

CRAFT GUILDS AND CHRISTIANITY IN LATE-MEDIEVAL ENGLAND

A RATIONAL-CHOICE ANALYSIS

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ABSTRACT

In late-medieval England, craft guilds simultaneously pursued piety and profit. Why did guilds pursue those seemingly unrelated goals? What were the consequences of that combination? Theories of organizational behavior answer those questions. Craft guilds combined spiritual and occupational endeavors because the former facilitated the success of the latter and *vice versa*. The reciprocal nature of this relationship linked the ability of guilds to attain spiritual and occupational goals. This link between religion and economics at the local level connected religious and economic trends in the wider world.

KEY WORDS • craft guilds • rational-choice • Reformation • religion • strictness

Introduction

The academic debate over the nature of craft guilds began more than a century ago, when Adam Smith and Karl Marx criticized these cooperative associations. Since then, scholarly opinions concerning craft guilds have ebbed and flowed. Some scholars argue that guilds stifled trade, inhibited innovation, and distorted the distribution of wealth (Brentano 1870: 98; Gross 1890: 50–51; Pirenne 1937: 177–179; Holmes 1962: 36; North 1981: 134; Cantor 1994: 278). Others argue that craft guilds encouraged commerce, technological progress, and economic growth (Epstein 1998; Richardson 2001, 2004). No consensus appears to have been reached among these schools of thought, perhaps because guilds engaged in different activities at different times (and thus both lines of inquiry illuminate a portion

of the truth), and perhaps because the scholarly fixation on the economic functions of craft guilds obscures an important point.

All craft guilds pursued pious goals. Several scholars note this fact. In *The Merchant Class of Medieval London*, Sylvia Thrupp writes that in addition to the regulations governing their craft, guilds were at the same time benevolent and religious societies with rules covering provisions for mutual aid, the arbitration of disputes, and the procuring of spiritual benefits (Thrupp 1989: 19). In *Guilds of the City of London*, Ernest Pooley shows that craft guilds began as religious and fraternal associations and embodied the name of their saints in their titles, which survived their transformation into trade guilds and until the present day. Thus, the Drapers' Company's formal name remains the 'Bretheren and Sisters of the Fraternity of the Blessed Virgin Mary' (Pooley 1947: 9). The guild of tailors remains the fraternity of St. John the Baptist. The goldsmiths remain the fraternity of St. Dunstan. The trade elements in these guilds, Pooley notes, were 'not at first apparent,' but evolved generations later, and until the Reformation, all guilds retained a religious orientation (Pooley 1947: 8–12).¹

The observations of these historians raise two intriguing questions that scholars have yet to ask. First, why did craft guilds combine occupational and religious endeavors? The alternative would have been guilds that performed single tasks. One guild might have trained apprentices. Another guild might have financed a chantry. The two would not interact. Second, what were the consequences of that combination? In the real world, craft guilds pursued multifaceted agendas. During one meeting, members might discuss honoring the souls of deceased brethren, the supervision of apprenticeships, the upcoming municipal elections, redesigning liveries, financing a chantry, and raising the prices of products. The juxtaposition of otherwise unrelated phenomena might cause concerns from one (such as means of escaping purgatory) to influence decisions from another (such as the treatment of customers). The influence may have been transmitted through many channels.

This article examines one possibility. The rational-choice approach to the analysis of organization behavior suggests the performance of an organization (such as a guild) depends upon the rules by which it operates and how effectively those rules are enforced. Rules encourage individuals to contribute toward collective goals and discourage them from taking advantage of their colleagues. In organizations where one set of rules governs many activities, the

ability of an organization to succeed in one endeavor may be linked to the ability of the organization to succeed in others.

The rest of this essay elaborates on that idea. Section 1 describes craft guilds' religious and occupational activities. Section 2 examines craft guilds' internal organization. Section 3 explains why bundling together religious and occupational activities helped guilds to deter free riding and elicit contributions to collective endeavors. This explanation answers the first question posed in the paragraph above. Guilds combined piety and profit because the combination helped guilds overcome free-rider problems and achieve common goals. Section 4 ponders the consequences of the combination and advances a new theory. By linking spiritual and occupational activities within organizations, craft guilds linked religious and economic trends in the wider world. Section 5 discusses the scope of the theory, conditions under which similar linkages might arise in other situations, and the relationship between this theory and the literature on compliance in organizations.

Section 1: The Activities of Guilds

While scholars dispute the exact functions of guilds in medieval economy, and while the paucity of evidence ensures that disagreement will persist for the foreseeable future, the broad outlines are known. This section begins by describing those functions. The description draws on a wide variety of secondary sources including recent research by this and other authors. The focus is not that common in the literature, where authors argue that a particular economic activity predominated at a certain time and place or that a particular theory better explains the rise and decline of guilds. Instead, the emphasis is on a theme common across all of these activities: the universal requirement for cooperation among groups trying to attain common goals. Then, this section discusses the religious activities of craft guilds. The details of these activities are important. So, the text discusses them at length and presents evidence from several primary sources. A description of the principal sources, including the corporate census of 1388 and the records of guilds published by historical societies, appears in the Appendix.

Between the coronation of Edward I and the demise of Edward VI – a period running roughly from 1275 to 1550, which Elanora Carus-Wilson labeled the 'Industrial Revolution of the Middle Ages' and

R. H. Britnell called *The Commercialization of English Society* – craft guilds operated in many sectors of the economy (Carus-Wilson 1941, 1944, 1950, 1959, 1963; Britnell 1993).² Guilds of victuallers bought agricultural commodities, converted them to consumables, and sold finished foodstuffs. Examples included bakers, who bought grain and sold bread; brewers, who bought grain and sold beer; and butchers, who bought animals and sold meat. The activities of victuallers varied of course from guild to guild, time to time, and place to place. Some guilds purchased commodities collectively and divided the materials amongst their members. Other guilds supervised municipal laws guaranteeing everyone access to the market. One widespread rule prohibited purchases of large quantities during the morning, allowing ordinary individuals to buy perishables before professional victuallers bid up the price. Another ubiquitous rule required persons who purchased commodities in bulk to sell portions of their purchase to interested parties at a fair price. Guilds also often enforced laws like the assizes of bread and ale. These statutes simultaneously taxed economic activity, moderated price fluctuations, and regulated the price and quality of consumables. Despite these and other laws designed to protect the public, innumerable sources – from court records to parliamentary inquiries to medieval literature – allege that victuallers manipulated markets for foodstuffs. They were in a position to do so. Food was a necessity. Consumers could not survive without calories. Prices for perishables were inelastic. Shortages of provisions invariably sent prices upwards. By limiting the quantity of food for sale, victuallers could raise their wares. At least on occasion, some victuallers may have taken advantage of this opportunity to enrich themselves at public expense.

Members of another type of guild sold skills and services. Examples of these service-providing guilds included clerks, who knew how to read and write; carriage drivers, who knew how to find particular places and control team and tackle; and entertainers, such as minstrels and jesters. Most of these guilds enforced government edicts concerning the quality and price of services, and like other businessmen, may have used unsavory tactics to cut costs and raise revenues. In the short run, such actions probably entailed colluding to ensure one member did not undercut the bid of another. In the long run, the way to raise incomes was to limit the number of individuals in an occupation, either by restricting the number of apprenticeships or impeding the immigration of competitors. The

hope of increasing income also encouraged the sellers of services to set high standards for themselves and fellow guild members. These incentives arose when the reputation of the guild (or the occupation) influenced the incomes of craftsmen. The most common case may have been when a guild's reputation influenced the demand for members' services and thus the prices that they could charge and the living that they could earn.

