component. Where calculative behaviour is at issue, following Simon, **satisficing** is usually viewed as a more plausible model. Outcomes for individuals, firms and governments tend to be seen as the effect of a struggle for power rather than of a quest for an optimum.

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ORGANIZATION THEORY

Organization theory is the branch of sociology that studies organizations as distinct units in society. The organizations examined range from sole proprietorships, hospitals and community-based non-profit organizations to vast global corporations. The field's domain includes questions of how organizations are structured, how they are linked to other organizations, and how these structures and linkages change over time. Although it has roots in administrative theories, **Weber**'s theory of bureaucracy, the theory of the firm in microeconomics, and Coase's theory of firm boundaries, organization theory as a distinct domain of sociology can be traced to the late 1950s and particularly to the work of the **Carnegie School**. In addition to sociology, organization theory draws on theory in economics, political science and psychology, and the range of questions addressed reflects this disciplinary diversity. While early work focused on specific questions about organizations per se – for instance, why hierarchy is so common, or how businesses set prices – later work increasingly studied organizations and their environments, and ultimately organizations as building blocks of society. Organization theory can thus be seen as a family of mechanisms for analysing social outcomes.

Origins and early development

James March and Herbert Simon in 1958's *Organizations* identified perhaps the central puzzle of hierarchical organizations: how can structures composed of (boundedly rational) individuals, each subject to a raft of cognitive biases and limited processing capacity, manage to accomplish the magnificent? The answer was that hierarchy, long seen as simply a manifestation of a chain of command, served an information-processing function directly analogous to a computer program. Bureaucracy factored complex decision problems that were beyond the capacities of individual decision-makers into smaller parts that could be solved and aggregated back up through the hierarchy, much as computer programs factored problems into sub-routines. By framing the rationale for bureaucracy in terms of cognition (rather than power or authority), March and Simon set the tone for much subsequent work.

A second major contribution of the Carnegie School was Cyert and March's *A Behavioral Theory of the Firm* in 1963. This work was an effort to give a more plausible account of business decision-making than the stylized depiction of boundlessly rational maximizers in the economic theory of the firm. When setting prices and output quantities, or making decisions about what markets to enter and leave, the choices of top executives could often be described using relatively simple decision rules about what counted as satisfactory performance (their 'aspiration level') and where (and when) to look for solutions to shortfalls in performance ('problemistic search'). Moreover, firm outcomes in industries composed of oligopolies could be modelled using computer simulations that generated life-like results. Thus, the Carnegie School provided a robust basic model of organizations that set the agenda for almost all subsequent work.

James D. Thompson's *Organizations in Action* in 1967 completed the foundations for organization theory by synthesizing the empirical and theoretical ferment that resulted from the Carnegie School's initial statements. The focus of this work was not so much on why organizations are hierarchical, but on what they can do to achieve rationality in an uncertain world. Organizations are open systems, dependent on variable and often unknowable environments for the resources they need to survive, yet they are judged by participants and outside evaluators according to standards suited to staid bureaucracies. Their structures and actions reflect attempts to manage these conflicting pressures, and thus the 'right' structure is contingent on the sources of uncertainty and evaluation. Their designs buffer the technical core from an unruly environment with layers intended to absorb uncertainty, and when outside elements generate too much uncertainty, they are absorbed through merger or other means. Thompson catalogued an array of internal and external tactics organizations used to achieve stability, documented in substantial later empirical research.

Paradigm proliferation: organization and environment

The foundational works of the Carnegie School and Thompson suggested that a single 'theory of organizations' might suffice to hold together the diverse disciplinary sources of organization theory. But the 1970s saw a proliferation of diverse theories of organization, each focused on a somewhat different aspect of what organizations were and what they did: where they placed their boundaries, how they responded to dependence on other organizations, why they were created and disbanded at particular historical times, or how they managed perceptual or legitimacy standards of outside evaluators, among others. From a single trunk, organization theory brachiated into diverse and occasionally contradictory approaches to the study of organizations during the 1970s.

