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Structuring a Theory of Moral Sentiments: Institutional and Organizational Coevolution in the Early Thrift Industry[1]

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The authors investigate the coevolution of organizations and institutions—they study how institutional definitions, rules, and expectations unfold in tandem with the organizational structures and processes that embody those institutions. The research site is the early thrift industry. Changes in thrifts' technical environment (the rise of a transient and heterogeneous population) and institutional environment (the rise of Progressivism) propelled this coevolutionary process. The coevolution of thrift organizations and institutions proceeded primarily through selection. Adaptation was constrained by both institutional factors (it was difficult to adopt a novel institutional logic) and technical factors (early thrifts were generally small, so entry and exit were easy).

Over the past two decades, organizational sociologists have produced many studies of the functioning of institutions in organizations—of norms, beliefs, values, rules and taken-for-granted assumptions about the way the world works.[2] DiMaggio and Powell (1991, p. 32) opined that the

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[2] Although institutions may be borne by regimes, cultures, organizations, or routines (Jepperson 1991; Scott 1995), organizations are arguably the most important carriers of institutions because organizations are the most powerful and pervasive elements of modern society (March and Simon 1958; Coleman 1974; Aldrich 1979). Furthermore, over the past century, formal organizations have become institutions themselves

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application of "institutional models to the adoption of structural elements . . . has become a growth industry." A smaller body of work (e.g., Coleman 1974; Leblebici and Salancik 1982; DiMaggio 1991; Dobbin 1992) has begun to explain the creation of institutions in organizations.

Despite vibrant traditions of work on the creation and diffusion of institutions in organizations, few studies have captured the full sequence of institutional building, maintenance, and destruction (Jepperson 1991). Studying the coevolution of institutions and organizations (Scott 1995, pp. 146–47)—examining how institutional definitions, rules, and expectations unfold in tandem with organizational structures and processes—is essential, not only because the building up and tearing down of institutions cannot be separated analytically or empirically (Eisenstadt 1968), but also because studying coevolution can shed light on the fragility of institutions and detail how institutionalized organizational forms fall into disfavor (Oliver 1992). Studying the coevolution of institutions and organizations would reveal how the deployment of organizational forms by institutional entrepreneurs destabilizes existing arrangements and shapes new conventions (Clemens 1993).

We fill this gap in the literature by analyzing the historical development of one organizational population—the early thrift industry—whose varying forms embodied a series of social and economic institutions. In the next section, we describe our research site and chronicle the establishment of the first thrifts in America. We depict thrifts as embodiments of particular institutional logics, which we term *theories of moral sentiments.* We demonstrate that a theory of moral sentiments incarnate in one organizational form was replaced, over 60 years, by a series of theories of moral sentiments incarnate in newer organizational forms. We then show to what extent the adaptation of existing organizations or the differential death of old organizations and birth of new organizations drove the coevolution of these institutions and these organizational forms; we then explain why one mode of coevolution dominated. Next, we show how two aspects of modernization—the rise of a transient population and the expansion of the Progressive movement—contributed to the downfall of organizational forms embodying theories that emphasized mutuality and rigidly enforced effort and supported organizational forms embodying theories that emphasized bureaucracy and flexible voluntary effort. We argue that pressures for technical efficiency and institutional appropriateness operated in tandem to shape the content of organizational and institutional coevolution. In conclusion, we summarize our findings, discuss our study's impli-

(Zucker 1983), the "cultural engines of modern social systems" (Zucker 1988, p. 24). Accordingly, studying institutions most often involves studying organizations.

cations for organizational theory, and propose fruitful avenues for future research.

THE EARLY THRIFT INDUSTRY: ORGANIZATIONAL FORMS AND INSTITUTIONS

Thrifts first appeared in the United States in 1831. Early thrifts were mutual self-help organizations whose central goal was to organize individuals to improve their material standing, specifically to make it easier for organizational members to save money and use the accumulated savings to build or buy houses (Clark and Chase 1925, pp. 3–9; Bodfish 1931, pp. 1–18; Kendall 1965).[3] One prominent thrift proponent eloquently described these nascent organizations as "an organized effort to extract concrete wealth from aggregated poverty" (Durack, cited in Clark and Chase 1925, p. 4).

Thrifts in the United States were directly influenced by the building-society movement in England, which exploded between 1780 and 1850. Like England after the Industrial Revolution, America during the early 19th century experienced a sharp increase in the demand for housing due to a fourfold rise in population during the Revolutionary War, an explosion of factories, and the rapid growth of cities. Many settlers from Europe who sought to convert their savings into home financing were familiar with British building societies. For example, the first U.S. thrift—the Oxford Provident Building Association, founded near Philadelphia in 1831—was conceived by two factory owners and a doctor from England (Bodfish 1931).

When U.S. thrifts were first founded, and for many years afterward, few other financial intermediaries were willing to make loans to individuals for home construction. Commercial banks were generally uninterested in consumers and home mortgages:

> [Thrift] associations have been partly the outgrowth of an incomplete banking system. There was a crying need for a convenient method of financing home building, at the same time a demand for a flexible method of investment for the man of small means. The banker believed he furnished the latter through a 4 per cent savings account, but the rate was so low it invited investment in too many "wild-cat" stock selling schemes, and of necessity there should be some better plan.

[3] Thrifts were known under many different names. In their guide to thrift history and operations, Clark and Chase (1925, pp. 13–14, 518–20) listed 143 variations, with these being among the most common: building and loan association, savings and loan association, cooperative bank, and homestead association. Many labels emphasize links between thrifts' two core functions: to encourage saving by members and to help members purchase or build houses. We refer to all such organizations as thrifts.

> Banks have never looked with favor upon construction loans, and as a general thing have declined them, unless the borrower was in a position to give security through the deposit of bonds, or some other form of collateral. (California 1926, p. 309)

The growing demand for home financing represented an opportunity for institutional entrepreneurs. Commercial banks were not prepared to manage construction loans and therefore were neither capable nor willing to assist prospective home owners; their knowledge base and competitive advantage was in short-term credit (Clark and Chase 1925, pp. 19–21).

Table 1 compares thrifts' investments and investors (uses and sources of funds) with those of other financial institutions.[4] Thrifts' domain—the territory thrifts staked out in terms of products offered and clientele served—was closest to that of savings banks. Savings banks, like thrifts, invested in home mortgages. But this was generally a small fraction of savings banks' investments; government and industrial bonds were far more important. Trust companies typically specialized in handling trusts and other transactions outside the normal realm of banking. Mortgage companies made mortgage loans, primarily on industrial or commercial properties. Because they were agents for large investors, mortgage companies seldom invested in small home mortgage loans to wage or salary earners. Other financial institutions, such as insurance companies, did not overlap with thrifts materially.

Thrifts grew rapidly. In 1888, when the first census of thrifts was conducted, they numbered more than 3,000 and held over $300 million on deposit. By 1893, 5,838 thrifts operated throughout the United States (U.S. Commissioner of Labor 1894); by 1924, 10,744 thrifts were in operation (Clark and Chase 1925, pp. 514–17). Membership rose even faster than the number of associations, from 1.75 million in 1893 to 7.20 million in 1924. As thrifts grew, their importance in the U.S. financial system also increased. By 1929, thrifts controlled $7.4 billion in assets (Goldsmith 1958, pp. 73–75).

Thrift Organizational Forms

The various methods of administration used by early thrifts were termed *plans.* Thrift plans were contracts between organizations and their members concerning the roles and responsibilities of members and the procedures for regulating how incoming funds were invested and earnings were distributed (Clark and Chase 1925, pp. 32–33). Thrift plans, described in

[4] This is based on a table and supporting narrative found in an influential thrift textbook (Clark and Chase 1925, pp. 19–32). We also draw on discussions in Dexter (1889) and Bodfish (1931).

TABLE 1

Comparing Various Financial Institutions, circa 1920

Financial Institution	Type of Investment	Principal Class of Investor or Depositor
Thrifts	Home mortgages; federal and state government bonds; other bonds	Small savers
Savings banks	Federal and state government bonds; industrial bonds; foreign government bonds; mortgages on business properties and homes	Small savers; conservative investors
Trust companies	Federal and state government bonds; industrial bonds; foreign government bonds; mortgages on business properties and homes	Conservative investors
Mortgage companies	Mortgages on all types of real estate	Large investors
Investment companies, insurance companies	Industrial bonds; federal and state government bonds; foreign government bonds; industrial, railroad, and utility stocks; mortgages on farms, business properties, and apartments	Large investors; speculators
Stockbrokers	Industrial stocks; industrial bonds; federal and state government bonds; foreign government bonds	Speculators; large investors
Commercial banks	Commercial paper of all kinds (short-term credit only)	Individuals and corporations using checking accounts

Source.—Adapted from Clark and Chase (1925), p. 23.
Note.—Investments are listed in approximate order of importance for each institution.

thrifts' articles of incorporation, shaped the institutions' goals, authority structures, financial-intermediation technologies, and product offerings; thrift plans thus determined the core features of organizational form (Hannan and Freeman 1989). In the following sections, we use the terms "plan" and "organizational form" interchangeably.

Early thrifts were a form of collectivized agency arrangement (Shapiro 1987). Accordingly, transactions that could not be embedded in personal relationships between thrift members were embedded instead in impersonal trust relations between thrift members and organizers. Collectivized agency relations permeate modern societies: corporate shareholders elect boards of directors to oversee managers, parents entrust children to day-care centers, children entrust parents to nursing homes, individual investors entrust assets to mutual-fund managers, workers join unions and elect officials to represent their rights and better their job opportunities, and firms in particular industries or regions join associations to promote their mutual interests. In all of these, strangers come together to repose trust and confidence in agents. Thus, the essential feature of such institutions is that diffuse and impersonal cooperation among numerous principals is coordinated by agents.

Like other collectivized agencies, early thrifts were formed when depositors, often strangers to each other, banded together and entrusted funds to agents—in this case, thrift organizers. Like all collectivized agencies, a central feature of early thrifts was the coupling of direct cooperation between principals and agents with diffuse cooperation among principals. Like all collectivized agencies, thrifts evolved arrangements to reduce uncertainty for principals and induce them to repose faith in each other and in the agents responsible for operating these enterprises (Shapiro 1987; Bradach and Eccles 1989; Stinchcombe 1990).

Thrift Institutions

Early thrift plans—their structures and processes—were incarnations of beliefs and values concerning saving and home ownership. In other words, thrift plans were "theories in use" (Argyris and Schon 1974), notions of *what* thrift is (not) and *what* thrift should (not) do. For example, the original thrift plan embodied an expectation that people should save to buy or build homes and not for other, less consequential purchases. Thrift plans also embodied theories of financial coordination that had clear normative overtones; that is, expectations about *how* thrift should (not) be done. For instance, the original thrift plan's rules and procedures celebrated mutual cooperation and rigidly structured saving; this plan was predicated on opposition to flexible saving and lending through for-profit organizations like banks. Because early thrift plans embodied such normative expectations, they took on value far beyond the technical requirements of the financial-intermediation task at hand (Selznick 1957, p. 17).

