CHAPTER 22

INSTITUTIONS ON THE GROUND

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ABSTRACT

Knowledge of how institutions "work on the ground" is central to understanding how macro-pressures shape organizations and their participants. Four examples of the interplay between micro and macro are provided to give a richer account of institutions, both as process and outcome. One, as wider trends diffuse, they are pulled down locally, but the scripts are utilized in divergent ways. Two, as organizations make sense of social forces, these movements are received differentially, with micro-practices and macro-influences becoming entangled. Three, trends can be opaque to those who seek to follow them, resulting in unintended forms of implementation. Four, sociological miniaturism illustrates how the micro captures the macro as lived experience.

Keywords: Practice variation; differential receptivity; opacity; miniaturism; institutionalization

The editors of this volume on the microfoundations of institutions have kindly asked me for reflections on the importance of research on micro-social aspects of institutions. Clearly, the volume offers a wide array of rich studies of discourses, identities, institutional entrepreneurs, professions, and practices. Many of the chapters stress themes of conflict and inconsistency, highlighting processes of decoupling and variation. As a result, the empirical terrain is mapped very well, but what is at stake theoretically? How do we make progress developing multi-level accounts of organizations and institutions (Jepperson & Meyer, 2011)?

Why do we need micro-social accounts of institutions? I have long argued that knowledge of how institutions "work on the ground" is essential to understanding

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how macro-social forces shape and configure organizations and their participants and, in turn, to how institutions persist or are altered. Such an orientation affords insight into how institutions are enacted, made sense of, and sustained in everyday life. I made this argument many decades ago in a 1985 essay in *Contemporary Sociology*, reviewing Meyer and Scott's 1983 path-breaking book. DiMaggio and I made a case for a theory of practical action in the introduction to our 1991 book, drawing from a somewhat exotic cocktail of ethnomethodology and the Carnegie School. And, of course, the mantra of John Padgett's and my book (Padgett & Powell, 2012) is "in the short run, actors create relations, but in the long run, relations create actors." This relational view is, however, not generally shared by other macro-institutional theorists.

In his inimitable fashion, John Meyer remarks in his essay that "microsocial research, even when successful in its own terms, is unlikely to provide an adequate account of larger processes and changes going on in contemporary society." In contrast, Hallett and Hawbaker, in their thoughtful essay, emphasize that institutions are made constitutive through social interaction. They argue that through social interaction people perform institutional behavior, inhabiting and coping with macro-social forces and constraints. Neither Meyer, Hallett and Hawbaker nor I have much interest in accounts of heroic, agentic individuals; it is of little explanatory value to associate "micro" with an individualist orientation. I do, however, have a good deal of sympathy with the view that how individuals interact, maintain and alter organizational life concatenates to both reinforce and transform institutions. Thus, the tension between these two fine essays provides an opening that I want to explore in my brief reflections.

I will briefly explore four examples of how the interplay between micro (read groups and organizations) and macro (read large-scale social structures and forces) arguments provides a richer account of institutions, both as a process and an outcome. One, as larger trends, policies, and models diffuse, they are pulled down at the local level (Powell & Colyvas, 2008). But the manner in which the relevant ideas and scripts are utilized varies considerably. Of course, such differentiation is not surprising, and often times may seem only modest and inconsequential. But I will illustrate how local implementation efforts can be consequential in altering the character of macro-structures. Two, as organizations attempt to make sense of wider social trends, these movements are received in divergent ways. The repertoire of existing practices on the ground can render organizations more or less receptive to large-scale forces, such that micropractices and macro-pressures become entangled. The literature on diffusion has told us a great deal about the spread of policies and structures, but it is silent on what shape adopted practices take. I think this dynamic is crucial in understanding the durability of institutions. Three, general social strains rarely come with instructions or in an easily digestible form. Macro-trends can be more or less opaque to those who seek to follow them. Such opacity results, once again, in variation in implementation, and the acting out of these external catalysts at the local level in turn gives meaning and sometimes new direction to the larger forces. Finally, in really beautiful works of literature and art, which social science seldom rivals, portraits at the micro-level vividly illuminate macro-processes and

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make them understood as lived experience. Examples of sociological miniaturism can illustrate how the micro affords a window onto the macro (Stolte, Fine, & Cook, 2001).

