

## Middle-Range Theories of Institutional Change

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*This article is based on my presidential address delivered in Baltimore at the 2018 annual meetings of the Eastern Sociological Society. In it, I explore the ways in which theories of the middle range help us advance sociology as a social science at a time when many express concern about the fragmentation of the discipline.*

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### INTRODUCTION

From its founding, sociology identified its mission as the social science that studies institutions, explaining their emergence, equilibrium, and effects on social behavior. The classical writings of the founders—Weber, Durkheim, Marx, and others—carry on through new interpretations, although as a social science we have largely subsumed the ideas into empirical research programs. Economics has its classical writers—Smith, Ricardo, Marshall, and others—but reinterpretations of them are uncommon. There are fewer books by economists, fewer still that purport to distill timeless ideas of the classical texts. This is due in part to the expansive consensus in economics around their neoclassical theory. To be sure, behavioral economists have challenged the narrow rationality assumption of microeconomics. The aim was not to abandon *homo economicus* but to infuse neoclassical theory with greater behavioral realism. By contrast, sociologists have long been disinterested in devising a neoclassical sociology, especially after the collapse of Talcott Parsons's attempt to build a general theory of the social systems. Economics has made notable advances guided by its neoclassical paradigm. Does the absence of a disciplinary equivalent pose an incorrigible limitation on sociological science? As Alfred Whitehead (1917:82) quipped, "A science which hesitates to forget its founders is lost."

It is common for colleagues to worry aloud about the appearance of fragmentation in sociology. But what may appear as a motley and untidy assembly may, upon closer scrutiny, be appropriately valued as evidence of important disciplinary advances guided by sociological theories of the middle range. In *Social Theory and Social Structure*, Robert Merton (1968:39–45) defined these as "theories that lie between the minor but necessary working hypotheses that guide day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change." Merton noted that the seminal ideas of theories in the physical

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sciences are characteristically unassuming. They involve ideas that literally point to *testable* hypotheses. Consider, for instance, Boyle's "simple idea that the atmosphere may be conceived as a 'sea of air,'" which suggests that "there should be less air pressure on a mountain top than at its base." We should emphasize that what Merton called middle-range theories are more than empirical generalizations. Although they are not logically derived from a general theory, they are "logically interconnected and empirically confirmed propositions about the structure of society and its changes."

## USING MIDDLE-RANGE THEORY TODAY

How can such theories help us advance sociological theory today, when many express concern about the fragmentation of the discipline? Merton drew important lessons for sociological theory from the physical sciences. He proposed that the remarkable advances of science were achieved through accumulation of theories of the middle range, and he argued that sociology should adopt a similar strategy to motivate and guide empirical research. For him, middle-range theory was the essential element for an analytic sociology that can furnish the tool kit needed to solve "the general but definite problem of identifying the social mechanisms—that is, the social processes having designated consequences for designated parts of the social structure" (Merton 1968:43). Such is "developed wholly in terms of the elements of social structure rather than in terms of providing concrete historical descriptions of particular social systems" (Merton 1968:44). Importantly, sociological theory of the middle range generates a sequence of follow-up questions about how the social mechanisms identified come into being and become self-reinforcing social dynamics enabling change or equilibrium in social structures.

We should note that sociological theories of the middle range are more context-bound and less obviously universal than theories of the physical world. After all, human beings are purposive actors. Through social learning and mimicking behavior, they are highly adaptable to varying environments. As Duncan Watts, who came to sociology from physics, put it (2011:262), "The social world, in other words, is far messier than the physical world, and the more we learn about it, the messier it is likely to seem. The result is that we will probably never have a science of sociology that will resemble physics. But that's OK."

Merton's middle-range theories of the "Matthew effect" and "self-fulfilling prophecy" continue to be cited in sociological research. However, many middle-range theories of structural functionalism—that is, theories of institutional interdependence, anomie, role sets, bureaucracy, occupational mobility, deviant behavior and crime—have long been subsumed in empirical research programs or have been simply forgotten, suggesting that sociological middle-range theories have relatively short half-lives.