Guilds of manufacturers struggled with similar issues: regulations, apprenticeships, prices, and incomes. Manufacturers made durables goods. Examples include smiths, who worked with metal, and clothmakers, who turned fiber into fabric. Manufacturing guilds frequently occupied narrow niches. In the largest towns and cities, separate guilds worked with gold, silver, copper, bronze, tin, pewter, and various alloys of iron. Guilds working with iron and steel specialized along product lines. Specialties included armorers, blacksmiths, bladesmiths, cutlers, helmetmakers, lockmakers, male-makers, nailmakers, pinmakers, spurriers, and wiredrawers. In textile industries, guilds specialized by raw material (wool, cotton, silk) and stage of production process. This vast and varied array of artisans made durable merchandise to sell to consumers. Consumers cared about the quality of the products. Durability and reliability were key concerns. Effectiveness, safety, and resale value also warranted worry. Consumers could not easily determine these attributes before purchasing a product. The durability of leather, for example, depended on its moisture content. Tanners soaked animal hides in chemicals that replaced water with stable solvents. Shortcuts such as heating the vats quickly and cheaply created what appeared to be superior leather but which in reality inferior imitation. Consumers had difficulty distinguishing the former from the latter, particularly when dishonest craftsmen concealed their deceits with coloring and decorations. Consumers did not discover the truth for months after the purchase. In that time, the remaining moisture evaporated, and the leather hardened and cracked. Guilds of manufacturers encouraged consumers to purchase their wares by monitoring the quality of members' merchandise, consistently selling defect-free products, and developing reputations for doing so.

Reputations played an important role in the manufacturing sector because of the nature of the market. Durable goods could be sold over long distances. Sailcloth made in Newcastle could be sold in Southampton. Rayed cloth made in Salisbury could be sold in Sicily.

Bows made in Pontefract could be sold in Calais. Networks of wholesalers and retailers shipped durable goods from point of production to point of sale. Through these networks, manufacturing guilds from dozens of towns exported cloth and craftware to venues throughout Europe. Their merchandise competed for customers in those arenas. Relative to the potential output of a single craftsman or craft guild, the number of potential customers in the wider world was immense. A guild selling superior merchandise at a reasonable price could sell as much as it could manufacture. Markets for popular products were extremely elastic. Elasticity is an economic term meaning changes in the quantity supplied have little effect on the price of the product. In elastic markets, sellers maximize profits by expanding output until the costs of manufacture rise to the market price. This upper bound may have been beyond reach in medieval industries where returns to scale were close to constant. This means that medieval manufactures increased income by selling as much merchandise as possible. Reputations for quality helped them to do so. Without reputations, craftsmen could not sell their wares to consumers who did not know them. With reputations, craftsmen could distribute their wares through chains of merchants to anonymous consumers in distant markets.

All guilds of craftsmen manipulated labor markets, particularly when large numbers of artisans fell into the status between master and apprentice. Master craftsmen were guild members who owned their own shops. Apprentices were adolescents in training under long-term contracts. Journeymen fell between those well-defined roles. Their ranks swelled for various reasons. Sometimes, journeymen could not raise the capital to establish independent workshops. At other times, an old guard blocked promotions to protect its privileged position. Journeymen's employment prospects varied. Some secured continuing employment with generous masters. Others struggled to survive from one brief engagement to the next. In any circumstance, journeymen possessed a subservient status. In negotiations, they were almost always at a disadvantage. They possessed a great deal of occupation- and location-specific human capital. Retraining for a new career or migrating to a new town would not necessarily raise their incomes. The law forbade employees from bargaining collectively. During the century after the Black Death, the Statutes of Labor and other laws prohibited one employer from hiring the employees of another. So, journeymen had little recourse when masters colluded to limit wages.

The previous paragraphs indicate that craft guilds engaged in a wide array of economic activities. Some manipulated output markets to their own advantage. Others established reputations for quality, making everyone better off. Because of the underlying economic realities, victualing guilds tended towards the former. Manufacturing guilds tended towards the latter. Guilds of service providers fell somewhere in between. All three types of guilds managed (or manipulated) labor markets, lowered wages, and advanced their own interests at their subordinates' expense. While these undertakings seemed dissimilar, they had a common theme. Guild members acted to increase their incomes, and their efforts required action in concert. Members had to cooperate. Each had to do his part for the guild to attain its goals. If some slacked off, all would suffer. Guilds that wished to lower the costs of labor had to get all masters to reduce wages. Guilds that wished to raise the prices of products had to get all members to restrict output. Guilds that wished to develop respected reputations had to get all members to sell superior merchandise. The need for coordination was a common denominator.

A similar denominator existed when guilds pursued religious goals. All guilds possessed pious features, as Table 1 shows. This was true for towns throughout England. In Cambridge, the patron saint of the guild of skinners was St. Katharine. Members of the guild each contributed 16 pence per year to maintain three wax candles before her image. Impoverished members received 7 pence per week, if the organization could afford it, and if not, the well-off gave to the worse-off whatever they could. All members attended funerals, dirge, and requiem of deceased brethren, and periodically prayed for the salvation of their souls. In Lincoln, the guild of weavers venerated the Christian cross. A procession placed burning candles before the high cross in the mother church during guild feasts and civic ceremonies. Members contributed funds to pay priests to perform a variety of religious tasks. All members attended funerals for deceased brethren, contributed half pence in alms for their spirit, and periodically prayed for the salvation of their souls. Poor members were buried at the organization's expense. Impoverished members received 12 pence weekly for up to three years, but received no further assistance until they repaid those funds. Only two census returns lack detailed descriptions of religious activities. But, both of these guilds dedicated themselves to patron saints. Their returns survive only in fragments, and other sources indicate

Table 1. Craft guilds in the corporate census of 1388

	<i>Identity of guild</i>			<i>Activities</i>	
	<i>Town</i>	<i>Occupation</i>	<i>Dedication</i>	<i>Occupational</i>	<i>Religious</i>
1.	Boston	Cordwainers	St. John Baptist		◆
2.	Bury St. Edmunds	Clerks	Sts. Mary, Peter, Paul	◆	◆
3.	Cambridge	Skinners	St. Katherine		◆
4.	Great Yarmouth	Cobblers and Tanners	Holy Trinity		◆
5.	Holbeach	Shepherds	Blessed Virgin Mary		◆
6.	„	Tilers	Blessed Virgin Mary		◆
7.	Lincoln	Archers	Holy Cross		◆
8.	„	Barbers	St. John Evangelist	◆	◆
9.	„	Clerks	St. Nicholas		◆
10.	„	Cordwainers	Blessed Virgin Mary ^b	◆ ^c	◆
11.	„	Fullers	Holy Cross and BV Mary	◆	◆
12.	„	Masons	All Saints		◆
13.	„	Mercers	Blessed Virgin Mary		◆
14.	„	Minstrels and Actors	?		◆
15.	„	Sailors	Corpus Christi		◆
16.	„	Tailors	Corpus Christi	◆	◆
17.	„	Tilers	Corpus Christi	◆	◆
18.	„	Weavers	Exaltation of the Cross	◆	◆
19.	London	?	St. Mary of Bethlehem	◆ ^d	◆
20.	„	Barbers	?	◆	◆
21.	„	Brewers	?		◆

22.	..	Carpenters	Our Lady, Sts. Joseph & Luke	◆	◆
23.	..	Cutlers	Annunciation	◆	◆
24.	..	Girdlers	St. Lawrence ^c	◆	
25.	..	Glovers	All Saints		◆
26.	..	Minstrels	?		◆
27.	..	Painters	BV Mary and St. Luke ^b		◆
28.	..	Pouchmakers	Annunciation and Assumption	◆	◆
29.	..	Saddlers	St. Martin ^e	◆	
30.	..	Whittawyers	?		◆
31.	Lynn	Clerk's	St. John the Baptist		◆
32.	..	Coifmakers	Ascension		◆
33.	..	Shipmen	Holy Cross		◆
34.	Norwich	Artificers ^d	St. Michael		◆
35.	..	Barbers	St. John the Baptist		◆
36.	..	Carpenters	Holy Trinity		◆
37.	..	Coifmakers	St. Mary		◆
38.	..	Peltyers	St. William		◆
39.	..	Saddlers and Spurriers	St. Mary and All Saints		◆
40.	..	Tailors	Ascension		◆

Notes: (a) The census return indicates this is a diverse group of artisans and laborers. (b) BV Mary stands for Blessed Virgin Mary. (c) Requires cordwainers working in the town but not belonging to the guild to pay 6 pence periodically to the 'games or to the candles.' (d) Ordinances prohibit the selling of 'false work to deceive the common man.' The penalty for those caught cheating customers is expulsion. But, the remnant of the return does not indicate the occupation of the guild members. (e) Patron saint not mentioned in census but mentioned in many other sources, see text for details.