How do scientific and technological innovations reshape long-held understandings about the institutional roles of the academy and industry? To answer this question, I draw on work done initially with Jeannette Colyvas and Jason Owen-Smith, and later with Diana Rhoten and Kurt Sandholtz, in which we studied the origins and diffusion of university technology licensing offices, initially in the United States and eventually across the world (Powell, Owen-Smith, & Colyvas, 2007). Technology transfer became the bridge through which crosstraffic between basic science and industrial development traversed. Back in the 1970s, technology transfer offices were a fairly rare phenomenon on US university campuses. Less than 30 universities had such offices, and they were clustered primarily at universities with professional schools of agriculture, engineering, and medicine. Penn State, Wisconsin, and Iowa State had offices because those universities had come up with important products that were highly valuable to the agricultural industry. Schools like MIT, Purdue, and Stanford had offices in part because of their engineering focus. Stanford also played a particularly important role in new developments in biomedicine, and its early cell-sorting and gene-splicing patents in the 1970s proved to be highly lucrative.

By the turn of the century, nearly every US university had some form of a technology licensing office. One could look at that spread as a diffusion story, in which technology transfer and science-based entrepreneurship became legitimate activities on university campuses (Colyvas & Powell, 2006). One could also argue that federal policies and the passage of the Bayh–Dole Act in 1980, a federal law encouraging the transfer of university science into the private sector, had a potent coercive effect (Berman, 2012). One could also view technology licensing as an example of the expansion of administrative offices at universities, and the creation of a professional association of technology licensing experts contributed to the rapid diffusion. In a short period of time, science and property, which were once distinct and separate, became fused as intellectual property (Rhoten & Powell, 2007).

In the twenty-first century, university initiatives in technology transfer continued their march around the world, to Europe and Asia. By now, very few universities around the globe do not have some form of an office of technology transfer. The phenomenon seems ubiquitous. But this is not a simple global diffusion story. It turns out that how these offices are staffed makes a huge difference.

Broadly speaking, the departments were organized according to three different models, each with a different agenda and staffing. The choice of each model was conditioned by local political realities, and not the result of simple imitation of peers or first movers. One model was based on the view that patenting and licensing efforts should serve the faculty of the university, providing guidance in how to do technology transfer and aiding them in the process of working with industry. In these offices, the metrics were the amount of engagement by faculty with industry, and the number of faculty start-ups. Faculty involvement is voluntary, and there is little policing to insure faculty report invention disclosures to the office. These units are commonly staffed by individuals with advanced degrees in relevant subjects in the physical, biological, and engineering sciences. With this model, lawyers have scant or limited influence, and the criteria for assessment is faculty buy-in to engagement with industry.

A second model is shaped by the view that the office should generate revenues for the university, with the hope that tech transfer can in some form help with the growing shortfall in funds necessary to do research. These departments are typically staffed by lawyers, and they see it as their job to engage in tough negotiations with their industrial counterparts over issues of licensing and royalties for intellectual property. The evaluative criteria are financial – how much revenue is brought into the university. Unfortunately, by this metric, many do not deliver on this promise. These offices also play attention to issues of compliance, requiring faculty to report all inventive activity. A third model, often found in universities in European countries and some public universities in the US, sees the office as a state agency. Here the activity is bureaucratized and part of the public administration of institutions of higher education. The leadership of these units is handled by career university administrators.