Each thrift plan, infused with meaning and value, was an incarnation of what Adam Smith (1976) termed a "theory of moral sentiments" to guide the conduct of "prudent men"; a system of logic and ethics that combined

Stoic prudence and self-command with Christian benevolence.[5] Contemporary descriptions of early thrifts and their social function illustrate how these theories of saving and lending resonated with moral sentiments:

> A man who has earned, saved, and paid for a home will be a better man, a better artisan or clerk, a better husband and father, and a better citizen of the republic. (Dexter 1889, p. 11)
>
> The impetus of association in a common purpose, the desire to maintain his standing among his associates, the pride and satisfaction of acquiring a home, will nerve [a thrift member] to his best efforts; will make him more frugal, more industrious, more painstaking in his daily life, and cause him to get ahead in the world, when under different circumstances his earnings might have been entirely frittered away. In this manner the Building and Loan system helps to make good citizens. (California 1896, pp. 4–5)
>
> Thrift is a disciplinarian. It breeds virility. It strikes at sensuality, self-indulgence, flabbiness. It teaches the heroism of self-denial, temperance, abstemiousness, and simple living. It is the way to success and independence. It makes for happy homes, contented communities, a prosperous nation. (*American Building Association News,* quoted in Clark and Chase 1925, p. 5)
>
> The building and loan association is more than a business concern; it is a great social institution conducive to the cultivation of those habits of thought and life which make for national progress and prosperity and for the advancement of civilization in general. . . . The greatest achievement[s] of this movement . . . are those large personal and social values which I designate as the spiritual accomplishments of this great movement, namely: . . . its development of the spirit of self-respect and confidence in one's own personality; . . . the immeasurable personal satisfaction which comes from the sense of home ownership; the contribution it makes to the stabilization of population and the consequent stabilization of those other great institutions—industry, the home, the state, the school, and the church. . . . In encouraging thrift and home ownership, the building and loan movement is making more solid the foundations of the greatest civilization the world has yet known. Yours is not merely a business function; it is a mission which seeks to achieve social justice in an evolutionary manner. Yours is not just a job, but a profession of the highest order. (Address by Professor Gordon Watkins to the California Building-Loan League, quoted in California 1926, p. 314)

As these quotations make clear, thrift organizers considered their charge to be one in which economy *and* morality inhered: moral worth was improved by economic advancement.

[5] We follow Smith in using "sentiments" to indicate opinions, beliefs, and judgments rather than emotions. We do not suggest that the first thrifts were designed according to or motivated by Smith's particular theory of moral sentiments. We merely wish to make clear the parallels between Smith's theory of moral sentiments and the theory inherent in the earliest thrift plans.

The Duality of Organizational Form and Institution

Early thrifts' forms of organization (membership rules, governance structures, financial-intermediation technologies, and products) could not be decoupled from their institutional logics (the norms, ways of thinking, and rules that constituted their theories of moral sentiments). Changes in institution had to be accompanied by changes in organizational form, and changes in organizational form inevitably yielded changes in institution. Hence, the building up and tearing down of thrift institutions operated in tandem with the emergence and extinction of thrift organizational forms. For this reason, studying the evolution of institutions requires studying the evolution of organizational forms and vice versa (Scott 1995).

The duality of organizational form and institution yields a recursive relationship. On one hand, because organizations render institutions material and thus potent to shape human behavior, the fates of organizational forms determine the fates of institutions; that is, the persistence and evolution of organizational forms makes possible the concurrent persistence and evolution of institutions. On the other hand, the legitimacy of organizational forms' goals and structures partly determines their fate, and this legitimacy requires congruence between the institution embodied by a particular organizational form and the normative, cognitive, and regulatory character of wider society.

Institutions operate at multiple levels of jurisdiction in society (Scott 1995; Jepperson 1991). Meyer and Rowan (1977, p. 343) pointed out that "norms of rationality are not simply general values. They exist in much more specific and powerful ways in the rules, understandings and meanings attached to institutionalized social structures." Following this logic, we propose that organizational form is tied to two distinct types of institutions that function at different levels of society. First, organizational forms make incarnate *specific institutions*—particular regulations, norms, and ideas that structure the actions of individuals and groups. In the case of the early thrift industry, the relevant specific institutions are particular theories of moral sentiments concerning how one should save and borrow; that is, beliefs about how thrift should (not) be done. In other circumstances, organizational theorists have been concerned with how corporations manifest norms and values concerning hostile takeovers through jargon and official communication (Hirsch 1986) or how employing organizations make concrete regulations and social expectations concerning equality of opportunity, due process, and employee rights (Edelman 1990; Dobbin, Sutton, Meyer, and Scott 1993). Second, organizational forms are legitimated to the extent that they accord with *general institutions*—broadly accepted norms, values, and belief systems that constitute the master principles of society, such as truth, equality, and justice. In the early thrift industry, the relevant master principles are notions of citizenship, progress, and trust. In other circumstances, scholars have analyzed generally accepted ideas about rational economic behavior and legally sanctioned organizational forms (Delaney 1992; Creighton 1996).

The essence of institutional entrepreneurship is to align skillfully an organizational form and the specific institution it embodies with the master rules of society (Swidler 1986) so as to ensure that the organization thrives. There is often conflict about which master rule should determine the design of organizations and institutions (Friedland and Alford 1991). The design with the most support will be privileged. Proponents of losing designs, those embodying precarious beliefs and norms, can take several courses of action: they can exit the arena, focus on small specialized niches, or embrace the accepted design and transform their own organizations. Organization builders therefore play a crucial role in resolving the issue of which master logic is applied to the design of organizations and their institutional content. The effects of general institutions are thus filtered through interactions between the designers of organizational forms and the specific institutions these forms render incarnate. The indirect relationship between general institution and organizational form is necessarily weaker than the direct relationship between organizational form and specific institution.

The fate of an organizational form (i.e., the fate of the many organizations exhibiting that form) largely determines the fate of the specific institution it embodies in two important respects.[6] First, specific institutions affect behavior through their organizational embodiments. Hence the influence of institutions embodied by organizations expands when their organizational manifestations proliferate; that is, when new organizations are created or when established organizations adopt structural devices that embody the norms, values, and beliefs in question. For example, industrial firms developed personnel departments and formal procedures predicated on ideas about bureaucratic control of employees' careers (Baron, Dobbin, and Jennings 1986). By the same token, institutions decline when their organizational infrastructures are dismantled. For example, the firm-as-portfolio logic embodied in the conglomerate form decayed as corporations sold off unrelated businesses and shunned diversification (Davis, Diekmann, and Tinsley 1994). Second, specific institutions acquire social facticity—a taken-for-granted character—and

[6] Note that this logic holds most strongly when a single organizational form embodies the specific institution under study. If, however, a specific institution resides in multiple organizational forms, that institution's fate is not entirely tied to the fate of any single form. We thank an *AJS* reviewer for pointing out this caveat.

amass sociopolitical support when many organizational instances exist (Hannan and Freeman 1989; Hannan and Carroll 1992).

Below, we explain the rise and fall of theories of thrift (specific institutions) by analyzing the fates of their organizational incarnations. We then show how the fates of the organizational incarnations of these theories of thrift were shaped by a debate about which master logic of wider society (i.e., which general institution) should be applied to organize thrift.

Starting and Ending Points for Organizational and Institutional Coevolution

We study thrifts in one state—California. We limit the geographic scope of our analysis to make the task of gathering and analyzing data manageable: assessing the features and success of various organizational forms that embodied various theories of moral sentiments requires detailed data on individual thrifts. California is a large state and so offers a large number of thrifts for analysis. Moreover, state agencies published serially reliable organization-level records extending from 1890 (California, various years). Although we have detailed data on California thrifts only, our descriptions of thrift plans and many of the quotations we present from contemporary observers relate to the United States in general.

The period covered by our detailed empirical analysis does not include the earliest history of thrifts in California. The first California thrifts were founded some 25 years before our records begin. We would obviously prefer to analyze the complete history of thrifts in California, but no data on individual thrifts and their organizational forms are available before 1890. Since we are concerned with tracing the coevolution of organizational forms and institutions in this industry, and since we expect that current institutional and technical conditions determine the success of various forms, our data are adequate to our needs.

At the start of our observation period, in 1865, all California thrifts were based on the terminating plan; at the end, in 1928 (the year before the Great Depression), California thrifts were predominantly organized on the Dayton/guarantee-stock plan. Concomitantly, at the start of this period, a theory of moral sentiments that emphasized mutuality and enforced saving dominated thinking about thrift; at the end, a theory that emphasized bureaucratic control and celebrated voluntary saving held sway. We describe these two plans and their theories of moral sentiments in turn and then analyze their differences.[7]

[7] Our descriptions of thrift plans, presented here and below, are compiled from reports by a number of contemporary observers and later industry analysts (Wrigley 1873; Dexter 1889; Winters 1890; California 1890–1929; Myers 1921; Clark and Chase 1925; Bodfish 1931; Kendall 1965; Teck 1968; Rasmusen 1988).

The first form, the terminating plan.—The terminating plan was, as the name implies, a self-liquidating organizational form. It was pioneered in 1831 by the founders of the first U.S. thrift, the Oxford Provident Building Association. People—primarily wage earners such as clerks and artisans, but also professionals with moderate incomes—met at regular intervals to save money, borrowed from the growing communal fund to build or buy houses, and then dissolved the association when their joint task was completed (Dexter 1889, pp. 9–15; Bodfish 1931, pp. 2–3). Members of terminating-plan thrifts were shareholders, not depositors, because their contributions represented equity rather than debt. Shareholders' equity stakes were to be invested over the life of the association. Members wishing to withdraw early had to give one month's notice and pay a penalty.

In return for their dues, members owned shares that had a certain par value. Members subscribed to enough shares so that the par value equaled their proposed loan amount. Members borrowed in turn, paying interest on their loans and continuing to pay installments on their shares. Precedence in borrowing was established by competitive bidding; the winning bid included a loan premium. Earnings consisted of premiums, interest paid by borrowers, and fines charged for delinquency; these were divided among members on the basis of their investments. When the contributions for each share accumulated to the par value, the association was terminated and its assets divided among members in proportion to the number of shares they owned. Members used their matured shares to cancel their loans.

As a theory of moral sentiments, the terminating plan emphasized mutuality. These thrifts resembled clubs: small groups of individuals cooperated to achieve the common goal of home ownership. Indeed, the inhabitants of the city where the first U.S. thrifts were founded referred to them as "building clubs" (Clark and Chase 1925, p. 459). In this nascent institution, profit existed neither as a goal nor as an accounting entity (Bodfish 1931). All members of terminating-plan thrifts had the same dual role: saver and borrower. In addition, management of the organization's quotidian tasks was performed by volunteers; there was no formal management role other than that of trustees elected from among thrift members.

As a theory of moral sentiments, the terminating plan also emphasized enforced saving and structured individual effort. Structural constraints were strong: members joined the association together at its inception; they paid regular weekly or monthly contributions to the common fund; delinquency in payment was punished by fines and forfeiture of membership.

Terminating-plan thrifts resemble rotating savings and credit associations (ROSCAs), which are found in many societies around the world. ROSCAs are typically formed by people who know each other well and who agree to make regular contributions to a communal fund that is lent to each contributor in sequence. Like ROSCAs, the first thrifts depended on social relations among participants to facilitate economic relations, "to recruit, provide information on creditworthiness, instill obligation, discipline, and monitor participation" (Biggart, Castanias, and Davis 1996, p. 12). So, like ROSCAs, the first thrifts were communitarian organizations that relied on social relations to create and sustain a market for credit.

It is not surprising that institutional entrepreneurs established the first U.S. thrifts as highly personal nonprofit associations ("building clubs") rather than as impersonal for-profit corporations. In 19th-century America, mutual self-help was highly valued and organized in several domains of social and economic life, so this general approach to organized problem solving was available to be applied to thrift. Contemporary observers likened thrifts to mutual savings banks, mutual fire-insurance organizations, producers' and consumers' cooperatives, volunteer fire departments, community subscription libraries, and community hospitals (Bodfish 1931, pp. 4–18). Moreover, the founders of the first U.S. thrifts had specific examples to copy: English building societies. Indeed, some observers labeled thrifts "friendly societies," just like their English forerunners.

