

Current Interest in the Theory of Organizational Path Dependence: A Short Update on the Occasion of the 2019 AMR Decade Award

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Abstract

This discussion paper reports and reflects on the reception of our article "Organizational path dependence: Opening the black box", which was published in 2009 in the Academy of Management Review and granted the AMR Decade Award in 2019. While we were invited by the editor of the journal to discuss the criticism evoked by that paper, to re-examine our original propositions in the light of advanced insights and to outline new avenues for future research on organizational path dependence, in this discussion paper we report in some detail and comment on the citation landscape of our original AMR piece.

1 Introduction

The interest in the theory of organizational path dependence is still unabated and our contribution published in the Academy of Management Review (AMR) (Sydow, Schreyögg, & Koch, 2009) has received a considerable amount of attention and, in 2019, was granted the AMR Decade Award. As it stands, the article has attracted more than 1,600 citations. This continued interest in research on organizational path dependence over more than a decade contrasts, however, with the amount of keen attention currently devoted to organizational fluid and flat structures (Schreyögg & Sydow, 2010; Lee & Edmondson, 2017). A closer look, however, alleviates the contrast: any attempt toward strategic and organizational change to create such fluidity and flatness is likely to be confronted with issues of persistent patterning, more often than not in the form of severe organizational path dependencies.

An organizational path has been defined as "a rigidified, potentially inefficient action pattern built up by the unintended consequences of former decisions and positive feedback processes" (Sydow et al., 2009: 696). Such positive feedback or self-reinforcing processes which, economically spoken, are often driven by increasing returns (Arthur, 1989; 1994), comprise in particular coordination, complementarity, learning and adaptive expectation effects (see also Dobusch & Schüßler, 2013). These effects of self-reinforcing processes are certainly at the heart of any theoretically elaborated understanding of path dependence. The assumption of self-reinforcing processes has far-reaching implications: The development of a path is governed by escalating dynamics which are difficult to control, spreading along their own logic which is hard to unearth. The development of a path is, therefore, hardly foreseeable, in particular in the beginning.

The widespread attention given to path dependence thought, not only in management and organization studies, but also in other disciplines such as economic geography and information system research, gave us the opportunity to document and analyze the landscape of research citations the original article has received. It seemed appealing to explore the linkages to other disciplines, the differences in regional interest, the transdisciplinary appropriation of the theory, etc. This discussion paper is entirely devoted to this exploration and consequently considers papers exclusively that explicitly refer to our theory of organizational path dependence.

Towards this end, we first document and analyze the citations with respect to their countries of origin and the disciplines of their authors. Then we highlight the topics addressed, the industries and fields investigated, and the levels of analysis considered, before shortly reporting on the methods employed and complementary theories addressed. We conclude this discussion paper by summarizing the analysis of the citation landscape of our paper, published 2009 in the AMR, and by pointing to the

critical objections and theoretical extensions to be addressed in order to further develop the theory of organizational path dependence (see in detail Sydow, Schreyögg, & Koch, 2020).

2 Diverse National and Disciplinary Origins of Recipients

The authors of the papers referencing ours come, as one would expect in face of the global reach of the AMR, from all around the world. However, three countries dominate when it comes to the institutional origin of the author(s): United States, United Kingdom, and Germany, the home country of the authors of the awarded paper. Together, about half of the citations stem from these three countries. In contrast, developing world countries are largely underrepresented — or even not represented at all. This distribution is quite common and reflects the inequalities in the scientific sector.

Given that the publication of the original article appeared in one of the leading management journals, it is no surprise that citations from the field of business and management dominate. But other disciplines are also well represented: business history, economics, economic geography, environmental studies, regional and urban planning, and information system research. The citations quite effectively mirror the many disciplines interested in matters not only of technological, but also of institutional and organizational change and its counterparts: structural inertia, institutional persistence, and path dependence. This interdisciplinary reach not only illustrates the interest of many disciplines in the topic of organizational persistence and, possibly, how to overcome it. Rather, this wide reach also reflects the interdisciplinary — or better: *infra*disciplinary — character of path dependence theory which has its roots in evolutionary thought, complexity and chaos theory, social constructivism, economic theory and history, systems theory, and the social studies of technology.