These three models have proved to have divergent consequences for the efficacy of technology transfer, and differing ramifications for university-industry relations and conflicts. The movement to engage faculty in both starting new companies and working with established ones helped create a new faculty identity of "scientist entrepreneur," in which scientists became amphibians as they traversed back and forth between university and industry labs (Powell & Sandholtz, 2012a; Sandholtz & Powell, 2019). The legal model created a contentious relationship with industry, placing some universities in the cross-fire between industry and state legislatures. And even when this approach did enhance the revenues of universities, controversy ensued over the amount of remuneration to faculty inventors, who were viewed as public sector employees, not as business entrepreneurs. The university administrator model further contributed to the ballooning bureaucratic staff in research universities (Ginsberg, 2011). These divergent models, with the entrepreneurial one more common at private universities and the legal or bureaucratic one typical at public universities, also contributed to a widening divide in wealth and resources between public and private universities in the US (Rhoten & Powell, 2011), and lead to enhanced scrutiny and debates over the public role of universities (Owen-Smith, 2018).

For our purposes here, the important point is that while the legal and administrative models may have followed existing scripts, with staff following structured, existing roles, the entrepreneurial one was not "the creature of macro-social institutional environment" (Meyer, this volume). It was the product of "chance, nécessité, et naïveté," a pragmatic amalgamation of creativity and constraint created on the fly at newly established offices, where directors created new-to-the-world roles and accounts of their activities (Powell & Sandholtz, 2012b).

A second reason to attend more thoughtfully to macro- and micro-relations is to explain the differential reception of general social trends at the local organizational level. The standard macro-argument is that the proliferation of purportedly rational organizational models across organizations and societies creates more complexity (Bromley & Meyer, 2015). For some scholars, this expansive process is captured by the idea of heterogeneous diffusion (Briscoe, Gupta, & Anner, 2015; Davis & Greve, 1997; Greve, 1995; Strang & Meyer, 1993). Others attempt to theorize this process with awkward sounding terms such as "glocalization" (Drori, Höllerer, & Walgenbach, 2014). But these valuable moves nevertheless locate most of the action at the macro-level, theorizing trends much like meteorologists forecasting when and where storms will arrive. I think we need to go further and understand what types of organizations are more or less receptive to momentum in the environment *and* how the existing practices of these organizations mesh with differing ways of enacting larger social processes. Another way of putting it is to recognize that while potent isomorphic pressures in the environment frequently occur, the way in which organizations receive these ideas shapes how they implement them.

An apt illustration of this process is found in contemporary responses to calls for organizational openness and transparency (Benkler, 2006; Turco, 2016). Openness appears in many guises, and all manner of organizations from governments to private firms to nonprofits have reacted to a wider impetus toward being more transparent about their activities (Bernstein, 2017; Dahlander & Piezunka, 2014; Lifshitz-Assaf, 2018). The right to know has been a steady development in public policies over the past decades (Schudson, 2015). From product labeling to environmental standards to consumer rankings, citizens today know a good deal more about the products produced by contemporary organizations. Thanks to Glassdoor, how much people are paid in many organizations is now public; and Glasspockets brings comparable transparency to the world of charitable giving. With the development of digital technologies, from webpages to blogs to online rating systems, there are numerous ways in which both constituents and consumers can learn about the actions and policies of a wide array of organizations (Dahlander & Piezunka, 2014; Powell, Horvath, & Brandtner, 2016).

Christof Brandtner, Aaron Horvath and I have been studying the varied responses of a large random sample of civil society organizations in the San Francisco Bay Area to the open turn in organizational life. We define openness as the voluntary exposure of formerly private information to audiences for inspection (Brandtner, Horvath, & Powell, 2019). But even though openness and transparency are potent larger forces in an era with many calls for accountability, the responses of organizations to these general trends are conditioned by their existing repertoire of practices.

Large, bureaucratic nonprofits view openness as a legal requirement for compliance. They make their tax forms available for public inspection, conduct annual audits, and develop a whistleblower policy. We refer to this set of practices as presentational openness. Nonprofits with more professional managerial acumen see openness as a means to tell their stories to the public, engaging their constituents in new ways and inviting criticism and inspection in the hope of attracting greater support. We refer to these practices as open management. In some other nonprofits, where many staff are either former constituents or have family members who are clients, openness is a natural response to providing care and representation to kith and kin. Finally, organizations that were early adopters of webpages, posted newsletters, and embraced blogging by constituents were more accepting of the purported wisdom of the crowd. In sum, internal practices condition receptivity to trends in the wider environment.