This year's Eastern Sociological Society annual meeting theme directs our attention to the challenges of explaining social and institutional change. Understanding institutions as stable social structures provides a starting point for theories of social and institutional change. In my address this afternoon, I will first highlight

some recent sociological theories of the middle range that explain social change within stable equilibrium. I will then explore middle-range theories of institutional change involving protracted punctuated equilibrium. In the latter cases, institutional change at the societal level encompasses change in the underlying informal and formal rules of cooperation and competition, including reworking of the constitutional framework.

### *Middle-Range Theories of Social Change Within Stable Equilibrium*

Consider, initially, Paul DiMaggio and Woody Powell's (1983) extension of Weber's "iron cage" metaphor. The theory laid out in "The Iron Cage Revisited" explains why in advanced capitalist economies, organizations come to be steadily homogeneous without gains in efficiency. The theory asserts that competition mechanisms Weber identified in the rise of rational capitalism have been replaced by isomorphic mechanisms wherein organizations evolve to become more similar. DiMaggio and Powell identified the social mechanisms—*coercive*, *mimetic*, and *normative*—of isomorphism and derived testable hypotheses. Their theory has gone on to stimulate empirical research on organizations within the stable equilibrium of advanced capitalism.

Among other middle-range theories that address the question of change in stable equilibrium are some notable examples concerning the assimilation of immigrant minorities in American society. Alejandro Portes and Min Zhou's (1993) "segmented assimilation theory" identified ethnic solidarity and enforceable trust as social mechanisms that come together in immigrant communities, enabling upward mobility and eventual assimilation for immigrant minorities. At the same time, their theory predicted downward assimilation for children of especially poorer immigrant minorities outside of the ethnic enclave. Subsequently, Alba and Nee's (2003) neo-assimilation theory focused on other social mechanisms: purposive action, network effects, and coercive and normative compliance with civil-rights-era legislation by mainstream organizations and institutions (Dobbin 2009; Edelman 1990, 1992). Their theory asserts that immigrants follow rule-of-thumb heuristics in solving problems. The unintended consequences of practical strategies in pursuit of familiar goals—a good education, a good job, a good place to live—lead to assimilation of immigrant minorities into the American mainstream. These competitive, overlapping middle-range theories have gone on to motivate and guide productive debate and empirical research on the socioeconomic mobility of immigrant minorities (Drouhot and Nee forthcoming).

### *Middle-Range Theories of Institutional Change Involving Protracted Punctuated Equilibrium*

Beyond social change in stable equilibrium, however, sociological research must also address episodes of transformative institutional change involving an extended punctuated equilibrium. Theda Skocpol (1978), for example, focused on how mechanisms of interstate competition and war precipitated the collapse of state power, unleashing the bottom-up social upheavals of the French, Russian, and

Chinese revolutions. Her theory stimulated a cross-disciplinary program “bringing the state back in” to research on institutional change.

But the late twentieth century witnessed other episodes of punctuated equilibrium on a scale as significant as the rise of capitalism in the West. In China, the former Soviet Union, and Eastern Europe, socialist reformers sought market solutions to inefficient allocation and shortage in state socialism. Like alchemists bewitched with the challenge of turning lead into gold, these reformers dreamed of harnessing the power of the market to remedy the failures of the plan. The goal of reformers was to stimulate growth by combining plan and market. State initiatives in the direction of capitalism punctuated the stable equilibrium of centrally planned economies.