3 Topics Addressed – Industries Investigated – Levels Considered

A closer look at the ten years of citation history shows that by far the most papers citing our paper reference it in a general sense, pointing mainly to the difficulties of organizational or institutional change. As a systematic co-citation, analysis shows the notion of path dependence mentioned in diverse contexts. Figure 1 points to three major clusters: (1) innovation, (2) change management, and (3) strategy. Among the closest related topics is innovation, including evolution and lock-in (green lines); this cluster refers to the conditions of entrepreneurship and the barriers likely to be met by entrepreneurs. Second, path dependence proves to be closely connected to organizational issues, in particular to topics about change management (blue lines). Finally, linkages to strategic organizational

concepts are apparent, such as capabilities, routines and performance, but also dynamic capabilities and competitive advantage (red lines). These linkages reflect the tension between successful practices nurtured by self-reinforcing processes and the threat of experiencing a rationality shift later. Success breeds failure!

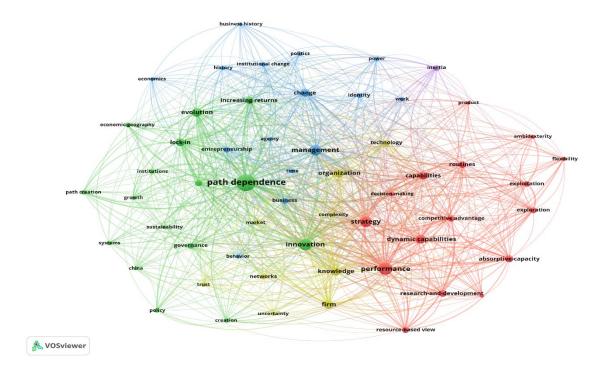


Figure 1: Topics addressed in the citation landscape¹

A closer look at the landscape of citations shows that most papers deal with organizational change in corporations, i.e. larger for-profit organizations, among others in fields such as automotive (e.g. Maielli, 2015), apparel (Schüßler, 2009), machine building (Laudien & Daxböck, 2016), biotechnology (e.g. Renko, Yli-Renko, & Denoo, 2020), media (e.g. Koch, 2011), music (e.g. Kunow, Gersch, & Koch, 2013), electromobility (e.g. Sydow & Koll, 2017), oil and gas (e.g. Njøs, Orre, & Fløysand, 2017), paper and pulp (Lamberg & Peltoniemi, 2019), aerospace (e.g. Heracleous, Yniguez, & Gonzalez, 2019), military equipment (e.g. Jing & Benner, 2016), ports (e.g. Cahoon, Pateman, & Chen, 2013), retailing (e.g. Valorinta, Schildt, & Lamberg, 2011) and other service industries (e.g. Wenzel, Wagner, & Koch, 2017). Some papers address small and medium-sized enterprises and family firms (e.g. König, Kammerlander, & Enders, 2013), and even start-ups (e.g. Larrañeta, Zahra, & González, 2012) that are rarely, if at all, considered inert or persistent, not to mention path dependent.

In February 2020 we searched the Web of Science for co-occurrence of keywords in papers that cited Sydow et al. (2009). The results for similar keywords like 'organization' and 'organizations' were merged. The relatedness of words is based on the number of documents in which they co-occur (VOS Viewer).

Apart from business firms, organizations in the fields of education (e.g. Kristiansen & Houlihan, 2017), healthcare (e.g. Sinclair & Whitford, 2013) and public administration (e.g. Kim & Chen, 2020) seem to be of concern to researchers from a path dependence perspective. Beyond organizations from different fields, papers citing ours investigate other organizational forms such as communities of practice (e.g. Dobusch & Quack, 2011), innovation networks (e.g. Cahoon et al., 2013), as well as strategic alliances and networks (e.g. Schmidt & Braun, 2015). Professions and professionalization are also occasionally subjected to studies of path dependence (Jeong & Leblebici, 2019; Farndale, Brewster, & Mayrhofer, 2019).