The larger implication of our work is a recursive view of organizational change. External forces routinely exert pressures on organizations, prompting them to redesign structures, adopt new goals, and change long-term routines. But processes inside organizations determine how new ideas and pressures enter organizations; consequently, the manner in which ideas about openness are understood conditions how they are acted upon, shaping how nonprofits open themselves up to, and engage with, public scrutiny.

A third way in which macro-institutional influences and activities on the ground interact is when strong isomorphic pressures in the wider environment exist, but the signals from these external constraints are opaque. Thus, when organizations attempt to respond to these strains, they generate all manner of divergent and inconsistent behaviors. Simply put, opacity leads to widely diverse moves on the part of organizations. Some of the responses are ineffective, others are loosely coupled to the original demands, and others, through a process of learning by doing, recast the nature of the pressures entirely.

A striking example of the consequences of opacity has been the long struggle for equal rights and affirmative action employment. In 1964, the US Congress passed the Civil Rights Act, which extended equal protection to the employeeemployer relationship. Discrimination was made illegal, but the new law gave few guidelines for organizations on how to tackle discrimination. Organizations slowly established practices to address discrimination, and diversity programs became institutionalized. There has been slow, but meaningful, progress in diversifying the ranks of managers in organizations across the US. In many cases, however, the programs that have been adopted have not helped and sometimes they have actually made matters worse, not better (Kalev, Dobbin & Kelly, 2006). To develop this argument, I draw on the extensive body of work by Lauren Edelman, Frank Dobbin, Alexandra Kalev and their colleagues who have tracked the spread of equal opportunity employment policies.

The Civil Rights Act outlawed discrimination, but it was highly ambiguous both with regards to what constituted discrimination and how it could be remedied. Enforcement of the Act was highly decentralized and often contested. One might have thought that legal departments would provide companies with effective guidance, but that did not prove to be true. Edelman (1992) shows that human resource departments were born out of reaction to a cascade of lawsuits following the opaquely worded legislation. It turned out that the job of human resources became to protect the organization. A US plant of Mitsubishi motors was involved in an early lawsuit in which women claimed civil rights violations due to a hostile work environment and sexual harassment. The women won their case, and Mitsubishi received a substantial fine. Other organizations across the country became very worried about comparable lawsuits, but there was uncertainty about what actually constituted a violation. Lawyers proved unable to provide guidance precisely because the law was so ambiguous. In subsequent court cases, judges asked companies if they had a department in place to address these issues. They wanted to know if the companies provided anti-harassment training.

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Sexual discrimination cases were in a nascent stage, and the courts needed a systematic process for making their rulings. Judges agreed that if companies had a dedicated department in place to train employees about appropriate behavior, the companies themselves would not be found liable. Instead, any inappropriate actions would be the fault of the employee (Edelman, Uggen, & Erlanger, 1999). The courts wanted to see some sign of purposive behavior on the part of organizations that documented they had an office, a policy, and some kind of training program in place. Thus it appeared that having an office and written policy would serve as immunization against legal liability.

Industrial relations and personnel departments saw an opportunity to recast themselves as a new entity labeled human resources. In the context of declining union ranks and the image of personnel as stodgy and procedural, HR could step in and provide the diversity training that organizations needed to protect themselves against lawsuits. The development of the contemporary HR department is the byproduct of a sinuous road that began with the significant but ambiguously worded Civil Rights Act. Today, the path that began with civil rights has been recast as diversity management. Diversity programs are institutionalized as a way for organizations to buffer themselves from lawsuits. But diversity has become championed by making a business case that it is good for outcomes, such as innovation and customer relations, and the original impetus for justice and equality has taken a back seat.