These efforts raised some puzzling and intriguing questions. In his *Capitalism, Socialism and Democracy*, Joseph Schumpeter (1947 [1942]) argued with conviction that the “superiority of the socialist blueprint” was destined to triumph over entrepreneurial capitalism. In light of such pessimism for the future of capitalism, why did communist elites initiate sweeping reforms that would challenge the legitimacy of centrally planned economies? Why did dynamic capitalism emerge in China, where the Communist Party is still in command of the state, but not in postcommunist Russia, which dutifully sought to institute free-market capitalism and democracy according to a “big bang” approach prescribed by the World Bank and International Monetary Fund economists? Neoclassical economics does not have answers to these questions.

### *Economic Reform in China*

I began studying this process in the 1980s, and today I would like to offer some reflections derived from my experience. In 1985, when I traveled to China to start my research, the economic reforms launched in 1978 were still at an early stage. At that time, my field research in the southeastern coastal province of Fujian posed questions that the existing theories of social equilibrium were unable to answer.

Observing the economic reform in China, I noted obvious parallels with earlier reform efforts in Eastern Europe. Studying the early economic reforms in Hungary, Ivan Szelenyi (1983) had uncovered a crucial social fact: that markets benefit direct producers and, as a result, the expansion of markets reduces social inequalities between the political class and ordinary citizens. This counterintuitive insight about the consequences of markets on stratification suggested to me a research program on institutional change using China as a strategic research site. In the course of my fieldwork, it became clear that I had the uncommon opportunity to conduct research on transformative institutional change in real time, exploring the bottom-up social dynamics that appeared to be driving the emergence of a market society in China. As I look back over my years studying these momentous and far-reaching societal transformations, I can see the role middle-range theory played in helping to understand them.

An unintended consequence of economic reforms was to unleash market forces, which opened up new structures of opportunity, or niches where nonstate economic actors could thrive. This altered incentives for economic actors, which in

turn drove further expansion of markets. Here was the basis for a theory of market transition. I proposed that as markets grow in scope and volume of transactions, control over resources—power—shifts from politicians to economic actors. There are several reasons for this. First of all, direct producers retain a greater share of the economic surplus than in a planned economy. Second, relational exchange in markets pulls in social networks, thus enabling information flows, the working of social norms, and enforceable trust. As a result, markets as social structures enable self-enforcing exchange, not only in close-knit communities but also across large clusters of networks. Economic actors, who have both the incentives and choice to do so, devise informal arrangements needed to capture gains of cooperation and competition. This explains the bottom-up emergence of conditions driving transformative institutional change.

Empirical confirmation of market transition theory would require evidence of three different outcomes: (1) a decline in the significance of political capital for economic gain, (2) higher returns to human capital for performance and gains in productivity, and (3) the rise of entrepreneurship and innovative activity as pathways of socioeconomic mobility. The decline in utility of political capital predicted by the theory, I argued, would depend on the decisiveness of the shift to reliance on markets.

“A Theory of Market Transition” (Nee 1989) confirmed with survey data various hypotheses derived from the theory. It was fortuitous in retrospect that the theory sparked a heated debate and many empirical tests. Especially intensely debated was the hypothesis of declining significance of political capital, which to many scholars seemed highly implausible, not only in postcommunist Eastern Europe and Russia, but especially in China where the Communist Party is still in charge of the commanding heights of the polity and economy. Initial replication studies, carried out immediately after the collapse of state socialism in Eastern Europe and Russia, and early in the Chinese economic reform, produced mixed results in tests of this controversial hypothesis. Subsequently, a robust confirmation of the hypothesis was published in *Social Forces* using a firm-level data set collected by the World Bank (Nee and Oppen 2010).

In 2005, I traveled to the Yangtze River delta region (Fig. 1) to launch a follow-up study, a large-scale field study of the private enterprise economy. I was struck by the extent of societal change. By the first decade of the twenty-first century, a dynamic capitalism had transformed the Chinese economy from a poor agrarian society to the manufacturing workshop of the world. China became the second largest market economy and the largest market society in terms of the sheer size of its population. It settled into a new equilibrium of sustained capitalist economic development. Within that quarter century, the Chinese masses had experienced the most rapid decline of absolute poverty in history, linked with the rise of a newly affluent urban middle class and rapid accumulation of great wealth privately held by entrepreneurs. In many cases, these nouveau riche entrepreneurs had grown up in poor farming communities.