In the field of management, the concept of organizational path dependence was – as already indicated by Figure 1 – most often pursued by strategy scholars. These address topics like strategic planning (e.g. Carvalho, Guarido Filho, & Eberle de Almeida, 2018), business modeling (e.g. Bohnsack, Pinkse, & Kolk, 2014), stakeholder management (Rasmus, Vaccaro, & Berrone, 2020), dynamic capabilities (e.g. Nedzinskas, Pundziene, Buoziute-Rafanaviciene, & Pilkiene, 2013), mergers and acquisitions (e.g. Hutzschenreuter, Kleindienst, & Schmitt, 2012), joint ventures (e.g. Pajunen & Fang, 2013), strategic alliances and networks (e.g. Burger & Sydow, 2014), but also more comprehensive business portfolio decisions (e.g. Alscher & Brauer, 2015) as well as the counterparts of organizational growth: strategic inertia (e.g. Koch, 2011) and business exit (e.g. Decker & Mellewigt, 2012). Unsurprisingly, and as also indicated by Figure 1, classic topics such as organizational change and routines (incl. routine dynamics) also received above-average attention (e.g. Pentland, Feldman, Becker, & Liu, 2012; Kremser & Schreyögg, 2016; Wenzel & Koch, 2018; Hoekzema, 2020; Sydow, 2021).

However, organizational path dependence was also considered, though less prominently, in the context of internationalization (e.g. Chandra, Styles, & Wilkinson, 2012), digitalization (e.g. Hirsch-Kreinsen, 2018), transport logistics (e.g. Truschkin, Elbert, & Günter, 2014), human resource management (e.g. Chen, Su, & Zeng, 2016), top management turnover (e.g. Say & Vasudeva, 2020), extra-long working hours (e.g. Blagoev & Schreyögg, 2019), knowledge management and organizational learning (e.g. Berggren et al., 2017), organizational identity (e.g. Kirchner, 2010) and trust (e.g. Möllering & Sydow, 2019), corporate political activity (e.g. Perchard & MacKenzie, 2020), industrial relations (e.g. Holtgrewe & Doellgast, 2012), and information systems (e.g. Singh, Mathiassen, & Mishra, 2015). The study of organizational path dependence has even reached topics such as entrepreneurship (e.g. Wood, Bakker, & Fisher, 2020; Samuelsson, Söderblom, & McKelvie, 2020; Renko et al., 2020; Hallen, Davis, & Murray, 2020), innovation (incl. creativity and ambidexterity) and knowledge transfer (e.g. Brennecke & Rank, 2017), project management (e.g. Manning & Sydow, 2011) and ad hoc problem finding and solving (e.g. Ritala, Heiman, & Hurmelinna-Laukkanen, 2016),

that is, topics for which one would not expect organizational persistence resulting from path dependence to be important.

Beyond the field of management and organization studies, our paper received many citations from studies with a geographical or technological focus. This was to be expected, as economic geography as well as the social studies of technologies have been concerned with the difficulties of regional and technological change respectively for a very long time (cf. Henning, Stam, & Wenting, 2013). More recently, grand societal challenges, that "lack a clear single solution, and encompass incomplete, contradictory, or changing requirements that often unfold in complex systems" (Grodal & O'Mahony, 2017: 1801), seem increasingly to have been addressed with reference to organizational path dependence. These include issues such as climate change, migration, mobility, authoritarianism and populism, as well as environmental and societal transformation more generally (e.g. Cooke, 2012; Toelstede, 2019). Even rather exotic topics such as slavery in Brazil (Rodrigues & Craig, 2018) and the cadastral system in China (Lin, Kalantari, Rajabifard, & Li, 2015) have been analyzed with reference to path dependence. Last but not least, economics has restarted the still rare endeavor of reflecting its status as a path-dependent discipline (Yalcintas, 2016).

As one would expect, these studies address path dependence not only on the organizational and interorganizational level of analysis but also on more macro, even societal and inter-societal levels. On these macro levels, including fields or industries (Bergek & Onufrey, 2013; Singh et al., 2015), regions (Henning et al., 2013; Frangenheim, Trippl, & Chlebna, 2020) or (trans-) national institutional systems (Djelic & Quack, 2007), the coexistence of more than one path is more likely than within hierarchically coordinated organizations. In face of pervasive inscription processes we would expect only one organizational path, if any at all, to exist within organizations (Koch, 2011; Sydow et al., 2020).