Sources: Public Record Office, Miscellany of Chancery Collection, C 47.38 to C 47.36. Translations by Westlake 1919 pp. 137–238, T. Smith 1870 1–228, and this author. Tabulations by the author.

that those guilds, like all others, engaged in religious activities (Blackham 1931: 305–11; Bromely and Child 1960: xxi, 109–12).

The principal pious objective was the salvation of the soul. Christian doctrine proclaimed that the way one lived their life determined the fate of their soul after death. The saintly entered Heaven. The infamous who did not confess and repent before death went to Hell. The preponderance of the population spent a period in Purgatory. The doctrine of Purgatory, as Harper-Bill notes, was the belief ‘that there lay between Heaven and Hell an intermediate place, by passing through which the souls of the dead might cleanse themselves of guilt attached to the sins committed during their lifetime by submitting to a graduated scale of divine punishment’ (Harper-Bill 1989: 67). The suffering through which they were cleansed might, moreover, be abbreviated by the prayers of the living, and most especially by masses, the religious service including the sacrament of the Eucharist. Praying devoutly, sponsoring masses, and giving alms were three of the most effective methods of redeeming one’s soul. These works of atonement could be performed by the penitent on their own or by someone else on their behalf. The more pious the supplicant was the more salutary the supplication. Particularly beneficial were prayers of priests and paupers, who were particularly worthy in the eyes of the Lord, and the prayers of persons who knew the deceased well, such as relatives, friends, neighbors, and colleagues, and who prayed regularly and devotedly for their soul.

Guilds served as mechanisms for organizing, managing, and financing the collective quest for eternal salvation. Extant records emphasize this point. For example, the Clerks of Lynn wrote that:

St. Matthew records the saying of our Lord, Seek ye first the kingdom of God, so they [the guild] have a priest singing for souls and for the good of the estate, etc. as long as their [the guild’s] goods suffice. Forty masses for a dead brother so that his soul may be the more quickly released from the punishments of purgatory by virtue of the offering of that sacrament. (Westlake 1919: 195)

Guilds also expressed worldlier religious objectives. For example, the Carpenters’ of Norwich was ‘begun with the intent to increase the torches at the sacrament at high altar.’ The tailors’ guild was formed ‘in honor of the Ascension and to increase divine worship in the chapel.’ The pelyters’ guild sought to honor ‘God, the Virgin Mother and St. William,’ to increase divine worship, and to provide two chaplains to the relief of those who serve God in the cathedral (Westlake 1919: 204–6).

Guilds facilitated craftsmen's search for salvation by providing two types of spiritual services. The first category consisted of participatory and routine activities. Almost all guilds gathered at church on Sunday. Many attended services at other times during the week. Almost all guilds venerated saints such as John the Baptist, icons such as the Holy Cross, or events such as the Ascension of Christ. Half of all guilds illuminated the interiors of chapels or chantries with candles made of wax. The largest weighed nearly 30 pounds and cost considerable sums. About half of all guilds marked special occasions with prayers and ceremonies. Popular choices included the day dedicated to their patron saint or midsummer's eve. Ceremonial activities included processions, banquets, masses, the singing of psalms, the illumination of holy symbols, and the distribution of alms to the poor. A small fraction of guilds kept chaplains on call. These fee-for-plea clerics hosted regular religious services, such as vespers each evening or mass on Sunday morning, and prayed for the souls of living and deceased members at other times during the week. All of these activities were routine in two senses. They occurred according to a schedule, such as once a week or once a year, and they differed little across guilds, because church doctrine determined the range of possibilities and procedures for performance. Similarly, these activities were participatory in two senses. Participation was always encouraged and typically required. Participation was also possible, because the activities occurred while individuals were alive.

The second category consisted of actions performed on members' behalf, usually after their death and for the benefit of their soul. Postmortem services began with funerals and burials. All guilds arranged such events for the recently departed. Almost all guilds required all members to attend all services for the deceased. The services were elaborate and extensive. On the day before internment, members gathered around the corpse, lit candles, and sung a placebo and a dirge, which were the vespers and matins from the Office of the Dead. On the day of internment, a procession marched from churchyard to graveyard, buried the body, distributed alms, and attended mass. Additional masses numbering one to 40 occurred later that day and sometimes for months thereafter. Postmortem prayers continued even further into the future and in theory into perpetuity. All guilds prayed for the souls of deceased members. Most guilds kept a roll of names to refresh memories. Many guilds hired priests to pray for the souls of those on their roll. A few guilds built chantries where priests said the prayers. The census of guilds recorded the relative

Table 2. Religious activities of craft guilds in the corporate census of 1388

	<i>Number of guilds</i>	<i>Percentage of guilds (%)</i>
Routine		
Veneration	36	90.0
Perpetual Illumination	20	50.0
Special Ceremonies	18	45.0
Chaplains	5	12.5
Postmortem		
Funeral Service	28	70.0
Masses	24	60.0
Offerings	21	52.5
Ceremonial Lights	16	40.0
Burial in need	12	30.0
Total	40	

Sources: Public Record Office, Miscellany of Chancery Collection, C 47.38 to C 47.36. Translations by Westlake 1919: 137–238, T. Smith 1870 1–228, and this author. Tabulations by the author.

prominence of the various activities. Data drawn from the census appears in Table 2.

All of these activities required the cooperation of a guild's members. Guilds had to raise funds to pay priests and purchase pious paraphernalia. Vestments and ornaments were expensive. Candleholders made of precious metals and bibles copied by scribes were far beyond the budgets of ordinary artisans. The price of a pound of hardened animal fat for candles was four times the price of a pound of meat, and beeswax, the preferred alternative, was significantly more expensive (Rogers 1884: 67; Hanawalt 1988:15). A single mass cost one pence, about a quarter of a craftsman's daily wage.³ Estimates indicate individuals with the means to do so spent a year's income on their burial and a similar sum on prayers for their soul (Dyer 1994: 85). The church collected enormous sums for such services. In the 14th century, the church owned approximately one-fifth of the land in England. Before the Reformation in the 16th century, the church owned approximately one-quarter of the country. The vast wealth of the church reveals the value that people placed on its services.

Guilds raised money to pay for spiritual services by collecting funds of various sorts. Most collected a large sum when an individual joined the organization and smaller sums regularly thereafter. Quarterly collections may have been the most common. Guilds also enforced statutory laws and farmed the king's taxes. Victuallers enforced the assizes of bread and ale and similar legislation. Fines imposed for violating these laws often followed a periodic and predictable basis, transforming the assizes into the medieval equivalent of modern business taxes. Manufacturers collected royal taxes on commodities like wool and cloth. Guilds of all kinds mobilized monies when needs arose. A ubiquitous rule required members attending funerals to contribute cash for intercessory alms and masses. Required contributions ranged from a half to one pence. The lower amount prevailed in most places. The higher amount appeared in large towns like London. Guilds also raised revenues by fining members who violated internal ordinances. Fines for first time violations of minor rules were a few pence. Fines for repeatedly violating major rules could be substantial sums. The ultimate threat was expulsion from the organization.

The monetary costs of providing religious services may have been a small proportion of the total cost. Religious activities consumed large quantities of members' time and energy. On Sundays, members attended church. On other days of the week, they met for noon or evening masses. On religious holidays and festival days, they gathered for Christian ceremonies. In many towns, guilds marched in public processions and performed plays in cycles of pageants spread throughout the year. In a small guild, with several score members, funerals would take place once or twice a year. In a large guild with several hundred members, funerals would have taken place more frequently. Guild members also had to administer their associations. Organizing funerals and other religious activities involved tasks such as collecting fees, setting schedules, managing funds, and enforcing rules. Members met at least once a year to elect officers and audit accounts. Members also met to discuss issues, induct members, and establish policies. Anyone who has ever belonged to a member-managed organization – like a country club, community association, or academic department – knows the administrative overhead can be burdensome and unpleasant.

