Furthermore, there is an asynchrony between the operation of causal mechanisms and the effects they produce. In particular, current events bear the imprint of past events through the operation of social and material structures that act as the "carriers of history" (DAVID, 1994).

The notion that current events may have remote temporal causes means that the present is past but not necessarily path-dependent. Past dependence is pervasive and inevitable; path dependence is not. The notion of path dependence means more than past dependence, or saying that yesterday's choices embodied in durable structures (e.g. technologies, institutions) are the initial point for today's choices. Path dependence signifies that the order in which things happen affects their sequence and temporal unfolding. The trajectory up to a point is both past-dependent and affects what happens next. And the operation of agency at a particular point in time may activate a whole series of further and connected options as well as foreclose other possible alternatives (TILLY, 1994).

The notion of path dependence does not imply that the future is in any way closed. To say that events can have remote temporal causes does not amount to saying that they are predetermined. Socio-economic systems are open systems and the operation of causal mechanisms is contingent upon certain contextual conditions – namely upon the spatial and temporal relations with other causal mechanisms that may trigger, block or modify their actions and produce different outcomes on different occasions (SAYER, 2000, p. 15). There is thus nothing inevitable about specific sequences of events; events could often and easily have turned out otherwise.

Mahoney (2000) surveys the use of path dependence in historical sociology and identifies two different streams of uses of the notion. The two uses of path dependence focus on self-reinforcing and reactive sequences of events. During self-reinforcing sequences, the analysis focuses on the mechanisms that reproduce patterns of events over time – the mechanisms that keep "history on track" (HAYDU, 1998, p. 353). This type of analysis often focuses on both the contingent, path-shaping conjunctures that switch events on to particular tracks and on the mechanisms that lock-in subsequent events to a particular trajectory. By contrast, in reactive sequences initial events trigger a sequence of tightly linked reactions in which the initial move, rather than being reinforced over time, moves the system to new paths.

Historical sociologists, like economic historians, often focus on conjunctures arising from the temporal intersection of different trajectories. At these conjunctures, actions can become highly consequential and the possibilities for rearticulating structures arises, whether or not agents are aware of the efficacy of their actions (AMINZADE, 1992, p. 467). Porac (1997), for example, describes how the DOS transaction between IBM and Microsoft turned out to be a conjuncture of two autonomous trajectories that shaped the future of the PC market in ways that none of the parties involved in the transaction could easily have foreseen at the time.

Together, self-reinforcing and reactive sequences focus our understanding on the transformative processes that create new paths as well as on the reproduction mechanisms processes that account for self-reinforcing sequences. Another way to conceptualise these notions is to recast them in terms of trajectories and turning points (ABBOTT, 1997). Trajectories are interlocked and interdependent sequences of events whereas turning points are events that have the potential to redirect trajectories along new paths. Trajectories have thus an inertial character, channelling processes along predetermined paths, and can absorb minor variations and ruptures without any appreciable impact on their overall direction (SEWELL, 1996). Turning points are more consequential than trajectories since they switch trajectories to new paths.

Abbott (1997) remarks that a choice is made in relation to an uncertain future and not always in the knowledge of whether or not the choice is likely to be a turning point. A choice is not an isolated act detached from the structures in which choice is framed and exercised. Actors experience and understand their worlds in interaction with others, in the network of relationships that sustain those interactions. These networks of relationships establish enduring patterns of connections that reappear at the next iteration of the process (ABBOTT 1997, p. 99). The past is thus encoded in the present, in these patterns of connections that Abbott refers to as "structures".

In the industrial networks approach, connections between three levels (actors, resources and activities) form structures that are variably interlocked with one

another and embody different temporal orientations (HÅKANSSON and LUND-GREN, 1997). For example, changes at the actor level (e.g. an actor is replaced in a dyadic relationship) often occur without a significant impact at the level of activity structures or resource constellations. Typically, resource constellations are more durable and difficult to change than activity structures or actor bonds.