4 Methods Employed – Further Theories Considered

If it comes to theorizing, organizational path dependence is only occasionally combined with other theories, most prominently with evolutionary approaches or — as also shown by Figure 1 — the resource-based view (e.g. Lambert, 2014). The combination with these two theories was to be expected. Evolutionary approaches are often considered as the foundation of path dependence theory (not least by economic geographers, in whose discipline they currently seem to dominate). The resource-based viewpoints to path dependencies as a source for developing a firm's strategic resources, but typically overlooks the downside of this process: the possibility of becoming persistent and even locked-in (cf. Sydow et al., 2020). In most cases, however, the theory of organizational path dependence is only mentioned either together with other approaches considering organizational

persistence (such as imprinting or escalating commitment), or used as a separate theoretical lens to analyze hyper-stable organizational or institutional arrangements (e.g. Jing & Benner, 2016).

The by far most frequently used methodology is case study research combined with historical analyses. In line with Yin's (2018) recommended usage of the case study approach, the inquiry into cases of organizational path dependence is theory-driven from the start (see for different usages of case studies also Piekkari & Welch, 2018). This is in sharp contrast to such classical historical analyses as well as to the allegedly widespread use of grounded theory (Glaser & Strauss, 1967; Suddaby, 2006) in management and organization studies. Several authors using the case study method plead for a multilevel analysis of the phenomenon (e.g. Strambach, 2010; Brunninge & Melander, 2016; Perchard & MacKenzie, 2020). The analysis of organizational path dependence may indeed benefit from capturing more or less parallel path dependencies on more micro as well as more macro levels of analysis (Sydow, Windeler, Müller-Seitz, & Lange, 2012).

A few papers suggest and employ alternative methods to qualitative case study research, including agent-based simulation (e.g. Vergne & Durand, 2010; Petermann, Schreyögg, & Fürstenau, 2020) as well as survey research using longitudinal data (e.g. Samuelsson et al., 2020). While welcoming methodological pluralism, we are convinced that the choice of the most appropriate method clearly depends on the question at stake. As in management and organization research in general, the time nevertheless seems ripe for using more mixed-method and unconventional designs (Bryman & Buchanan, 2018). From a methodological perspective, however, path dependence studies, due to their different phases and the different logics and regimes involved in these phases, require tailor-made empirical designs in order to grasp, analyze and understand the underlying (historical) processes in depth.

5 Summary and Conclusion

In conclusion, our theory of organizational path dependence has often been cited to either point to or to explain the phenomenon that organizations or interorganizational arrangements can become persistent or inert and, hence, difficult to change. Of utmost importance to us here are studies that investigate in a rather strict, path-theoretical manner relevant cases of organizational persistence (e.g. Jing & Benner, 2016; Ding, Kininmonth, & McKinstry, 2017; Fortwengel & Keller, 2020). We also greatly value those papers that engage critically with our theorizing and have thus stimulated our thinking (see, e.g., Garud, Kumaraswamy, & Karnøe, 2010; Suddaby & Foster, 2017). Papers critically engaging with the proposed theory have focused on four issues: the notion of a path, the role of agency, the

importance of history, and the character of the process on which the theory builds (see in detail Sydow et al., 2020).

Beyond the citation of our article that focused on organizational path dependence, the interest in the broader field of path research is much wider, even if path dependence is not hastily equated with "history matters", but rather conceived as a historically informed process producing organizational, technological or institutional persistence via self-reinforcement. In this narrower sense as well, path research is concerned not only with the emergence and maintenance of paths, but also with their creation, extension, diversification, disruption and dissolution (e.g. Garud & Karnøe, 2001; Garud et al., 2010; Djelic & Quack, 2007; Meyer & Schubert, 2007; Sydow, Windeler, Schubert, & Möllering, 2012; Isaksen, 2015; Gjelsvik & Aarstad, 2017; Jing & Benner, 2016; Bothello & Salles-Djelic, 2018). All of these aspects are of course of particular interest, not least to management and organization studies, and should in the future receive even more scholarly attention.

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