The last form, the Dayton/guarantee-stock plan.—In dramatic contrast to the terminating plan, the Dayton/guarantee-stock plan emphasized neither mutual cooperation nor enforced saving; instead, it celebrated bureaucracy and voluntary saving. This plan deemphasized the mutuality of thrift members in several ways, all stemming from divisions between members' roles. First, this plan created sharp distinctions between manager and member, and between depositor and borrower: associations using this plan employed a cadre of paid managers and did not require all savers to be borrowers. Second, this plan offered individual deposit and loan accounts that made possible individual entry and exit, thereby minimizing members' temporal interdependence and shared fate. Third, this plan distinguished between ordinary installment stock and guarantee (or contingent-reserve) stock, which was not withdrawable and which was used to insure earnings on ordinary installment stock. Because two risk classes existed (guarantee stockholders took higher risks than regular installment stockholders), two return classes existed (excess income, if any, accrued to guarantee stockholders, not to installment stockholders).

The Dayton/guarantee-stock plan represented a radically different theory of individual effort than the terminating plan. Specifically, this plan was a concrete expression of the idea that prudence and virtue did not require forced, clocklike regularity, but could be achieved through voluntary and occasional saving. This plan mandated no regular payment of prescribed amounts; instead, payment could be made at any time and in any amount.

Contrasts in function.—Our descriptions show striking differences between the terminating and Dayton/guarantee-stock plans. (1) In terminating-plan thrifts, exchange occurred between individuals who played the same dual role: borrower and saver. In Dayton/guarantee-stock thrifts, exchange occurred between individuals who played dramatically different roles: borrower, saver, or guarantee stockholder. (2) Terminating-plan thrifts were managed by ordinary members elected by their fellows, while Dayton/guarantee-stock thrifts employed paid managers. (3) The Dayton/guarantee-stock plan created a distinction between owners and depositors (i.e., between holders of guarantee and installment stock), and so created the possibility of conflict between different classes of stakeholders (Teck 1968); no such distinction existed in the terminating plan. (4) The terminating plan imposed a rigid structure on individual members, while the Dayton/guarantee-stock plan allowed flexible schedules. The shift in dominant organizational form from the terminating to the Dayton/guarantee-stock plan was therefore attended by a shift in the theory of moral sentiments, specifically an erosion of the central elements of mutual cooperation and rigidly structured individual effort.

Note that the strong moral nature of thrift remained long after the original pillars of mutuality and enforced saving had eroded. Although the terminating plan's ideological trappings of mutuality and structured individual effort were weakened over time, they were replaced by the Dayton/guarantee-stock plan's novel, but still ideological, trappings of bureaucracy and voluntary effort. Quotations from commentators in the 1920s concerning the moral nature of thrift (see above) make this clear. Hence the *content* of the theories of moral sentiments made material by thrift plans shifted over time, but even the Dayton/guarantee-stock plan was strongly invested with ethical character.

The Path of Thrift Coevolution

The terminating plan was not abruptly extinguished by the Dayton/guarantee-stock plan. Instead, many intermediate organizational forms and institutions emerged and were extinguished. Hence, the coevolution of this organizational form and institution was a gradual process. Contemporary observers (e.g., Dexter 1889; Clark and Chase 1925; Bodfish 1931) noted that four basic plans (serial, permanent, Dayton, and guarantee stock) and four hybrids (serial/Dayton, serial/guarantee stock, permanent/guarantee stock, and serial/Dayton/guarantee stock) emerged before the dominance of the Dayton/guarantee-stock plan. Table 2 summarizes the attributes of the basic plans in order of their appearance.

The *serial plan* was identical to the terminating plan, with two differences: cohorts of members were liquidated instead of the entire associa-

TABLE 2

Basic Plans in the Early Thrift Industry

Plan	Features
Terminating	All members were both savers and borrowers. Members made periodic payments to a common fund (dues); fines were charged for late dues payments. Members subscribed to shares with a matured value equal to the value of the loan they wanted. Precedence in borrowing was established by bidding. When all shares reached their matured value, the association dissolved and assets were divided among members in proportion to shares owned.
Serial	Was a self-perpetuating association comprising a series of terminating associations. New series of shares were issued at periodic intervals, rather than a single group of shares at founding. Hence, cohorts of members entered and left the association on set schedules. The association continued to operate after each series of stock matured. A cadre of professional managers offered continuous administration of the association. Retained other attributes of the terminating plan: regular saving was enforced by fines, there was bidding for precedence in borrowing, saving and borrowing were coupled.
Permanent	Each member had an independent account; his or her shares started and matured without regard to other members' shares. Hence, individual members entered and left the association on their own schedule. Installment dues were uniform and at regular intervals; penalties were enforced for late payment. Members bid for loans; winning bids paid premiums. Savers did *not* have to borrow, so borrowing was decoupled from saving.
Dayton	Each member had an independent account that could be closed at any time. There were two types of accounts: installment and paid-up stock, which had the face value of the share paid in at the start and subsequently accrued interest. Payment on accounts could be made at any time; there were no fees for late payment. Hence, this plan introduced a new theory of individual effort: prudence and virtue did not require clocklike regularity, but could be achieved through occasional saving. There were no premiums for loans; loans were made in order of application; interest rates varied with demand. Shareholders could just save and were not forced to borrow.

TABLE 2 (*Continued*)

Plan	Features
Guarantee stock	Guarantee (capital) stock was paid in at time of founding by officers; it was not withdrawable and was used to insure earnings on ordinary installment shares. As a consequence there were two risk and two return classes, guarantee stock and installment stock. Guarantee stockholders took higher risks than installment stockholders; earnings in excess of contract liabilities accrued to guarantee stockholders, not to installment stockholders. Installment stock accounts could be withdrawn at any time. Individual accounts made individual entry and exit possible. Installment stockholders could just save, not borrow. Loans were made in the order of application; interest rates were adjusted periodically.

SOURCES.—Wrigley (1873); Dexter (1889), pp. 70–112; Clark and Chase (1925), pp. 32–78; Bodfish (1931), pp. 32–231, 317–27.

tion, and a cadre of paid managers ran the association. In turn, the *permanent plan* differed from the serial plan in one key respect: instead of cohorts being started and liquidated, individual members' accounts were freely opened and closed. The *Dayton plan* represented a remarkable break from previous plans in that it created distinctions between savers and borrowers and discontinued the system of fines and forfeitures for delinquency.[8] The *guarantee-stock plan* differed from other plans by distinguishing between guarantee stock (nonwithdrawable stock paid in at founding that was used, as its name suggests, to guarantee the association's loans) and ordinary installment stock. This plan offered its two types of stockholder different risks and returns: guarantee stockholders took higher risks and received greater returns than installment stockholders.

Hybrid plans, which are not shown in table 2, were recombinations of various basic plans. Some of these variations arose through planned change to meet idiosyncratic local needs; others were simply due to unplanned errors in replication (Clark and Chase 1925, p. 33). The *Dayton/guarantee-stock hybrid,* described earlier, took from the Dayton plan the ideas of voluntary saving and of savers not having to borrow and, from the guarantee-stock plan, the idea of a contingent-reserve fund. To give a second example, the *permanent/guarantee-stock hybrid* incorporated most

[8] This plan originated in Dayton, Ohio; hence, the name.

elements of the permanent plan: it allowed individual accounts, it enforced saving by penalizing late dues payments, and it had members bid for loans. It also incorporated elements of the basic guarantee-stock plan: the nonwithdrawable capital stock paid in by the founding officers at start-up was used to insure ordinary installment stock.

In comparing the theories of moral sentiments embodied in these organizational forms, we focus on how the plans differed in their emphasis on mutuality and structured individual effort. With respect to mutuality, we ask (*a*) did all members have a dual saver/borrower role, (*b*) was this role temporally identical for all members, (*c*) was there a paid managerial staff, and (*d*) did all organizational members accept the same risks and returns? With respect to structured individual effort, we ask (*a*) could members pay on flexible or irregular schedules, (*b*) could members pay varying amounts, and (*c*) could members save without having to borrow? Table 3 summarizes our analysis.

Table 3 shows that the terminating plan was the material realization of a theory of thrift based on the pillars of mutual cooperation and external control. This plan allowed for no role differentiation between members—all members were both savers and borrowers; all members entered the organization at its founding and left at its dissolution; there was no professional managerial cadre, as ordinary members assumed responsibility for administrative tasks; and all members took the same risks and received the same rewards. Note that this plan carried the notion of shared fate to its logical conclusion—associations were liquidated when all members had built homes and repaid loans. Finally, this plan was based on the idea that individuals would save only when forced to do so; hence, a system of punishments and fines was key.

Other thrift plans weakened the pillar of mutuality, the pillar of enforced saving, or both. The serial plan preserved enforced saving but attenuated collaboration—it weakened common bonds among members by making the cohort of members the entity that was liquidated (rather than the entire organization) and by introducing paid managers (rather than unpaid volunteers). The permanent plan was an incremental extension of the serial plan and further weakened collaboration because individuals were the entities that entered and exited the association rather than cohorts of individuals. The Dayton plan undermined enforced saving: saving was voluntary, a real choice rather than the inevitable consequence of fixed constraints. Finally, the guarantee-stock plan shattered the original model of collaboration by distinguishing between the owners of two different classes of stock.

Numerous hybrid plans sought to blend different theories of thrift. For instance, the serial/guarantee-stock hybrid preserved the model of enforced saving with a weakened notion of mutuality. In this plan, mutuality

TABLE 3

Comparing the Theories of Moral Sentiments in the Basic Thrift Plans

Plan	Mutuality	Structured Individual Effort
Terminating	All members played a dual saver/borrower role; all members shared the same temporal position—all entered and left the association at the same time; there was no managerial cadre; all savers were in the same risk and return categories. *Conclusion:* Mutuality was extremely strong.	Members were forced to pay on set schedules; members were forced to pay set amounts; all members had to save *and* borrow. *Conclusion:* Structured individual effort was very strong.
Serial	All members played a dual saver/borrower role; not all members shared the same temporal position—members entered and left the association with their series cohort; there was a managerial cadre; all savers were in the same risk and return categories. *Conclusion*: Mutuality was strong (but weaker than in the terminating plan).	Members were forced to pay on set schedules; members were forced to pay set amounts; all members had to save *and* borrow. *Conclusion:* Structured individual effort was very strong.

Permanent	All members played a dual saver/borrower role; members did not share the same temporal position—they entered and left the association on their own schedule; there was a managerial cadre; all savers were in the same risk and return categories. *Conclusion*: Mutuality was strong (but weaker than in the serial plan).	Members were forced to pay on set schedules; members were forced to pay set amounts; not all members had to borrow. *Conclusion*: Structured individual effort was strong.
Dayton	Some members were only savers and others were both savers and borrowers; members did not share the same temporal position—they entered and left the association on their own schedule; there was a managerial cadre; all savers were in the same risk and return categories. *Conclusion*: Mutuality was weak (but not nonexistent).	Members neither had to pay on set schedules or in set amounts—they could pay any amount, any time; not all members had to borrow. *Conclusion*: Structured individual effort was virtually nonexistent.
Guarantee stock	Some members were only savers, others were both savers and borrowers; members did not share the same temporal position—they entered and left the association on their own schedule; there was a managerial cadre; all savers were not in the same risk and return categories since guarantee stockholders took higher risks than installment stockholders; excess profits, if any, accrued to guarantee stockholders, not to installment stockholders. *Conclusion*: Mutuality was very weak.	Members were forced to pay on set time schedules; members were forced to pay set amounts; not all members had to borrow. *Conclusion*: Structured individual effort was strong.

was weakened because paid managers existed and cohorts of members were dissolved (both elements of the serial plan), and because excess risks and profits accrued to guarantee stockholders (the central element of the guarantee-stock plan).