As Sewell (1996) notes, it is because structures exist at multiple levels and are variably articulated with each other, that localised ruptures have the potential to bring about a cascading series of other changes that in turn lead to structural transformations. More often than not, a single isolated rupture does not torn the fabric of structures and results in no more than a marginal and localised change. However, ruptures may spiral into a sequence of interrelated changes that unravel existing structures and provide opportunities for novel rearticulations.

CONCLUDING COMMENTS

The argument in this article can be summarised as follows:

1) Our methods and our modes of explanation should be informed by our ontological positions. The ontology of industrial networks is inherently relational. It takes the interaction and the relationship as basic units and looks at entities (e.g. firms) and systems (e.g. networks of connected relations) as contingent products of interaction.

2) A relational worldview seeks to transcend the poverty of standard stories, even if it has to rely on standard stories as empirical material. Whereas standard stories revel in self-motivated actors and deliberate actions, relational analysis attempts to show that cause-effect relations are generally indirect, delayed, incremental, unintended and mediated by non-human factors.

3) Writing up case studies from a relational perspective also means deploying narratives that attend to both the episodic and the synchronic dimensions of explanation. In short, narratives that organise empirical material in a chronological order but also attend to the causal mechanisms that link sequences of events and do not confuse temporal proximity with logical association. The notion of path dependence was presented here as an umbrella to bridge the gap between the episodic and the synchronic dimensions and to foster narratives that simultaneously attend to historical detail, systematic mechanisms and contingency in the way industrial networks operate and evolve.

Resumo

O objetivo deste artigo é discutir o uso de narrativas em estudo de caso. O principal argumento é que o ato de construção de narrativas contém importantes pressupostos teóricos sobre a natureza do mundo e sobre processos temporais. Um argumento secundário diz respeito à diferença entre narrativa leiga e narrativa acadêmica. Embora cientistas sociais não possuem grandes alternativas a não ser trabalharem com narrativas lineares e estórias padrão como material empírico, argumentamos que narrativas embasadas teoricamente deveriam buscar a construção de narrativas mais sutis e mais cheias de nuances sobre o mundo social.

Palavras-chave: Narrativas; Estudo de caso; Redes industriais.

References

ABBOTT, A. (1997). On the concept of turning point. In: BROCHMANN, G.; ENGELSTAD, F.; KALLEBERG, R.; LEIRA, A.; MJØSET, L. (Ed.). **Methodological Issues in Comparative Social Science**. 16. Greenwich: JAI Press, 1997. p. 85-106.

ABBOTT, A. The causal devolution. **Sociological Methods & Research**, v. 27, n. 2, p. 148-181, 1998.

AMINZADE, R. Historical sociology and time. **Sociological Methods & Research**, v. 20, n. 4, p. 456-480, 1992.

ARAUJO, L.; C. BRITO. Agency and constitutional ordering in networks. A case study of the Port Wine industry. **International Studies of Management & Organisation**, v. 27, n. 4, p. 22-46, 1998.

ARAUJO, L.; HARRISON, D. Path dependence, agency and technological evolution. **Technology Analysis & Strategic Management**, v. 14, n. 1, p. 5-19, 2002.

AXELROD, R.; COHEN, M. D. **Harnessing complexity**. Organizational implications of a scientific frontier. New York: The Free Press, 1999.

AXELSSON, B. Understanding industrial systems: critical issues in describing, analysing and acting in business networks. In: SHARMA, D. (Ed.). **Advances in international marketing**: industrial networks. Greenwich: JAI Press. 5: 205-220, 1993.

BENNETT, A.; GEORGE, A. **Research design tasks in case study methods, paper presented at the MacArthur Foundation workshop on case study methods**. Harvard University, 1997.

BRUNER, J. S. **Acts of meaning**. Cambridge: Harvard University Press, 1990.

BUNGE, M. Systemism: the alternative to individualism and holism. **Journal of Socio-Economics**, v. 29, n. 2, p. 145-157, 2000.