The aim of this study was to extend market transition theory and to submit it to more rigorous empirical tests two decades after its initial publication. This time, the location was in the epicenter of domestic capitalism: Shanghai, Zhejiang, and



# The Yangzi delta region: Our field laboratory

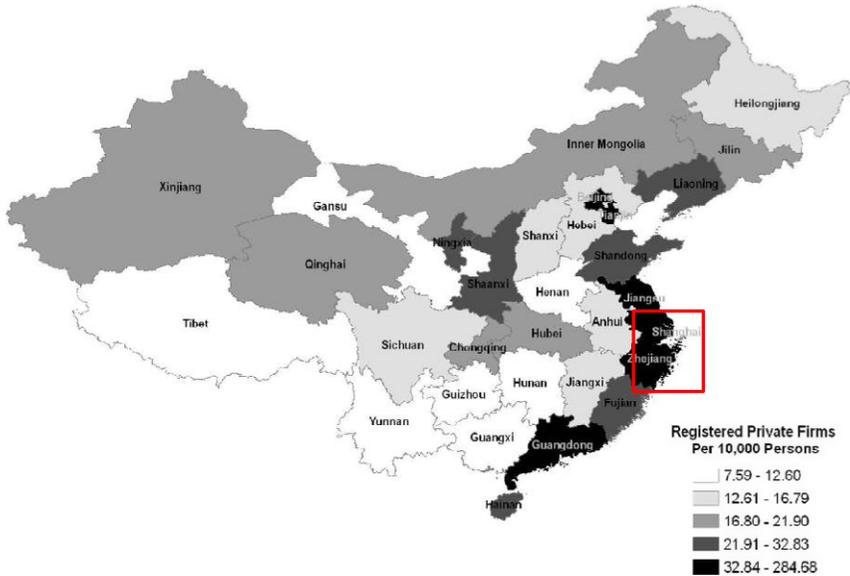


Fig. 1. The Yangtze Delta Region.

Jiangsu provinces. Historically, the Yangtze delta region had been the cultural and commercial center of China. After a brief interlude of revolutionary Maoism, it swiftly regained its status as China's most dynamic regional economy. My field study would employ a multilevel survey involving 700 private manufacturing firms and in-depth interviews with industrial entrepreneurs. My plan was to follow the same group of industrial entrepreneurs and their firms over time, resurveying them at three- to four-year intervals from 2006 onward. A fourth and final survey wave was completed in 2017.

As my field research deepened, my focus began shifting from the question of what were the consequences of market transition on stratification to the question of endogenous institutional change. How and why did self-reinforcing social processes enabling a bottom-up emergence of economic institutions of capitalism evolve? How were initially illegitimate institutional innovations able to emerge and diffuse to such a great extent in spite of prohibitions by the state?

I found a starting point for exploring endogenous institutional change in Karl Schelling's (1978) idea that interests shaping individual behavior depend on observing the social behavior of others. With this in mind, I was able to identify four distinct social mechanisms at work in the economic transformation. First, at the initial stage, the existence of markets induced competition, providing incentives for economic actors to come up with informal arrangements that would ensure their gains from emergent opportunity structures. Second, entrepreneurial action generated

chance institutional innovations. These innovations—hit on as solutions to problems—were tested and proven successful through a process of trial and error and then diffused through the larger regional economy. Third, mutual monitoring and enforcement by networks of economic actors served to reinforce what were initially informal norms and novel institutional arrangements. Finally, as swarms of mimicking followers piled in, a self-reinforcing social dynamic was established among them. This led to the formation of tipping points that over time resulted in the endogenous emergence of economic institutions enabling the growth of private economic activity.