Figure 1 plots the number (density) of California thrifts operating under each plan between 1890 and 1928; figure 2 plots the aggregate size (mass) of each plan.[9] The number of thrifts more than doubled during the 40 years for which we have detailed data, rising from 111 in 1890 to 225 in 1928. Although the first California thrifts, established in 1865, were organized on the terminating plan (Bodfish 1931), few terminating-plan associations operated in California in 1890; this form disappeared at the turn of the century. This is consistent with trends in other parts of the country (Bodfish 1931; Clark and Chase 1925, p. 60). In 1890, when our detailed data begin, the serial plan dominated the California thrift industry with 101 out of 111 thrifts operating (91% of existing thrifts). The serial plan continued to be the modal plan until near the end of the observation period. The Dayton plan had modest success, growing in numbers after 1901 and reaching a peak of 26 (23% of thrifts operating) in 1909. The permanent plan also had modest success, growing from four in 1890 to a peak of 10 between 1900 and 1902, before disappearing after 1916. In contrast, the guarantee-stock plan never grew large in numbers. This plan was followed by the serial/guarantee-stock hybrid, which achieved some success after 1920. Finally, the Dayton/guarantee-stock hybrid grew slowly from 1901 to 1920, then rapidly became the dominant plan. By the end of our observation period, this plan had reached a peak of 157 members, which constituted 69% of thrifts operating at that time. California moved relatively early to embrace this plan. The serial plan was still the dominant form across the United States as late as 1923 (Clark and Chase 1925, p. 60). Not until the early 1930s did the Dayton/guarantee-stock plan dominate nationwide.

Figure 2 shows that thrift mass (total assets) increased even more dramatically than density, from $15,800 in 1890 to $376,400 in 1928. At the start of our observation period, the average California thrift held $145 in investments, while at the end, the average thrift held $1,680. The serial plan's dominance in the California thrift industry was less than its sheer numbers would suggest. Serial-plan thrifts were limited in size by their unwieldy bookkeeping systems and so had relatively small asset bases:

[9] These plots are based on data from *Annual Reports* of the California State Commissioner of Building and Loan 1890–1928. To make these plots legible, we aggregated five plans having few adherents into the category "other": terminating, guarantee stock, serial/Dayton, permanent/guarantee stock, and serial/Dayton/guarantee stock.

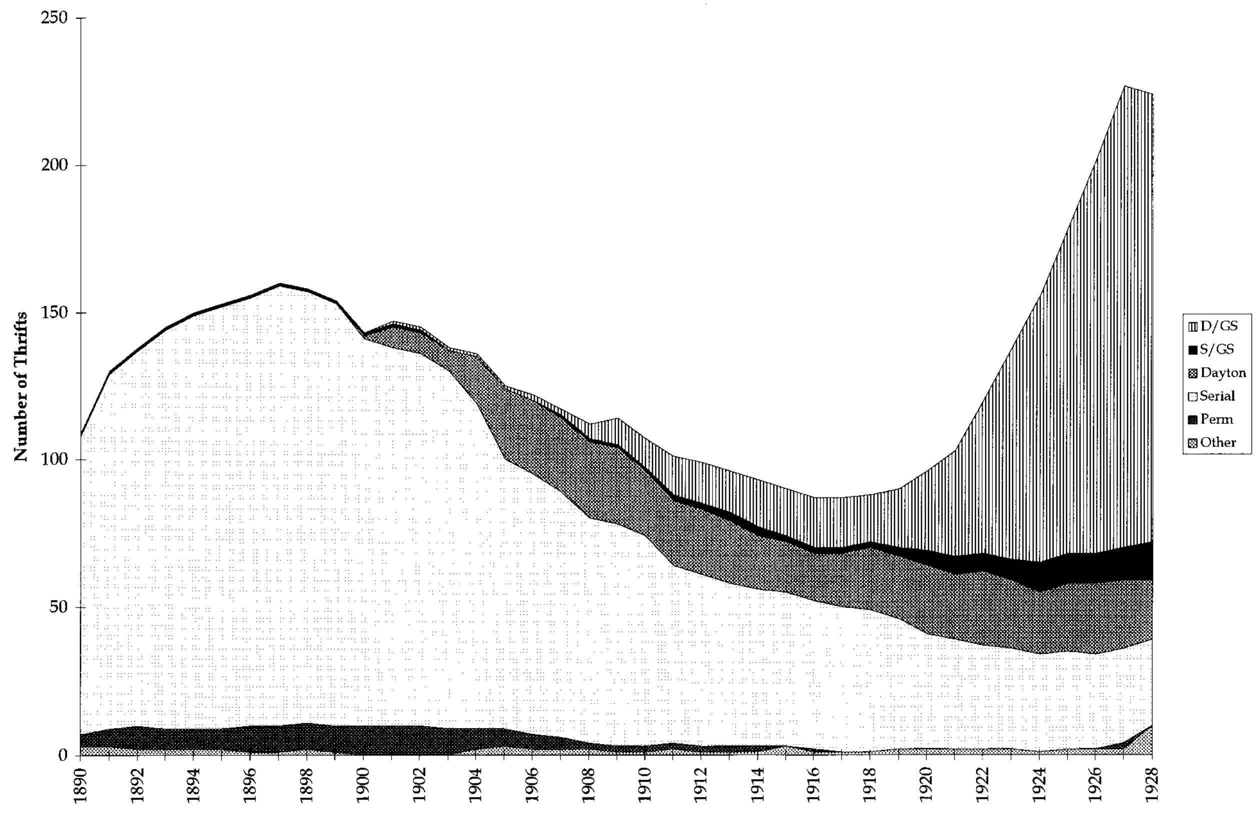

FIG. 1.—Density of early California thrift plans, 1890–1928

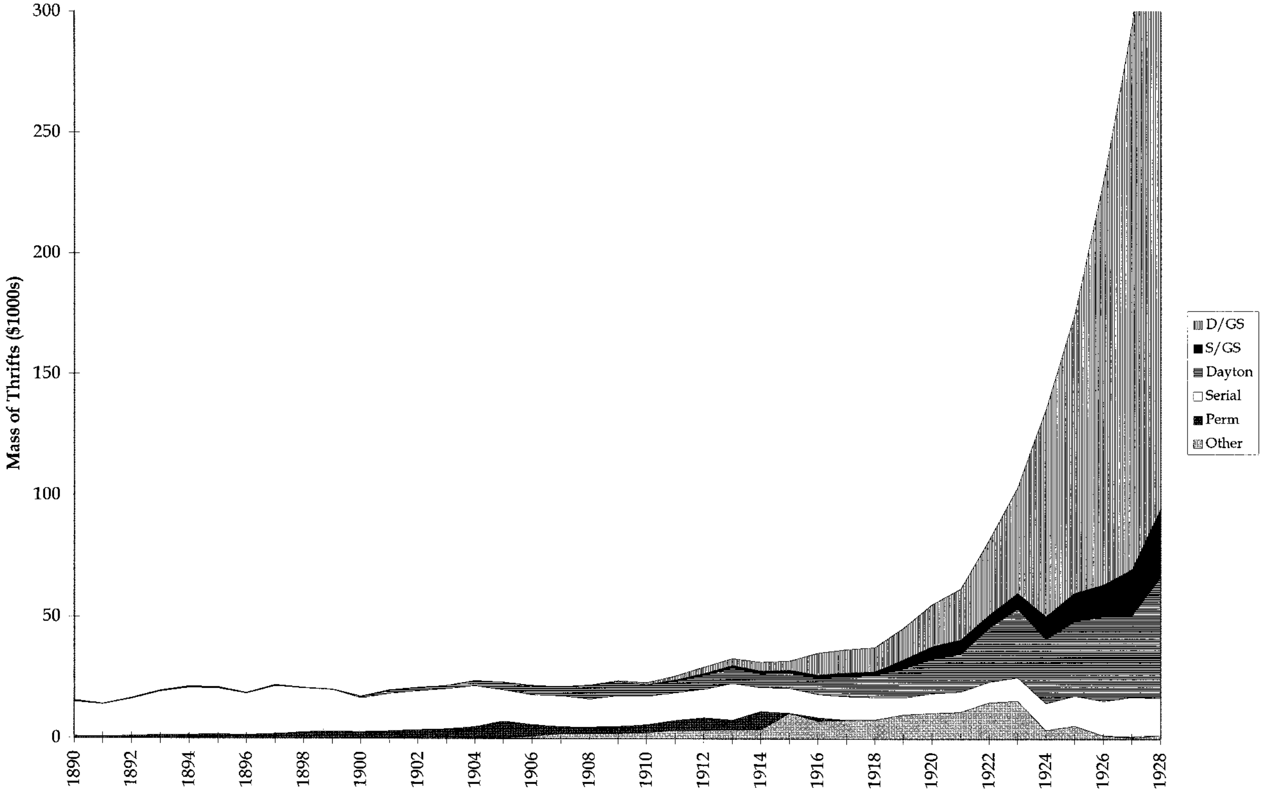

FIG. 2.—Mass of early California thrifts, 1890–1928

$527 on average in 1928. In contrast, the average Dayton/guarantee-stock thrift had assets of $1,854 in 1928.

Figures 1 and 2 give rise to two questions. *By what process* did coevolution operate: adaptation, meaning the adoption and abandonment of elements of organizational form and theories of moral sentiments by established thrifts, or selection, meaning the birth of new organizations embodying novel theories of moral sentiments and the death of existing organizations embodying old ones? And *why* was a theory of thrift emphasizing mutuality and enforced saving replaced by one celebrating bureaucracy and voluntary saving?

EXPLAINING THE COEVOLUTION OF THRIFT ORGANIZATION AND INSTITUTION

Adaptation versus Selection

Figures 3 and 4 offer insight into the mechanisms by which the composition of the California thrift industry shifted from 1890 to 1928: adaptation or selection. Figure 3 plots the number of thrift births versus conversions by existing thrifts to new plans; figure 4, the number of thrift failures versus conversions.[10] There were 311 founding, 173 failure, and 83 conversion events. Counting each conversion twice (once as entry to a plan and once as exit from a plan) and adding foundings and failures, we see that selection events constituted 74% of the evolutionary process (484/650 events), while adaptation events constituted just 26% (166/650 events). Thus in this setting, the dominant engine of institutional and organizational coevolution was selection.

Figures 3 and 4 suggest unambiguously that selection dominated adaptation in this organizational population in terms of the *number* of evolutionary events. But these figures do not address another obvious question: Was adaptation more likely for larger thrifts and was selection mostly confined to the birth and extinction of small thrifts (Hannan and Freeman 1989, pp. 80–84)? Figures 5 and 6 address this question by plotting the *mass* of adaptation and selection events, weighting each event by thrift size as measured in terms of assets.[11] These figures show that a greater

[10] Although our data are rich, there are a few holes in the records. *Annual Reports* were not published in 1897, 1898, 1901, 1902, 1903, or 1904. We have exact birth and death dates, but not exact dates of form conversion. We used a random number generator with a uniform distribution to assign form-change dates to thrifts within the year (or, in the early part of our observation period, the half year) between records. If thrifts converted from one plan to another during a gap in our records, we randomly assigned change dates to some point during that gap.

[11] Following the lead of earlier researchers (e.g., Carroll and Huo 1986) we interpolated missing size data for each organization (missing due to gaps in the records) by re-

mass of investment in thrifts was involved in adaptation events than in selection events. Over the years 1890–1928, selection events involved only assets of $112,662 (adding the sizes of all thrifts born and dissolved), while adaptation events involved assets of $216,960 (including the size of each conversion twice, once as exit from a plan and once as entry to a plan). So if we consider *organizational scale,* adaptation accounted for two-thirds of the thrift assets involved in vital events, while selection accounted for one-third.

Current thinking and a growing body of empirical evidence suggest complex causal relationships between adaptation and selection (Singh, House, and Tucker 1986; Miner, Amburgey, and Stearns 1990; Kelly and Amburgey 1991; Haveman 1992, 1993; Amburgey, Kelly, and Barnett 1993; Barnett and Carroll 1995). Whether adaptation increases or decreases the likelihood of subsequent failure depends on the kind of change undertaken (core or peripheral), the circumstances that prompt change (incremental or radical environmental shift), and characteristics of the organization itself (size, age, ties to other organizations). Moreover, some researchers distinguish between process effects (always positive) and content effects (positive or negative) of change on failure (Amburgey et al. 1993; Barnett and Carroll 1995). To the extent that adaptation precipitates or prevents failure, comparing the frequency of births, deaths, and transformations is misleading. This simple calculus places too much weight on birth and death and insufficient weight on change, because it ignores the second-order consequences of change; that is, it weights the second-order consequences of change at zero by assuming that change does not raise or lower the risk of failure.