Administration may not have been the greatest burden that the quest for collective salvation placed on guild members. Like all

religions, Christianity encouraged some types of behavior and discouraged others. The commandments were clear. Rest on the Sabbath and religious holidays. Do not swear. Be truthful. Do not deceive others. Do not bear false witness against thy neighbors. Be chaste. Do not commit adultery. Be modest. Do not covet thy neighbors' possessions. Be faithful to your family. Do not steal. Obey your parents. Do not gamble. Work hard. Support the church. Guild ordinances echoed these exhortations. Members should be pious. They should neither gamble nor lie nor steal nor drink to excess. They should restrain their gluttony, lust, avarice, and other corporal impulses. They should pray to the Lord, live like His son, and give alms to the poor. Righteous living was important because members' fates were linked together. The more pious one's brethren, the more helpful their prayers, and the quicker one escaped from purgatory. The worse one's brethren, the less salutary their supplications, and the longer one suffered during the afterlife. So, in hopes of minimizing purgatorial pain and maximizing eternal happiness, guilds beseeched members to restrain physical desires and forgo worldly pleasures. Such exhortations and abstinence are examples of the common denominators analyzed in this essay: the need for cooperation, the divergence of common and individual interests, and the ways that guilds overcame that impediment to cooperation.

Section 2: Guilds as Groups

Rational-choice theories illuminate the difficulties due to the divergence of common and individual interests that organizations must overcome to operate effectively. The previous section showed that guilds had common goals that could only be obtained if members bore some burdens. This section emphasizes the divergence between group and individual interests and the ways that guilds overcame that divergence. It begins with four examples that highlight the free-rider problem faced by guilds. Then it discusses the ways in which guilds overcame these problems.

The common interests were the goals of a guild. Guilds sought higher prices. Guilds sought reputations for quality. Guilds sought stable wages. Guilds sought religious redemption. All members wanted their guild to attain its goals, since all members benefited when it did so. In the lexicon of social scientists, guilds' goals were *club goods*. Members of the club shared the rewards of success.

But, members disliked paying the costs of these endeavors. Each member preferred the others to bear the entire burden. As a consequence, the calculus of costs and benefits limited members' incentive to contribute to the common goal. Success depended upon collective efforts. Success was more likely, and benefits were larger, when total effort increased. Costs accrued to individuals depending upon the burdens that they bore and the efforts that they exerted. Costs increased when one worked harder, sacrificed more, and paid a greater share of expenses. Because an individual's efforts were only a fraction of total efforts exerted by all members of their guild, increasing one's own efforts did more to increase one's own costs than the guilds' aggregate effort. In other words, a goldbricker might receive a sizeable reward, if everyone else toiled industriously. A diligent worker might receive little in the end, if everyone else slacked off. In such a situation, everyone had an incentive to be lazy. Let the others do the work. Sit back and enjoy the fruits of their labor.

Medieval English craft guilds certainly struggled with such circumstances. The four following examples illustrate typical situations where the interests of members diverged from those of their organizations. First, in London during the 14th century, a guild of pewterers devised a method of manufacturing pewter with a low lead content. The method required the use in proper proportions of tin, copper, and other ingredients. All members manufactured merchandise in a simple, standard style. Consumers identified it by its conspicuous characteristics such as its sheen, timbre, and texture. The guild developed a reputation for selling superior merchandise. Their pewter became popular. People purchased it from Madrid to Moscow. Demand increased steadily, and so did the incomes of members. The future appeared bright, but the pewterers worried that an individual's avarice would kill the goose that laid their collective golden egg. An individual craftsman could increase his income by selling inferior, inexpensive merchandise as if it were the better merchandise made by his brethren. He could substitute cheap lead for expensive copper and antimony. The substitution would lower his costs by up to 25% without hurting the reputation of the guild in the short term. His merchandise was only a fraction of the guilds' overall output. Detecting impurities took time. Consumers would not initially notice adulteration. So, in the short term, deception would neither reduce the price of pewter nor the

revenue of the deceiver, but it would reduce costs of production and raise net profits.⁴

Second, in Norwich during the 15th century, the guild of tailors needed individuals to administer the day-to-day affairs of the association. Meetings needed to be organized. Finances had to be managed. Feasts had to be cooked. Funds required collection. Records needed keeping. The guild had many members, but none seems to have had a great desire to perform these mundane yet necessary tasks. The reasons seemed clear. Why waste your leisure hours auditing the accounts, or cleaning after a common meal, or arguing with other members, or snoozing through meetings? Why not leave those tasks to someone else? (T. Smith 1870: 32–26).

Third, in York during the 15th century, a guild of carpenters engaged in a wide array of religious activities. The guild lit candles on the feast of Corpus Christi and on the next morning marched to the abbey of Holy Trinity and the cathedral church of Saint Peter. Each brother contributed six pence per year to fund these festivities. The guild also met ‘the Sunday next aftir Saint Elyn day’ and ‘the Sunday next afore or next aftir the fest of all Halows.’ Then, each brother contributed one pence to pay for a trentall of masses said by the Friars of St. Austens ‘in the worship of God and of all Sayntes, for the saulles of all the bredir and systyrs passed her afrore of the aid fraternite and bordirhode.’ Members attended funerals of deceased brethren, cared for their graves, prayed for their souls, and paid for masses said for their salvation. All of the activities consumed members’ money, time, and energy. All of the members had to choose between spending their hard-earned assets to save others’ souls or spending their funds for their own ends, perhaps to purchase food for their family or pleasantries for their wife or admission to the theater or alcohol for an evening with friends (Sellers 1915: 277–83; Tawney and Power 1924: 91–6). Every individual had corporal desires and selfish impulses. Some must have been tempted to act on them. Let everyone else do the work. Let the others pay for the preachers, pray for the souls, attend the funerals, sing the psalms, sponsor the masses, and light the candles. I should enjoy my life. Spend money on my friends and family. Eat delicious food. Drink wine. Pursue passions. Woo women.

Fourth, according to contemporary commentators and modern historians, master craftsmen often colluded to increase their own incomes by lowering wages paid to journeymen. In such situations,

masters of a guild limited salaries to a certain amount, say a handful of pence per week, for the services of subordinates. As long as the masters maintained a solid front, all of them profited from the pact. Journeymen were forced to accept lower wages. Journeymen had few other options. But, masters had trouble maintaining the pact. Collusion was in the collective interest of all masters but not in the personal interest of an individual master. One of the masters – perhaps bit smarter or greedier than the others – would realize he could cheat his colleagues just as he could cheat his subordinates. After the other masters had lowered wages, he could offer remuneration or working conditions slightly more attractive than the collusive level and hire the most talented journeymen. His shop would be productive and profitable. Other masters would observe his success, and then try to outbid him for the worthiest workers. Bidding would escalate until the cabal broke down and wages returned to the market clearing level. In other words, the masters could not carry out their self-serving plot unless they could (a) determine who was adhering to the pact and who was not and (b) reward the former or punish the later, so that all masters had an incentive to maintain the cartel.

This ubiquitous set of incentives with its adverse effects on collective action is known as the free-rider problem. A group mitigates free riding by forcing free riders to pay their way, or to be more exact, by establishing positive and negative inducements that align the incentives of the group and those of the individuals within it. Organizations cannot support themselves without providing some sanction, or some attraction distinct from the public good itself, that will lead individuals to bear the burdens of maintaining the organization (Olson 1971: 16). Rewards encourage members to follow the rules, cooperate with their compatriots, and contribute to the common good. Punishments discourage members from breaking rules, taking advantage of their brethren, and defecting from the coalition. Correctly distributing carrots and sticks necessitates the monitoring of behavior. The organization must determine who is good and who is bad and use that information to correctly distribute rewards and punishments. In a well-run organization, which correctly assesses individuals' contributions to the common good, the promise of rewards and threat of punishments is usually enough. Promises elicit cooperation. Threats deter defection. Everyone follows the rules. The group accomplishes its goals. Everyone prospers.