Frank Dobbin and Alexandra Kalev have followed a sample of some 800 large and mid-sized US corporations over the past 30 years. They have documented the wide array of practices and policies implemented by companies to purportedly enhance equal opportunity employment (Dobbin, 2009; Dobbin, Schrage, & Kalev, 2015). Some companies developed policies to protect themselves, whereas others see diversity efforts as a reflection of their organizational values. But either way, they have found that mandatory diversity training has proven to be ineffective. Managers who are required to attend training become defensive and resistant to any information. They feel their autonomy has been infringed on. Managers want discretion to choose hires and not be pressured by outside demands. More significantly, mandatory training and organizational policing seems to reinforce biases. Put simply, it makes white guys feel they are under attack.

Not only has mandatory diversity training been ineffective, when it is combined with other litigious messages about employment, such as grievance systems, it often backfires and leads to retaliation from accused managers rather than meaningful reform (Dobbin & Kelly, 2007). Surprisingly, however, voluntary diversity efforts make a genuine impact. Voluntary attendance at training programs create buy-in. Managers who participate think I chose to show up, so I must be pro-diversity. Using the threat of the law creates resistance, while allowing managers to take responsibility for their training promotes cooperation. In addition, managers feel the benefit from being perceived by others at work as doing the right thing. With voluntary sessions, change starts occurring throughout organizations. In an intriguing parallel to the adoption of technology transfer policy, compliance seems to retard progress, whereas voluntary involvement generates legitimacy. Interestingly, more indirect diversity programs also have consequential effects. Formal mentorship programs broker the relationship between senior white male managers and younger minority men and female employees, exposing managers to people different from themselves. Even managers with biases come to believe that their protégées deserve training and opportunities. Similarly, self-managed teams are seldom put together with diversity in mind, but they have a positive effect because they increase contact between demographic groups that are commonly separated by function. In addition, cross-training managers increases exposure to people from different groups. Why do programs such as mentorship, task forces, self-managed teams, and cross-training prove to be effective? Because they aren't labeled diversity programs (Dobbin & Kalev, 2016).

One of the important takeaways from this rich strand of research is that a variety of existing organizational practices can make a significant impact on organizational accountability in moving diversity efforts forward, whereas procedural programs have limited and possibly negative effects. Thus, steps toward more egalitarian workplaces occur through participation in cross-functional and crossrank settings that bring people from different units together. These moves take place largely outside the bureaucratic offices that carry the scripted goals of HR.

These three examples take the form of interactions between different wider institutional forces – the pressure to document the commercial relevance of university research, calls for heightened organizational transparency, and legislation mandating an end to discrimination in the workplace, and organization-level behaviors – divergent models that helped create a market-driven university, a notable difference between procedural compliance and presentational openness, and cooptation of equality efforts by formal offices. In a causal sense, the arrows run in both directions, with the emergence of policies catalyzed both on the ground and by developments in the wider environment. The meaning and practice of university entrepreneurship, organizational accountability, and employment opportunity were significantly shaped by how organizations interpreted external challenges and went about developing answers to them. This is both an interactionist *and* a pragmatist view (Powell & Rerup, 2017); it is neither as individualist as many of the essays in this volume are, nor as structurally determined as conventional macro-accounts would offer.

I would be remiss however if I did not also mention a fourth, more aesthetic, approach to linking micro and macro. As social theorists, we try to explain the dynamics of social life. My relational perspective is akin to making a movie, albeit one more like the early animated cartoons. The goal is to capture plot and movement. Not surprisingly, things are painted with a broad brush, with a focus on a few models or practices and how they evolve through time. The rich details of life are obscured by simplifying assumptions and proxies for processes that are much more complicated than our measures reveal. But there is a different perspective in which scholars and artists use small portraits as a window onto larger social contexts. In sociology, Gary Alan Fine (2012) has been a devoted advocate of this miniaturist approach. His focus on "tiny publics" as the building blocks of social order shows how our larger culture is held together by the complicated interplay of rituals, language, stories, and commitments within small groups. The groups

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in his many different ethnographic portraits are generative. They create identities, allocate status, mobilize commitments, and that culture builds up and spreads through networks of memberships in larger organizations and into other groups. For him, groups serve as the basis for civic culture, and are constitutive of larger-scale social structures.