To take this reasoning into consideration, we analyzed whether adaptation altered the chance of failure for thrifts. Using event-history methods (Tuma and Hannan 1984; Tuma 1993), we estimated models of organizational death of the form $r(t) = \exp(\beta' x)$, where $r(t)$ is the hazard rate of death and x is a vector of explanatory and control variables. A dummy variable accounts for the initial effect of form conversion. Following previous research (Kelly and Amburgey 1991; Amburgey et al. 1993), we set this variable equal to "0" for thrifts that had not yet changed their plan and "1" for thrifts that had changed. We computed time since form conversion, to determine whether the effects of this change lessened as time passed. These variables were highly correlated (r = .76) because there were few repeated form conversions; to avoid problems with multicollinearity, we included these variables in separate models. Our controls included organizational and industry factors that may impel or impede fail-

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gressing size against time. We used the TRANSREG procedure (SAS Institute 1994) to perform this nonlinear interpolation.

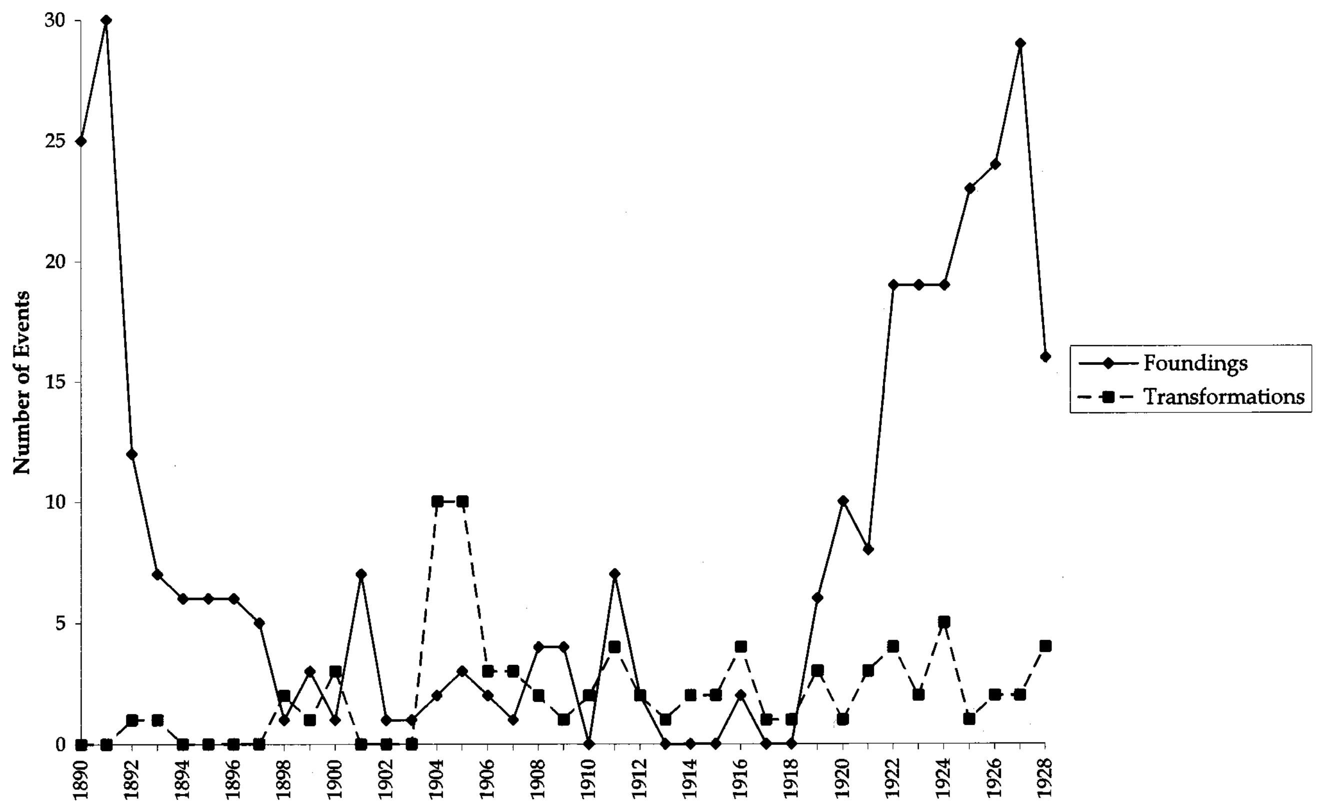

FIG. 3.—Foundings and transformations in the California thrift industry, 1890–1928

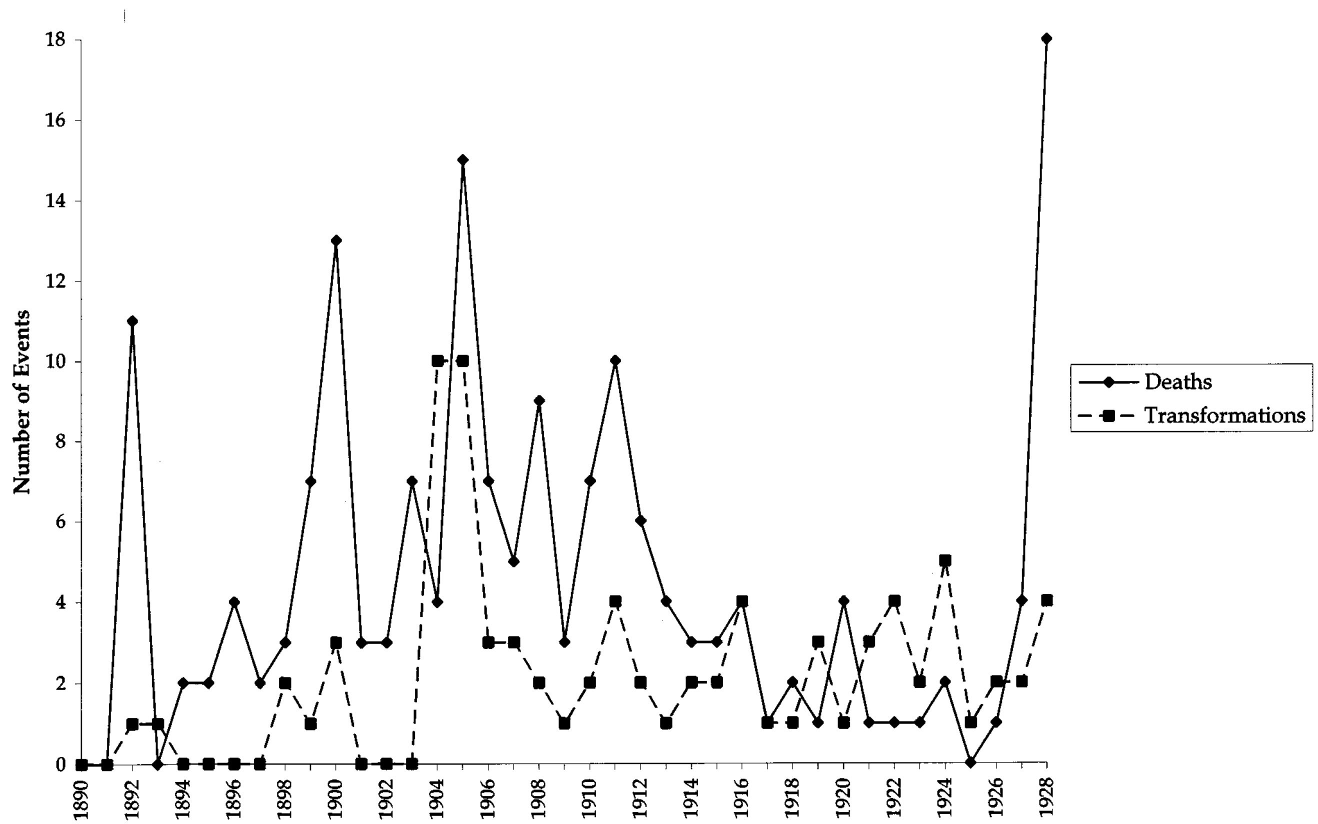

FIG. 4.—Deaths and transformations in the California thrift industry, 1890–1928

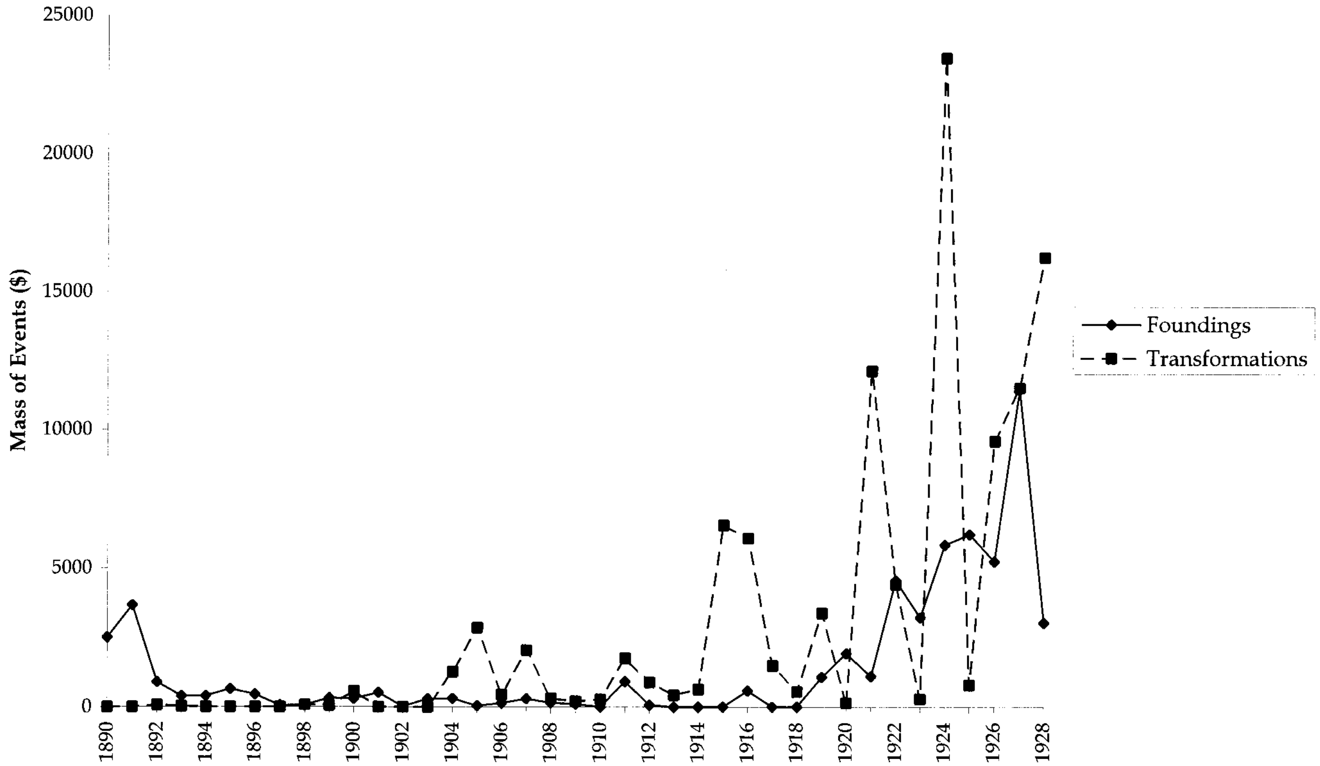

FIG. 5.—Mass of founding and transformations in the California thrift industry, 1890–1928 (no. of events weighted by size)