From a small cluster of dissident entrepreneurs who started illegal and semilegal businesses in rural townships, the evolving dynamic quickly became a social movement and an irresistible economic force. The state eventually responded to these bottom-up innovations by changing formal rules to accommodate and regulate emerging economic realities.

This middle-range theory, with its emphasis on bottom-up social dynamics, turned on its head the new institutional economics, with its antithetical top-down focus on the role of the state: the notion that the state first has to have formal rules in place before there can be economic growth. Ironically, while purporting to provide an economic analysis of China's transition to a market economy, Ronald Coase's book *How China Became Capitalist* maintains that it was Deng Xiaoping and the policies he pursued that explain China's remarkable successes in economic reform (Coase and Wang 2012). This was also the core narrative in Ezra Vogel's (2011) influential book, *Deng Xiaoping and the Transformation of China*. In contrast, my approach relies on middle-range theory to identify social mechanisms, rather than focusing on historic personalities or historical description.

Significantly, my bottom-up narrative resembles accounts of the rise of capitalism in the West. As in Weber's classic sociological study of nineteenth-century England and Germany, the mechanisms of endogenous institutional change giving rise to the economic institutions of capitalism came from outside the established economic order. Entrepreneurs who started capitalist enterprises were not part of the political or economic elite but came from modest socioeconomic backgrounds. Also, the endogenous emergence of economic institutions turns on mechanisms that are general to human social behavior. In this account, entrepreneurs are the central agents driving institutional innovations enabling capitalist economic development. Once established, the emergent economic institutions motivate and guide self-reinforcing bursts of new entrepreneurial action that lead to tipping points in the expansion of the private enterprise economy.

Within industrial clusters of private firms, cross-cutting and overlapping social networks provided the sinews of enforceable trust and the conduits of knowledge sharing and spillover enabling innovation and cumulative regional advantage in the Yangtze River delta economy. Like-minded entrepreneurs mimicked one another, which led to the development of norms of mutual help and organization in local business networks. Informal business norms were effectively enforced through social mechanisms as common and universal as social approval (reputation, status) and punishment (bilateral sanctions, accurate negative gossip). Despite the initial disjuncture between the informal institutions of the rising private enterprise

economy and the legal rules, property rights, and constitutional framework of state socialism, a dynamical process starting with small numbers of marginal economic actors in peripheral locations gave rise to a social-movement-like growth and diffusion of entrepreneurship across the regional economy.

In the Yangtze delta region, from the start-up on through the development phases of a private manufacturing firm, all of the key factors required for success could be secured through network ties and endogenous institutional arrangements. Private firms concentrated in industrial clusters benefited from a stable chain of private suppliers offering the mix of technical support and raw material inputs needed for flexible and competitive production. Entrepreneurs benefited from close access to downstream distributors linked to domestic and global markets. Although private manufacturing firms in the Yangtze delta region were small or medium-sized and lacked brand names, common identity and norms of cooperation within distinct industrial clusters provided an aggregate competitive advantage in domestic and global markets. Most of these firms lacked in-house research and development departments, but the overlapping networks of entrepreneurs and ease of access to suppliers facilitated cooperation in innovative activity. Agglomerative growth in industrial clusters enabled knowledge sharing and knowledge spillover in the regional manufacturing economy. As a result, there rapidly evolved a manufacturing culture of innovation identified with rapid cycles of advances in technology and products. Business-to-business online exchange provided by firms such as Alibaba.com further augmented local capacity for product innovation and fast movement to domestic and global markets. As Yangtze delta entrepreneurs dealt with the pressures of intensely competitive domestic and international markets, agglomeration within industrial clusters provided them with safe harbors where the sources of competitive advantages were readily accessible.