Oliver Williamson drew on Thompson and the Carnegie School to specify in more detail an answer to Coase's question: why are some exchanges done within an organization's boundaries, while others take place across boundaries (that is, on the market)? Put another way, why are there firms at all, rather than simply market transactions? The answer he gave in 1975's *Markets and Hierarchies* provided the basis for **transaction cost economics** as a theory of the firm. The frictions created by transactions are sometimes less costly in the market, and sometimes less costly within firms – particularly when the parties to the exchange have assets invested in the relationship that are less valuable elsewhere (e.g. when a supplier invests in specialized equipment that is only useful for a particular buyer, or when an employee gathers a lot of on-the-job experience tailored to their employer). The pressures of producing products or services profitably induces firms to be mindful of transaction costs and thus to implement the least-cost structure to govern them (to make an input, buy it on the market or create long-term contracts). An implication is that when transaction costs change (e.g. the Internet reduces the difficulty of communicating with suppliers), firm boundaries will change as well.

Other theorists doubted the decisive influence of market pressures on organization structure, and instead argued that organizations often looked the way they did and took particular actions in an effort to manage their environmental dependencies. Jeffrey Pfeffer and Gerald Salancik argued in *The External Control of Organiza-*

tions that exchange relations create power and dependence: a firm that relies on a particular supplier for a critical input is dependent on that supplier, and the supplier may use its power to make demands. As a result, organizations often bear the stamp of powerful outsiders: where they locate facilities, what standards they cleave to, which executives get promoted, and even what charities they support may be swayed by those in control of critical resources. Those that run organizations respond by seeking to manage their dependencies, complying when they must but also co-opting the powerful (e.g. by inviting them to serve on the supervisory board), neutralizing their power (by buying their supplier or cultivating other sources), or exiting the situation (for instance, by diversifying into a different industry). Their motivation is not profit per se, although managing the demands of investors is part of their charge. Rather, it is to maintain some autonomy by avoiding or managing exchange-based dependence. As a result, the structure of organizations and their ties to each other to some degree maps on to the flows of resource exchanges among industries, as organizations jostle to build their own power and avoid dependence.

Still other theorists contemplated the organizational world of the 1970s and saw not rampant change but remarkable stasis among the 'organizational dinosaurs' then leading the economy. Organizations may make cosmetic changes in response to their environments, but more common is inertia – continuing in the same direction as before. Several factors alluded to in prior theories make it hard for organizations to make significant changes: old organizations bear the imprint of their time and place of founding, and success with extant routines locks them into place as hallowed tradition impervious to change; large organizations that have grown using a particular business theory have difficulties rejecting that theory even when events in the world would seem to invalidate it; and top executives set up promotion procedures that reproduce themselves and their worldview. Yet in spite of this inertia at the organizational level, the world is full of different kinds of organizations with diverse structures. Thus, according to population ecologists, it is often more fruitful to study bursts of foundings and extinctions of organizational types to account for the mix of organizations in society. The research strategy implied by this stance is not to focus on the life-histories of particular firms, as in the previous approaches, but of entire populations. Much as a demographer might study the incidence of births, deaths or major life events within particular sub-populations, ecologists studied the births and deaths of organizations and linked them to environmental events (such as political revolutions or changes in legal regime) and population-level variables such as density. One regularly observed finding is that births increase and deaths decrease as a population within an industry grows larger, up to an inflection point; thereafter, greater density decreases birth rates and increases death rates. Carroll and Hannan provide an empirical and theoretical summary in *The Demography of Corporations and Industries*.

New institutional theorists such as John Meyer, Paul DiMaggio and Walter Powell argued that a shift towards a post-industrial economy and the spread of a dominant form of rationality had led to a proliferation of institutionalized myths about how to structure organizations. In contrast to the earnest organizations striving for rationality in a turbulent world described by Thompson, institutionalists described organizations judged by their rationalizations more than their rationality. Organizations often strove to meet standards imposed by external evaluators in their structures and decisions, even when these templates had little to do with getting their real work done. Schools ceremonially adopt curriculum reform and create new offices whose influence rarely reaches the classroom; non-profits adopt organization structures meant to signal their modern management to corporate funding sources even when they only exist on paper; and corporations proclaim adherence to shareholder value and create financial and organizational structures as a Potemkin Village for the financial markets that evaluate them. Moreover, the adoption of ceremonial structures de-coupled from the 'technical core' is not mere ceremony, but often essential for the organization's survival. Institutional theorists documented the origins and spread of these myths through a variety of channels – imitation of peers, pressure from exchange partners, demands by governments, and persuasion by executives embedded in professional networks that crossed organizations, among others. And just as population ecologists argued that the organizational population was the appropriate unit of analysis, institutionalists argued that the organizational field – the set of organizations implicated in a particular domain of social life, such as health care – was the appropriate level to make sense of social structure and why organizations come to look and act the way they do. Powell and DiMaggio's *New Institutionalism in Organizational Analysis* collects several of the seminal pieces in this approach.