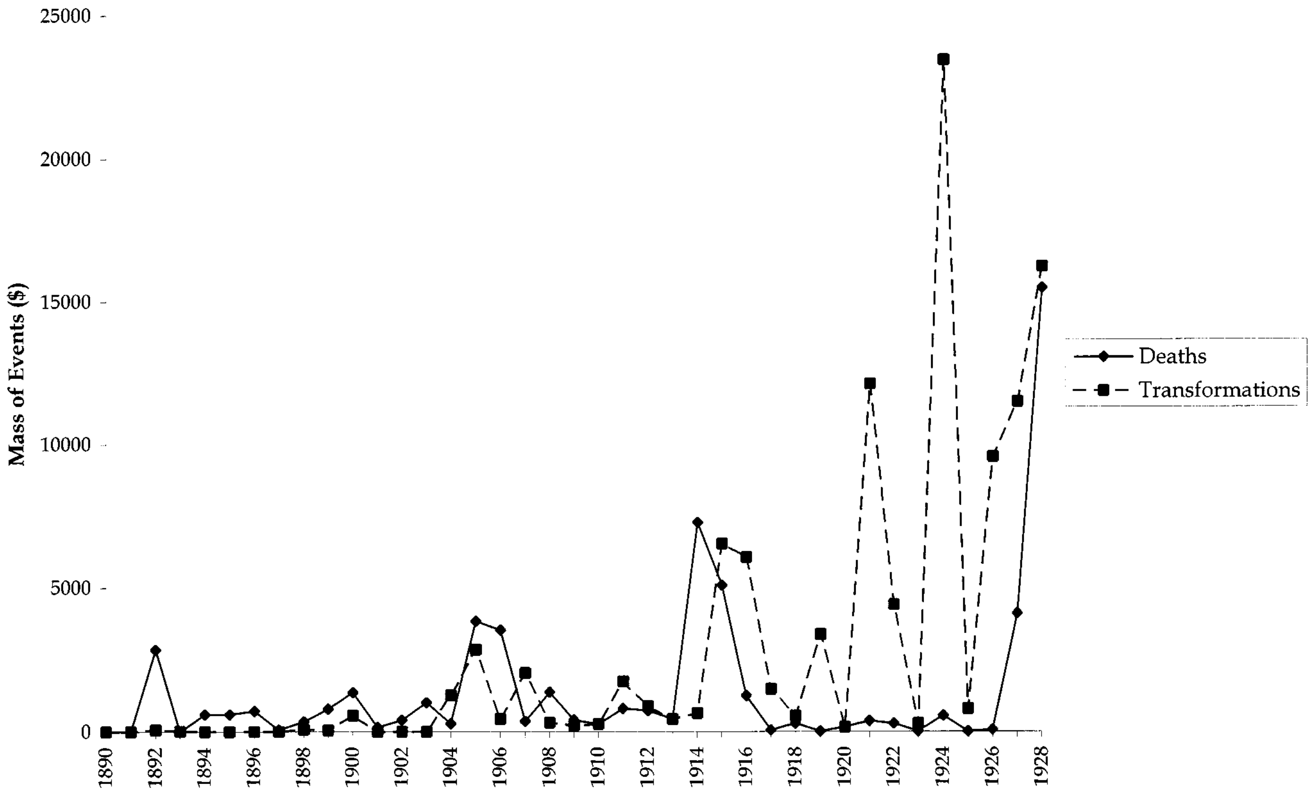

FIG. 6.—Mass of deaths and transformations in the California thrift industry, 1890–1928 (no. of events weighted by size)

ure: age (years), size (assets), five indicator variables for plan (five plans with low density—terminating, guarantee stock, permanent/guarantee stock, and serial/Dayton—were combined into one category), number of thrifts (density) with the focal thrift's plan each year, and the aggregate size of thrifts (mass) with the focal thrift's plan each year. We divided the data into one-year spells, including one record per thrift for each year of its life, so that we could update the values of independent and control variables annually. We lagged all explanatory variables by one year to ensure their temporal priority.

Table 4 shows that adaptation (form conversion) did not significantly alter the hazard of death for thrifts: the parameter estimate for the form-change dummy is nonsignificant. But, over time, the effect of form change became beneficial: the parameter estimate for time since form change is negative, as expected, and marginally significant ($P < .08$). These results suggest that adaptation indirectly attenuates selection, although the effect is weak in magnitude and significance. On average across our sample, converting from one form to another reduced the risk of failure by 1%.[12]

These results indicate that our analysis of simple event counts reported above truly reflects the relative impact of adaptation versus selection for the evolution of this organizational population. Even after taking into consideration the second-order consequences of adaptation, selection predominates.

Why Did Selection Predominate?

There are two explanations—one institutional, one technical—for why thrifts' theories of moral sentiments and their organizational embodiments coevolved primarily through selection. The institutional explanation hinges on the nature of thrift plans themselves. Each thrift plan was infused with value beyond the technical requirements of the financial-intermediation task at hand; each plan embodied a particular theory that reflected in varying ways the values of mutuality and structured effort. Adapting to a new plan required accepting new beliefs about how a thrift ought to operate and new ideas about what a thrift's goals and scope of authority ought to be. For example, converting from the serial to the Dayton plan entailed shifting from an association comprising many cohorts

[12] The multiplicative effect of any variable x on the rate of organizational death is $\exp(\beta x)$, where β is the focal parameter estimate. The effect estimate on the clock counting time since form conversion is negative, so thrifts' likelihood of failure declined at an increasing rate as time passed after conversion. The average observed time since conversion was 1.1 years. Therefore, for the average thrift, the multiplier of the death rate following change was $\exp(-007 \times 1.1)$, or 0.992.

TABLE 4

The Impact of Form Conversion on Thrift Failure Rates

	Model		
	1	2	3
Constant	−3.60*	−3.88*	−3.89*
	(.472)	(.519)	(.505)
Dayton plan	−.140	.214	.219
	(.380)	(.454)	(.427)
Permanent plan	.891	1.14*	1.10*
	(.493)	(.524)	(.509)
Dayton/guarantee-stock plan	−1.23*	−.942*	−.984*
	(.535)	(.576)	(.558)
Serial/guarantee-stock plan	−1.28	−.843	−.995
	(.105)	(1.09)	(1.06)
Other plans	.764	1.15*	.978
	(.636)	(.692)	(.643)
Age	.009	.017	.018
	(.011)	(.012)	(.012)
Size/1,000	−.172	−.155	−.145
	(.129)	(.130)	(.125)
Plan density/100	−.249	−.083	−.086
	(.349)	(.369)	(.362)
Plan mass/10,000	.101*	.087*	.090*
	(.035)	(.037)	(.036)
Form conversion dummy		−.557	
		(.391)	
Time since conversion			−.071*
			(.041)
χ^2	25.71	27.89	29.61
df	9	10	10

Note.—The omitted thrift plan was the serial plan, which was the most prevalent plan during most of our observation period. The small plans (those with few adherents) included the terminating, guarantee-stock, permanent/guarantee-stock, and serial/Dayton plans. Nos. in parentheses are SEs of the parameter estimates.

* $P < .05$, one-tailed test.

of members, spaced at regular intervals, to an organization in which members entered and exited at their own pace. It meant eliminating rigid payment schedules, fines for late payment, and the requirement that all savers also be borrowers. It meant accepting paid-up stock, which was similar to modern certificates of deposit and which therefore did not encourage accumulation of savings over time. Finally, converting from the serial to the Dayton plan entailed establishing interest rates for borrowers based on demand for loans rather than having borrowers bid for loans and pay loan premiums. As this example illustrates, adjusting to a different organizational form involved repudiating strongly held norms (mutuality based on common bonds within cohorts, between borrower and saver, and among savers; the value of rigidly structuring members' efforts to save). Converting from one plan to another essentially entailed an ideological shift by thrift members akin to religious conversion or a scientific paradigm shift. In a similar vein, Hannan and Freeman (1989, pp. 53–65) argue that institutionalization serves as a segregating mechanism that creates boundaries between organizational forms: the more institutionalized the form, the more salient the difference between that form and others. It is more difficult to change from one form to a very different other form than to change from one form to a very similar other form, since different forms are representatives of incompatible institutions.

The technical reason for the predominance of selection is that many thrifts were small and inexpensive to establish and dissolve—they had few physical assets or other forms of specialized capital investment. Little would be wasted if small thrifts built on old plans were closed and new thrifts built on new plans were opened in their place. If this logic was sound, thrifts involved in selection events would typically be smaller than thrifts involved in adaptation events. To assess this possibility, we computed the average size of thrifts after founding, before failure, and before conversion. Entries to a plan through de novo birth and exits from a plan through failure tended to be smaller than entries through conversion: the average asset size of thrifts in the first year after birth was $173; the average asset size in the year before failure was $338; and the average asset size in the year before conversion was $1,307. Our t-tests of differences between size at birth and at failure, on the one hand, and size at conversion, on the other, were highly significant ($P < .003$). These results accord with our earlier analysis of the mass of adaptation versus selection events (figs. 5 and 6) and indicate that small thrifts were more likely to be subject to selection pressures (to be born de novo or fail outright), while large thrifts were more likely to undergo adaptation (to convert from one plan to another).

Taken together, institutional impediments to adaptation (normative and cognitive) and technical factors facilitating selection (low setup and exit costs) explain why selection events drove the coevolution of theories of thrift and their organizational incarnations. But this logic does not explain the *content* of coevolution; that is, it is silent on the issue of *why* the terminating plan was replaced by the Dayton/guarantee-stock plan. Why did the terminating plan and its descendent, the serial plan, fail? Why did the permanent, Dayton, or guarantee-stock plan not take root instead? The following section answers these questions.

The Content of Coevolution

Modernization killed the theory of thrift manifested in the terminating and serial plans and gave birth to a new theory embodied in the Dayton/guarantee-stock plan.[13] Modernization promoted expanded patterns of human interaction with the rise of ties over wider geographical areas and ties involving impersonal understanding (Hays 1980, p. 240). Two principal dimensions of modernization contributed to this development. First, advances in transportation and communication fostered immigration and internal migration and so fashioned a society of strangers. These demographic changes struck at the foundations of the terminating and serial plans. Second, the Progressive movement promoted values of "continuity and regularity, functionality and rationality, administration and management" as solutions to the problem of social order (Wiebe 1967, p. 295). Progressivism modernized conceptions of cooperation and saving and legitimated the Dayton/guarantee-stock plan's bureaucratic and voluntaristic theory of moral sentiments, enabling it to thrive.

Demographic change and the demise of the terminating and serial plans.—From the founding of the first U.S. thrift in 1831 to the 1870s, small-town life was America's norm. Wiebe (1967, pp. 2–4) provided the following cogent summary of mid-19th-century towns:

> Usually homogeneous, usually Protestant, they enjoyed an inner stability that the coming and going of new members seldom shook. Even when new towns were established in fresh farm country, the gathering families brought the same familiar habits and ways so that a continuity was scarcely disturbed. . . . If there was an American philosophy of the seventies, it was a corrupted version of Scottish common-sense doctrines, taking as given every man's ability to know that God had ordained modesty in women, rectitude in men, and thrift, sobriety and hard work in both. People of very different backgrounds accommodated themselves to this Protestant code which had become so thoroughly identified with respectability.

A theory of thrift emphasizing cooperation and rigid structures to induce saving, embodied in the terminating and serial plans, was an effective solution in communities where people knew each other and valued frugality and hard work. Terminating- and serial-plan thrifts flourished as "a way to borrow rather than a way to lend, overcoming the problems of moral hazard and adverse selection by pooling the resources of acquaintances" (Rasmusen 1988, p. 415). In a similar vein, after reviewing detailed anthropological and sociological studies, Biggart et al. (1996) noted that

[13] We are concerned with explaining the mortality of plans rather than of individual associations; in particular, we are concerned with the mortality of the terminating *plan* rather than individual *members* of this plan. Although terminating-plan thrifts were mortal by design, the form was not.