COOK, K.; EMERSON, R. M. Exchange networks and the analysis of complex organisations. In: BACHARACH, S. B.; LAWLER, E. J. (Ed.). **Research in the Sociology of Organizations**. Greenwich: JAI Press. 3, 1984.

DAVID, P. A. Why are institutions the "Carriers of history"? Path dependence and the evolution of conventions, organizations and institutions. **Structural Change and Economic Dynamics**, v. 5, n. 2, p. 205-220, 1994.

DUBOIS, A. **Organizing activities across firm boundaries**. London: Routledge, 1998.

EASTON, G.; LUNDGREN, A. Changes in industrial networks as flows through nodes. In: AXELSSON, B.; EASTON, G. (Ed.). **Industrial networks**: a new view of reality. London: Routledge, p. 88-104, 1992.

EASTON, G.; ARAUJO, L. Inter-firm responses to heterogeneity of demand over time. In: EBERS, M. (Ed.). **The formation of interorganizational networks**. Oxford: Oxford University Press, p. 66-94, 1997.

GIDDENS, A. **New rules of sociological method**: a positive critique of interpretive sociologies. Hutchinson, 1976.

GOLDSTONE, J. A. Initial conditions, general laws, path dependence, and explanation in historical sociology. **American Journal of Sociology**, v. 104, n. 3, p. 829-845, 1998.

GRIFFIN, L. J. Narrative, event-structure analysis, and causal interpretation in historical sociology. **American Journal of Sociology**, v. 98, n. 5, p. 1.094-1.133, 1993.

HAYDU, J. Making use of the past: time periods as cases to compare and as sequences of problem solving. **American Journal of Sociology**, v. 104, n. 2, p. 339-371, 1998.

HÅKANSSON, H. Evolution processes in industrial networks. In: AXELSSON, B.; EASTON, G. (Ed.). **Industrial networks**: a new view of reality. London: Routledge, p. 129-143, 1992.

HÅKANSSON, H.; LUNDGREN, A. Paths in time and space – path dependence in industrial networks. In: MAGNUSSON, L.; OTTOSSON, J. (Ed.). **Evolutionary economics and path dependence**. Cheltenham: Edward Elgar, p. 119-137, 1997.

HÅKANSSON, H.; SNEHOTA, I. **Developing relationships in business networks**. London: Routledge, 1995.

HÅKANSSON, H.; WALUZEWSKI, A. Path-dependence: restricting or facilitating technical development? **Journal of Business Research**, v. 55, n. 7, p. 561-570, 2002.

JERVIS, R. **Systems effects**: complexity in political and social life. Princeton: Princeton University Press, 1997.

LUNDGREN, A. **Technological innovation and network evolution**. London: Routledge, 1994.

MAHONEY, J. Path dependence in historical sociology **Theory and Society**, v. 29, n. 4, p. 507-548, 2000.

PORAC, J. F. Local rationality, global blunders and the boundaries of technological choice: lessons from IBM and DOS. In: GARUD, R.; NAYYAR, P. R.; SHAPIRA, Z. B. (Ed.). **Technological innovation**. Oversights and foresights. New York: Cambridge University Press, p. 129-146, 1997.

ROBERTS, C. **The logic of historical explanation**. University Park, PA., Pennsylvania State University Press, 1996.

SAYER, A. **Realism and social science**. London: Sage, 2000.

SEWELL, W. H. Historical events as transformations of structures: Inventing revolution at the Bastille. **Theory and society**, v. 25, n. 6, p. 841-881, 1996.

TILLY, C. The time of states. **Social Research**, v. 61, n. 2), p. 269-295, 1994.

TILLY, C. To explain political processes. **American Journal of Sociology**, v. 100, n. 6, p. 1.594-1.610, 1995.

TILLY, C. The trouble with stories. In: PESCOSOLIDO, B. A.; AMINZADE, R. (Ed.). **The social worlds of higher education**. Handbook for Teaching in the New Century, Pine Forge Press, 1999.

YIN, R. K. **Case study research**: design and methods. Newbury Park: Sage, 1994.