One of the most profound ways of seeing how the small can reveal the large is in the drawings of everyday seventeenth century Dutch life, particularly of kitchens and living rooms. The Dutch Golden Age was a time of newfound prosperity, as the wealth of a colonial mercantile empire transformed the daily lives of ordinary people. This relationship between global trade and the comfortable materialism back home is brought to life in the backgrounds of drawings of middle-class kitchens, where exotic spices, foods, and drink are abundant, and in the lace, porcelain, and clocks depicted in living rooms. The affluence is not celebrated, nor is it an object of curiosity; rather its unprecedented variety and availability are taken-for-granted. To be sure, Dutch painting from this period was itself a product of its time, with its new techniques, subjects, and extraordinary masters. For me, the experience of looking at these small engravings and drawings of the kitchens and living rooms of this era compellingly portrays how extensively the largesse of the Golden Age spread.

These comments are not intended as a new theoretical orientation, nor a resolution of the age-old structure versus agency debate. Certainly, not every macro-trend requires an accompanying micro-account, nor vice versa. There are many circumstances where the two may operate with more or less independence. But if our aim is a deeper understanding of organizational behavior and institutional forces that captures their cognitive, communicative, and behavioral elements, I think a focus on interactions between these levels is not only fruitful, but essential.

REFERENCES

Benkler, Y. (2006). The wealth of networks. New Haven, CT: Yale University Press.

Berman, E. P. (2012). Creating the market university. Princeton, NJ: Princeton University Press.

- Bernstein, E. S. (2017). Making transparency transparent. Academy of Management Annals, 11(1), 217–266.
- Brandtner, C., Horvath, H., & Powell, W. (2019). "Differential receptivity to openness: From iron cage to glass house," Working paper, Stanford University.
- Briscoe, F., Gupta, A., & Anner, M. (2015). Social activism and practice diffusion: How activist tactics affect non-targeted organizations. *Administrative Science Quarterly*, 60(2), 1–33.
- Bromley, P., & Meyer, J. W. (2015). Hyper-organization: Global organizational expansion. Oxford: Oxford University Press.

Colyvas, J. A., & Powell, W. W. (2006). Roads to institutionalization: The remaking of boundaries between public and private science. *Research in Organizational Behavior*, 29, 305–353.

Dahlander, L., & Piezunka, H. (2014). Open to suggestions: How organizations elicit suggestions through proactive and reactive attention. *Research Policy*, 43(5), 812–827.

Davis, G. F., & Greve, H. (1997). Corporate elite networks and governance changes in the 1980s. American Journal of Sociology, 103(1), 1–37.

Dobbin, F. (2009). Inventing Equal Opportunity. Princeton, NJ: Princeton University Press.

- Dobbin, F., & Kalev, A. (2016). Why diversity programs fail. *Harvard Business Review*, 94(7–8), 52–60. Dobbin, F., & Kelly, E. L. (2007). How to stop harassment: Professional construction of legal compliance
- ion organizations. American Journal of Sociology, 112, 1203–1243.