TABLE 5

Population Growth in California, 1870–1930

Decade	Population at Beginning of Decade	Natural Increase (Births - Deaths)	Gain by Internal Migration	Gain by Immigration	Total Increase during Decade
1870–80	561,400	135,200	62,400	110,200	307,800
1880–90	869,200	93,300	137,200	118,400	348,900
1890–1900	1,218,100	94,000	113,800	65,400	273,200
1900–10	1,491,300	115,000	477,800	297,600	890,400
1910–20	2,381,600	170,200	595,300	285,200	1,050,700
1920–30	3,432,200	370,500	1,438,300	443,900	2,252,700
1930–40	5,685,000	. . .	. . .	. . .	. . .

Source.—Thompson (1955), p. 25.

rotating savings and credit associations, which closely resemble terminating- and serial-plan thrifts, comprise individuals who are financially stable and geographically immobile; these authors reasoned that social ties forged by stable economic status and geographic location are required to develop the high levels of trust found in such organizations. Like rotating savings and credit associations, terminating- and serial-plan thrifts relied on process-based trust (Zucker 1986); that is, they relied on the common background expectations of members to define, consensually and automatically, the standards of reciprocity.

This stable, localized society was displaced between 1870 and World War I, as the railroad, telegraph, telephone, automobile, newspaper, and airplane greatly diminished geographic distance by reconceptualizing physical space as time (Trachtenberg 1982). These advances in communication and production technologies promoted migration from countryside to city, migration across the United States (especially to California), and culturally heterogeneous immigration from Europe.

Table 5 shows that internal migration and immigration accounted for 56% of the increase in California's population in the decade 1870–80; by 1920–30, these processes accounted for 84% of the population increase (*Historical Statistics of the United States* 1976). Internal migration and immigration transformed California into a society of strangers. As newcomers flooded the state, the neighborhoods that sustained social action were eroded. Individuals shared insufficient history to develop strong mutual trust. Zucker (1986) argued that trust built on past exchange or expected future exchange (process-based trust) was disrupted by immigration and internal migration and was replaced by trust tied to formal social structures, such as organizations, professions, and mediating technologies (institution-based trust). In sum, between the 1870s and the 1900s, casual cooperation among friendly acquaintances was eroded and so was no longer available to underpin collectivized agency relations such as those embodied in terminating- and serial-plan thrifts; instead, permanent and rationalized systems of administration were required.

If immigration and internal migration undermined the terminating- and serial-plan models of mutual cooperation among friendly acquaintances, the growing prevalence of irregular employment undermined their shared feature of rigidly enforced saving. There are no data on the extent of regular employment in California; the closest proxy is the number of people on the payroll of manufacturing establishments. In 1890, of the total state population of 869,200, only 84,101 (9.6%) were employed in regular jobs in the manufacturing sector. By 1929, the state population had risen to 5.53 million and only 353,000 (6.4%) were employed in regular jobs in the manufacturing sector (*California Statistical Abstract* 1970). People who held jobs for short durations could not join associations that insisted on regular payments and that levied fines to punish late payments; they needed associations that offered flexible savings schedules.

Institutional conflict and aborted alternatives to the serial plan.—The technical requirements that were imposed by a transient and heterogeneous population in need of ways of saving to purchase homes induced entrepreneurs to craft new organizational solutions. These innovations undermined mutuality, enforced saving, or both; in doing so, they attracted opposition from defenders of spontaneous cooperation rooted in a small-town ethos.

The *permanent plan* emerged in the 1880s as one of the first incremental modifications of the serial plan and was designed to solve many of its technical problems.[14] In these associations, separate accounts were maintained for each shareholder rather than for each series of shares; the shares of each member were initiated and matured without regard to the shares of other members. For the organization, the permanent plan was more flexible with respect to the timing of financial flows, as it made possible the continuous subscription of new shares. For members, however, it was only slightly more flexible, as it retained uniform payment schedules and late-payment penalties. Although this plan did not suit individuals with irregular incomes, it accommodated those who wished to save and not to borrow.

One unanticipated consequence of the permanent plan's less cumbersome account books was that this type of association could grow far larger

[14] A plan of operation for permanent associations had been developed in South Carolina just before the Civil War (Walker and Cox 1852), but it failed to grow or diffuse in the wake of Reconstruction.

than could any serial-plan thrift. This fact allowed thrift organizers to expand beyond the boundaries of a single town, city, or state. The permanent plan, therefore, was the basis of the national movement that spread across the country in the 1880s and 1890s. Members of national thrifts made monthly payments that were allocated to an expense fund, an insurance fund (to make payments in case of members' deaths), and a loan fund for disbursement of loans. Shares could not be surrendered or withdrawn before maturity, and if payments were not kept up, the delinquent member lost everything. The expense fund and forfeitures for nonpayment enhanced organizers' profits. National thrifts attracted the attention of speculators at a time when schemes designed to make promoters and their agents rich were rampant (Bodfish 1931, p. 100). Many nationals operated like Ponzi schemes, paying out interest and making loans to one group of members by using the savings of other, subsequent groups of members. And nationals often made loans by mail without having association officers inspect property or investigate creditworthiness; hence, borrowers with poor reputations who could not secure loans from local associations became nationals' main customers (Clark and Chase 1925, pp. 465–66).

The organizers of locals (mostly serial-plan associations) attacked nationals for diluting mutuality and exploiting structured effort for unworthy ends. One contemporary author (Winter 1890, pp. 6–7) averred that nationals were "not cooperative," and characterized them as "diabolical." One of the principal tasks of the U.S. League of Building and Loan Associations, formed in 1893, was to oppose the nationals. Its president, Judge Seymour Dexter, attacked the nationals vigorously (*Proceedings of the United States League* 1894, pp. 34–35, quoted in Bodfish 1931, p. 107). Managers of both types of thrift instigated collective action, establishing peak associations and lobbying state legislatures. Regulatory agencies arose to bar the entry into many states—including California—of associations with headquarters outside the focal state (Clark and Chase 1925, p. 470). Other regulations required a deposit to guarantee performance of contracts made in the state (Clark and Chase 1925, pp. 470–71). California, for example, required a deposit of $100,000 in local mortgages, which effectively prohibited new national associations from entering that state. In 1891, the California State League lobbied the board of banking commissioners to investigate nationals. The commissioners strongly disapproved of nationals (*Report on National Building and Loan Associations* 1892, quoted in Bodfish 1931, p. 114).

Eventually, the national variant on the permanent plan failed. Real estate values crashed across the country in 1893, and all lenders—locals and nationals alike—were hit hard; however, nationals were hit harder than locals, since their loans constituted higher percentages of property value (up to 75%, rather than the 50% maximum loan percentage for locals) and were often made on properties of unknown value and to borrowers with shaky creditworthiness. The demise, in the spring of 1897, of one of the largest nationals destroyed the credibility of the permanent form. After this, all permanent-plan associations, local and national alike, were viewed as speculative.

The debacle of the national (permanent) associations jeopardized the legitimacy of all thrifts. Some institutional entrepreneurs felt that asking founders to inject resources in the form of a guarantee-stock or contingent-reserve fund would instill confidence in skittish depositors. Although the first *guarantee-stock thrift* was established in 1884 in Minneapolis, its appeal widened after the crash of 1897 (Bodfish 1931, p. 116). Observers of the thrift industry noted: "One of the reactions . . . against the old national association of the 90's was the lack of public confidence in the . . . mutual plan. . . . It was felt that these mutual associations could not be safe because they had no reserve. It was thought advisable to inaugurate a plan that would restore confidence in the associations" (Clark and Chase 1925, p. 50). The financial cushion provided by guarantee stock proved essential to the repair of local thrifts' credibility after the demise of the nationals (Clark and Chase 1925, p. 47).

Despite its many technical advantages, the guarantee-stock plan did not thrive. A debate over the issue of mutuality ensued, because all stockholders did not receive a proportionate share of profits (Clark and Chase 1925, p. 59). The novelty of guarantee-stock thrifts and their departure from pure mutuality aroused public concern. One defender noted: "Those who do know conditions may criticize. To many, some of our associations seem irregular and unorthodox. But any institution which teaches thrift and loans its money to promote home getting is justified, provided it operates upon ethical standards" (Myers 1921, p. 555). Its "irregular and unorthodox" nature dissuaded potential founders from treating the guarantee-stock plan as a natural or acceptable way of organizing.

The *Dayton plan* emerged as an entrepreneurial solution to facilitate thrift for people with irregular employment and unsteady income. In doing so, it eroded mutuality and eliminated structured saving entirely. The Dayton plan was somewhat less mutual than early plans because some shareholders were only savers, while others were savers and borrowers, and because individual accounts made possible individual entry and exit, which reduced members' temporal interdependence. This was the first plan to replace the term *member* with the term *shareholder* in its articles of incorporation. The two types of savings accounts, paid up and installment, represented another bifurcation of roles, this time among savers, and further reduced mutuality. Finally, this plan represented a radical new voluntaristic theory of individual effort and imposed far less structure on members than any of its predecessors. Hence, this plan was well suited to the social and economic climate of California.

Despite its technical advantages, the Dayton plan came under attack because it lacked the character-forming quality of enforced, persistent, systematic saving. The morality of making saving easy was questioned by managers of established thrifts; in response, Dayton-plan advocates argued that late-payment penalties imposed in other plans discouraged saving and so worked against thrifts' espoused goals. The Dayton plan also suffered from the stigma of being "merely a *bank*" (Clark and Chase 1925, p. 57; emphasis in the original), because relationships between members were closer to those between debtor and creditor than to those between cooperating peers (Clark and Chase 1925, p. 49). The charge of being a bank was especially deadly because during the Panic of 1907, banking was vilified by muckrakers (Wiebe 1962, pp. 186–88) and the yellow press—so much so that the "name of a bank" was "synonymous with all that is dishonest, corrupt, and criminal" (contemporary account cited in Wiebe [1962], p. 188). In sum, because it was viewed as a bank and therefore foreign to thrifts' original theory of moral sentiments, the Dayton plan never thrived.

Progressivism and the rise of the Dayton/guarantee-stock plan.—By 1928, the Dayton/guarantee-stock plan was the dominant thrift form. How did this plan succeed when it drew on ancestors whose moral worth was controversial? From a technical perspective, this plan was a practical solution to the problem of saving in a society of transients: it allowed members the option of saving and not borrowing, made individuals its building blocks, and had a specialized managerial cadre. The plan's flexible savings system (no fines for late or irregular payment) was also well suited to the needs of people with irregular incomes. Moreover, this plan was premised on impersonal, institution-based trust rather than personal, process-based trust (Zucker 1986; Shapiro 1987): interactions among members relied on standardized formal structures and stable rules. The Dayton part of this plan generated trust among members by appealing to well-understood rational-bureaucratic procedures and arguing in efficiency terms. And the guarantee-stock part of this plan relied on the existence of a nonwithdrawable fund to create trust among installment shareholders. In their textbook on how to organize a thrift, Clark and Chase (1925, pp. 57–58) summarized the Dayton/guarantee-stock plan's advantages so:

> This plan makes it possible to reach greater numbers of savers, since it brings in both periodic and intermittent accumulation. The safety and profitableness [*sic*] of building and loan shares are made available to all who are in a position to save to any extent and in any manner. . . . [Its

> advantages] are best appreciated and understood in the West where people are strange and strangers; in territory where few men of capital and leadership seem to have the time and inclination to promote a form of cooperative financial institution, which promises little reward in either cash or appreciation.