Mechanisms such as personalized exchange, mutual dependence in multiplex business relations, and bilateral and community sanctions provided the social glue binding principals and agents to implicit contracts and fostered cooperation in resolving conflict over property rights and contractual exchange. Without the close-knit networks that held together industrial clusters of the Yangtze delta region, it is doubtful that stable expectation of norm enforcement could have survived beyond the shadows of the state-owned industrial and commercial economy. But industrial cluster location enabled entrepreneurs to overcome the free-rider dilemma to jointly develop norms of cooperation that provided a decisive competitive advantage to the private enterprise economy, enabling entrepreneurs to decouple from the state-owned economy and compete for market share with the larger, highly capitalized state-owned enterprises.

In sum, in the years after the outset of state-initiated economic reforms, bottom-up institutional innovations in the private enterprise sector enabled the development of a dynamic capitalist economy, and then the political elite followed up with institutional changes legitimizing what already had taken place on the ground to channel the gains in productivity into taxable revenue. “Not much is needed, in fact. As long as expected state sanctions in scenarios of decoupling from established formal norms are limited and expected benefits sufficiently large... bottom-up

institutional innovations followed by top-down accommodative change of formal rules by the state is a more common pattern than has been acknowledged in causal narratives” (Nee and Oppen 2012:263).

Why did the communist state come to accommodate capitalist entrepreneurs and economic development? As you can see in Fig. 2, capitalist economic development gained traction and support the more the government came to understand the relationship between growth of private economic activity and an expanding base of taxable income (Nee and Oppen 2012).

Despite the rapid emergence of a private enterprise economy in coastal provinces, it took more than two decades for the state to respond with the regulatory and property rights framework. The central government enacted laws and regulations designed to secure the legitimacy and legal rights of private businesses but within the institutional structure of a state capitalist economy. Social mechanisms embedded in markets have posed a genuine dilemma for party leaders because these same mechanisms eat away at allegiance to the Communist Party and its ideology. Whether in Eastern Europe, the Soviet Union, or China, economic reform increased the payoff for opportunism and malfeasance by political actors. As markets expanded outside of the state-controlled economy, not only were nonstate economic actors freer to pursue opportunities for profit and gain, but so were political actors with positional power in state agencies. Not surprisingly, in the Soviet Union and Eastern Europe, an unintended consequence of reform was the erosion of the legitimacy of established communist parties, resulting ultimately in the fall of these regimes in 1989 (Nee and Lian 1994). Shrewdly, China’s party leaders recognized this risk early in their reform. Their periodic crackdowns on corruption are a significant factor enabling the continued dominance of the Communist Party in China (Fig. 3).

## CONCLUSION

Let me conclude with a few thoughts. Clearly, we are still at an early stage of explaining institutional change. Numerous unanswered questions remain, and the appearance of new questions is only to be expected. Yet I believe sociology is in a good position to contribute to the cross-disciplinary understanding of institutional change.



Fig. 2. Why the State Accommodates Capitalist Economic Development.



*"We must uphold the fighting of tigers and flies at the same time, resolutely investigating law-breaking cases of leading officials and also earnestly resolving the unhealthy tendencies and corruption problems which happen all around people."*

*Xi Jinping*

**Fig. 3.** Tigers and Flies.

Returning to Whitehead's quip that "A science which hesitates to forget its founders is lost," we may note that a middle-range theory *not confirmed* tends to be forgotten, while as a theory *confirmed* is repeatedly cited, it is subsumed in new empirical research programs. In time it becomes simply part of the taken-for-granted knowledge of the discipline.

A half century ago, Merton (1968:52) proffered the following modest assessment of sociology's progress: "We have many concepts but fewer confirmed theories; many points of view, but few theorems; many 'approaches' but few arrivals." While it is still true that we have many concepts, many points of view, and few theorems, confirmed middle-range theories have surely become more numerous. I suggest that what might appear to be the messy and fragmented sociology of today has, in fact, many confirmed theories of the middle range, which we remember and then forget as they become part of the received wisdom of our discipline. While this may lead to the perception of a discipline lacking a unifying general theory, I believe that it actually is in a genuine sense a measure of its successes as a sociological science.

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