Well-run organizations possess several salient characteristics. Well-run organizations have rules, the clearer the better. Members know the rules. They know what the group expects them to do, what rewards they will receive if they fulfill those tasks, and what punishments they will suffer if they do not. Administrators make sure everyone follows the rules. Additional inducements encourage administrators to do their duties. Finally, a decision-making mechanism (e.g. voting) and an adjudication process (e.g. letting a guild's leaders or the local authorities settle disputes among members) allows the organization to respond to unexpected occurrences, adapt to new circumstances, and function when the rules are unclear.

Medieval English craft guilds possessed the characteristics of well-run organizations. Craft guilds had mechanisms for making and implementing collective decisions. Most held periodic meetings where members debated policy, amended rules, and elected officers. Many met quarterly and held elections yearly. Officers such as aldermen, stewards, deans, and clerks managed the guild's day-to-day affairs.⁵ Aldermen directed overall activities and supervised lower-ranking officers. Stewards kept guild funds, and their accounts were periodically audited. Deans summoned members to meetings, feasts, and funerals, and in many cases, policed members' behavior. Clerks kept records.

Rules encouraged and compelled members to carry out these administrative tasks. Positive reinforcements rewarded those who did their jobs. Negative reinforcements sanctioned those who did not. Most guilds punished members who refused appointments to administrative posts or failed in the duties thereof. Examples abound. In 1388, the Pelyters of Norwich imposed a penalty of three pounds of wax to anyone refusing appointment to office (T. Smith 1870: 31). The Shipmen's of Lynn charged three shillings to anyone refusing the office of alderman, two shillings to anyone refusing the office of steward, and one shilling to anyone refusing the office of dean. Anyone in the office of alderman who 'for-sake his offyce' or failed in his duties also paid three shillings. Anyone forsaking the stewardship paid two shillings. Anyone failing in the duties of dean paid one shilling plus an additional penalty of three pence for each member that the dean neglected to summon to a meeting (T. Smith 1870: 54-5). In 1482, the Cordwainers of Exeter charged 20 shillings to anyone refusing the office of master, eight shillings and four pence to a shop owner refusing the office of warden, and six shillings and four pence to a journeyman refusing

the office of warden (T. Smith 1870: 331–4). The Carpenters of York charged three shillings and four pence to anyone appointed to a position of authority and performing inadequately. In 1490, the Weavers, Tuckers, and Shearmen of Exeter charged eight shillings and four pence to anyone refusing to serve as master or warden (Tawney and Power 1924: 169–73). A century later, the Joiners and Carpenters of Worcester charged 40 shillings to anyone refusing the office of master, 20 shillings to anyone refusing the office of warden, and £5 to any officer who failed to deliver to their successor proper accounts of expenditures, balances of funds, and corporate seals and records (T. Smith 1870: 208–10). Many guilds combined the carrot and the stick. Examples include the Fullers of Lincoln. In 1388, the guild charged:

Whoever is chosen Graceman, and will not serve, shall pay 4 pounds of wax; whoever is chosen Warden, and will not serve, shall pay 2 pounds of wax; and whoever is chosen Dean, and will not serve, shall pay one pound of wax. (T. Smith 1870: 182)

And the guild promised:

. . . the Graceman and the two Wardens of the gild shall each of them have, at the feast of the gild, two gallons of ale, and the Dean one gallon . . . the Dean shall have, for collecting the soul-pennies from the bretheren, on the first day, ij. D. out of the guilds of the gild, but not on any day afterwards. . . . Every new brother shall pay the dean a penny. (T. Smith 1870: 181–2)

The Tailors of Norwich charged one-half pound of wax to anyone refusing the office of alderman, paid eight pence to the sexton and the keepers and lighters of candles during the religious services, paid four pence to the clerk who organized the annual meetings, and promised ‘credit for all usual payments to the guild’ to the officer who summoned individuals to meetings (T. Smith 1870: 36).

Similar sanctions encouraged members to attend meetings, pay fees, and conserve the goods of the guild. Examples include the Pelyters of Norwich, the Tailors from the same city, and the Shipmen of Lynn. Each charged members who missed meetings one pound of wax. The Tailors of Lincoln charged twice that amount. The Carpenters of York charged 20 pence. The Cordwainers of Exeter and the Joiners and Carpenters of Worcester charged three shillings and four pence. The Tailors of Norwich also required all members to obey the summons of the aldermen, especially on the day the aldermen determined what each individual owed to the

guild. Anyone 'who-so make default that day, and be warned' paid two pounds of wax (T. Smith 1870: 33–4). The Shipmen of Lynn threatened anyone entering the ale chamber 'except during feasts and meetings with the officers' permission' with a punishment now obscured by a defect in the document (T. Smith 1870: 54–7).

Ordinances also discussed things that had to be done regarding religious tasks. Rules required members to live pious lives, abstain from sin, distribute alms, pray for the salvation of members' souls, and attend all of the funerals and religious services hosted by the guild. Examples abound. In 1388 in Norwich, the Peltyers charged three pounds of wax to members missing ceremonies held on the morning after the guild feast. The Tailors charged a half pound in the same circumstances and two pounds of wax to members missing the day of prayers for the souls of the brothers and sisters of the guild. In Lynn, the Shipmen charged one pound of wax to anyone missing a funeral and the same amount to anyone leaving early. Anyone 'rebellious, unruly, acting against the orders of aldermen during the guild meeting or feasts (when drink [was] present)' paid two pounds of wax. Anyone harming another guild member paid three pounds of wax and had to make amends to the satisfaction of the injured party and the officers of the guild (T. Smith 1870: 54–7). In Lincoln, the Fullers charged half a pound of wax to anyone 'in arrear in the halfpence due for the soul' of a recently departed member (T. Smith 1870: 181). The Tylers charged one pound of wax 'without room for grace' to any brother that did 'anything underhanded and with ill-will, by which another will be wronged in working his craft' (T. Smith 1870: 185). In 1448 in Shrewsbury, the Weavers ordained that 'if any of the guild should have two wives and live in adultery, then they should be shunned by all members of the guild, on pain of 10 shillings' (Myers 1969: 1094–5). In 1481 in Exeter, the Cordwainers charged 40 pence to anyone failing to pay their share towards the priest and chapel and made shop owners liable for the contributions of their apprentices and journeymen (T. Smith 1870: 331–4). In 1482 in York, the Carpenters charged six pence and a pound of wax to anyone missing the biannual services in honor of the souls of deceased brothers and sisters of the guild and one pound of wax to anyone missing the burial of recently deceased member. In 1483 in Exeter, the Bakers charged seven pence to anyone given three days notice who failed to attend a meeting, feast, election, funeral, or other event.

Similar rules encouraged members to fulfill occupational obligations. For guilds of manufacturers, a typical commitment was making high-quality merchandise. Ordinances stated expectations in definite terms. A typical example comes from the ordinances that London's guild of pewterers adopted in 1348:

So many persons make vessels not in due manner to the damage of the people and the scandal of the trade, that three or four of the most true and cunning in the guild [should] be chosen to oversee the alloys and the workmanship of all . . . be it understood, that all manner of vessels shall be made of fine pewter with the [proper] proportion of copper to tin, and no one of the guild shall in secret places [make] vessels of lead or of false alloy to sell out of the city at fairs or markets to the scandal of the City and the damage of the good folk of the guild . . . and if anyone is found carrying such wares to fairs or markets or anywhere else in England . . . for the first default let them lose the material so wrought; upon the second default let them lose the material and suffer punishment at the discretion of mayor and the alderman; and if a third time they shall be found offending, let them forswear the guild for evermore. (Michaelis 1955: 2–5)⁶

The quote above, like all rules regarding quality, contains several essential provisions. It defines quality, *vessels made with the proper proportion of copper to tin*; establishes a mechanism for monitoring quality, *three or four master craftsmen will monitor the quality of all*; prohibits members from selling substandard products, *vessels made from impure alloy*; prohibits members from using inferior inputs, *lead in particular*; and specifies punishments for members caught violating these rules, *for the first default let them lose the material so wrought; upon the second default let them lose the material and suffer punishment at the discretion of mayor and the alderman; and if a third time they shall be found offending, let them forswear the guild for evermore*.