Technical advantages were a necessary but not sufficient condition for the growth of the Dayton/guarantee-stock plan; it also had to become institutionally appropriate. The rise of this plan was made possible by modernized conceptions of cooperation and saving rooted in the Progressive movement. As Progressive ideas and values gained ground after the turn of the century, cooperation evolved from a spontaneous act between friends to a bureaucratized relationship among strangers; saving shifted from the outcome of external controls to the outcome of voluntary and rational decisions by members. The formalization of government provided an impetus to the proliferation of impersonal mechanisms that generated trust among strangers (Zucker 1986). The proponents of Progressivism sought to use impersonal mechanisms and the principles of continuity, efficiency, reliability, and service to transform government. As these ideas gained ground, they were reflected in the impersonalization of many forms of economic organization, including thrift (cf. Creighton [1995, 1996] on the corporate form). For instance, political reform shifted from simple moral principles to complex procedural principles, social work was transformed from a moral act into systematic case work, philanthropy was routinized by foundations, behaviorism became ascendant in the social sciences, and industrial engineering gained ground. Observers exulted the growth of formal, rational-bureaucratic organizations: “We are living in an age of organization, an age when but little can be accomplished through organization; an age when organization must cope with organization, an age when organization alone can preserve your industrial freedom and mine” (Kirby 1906). This bureaucratic orientation reached its peak just after World War I (Wiebe 1967).

A useful indicator of support for Progressive ideas is the extent of electoral support received by Progressive candidates—who sought to promote a civil service of trained professionals who would oversee the efficient operation of public bodies—in gubernatorial, senatorial, and presidential elections.[15] Table 6 shows how Progressive candidates fared in the elections from 1910 to 1926 across California and demonstrates clearly that Progressivism was a vibrant force in in that state, especially between 1906 and 1922 (see also Link 1959).

The modernizing temper of Progressivism was reflected in the Dayton/guarantee-stock plan. The Progressive movement supported bureaucra-

[15] We thank John Meyer for this suggestion.

TABLE 6

THE SHIFTING BASIS OF PROGRESSIVE STRENGTH IN CALIFORNIA: PERCENTAGE OF VOTES TO PROGRESSIVE CANDIDATES

	1910 Gubernatorial Primary (Johnson)	1912 Presidential Primary (Roosevelt and La Follette)	1914 Gubernatorial Election (Johnson)	1916 Senate Primary (Johnson)	1922 Senate Primary (Johnson)	1924 Presidential Election (La Follette)	1926 Gubernatorial Election (Young)
Farming counties	63.7	77.5	41.9	51.1	64.4	36.9	44.0
Urban counties	46.6	76.3	51.7	52.3	60.9	30.2	45.9
Immigrant counties	49.1	68.7	47.8	53.9	64.1	39.8	49.9
Native stock counties	60.3	77.4	43.5	48.4	64.4	35.8	42.4

SOURCE.—Rogin (1968), p. 306.

NOTE.—Farming counties are defined as those in the top quartile of counties with respect to the percentage of farm dwellings (31%–46%); urban counties comprise 11 counties that were more than 50% urban in 1910; immigrant counties comprise 16 whose population of foreign-born residents and their children was over 50%; and native-stock counties comprise 14 whose population of white Americans of native stock was over 60%.

tized cooperation among strangers, such as was found in this type of thrift. Moreover, by making saving a voluntary act, this plan reflected the belief that individuals were rational decision makers. The legitimacy of this plan depended on the legitimacy of its institutional building blocks, and this grew over time with the expansion of Progressivism (Meyer and Rowan 1977; Creighton 1995, 1996). This plan grew slowly after 1908, when it received legal certification from the California State Legislature, and exploded in the 1920s. By 1928, this plan and its attendant theory of thrift had garnered enough adherents to become the dominant social fact in the thrift landscape.

Summary.—The rise of a transient and heterogeneous population and the bureaucratic spirit that attended Progressivism contributed to the downfall of thrifts based on mutuality and enforced effort and the rise of thrifts celebrating bureaucracy and voluntary effort. The growth of a heterogeneous population with irregular employment created pressure to build thrifts around individuals rather than communities and to make saving flexible and voluntary rather than inflexible and forced. The Progressive movement imparted moral and theoretical cogency to a practical solution of bureaucratizing cooperation and allowing rational decision makers the freedom to save as they wished.

DISCUSSION AND CONCLUSION

This article was motivated by a desire to study the genesis and functioning of institutions in organizations. Accordingly, we analyzed how various forms of thrift institution were built up and destroyed in tandem with the organizational forms that rendered them concrete. We first showed that the replacement of the terminating plan by the Dayton/guarantee-stock plan was an incremental process in which guiding principles of mutuality and enforced saving were gradually dismantled and replaced by guiding principles of bureaucracy and voluntary effort. We also revealed that the succession of the terminating plan by the Dayton/guarantee-stock plan was driven primarily by selection (births and deaths) rather than adaptation (conversions from one plan to another). Finally, we showed that the theory of moral sentiments embodied in the Dayton/guarantee-stock plan became dominant not only because it was a technically efficient answer to shifting human demography (bureaucratic control facilitates trust among strangers; voluntary effort meets the needs of transient workers with intermittent employment) but also because it was institutionally appropriate in the wake of the Progressive movement (bureaucratic control is modern; voluntary effort is rational).

Our study holds lessons for two traditions in the sociology of organizations, the new institutionalism and organizational ecology. Although scholars have often called for the integration of these traditions, most integrative work has imported concepts from the new institutionalism into organizational ecology, such as the many studies that demonstrate how organizational legitimation and ties to institutional actors influence the vital rates of organizations (e.g., Miner et al. 1990; Hannan and Carroll 1992). To date, much less has been done to advance the new institutionalism by introducing ideas from organizational ecology. Hence, organizational ecology has benefited from this exchange but the new institutionalism has not. By examining how institutions and the organizational forms that embody them coevolve, we have constructed a two-way flow of ideas between the new institutionalism and organizational ecology, a flow that benefits both perspectives.

Benefits for the new institutionalism.—Although much has been done to explain how institutions in organizations arise and diffuse, previous research has revealed little about the process by which institutions in organizations fall into disfavor (but see Oliver 1992; Davis et al. 1994). Our study fills this gap by demonstrating empirically how various forms of thrift institution rose *and* fell as their organizational incarnations (i.e., thrift plans) emerged, grew, and disappeared.

Our research also offers evidence to resolve a debate concerning the complex relationship between technical and institutional processes. The new institutionalists first held that technical pressures (the efficiency or effectiveness of newly developed structures or procedures) and institutional pressures (the legitimacy of the rules and normative expectations that underlie structures and procedures) exert contradictory effects on organizations (Meyer and Rowan 1977; DiMaggio and Powell 1983). Later, however, they acknowledged that these pressures may generate convergent effects on organizations, as technical criteria are disputed by institutional entrepreneurs and technical choices are constrained by broad institutional frameworks (Powell 1991). Our study focused on an industry that was characterized by *both* strong technical pressures for efficiency and strong institutional pressures for legitimacy. Although technical pressures created by internal migration, immigration, and the scarcity of permanent jobs called for more formalized structures to generate trust and more flexibility than was possible in the terminating and serial plans, attempts at modifying these plans were blocked by institutional pressures. The principle alternatives to the terminating and serial plans—the permanent, guarantee-stock, and Dayton plans—eroded the keystones of mutuality and enforced saving. Hence proponents of serial-plan thrifts battled defenders of permanent-plan thrifts (nationals) by lobbying for legislative restrictions and launching public attacks, condemned the guarantee-stock plan as an anathema to the principle of mutuality, and disparaged the Dayton plan as "a mere bank" because it relied on voluntary saving and abandoned the principle of structured effort. Moreover, ideological conflict made it difficult for established thrifts with terminating and serial plans to convert to new plans, because conversion involved the abandonment of dearly held theories of thrift. Our analysis revealed, however, that the institutional environment did not exert a single consistent force to thwart alternatives to the serial and terminating plans. If institutional entrepreneurs seeking to defend small-town America thwarted the rise of some plans, the modernizing temper of the Progressive movement legitimated bureaucratized conceptions of cooperation and voluntary saving, thereby propelling the rise of the Dayton/guarantee-stock plan. Thus, basic technical choices were altered by an emerging general institutional framework.

Benefits for organizational ecology.—Our study addresses the issue of whether adaptation or selection predominates; that is, whether the evolution of organizational populations comes about through prompt adjustment of the structures and activities of flexible organizations to suit shifting environmental conditions (Aldrich and Pfeffer 1976) or whether inertia is so strong that organizations cannot change without great cost or in a timely fashion and the members of one stable organizational form are replaced by the members of another (Hannan and Freeman 1989, pp. 66–90). Recent thinking and evidence suggest that organizational evolution reflects *both* adaptation and selection (e.g., Baron, Mittman, and Newman 1991; Amburgey et al. 1993; Levinthal 1997). We continued in this vein and provided several important advances to understanding organizational evolution. First, we demonstrated that the creation of new organizations and the death of old ones (selection)—not the restructuring of existing organizations (adaptation)—was the primary engine of organizational evolution in the early thrift industry. Second, we explained why evolution occurred primarily through selection and showed how selection processes in a population reflected the wider institutions in society. Thrifts were generally small and had little specialized capital, so there was no great benefit gained by preserving individual associations through conversion. Moreover, thrifts' theories of moral sentiments were too rigidly ethical in nature to permit easy conversion. Although technical pressures stemming from demographic changes rendered terminating- and serial-plan thrifts inefficient, defenders of small-town mores thwarted endeavors to diffuse alternative designs. Eventually, the rise of Progressivism made possible the acceptance of the Dayton/guarantee-stock plan, which bureaucratized cooperation and saving. In sum, we demonstrated the importance of understanding *both* the institutional and the technical factors that shape the mode and trajectory of organizational evolution.

Most previous studies of organizational evolution have been at the organizational level (see Baum [1996] for a review). These studies have examined the founding, transformation, and failure of individual organizations, but have not determined the combined impact of these organization-level processes on the population-level processes of adaptation and selection. To remedy this, our study shifted to the population level of analysis. Only aggregate, population-level analysis that considers all three organization-level processes *simultaneously* can reveal to what extent the restructuring of existing organizations (adaptation) and the creation of new organizations and the death of old ones (selection) are competing modes of evolution. Our research built on recent work that studies relationships between adaptation and selection (e.g., Haveman 1992; Amburgey et al. 1993). But our research differed from this work in that we emphasized tracing the consolidated effects of adaptation and selection on entire organizational populations, rather than on individual organizations.

Although thrift plans were generally inert and incapable of timely adaptive changes, institutional entrepreneurs proved adept enough to mobilize resources to build novel forms to replace what was selected out. That is, just as masters deploy their tools to create works of art, institutional entrepreneurs in the thrift industry deployed organizational forms to create collectivized agency relations. In bringing this to light, we address a fundamental criticism of organizational ecology, namely that the theory glosses over the primary source of action and change in organizational populations—organizational entrepreneurs and designers.

Future research.—Some limitations of this study deserve elaboration and point to future research possibilities. First, this study examined institutional change in just one industry and just one location in the United States. Comparative studies of thrifts in multiple locations (e.g., Biggart et al. 1996) and studies of many other societal sectors are needed to more fully understand the coevolution of institutions and organizations. Second, this study focused on a sector characterized by strong technical and institutional pressures; we did not venture into sectors that experience weak technical or weak institutional pressures. It may be that adaptation dominates selection in environments characterized by strong technical but weak institutional pressures because such settings involve relatively few cognitive, regulatory, or normative impediments to change. By the same logic, it may be that selection dominates adaptation in environments characterized by strong institutional but weak technical pressures because such settings contain many impediments to change. Moreover, it may be that environments characterized by weak technical pressures will see less change of any kind (less adaptation *and* less selection) than sectors characterized by strong technical pressures, to the extent that technical requirements provide the primary impetus for organizational change efforts. Comparative studies of such settings are clearly warranted if we are to construct a comprehensive theory of organizational and institutional coevolution.

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