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- Dobbin, F., Schrage, D., & Kalev, A. (2015). Rage against the iron cage: The varied effects of bureaucratic personnel reforms on diversity. *American Sociological Review*, 80(5), 1014–1044.
- Drori, G., Höllerer, M., & Walgenbach, P. (2014). Unpacking the glocalization of organization: From term, to theory, to analysis. *European Journal of Cultural and Political Sociology*, 1(1), 85–99.
- Edelman, L. B. (1992). Legal ambiguity and symbolic structures: Organizational mediation of civil rights law. American Journal of Sociology, 97, 1531–1576.
- Edelman, L. B., Uggen, C., & Erlanger, H. S. (1999). The endogeneity of legal regulation: Grievance procedures as rational myth." *American Journal of Sociology*, 105, 406–454.
- Fine, G. A. (2012). Tiny publics. New York, NY: Russell Sage Foundation.
- Ginsberg, B. (2011). *The fall of the faculty: The rise of the all-administrative university and why it matters.* New York, NY: Oxford University Press.
- Greve, H. (1995). Jumping ship: The diffusion of strategy abandonment. Administrative Science Quarterly, 40(3), 444–473.
- Jepperson, R., & Meyer, J. W. (2011). Multiple levels of analysis and the limitations of methodological individualisms. Sociological Theory, 29(1), 54–73.
- Kalev, A., Dobbin, F., & Kelly, E. L. (2006). Best practices or best guesses? American Sociological Review, 71(4), 589–617.
- Lifshitz-Assaf, H. (2018). Dismantling knowledge boundaries at NASA: The critical role of professional identity in open innovation. *Administrative Science Quarterly*, 63, 746–782.
- Owen-Smith, J. (2018). Research universities and the public good. Stanford, CA: Stanford University Press.
- Padgett, J. F., & Powell, W. W. (2012). The emergence of organizations and markets. Princeton, NJ: Princeton University Press.
- Powell, W. W., & Colyvas, J. A. (2008). Microfoundations of institutional theory. In R. Greenwood, C. Oliver, T. B. Lawrence, & R. E. Meyer (Eds.), Sage handbook of organizational institutionalism (pp. 276–298). London: Sage Publishers.
- Powell, W. W., Horvath, A., & Brandtner, C. (2016). Click and mortar. *Research in Organizational Behavior*, 36, 101–120.
- Powell, W. W., Owen-Smith, J., & Colyvas, J. A. (2007). Innovation and emulation: Lessons from American universities in selling private rights to public knowledge. *Minerva*, 45, 121–142.
- Powell, W. W., & Rerup, C. (2017). Opening the black box: The microfoundations of institutions. In R. Greenwood, C. Oliver, T. B. Lawrence, & R. E. Meyer (Eds.), Sage handbook of organizational institutionalism (2nd ed., pp. 328–355). London: Sage Publishers.
- Powell, W. W., & Sandholtz, K. (2012a). Amphibious entrepreneurs and the emergence of organizational forms. *Strategic Entrepreneurship Journal*, 6, 94–115.
- Powell, W. W., & Sandholtz, K. (2012b). Chance, Nécessité, et Naïveté: Ingredients to create a new organizational form. In J. F. Padgett & W. W. Powell (Eds.), *The emergence of organizations* and markets (pp. 279–433). Princeton, NJ: Princeton University Press.
- Rhoten, D., & Powell, W. W. (2007). The frontiers of intellectual property: Expanded protection vs. new models of open science. *Annual Review of Law and Social Science*, 3, 345–373.
- Rhoten, D., & Powell, W. W. (2011). Public research universities: From land grant to federal grant to patent grant institutions. In D. Rhoten & C. Calhoun (Eds.), *Knowledge matters: The public mission of the research university* (pp. 319–341). New York, NY: Columbia University Press.
- Sandholtz, K., & Powell, W. W. (2019). Amphibious entrepreneurship: Understanding a crucial source of invention. In J. Reuer and S. Matusik (Eds.), Oxford handbook on entrepreneurship and collaboration. (pp. 541–567) New York, NY: Oxford University Press.
- Schudson, M. (2015). The rise of the right to know. Cambridge, MA: Harvard University Press.
- Stolte, J. F., Fine, G. A., & Cook, K. S. (2001). Sociological miniaturism: Seeing the big through the small in social psychology. *Annual Review of Sociology*, 27, 387–413.
- Strang, D., & Meyer, J. W. (1993). Institutional conditions for diffusion. *Theory and Society*, 22(4), 487–511.
- Turco, C. (2016). The conversational firm. New York, NY: Columbia University Press.