To enforce such rules, guilds inspected members' merchandise, and in some cases, their shops and homes. Guild officers called searchers carried out these inspections (L. Smith 1902: 209). Searchers ensured members' merchandise met guild standards by testing the quality of finished goods and by surreptitious stores of inferior inputs and similar signs that members used inappropriate manufacturing methods (Keen 1990: 103; Blair and Ramsay 1991: xxiv, 337).⁷ For example, searchers for goldsmiths' guilds looked for piles of base metals lying about members' shops and tested the purity of members' alloy with a touchstone, a fine-grained, abrasive, black rock that allowed a scraping taken from a suspicious alloy to

be compared with the color and consistency of samples taken from alloys of known composition (Cherry 1992: 55–60). Similarly, searchers for tanners' guilds looked for signs that members heated their vats, made their woozes too strong, or used the hides of unsuitable animals. To facilitate searchers' efforts, most guilds prohibited work after dark, when – as many ordinances asserted – mistakes could be more easily made and deceitful practices more easily concealed (Blair and Ramsay 1991: 184–5; Cantor 1994: 278–9). Many guilds also required members to set up shop in the same neighborhood and keep an eye on each other's work.

Craft guilds of all types enforced rules regarding journeymen and apprentices. Typical regulations limited the numbers that could work for a single master and forbade one master from hiring away the subordinates of another. Examples include the Tailors of London in 1388, who asserted that:

If any master of the craft keeps any lad or sewer of another master for one day after he has well known that the lad wrongly left his master, and that they had not parted in a friendly and reasonable manner, he shall pay a stone [12 pounds] of wax. (T. Smith 1870: 183)

In 1348, the Weavers of Shrewsbury imposed a penalty of 20 shillings on masters who held apprentices for less than seven years and who took a second apprentice before their first apprentice completed the sixth year of service (Myers 1969: 1094–5). In 1472, the Cordwainers of London imposed a penalty of 40 shillings on any master who took 'into his service the servant of another,' or offered employment to someone else's employee, or hired someone who had not lawfully left his former master (Mander 1931: 28–31).

Not all guilds stipulated specific penalties for violating each and every clause in their ordinances. Many guilds specified penalties for violating the rules in general. Examples include the Spurriers of London in the mid-14th century, who stated:

And if any person shall be found in the said trade to do the contrary hereof, let him be amerced the first time in 40d., . . . the second time, in half a mark, and the third time in 10s., . . . and the fourth time, let him forswear the craft forever. (Cantor 1994: 278–9)

The Smiths of Chesterfield imposed a penalty of six shillings and eight pence on anyone violating its ordinances, contumacious, or disobeying the officers of the organization. If the offender failed to pay the fine and correct their faults, the ordinances threatened to

put them ‘under suspension, denunciation, and excommunication, without any contradiction, cavil, or appeal’ (T. Smith 1870: 170–1). The Carpenters of Norwich imposed a penalty of two pounds of wax for failure to fulfill the ordinances without a good excuse such as being ‘in the kyngis seruise,’ or on a ‘journe that touchit on the kyng or his ministris,’ or ‘any other cause reasonable’ (T. Smith 1870: 38–9). The Tailors of Exeter warned anyone ‘. . . that doith agayn this ordenance, shall fforfeyte, att the first defawte, xx. S; att the secund defawte, xl. s.; at the iij^{de} defawte, to be putt out of the ffraternyte and craift for euermore.’

While punishments varied across transgressions, guilds, time, and space, a pattern existed. First time offenders were punished lightly and repeat offenders punished harshly. The ultimate threat was expulsion. Several scholars note this important fact (Thomas 1926: 264; Blair and Ramsay 1991: 73; Cherry 1992: 54). Francis Hibbert, who studied the guilds of Shrewsbury, writes:

The ordinary penalties which the companies might inflict were fines of money or of wax . . . and, in extreme cases, total expulsion from the Gild. (Hibbert 1891: 44)

J. Lambert, who studied the guilds of Kingston-Upon-Hull, emphasizes this point by citing the tenth ordinance of the glover’s ordinances of 1499:

It is ordeyned also that if any of the sayd crafft brybe, purloyne, or stele fro any person anything to the valour of vijd., or abovyn, and warned by the Alderman no more so to do, and will noght sece, he never efter to occupye the said craft within the sayd town, bot uttlerly for ever to be resued for any of the fflyshipp. (Lambert 1891: 217)

Translated into modern terms this quote means any craftsmen who bribes, purloins, or steals anything above the value of seven pence and continues to do so after being warned by the aldermen shall be cast from the organization forever. Lujo Brentano, one of the first scholars of English guilds, wrote:

the Gild never assumed a right over the life and limbs of its members; compensation only and fines were used for punishments, the highest penalty being expulsion.⁸

Expulsion was the worst possible punishment, because as Brentano noted, guilds lacked the sovereign power of the state. The legal system protected persons and property from arbitrary expropriations. And, guilds were voluntary associations. Members could

always walk away. They could quit their guild and go on with their lives.

Of course, what quitting and/or expulsion entailed varied from time to time and place to place. At times, individuals could quit a guild and join another, or forgo guilds altogether. At other times, life outside of a guild was unthinkable. Quitting was something no one would contemplate. At all times, expulsion would have been painful. Expellees lost the business benefits of membership, whatever those were, and much more. Expellees lost their church, pastor, and the network of individuals who promised them a proper burial, a respectable funeral, and prayers for their soul into perpetuity. Expellees also lost friends, colleagues, and access to their guild's social services. Expellees no longer had feasts to attend, friendly neighbors working in the same industry, or someone to talk to about the state of trade. Shunning can be a terrible experience. And, loss of social standing must have been unpleasant in class-conscious medieval society. Fear of loosing these things was the glue that held guilds together.

The ultimate threat, even if seldom implemented, is analytically important. It determines the maximum cost that will be born for the common good. When the ultimate threat is small, members of an organization will not sacrifice a great deal for the good of the group. When the threat is large, members can be convinced to make significant sacrifices. Since expulsion was the ultimate threat for medieval guilds, the analytically important issue is the difference between life within the guild and life outside of the organization. The decision to remain within a guild (or to cheat one's colleagues and risk exposure and expulsion) involved a comparison of the former and the latter. In the short term, one member could take advantage of his compatriots, shirk his responsibilities, free ride on the efforts of others, and enjoy the benefits of guild membership without paying the costs. Eventually, the shirker would be caught, and when their shirking exceeded the tolerance of their compatriots, they would be expelled. In the long run, they would be outside the organization. Life outside the guild might be terrible. The individual might have no friends, few customers, and difficulty making ends meet. People would want to avoid that situation. So, they would forgo shirking in the short term rather than risk long-term pain. On the other hand, life outside the guild might be palatable. The individual might join a new guild similar to his old association. Or, the individual might move to a nearby village where they had been raised,

live among family and friends, set up shop, and live prosperously thereafter. In such cases, they would have a strong incentive to shirk and enjoy the benefits of guild membership until the organization insisted that they also bear the costs.