And finally, network theory provided a set of tools and a framework for considering how the ties among organizations, either through exchange relations, shared directors, common geography or shared third affiliations, aggregated into an inter-organizational social structure. **Network analysis** provided a rigorous means to undergird empirical work that took seriously the injunction to study populations or fields of organizations. By considering both organizations as networks – sets of ties among constituent actors – and organizations in networks, it provided imagery and analytical tools for linking the very micro (employees) to the very macro (the larger economy of organizations).

Organizations as mechanisms for social explanation

While organization theory elaborated a set of perspectives oriented around topical questions – where firms place their boundaries, what strategies executives use to avoid dependence and gain power for their organizations, how organizational birth and death rates get us to the mix of organizations we have in society, when societal standards breed organizational conformity – the economic world of business continued a trajectory of globalization that challenged the kinds of organization theories that predominated in the USA in the 1970s. Trade and financial flows across borders increased dramatically after the mid 1970s, the former Soviet bloc disintegrated into separate national economies with diverse approaches to post-socialist capitalism, China mounted an aggressive 'third way' to industrialization and economic development, the European Union adopted a common currency and market, and different economic models rose and fell. It would be hubris to imagine that organization theory, developed in a particular time and place, would turn out to be a universal theory of organizations. Moreover, even in the USA the notion that organizations ought to be conceived as singular actors with sovereign boundaries, which dated back to the origins of the discipline, became increasingly difficult to sustain with the increased prevalence of contingent work, sub-contracting, alliances, licensing and **industrial districts**.

Developments in organization theory after the mid 1980s were increasingly oriented towards problem-driven work that developed theories of the middle range. That is, rather than seeking to develop general and trans-historical explanations of seemingly timeless phenomena such as hierarchy and density dependence in organizational birth and death rates, research increasingly focused on explaining transitions, often at the level of either the field or the national economy. This work drew on organization theory not as a falsifiable paradigm, but as a source of causal imagery (in Stinchcombe's terms), or nuts and bolts of explanation (as Elster put it). The object of explanation in such work is typically not some aspect of an organization – where it places its boundary, or how tall is its hierarchy – but a social phenomenon in which organizations play a part. For instance, stratification generally takes place through organizational processes of hiring and assignment to positions and salaries; to explain stratification requires understanding how these 'human resource practices' originate, spread and are implemented. Environmental damage and recovery is largely enacted by business and other organizations, and so to explain why a particular geographic area has the environmental quality that it does entails understanding organizational decision-making. Elections and changes in laws are largely shaped by covert or overt business influence, often mediated through still other organizations. Mapping political terrain inevitably leads one to (or through) influential organizations. And legal changes often require substantial interpretation by the organizations charged with implementing them, so organizational processes are typically the link between law and society.

Particularly engaging work drawing on organization theory during and after the 1990s examined how 'marketization', or the increasing penetration of markets into areas previously organized by other means, altered the shape and 'rules' of organizational fields such as the post-socialist economy in Hungary, health care in the USA, business groups in China, and labour markets in Japan. This work suggests that there is fruitful work to be done in asking questions at the social or civic level, while using organization theory as the set of tools for answering those questions.

See also: agency theory; corporate governance; enterprise groups; exchange theory; firms; inter-firm relations; interlocking directorates; managerial revolution.

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ORGANIZATIONAL FIELDS

Organizational fields, sometimes referred to as inter-organizational or institutional fields or domains, consist of organizations that 'in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products' (DiMaggio and