Section 3: Causes of Bundling Craft and Christianity

This realization leads us to the first question posed in the introduction of this article: Why did craft guilds bundle together occupational and religious endeavors? Rational choice theory suggests a clear answer. Bundling increased the pain of expulsion. People expelled from guilds with both craft and Christian features lost both business and religious benefits. They lost not only their colleagues but also their church, not only their partners but also their preachers, not only their means of prospering in this life but also their hope of passing through purgatory. Members of multifaceted guilds had more reasons to remain faithful to their organizations. A simple craft guild – one without religious routines – would have had more difficulty enforcing its rules. Shirkers would have had less to fear. Cheaters could have based cost-benefit calculations purely on the possibility of profits. Cheaters could think: can the most money be made by (a) following the rules of the guild or (b) free-riding now and suffering punishments up to expulsion from the guild after I get caught? In craft guilds with religious features, cost-benefit calculations were complex. Anyone thinking about shirking had to worry about the pious as well as the pecuniary consequences of their acts. They had to worry that getting caught would hurt them not only in the pocketbook but also on the Day of Judgment.

By helping craft guilds enforce their rules, bundling together occupation and religious activities made craft guilds better business operations. It increased profitability for several synergistic reasons. One, members of craft guilds had to pay the costs of occupational endeavors such as creating reputations for quality, administering organizations, devising new technologies, forestalling goods, engrossing prices, and monopolizing markets. Two, larger costs yielded larger profits, since sensible businessmen operated only when that was true or in other words when marginal revenues exceeded marginal costs. Three, members had an incentive to shirk and free ride on the efforts of others. Four, the incentive to shirk increased as

costs increased, since shirkers avoided those costs. Together, these four facts linked the prevalence of shirking and the potential for profits. Greater profits entailed higher costs. Higher costs induced more shirking. Widespread shirking dissipated profits. This vicious cycle impeded efforts to maximize returns. Guilds that could not deter shirking could not accomplish ambitious goals. Guilds that could deter shirking could complete ambitious agendas. The ability to deter shirking determined the maximum attainable profit. Because complex guilds deterred shirking better than simple, secular associations, complex guilds were more profitable than simple organizations.

A corollary exists to the Christianity-profitability argument. Bundling business and religious activities may also have helped guilds provide spiritual services. Bundling facilitated the enforcement of rules regarding piety and the collection of funds for pious purposes. Money played a major role in late-medieval Christianity. Salvation was for sale. Prayers had prices. Priests prayed for payments. Piety had pecuniary costs. Religious doctrine required people to pay significant sums for the salvation of their souls. Men of means made arrangements directly with the church. The wealthy bought indulgences, constructed private chapels, bequeathed cash to clerical communities, and hired priests to pray for family and friends. Common folk could not afford such expensive arrangements. Commoners had to combine resources and pool funds. Poverty forced them to seek salvation in groups.

Guilds facilitated craftsmen's collective quest for salvation. Guild ordinances contained long lists of contributions required for religious reasons and punishments inflicted on members who failed to remit those sums. Bundling occupational and religious endeavors reinforced these threats. Bundling meant individuals neglecting spiritual obligations could be expelled from their craft as well as their church. Guilds needed such strong sanctions. Convincing members to pay the pecuniary costs of piety must have been problematic. Much of the money collected and effort expended was for the souls of deceased, rather than living, guild members. Living members hoped future members would in turn pray for their souls after their deaths. The guild promised that future members would do so, and the longevity of craft guilds probably increased the plausibility of that pledge. Guilds were constants. They existed everywhere. Many had existed since 'time before memory.' They must

have seemed to be a good executor of one's estate, a repository for one's bequests, and a good guarantor of one's postmortem plans.

Recent sociological studies support this speculation. William Bainbridge, Laurence Iannaccone, Roger Stark, and other seminal social scientists come to a clear conclusion. Free riding pervades parish congregations, and the need to solve this problem shapes religious institutions. Strict churches are strong, Iannaccone writes, because strictness reduces free riding. It screens out members who lack commitment and stimulates participation among those who remain. It enables groups to offer more benefits to current and potential members. Strict churches proclaim an exclusive truth – a closed, comprehensive, and eternal doctrine. They demand adherence to a distinctive faith, morality, and lifestyle. They condemn deviance, shun dissenters, and repudiate the outside world. They frequently embrace eccentric traits, such as distinctive diet, dress, or speech that invite ridicule, isolation, and persecution. Pleasures are sacrificed, opportunities foregone, and social stigma risked, or even invited. Strictness mitigates free-rider problems that otherwise lead to low levels of member commitment and participation. Free riders threaten most collective activities, and religion activities are no exception (Iannaccone 1994: 1180–3). Strictness reduces free riding because it increases the costs of changing faiths, switching parishes, and interacting with individuals outside the congregation. Strictness locks individuals into churches. Strictness impedes mobility among groups. Members who leave strict churches risk friendships and relationships. They abandon the comforts of familiar conditions. They must change their beliefs, habits, and lifestyles.

Bundling served as a substitute for strictness. Without it, overcoming the free-rider problem may have been impossible given the confines of the pre-Reformation church. The medieval church imposed common doctrines on all of its appendages. Church legislation required parish priests to teach their flocks certain moral principles, such as the Ten Commandments and the Seven Deadly Sins. These edicts appeared in the preaching aids and clerical manuals that 'appeared in profusion in the 14th century. The *Golden Legend* of saints' lives was particularly popular, for it provided a collection of splendid moral examples for sermons' (Harper-Bill 1989: 52).⁹ Religious instruction tended to be visual and dramatic. Cycles of passion and mystery plays covered the whole Bible story. Religious rituals varied little across congregations. The Mass was the center of all services. During this ceremony, a priest transformed bread and

wine into the Body and Blood of Christ. Worshippers re-enacted the last supper. The community received the grace of God. Throughout Latin Christendom, attention increasingly focused on this central rite, which displaced peripheral practices, the veneration of local saints, and regional variations descended from past pagan practices. The role of the laity was limited. Latin was the language of liturgy. Few laymen spoke that ancient clerical language. Church audiences were passive. People watched priests. Parishioners participated in a significant way only when they exchanged signs of peace before the consecration of the Eucharist.

The monolithic Catholic Church discouraged the development of dissenting doctrines. For example, in late 14th century England, a group of clerics dubbed 'Lollards' challenged Catholic concepts and practices. Their ideas provoked reactions including the introduction of the death penalty for heresy in 1401 and the suppression of an incipient Lollard uprising in 1414. Afterwards, Lollardy and other dissenting doctrines were driven underground. They became family religions, practiced within households but seldom discussed in public. The private nature of religious dissent prevented congregations from developing distinct dogmas and rituals that set their members apart from the rest of the world.

Just as the structure of religion prevented parishes from developing distinct doctrines, the structure of society prevented congregations from developing distinct mores, customs, clothing, and other emblems of strictness. The government regulated liveries, which were outfits that distinguished members of one organization such as a guild or an aristocratic household from all others. The King and his ministers feared the proliferation of liveries would Balkanize the population and spark civil conflict. The royal government also regulated the clothes that could be worn and the luxuries that could be consumed by individuals in different social classes. Certain colors and fabrics were reserved for the elite. Other colors and fabrics were allocated to lower castes. These sumptuary laws provided legal impetus for police suppression of emblems of strictness. The government used these powers and others at its disposal to suppress religious sects. At the end of the 13th century, pogroms and expropriations drove the Jews from England. At the end of the 14th century, persecution drove the Lollards underground. During the 15th century and into the 16th centuries, the Pope recognized English monarchs as defenders of the faith. During those centuries, congregations could not set themselves apart from their

neighbors by adopting radical or unique doctrines, rituals, customs, and mores. Guilds that combined congregation and craft offered an alternative solution to their free-rider problems. That is one reason why guilds that bundled together religion and occupation were ubiquitous before the Reformation.

These facts help to explain why craftsmen adopted a linked spiritual–occupational incentive system as a means of limiting free riding, rather than relying on alternatives. Repeated interaction alone can sometimes solve free rider problems among rationale egoists, if individuals value the future highly enough. But during the heyday of guilds in the Later Middle Ages, mortality was high and unpredictable. Infectious diseases caused most deaths. No one knew how these spread or could be prevented. Child mortality was elevated. Urban residents did not replace themselves. A significant share, at times exceeding one third, of all craftsmen lacked surviving sons. Life expectancy upon entering the work force around age 15 did not exceed age 32. The life expectancy upon becoming a guild master in one’s late twenties did not exceed an additional 10 years. This means, in the jargon of social scientists, that discount rates were high, and repeated interaction alone could not sustain maximal levels of cooperation.

Guilds might also have relied on the legal system to enforce agreements among them. Legal procedures existed for enforcing contracts, debts, and apprenticeships in secular and ecclesiastic courts. But, the system was inchoate, time consuming, expensive, and uncertain. Procedures did not exist for enforcing many of the complex contracts that guilds enforced internally. The courts (and the rest of society) lacked reliable and affordable means of recording such agreements and verifying compliance of parties to them.

Guilds may also have relied on secular social sanctions to punish uncooperative members. Guilt, shame, shunning, and similar emotions and chastisements play a powerful role in most human interactions. This is particularly true in stable societies and among extended families. Medieval men undoubtedly observed this. The guild documents quoted earlier demonstrate that guilds, in fact, employed such sanctions along with the spiritual mechanisms emphasized in this essay. Why were social sanctions alone insufficient?

Three reasons appear plausible. First, during the Middle Ages when Europe’s economy began its long climb from the depths of the Dark Ages, unexploited opportunities abounded, and the gains to commerce and cooperation were large. Reaching the point where

cooperation yielded maximum returns required tremendous leverage. The maximum appears to have been out of reach in many cases, particularly in the textile, hardware, and houseware industries, where manufacturers with respected reputations faced for all practical purposes infinitely elastic demand. The greater the level of cooperation that guilds in such industries could sustain, then the greater would their profits be. In such cases, guilds sought to employ all possible means to induce cooperation, and thus, combined social and spiritual sanctions. Second, the effectiveness of social sanctions fell when individuals could avoid the brunt of ostracism because populations constantly turned over, and thus opportunities for meeting new people abounded, as in late medieval towns. The heyday of guilds occurred between the Black Death and the Reformation, when plagues, pestilence, and an array of infectious disease incessantly afflicted society. Towns suffered the worst of this disastrous demographic regime. Urban populations could not replace themselves and required constant replenishment by immigrants from the countryside. Friendships were fleeting. Extended families were small. The typical craftsmen had one or two surviving children, a sibling if they were lucky, and perhaps a cousin and a niece or nephew. Third, social sanctions – like most other deterrents to free riding – afflicted individuals during their lifetimes. Their effectiveness – like the effectiveness of repetition – fell when mortality rates rose and life expectancies fell. The pain of post-mortem punishments, however, increased during such conditions. That is one reason why intercessory societies flourished during the later Middle Ages.

The origin of craft guilds lends credence to these conjectures. Craft guilds began as Christian confraternities whose members met regularly and formed formal organizations to manage the funds collected for their intercessory endeavours. These confraternities often consisted of men who knew each other well, lived near each other, worked alongside one another, and worshipped the same patron saint. A common grouping of this type was men who labored in the same occupation, because most medieval towns required all of the men in an occupation to live and work in the same neighborhood in order to minimize the noxious side effects of urban industry. Guilds undertook occupational endeavors only after operating in a pious capacity for prolonged periods – sometimes decades, sometimes generations. Many scholars note this fact. Francis Hibbert writes that craft guilds developed out of religious

fraternities and social clubs ‘or to speak more strictly we should perhaps say that many of these societies began to add to their social and religious objects an additional one, namely trade regulation’ (Hibbert 1891: 34).¹⁰ James Blackham writes that older guilds were rarely founded merely for the protection of trade. They were formed by groups of neighbors for the purpose of promoting social and religious intercourse (Blackham 1931: 5–7). Pooley reaches a similar conclusion. The trade element in craft guilds was not at first apparent, ‘but was rather an accidental feature’ which was subordinated to the religious one. In the course of time this order began to be reversed, although even today, craft guilds retain their religious complexion (Pooley 1947: 8–12).

There must be a cause for this phenomenon. There must have been a reason for religious fraternities to undertake occupational endeavors. There must have been some synergy between pious and profitable functions. The organizational advantages of bundling are a possible, and this essay argues, powerful explanation.

Section 4: Consequences of Bundling Piety and Profit

The conclusion above – that craft guilds bundled together industrial and religious activities because bundling piety and profit solved occupational and congregational free-rider problems – leads to the second question posed in the introduction of this article: What were the consequences of bundling? The arguments above suggest several answers.

First, bundling encouraged the expansion of industry by solving free-rider problems that impeded cooperation and commerce. These afflictions existed long ago and continue to do so today. In the modern world, an array of institutions cures these economic ailments. Contracts allow people to specify the terms of trade. Courts enforce contracts and ensure that parties adhere to accepted standards of behavior. Legislatures and regulators set standards and update the rules of the game as times change. Corporations form when the costs of transactions such as creating and enforcing contracts reach prohibitive levels. But, modern institutions did not exist during the Middle Ages. Medieval men employed homegrown substitutes. The ubiquitous one was the multi-mission guild. That is why the number of guilds and the quantity of commerce expanded simultaneously throughout the Middle Ages.

Second, bundling enhanced the religious lives of craftsmen by solving free-rider problems that impeded cooperation within congregations. Christian doctrine required individuals to raise significant sums for the salvation of their souls. Common folk could not afford to do so on their own. Commoners pooled resources and sought salvation in groups. Guilds formed the framework for these collaborative efforts. Guilds hired priests, honored saints, displayed lights, organized funerals, managed parishes, operated chantries, purchased pious paraphernalia, sponsored pageants, and ensured that many people prayed for members' souls. By doing these things, guilds contributed to the trends transcending the late-medieval church. Masses for the dead multiplied. Christian conventions became monetized. Lay people increasingly managed parish affairs. These changes went hand in hand. The laity financed the endless expansion of intercessory prayers, and by choosing the recipients of their expenditures, reallocated resources from monasteries and other segments of the secluded clergy to parishes and chantries where rectors, vicars, and other members of the secular clergy interacted with ordinary individuals. Scholars have long argued that these trends played large roles in the run up to the Reformation (Harper-Bill 1989: 75). Guilds could not have contributed to these trends without their complex structure, which encouraged members to contribute to collective endeavors. Therefore, complexity was an essential institution underlying the transmutation of the medieval church and emergence of modern Christianity.

Third, bundling linked religious and economic events in unexpected and important ways. This hypothesis follows from a straightforward rational-choice argument. Bundling facilitated guilds' occupational activities because free riders feared losing religious benefits. When these benefits were more valuable, fear of losing them was more of a deterrent, and guilds could engage in more intensive and more profitable projects. An exogenous event, such as a change in religious doctrine that reduced (or raised) the value of religious services provided by guilds, would reduce (or increase) the intensity and profitability of occupational endeavors in which guilds could engage. Thus, by influencing the ability of guilds to enforce their rules, changes in religious doctrine seemingly unrelated to economic concerns could influence economic outcomes. Similarly, bundling facilitated guilds' religious activities because members who shirked religious responsibilities feared losing occupational benefits. When those benefits were more valuable, fear of losing them was

more of a deterrent, and guilds could undertake more costly and pious projects. An exogenous event that raised (or reduced) the value of cooperation among craftsmen, such as the opening of a new market (or the exhaustion of local resources), would increase (or decrease) the intensity of religious activity. Thus, by influencing the ability of guilds to enforce their rules, changes in economic conditions seemingly unrelated to spiritual phenomena could influence the scale and scope of pious endeavors in which guilds could engage.

Examples illustrate potential applications of these ideas. Historians have long noted that the number of guilds rose rapidly after the Black Death. The hypothesis advanced in this essay suggests one reason why this occurred. Recurrent plagues reduced populations and increased per capita incomes. These changes increased opportunities for trade and potential returns from collaboration among craftsmen. Occupational activities of guilds became more valuable. This provided an incentive to intensify business activities and a mechanism for solving religious free-rider problems. Recurrent plagues also raised the value of spiritual activities (as discussed in the previous section). This provided an incentive to intensify pious pursuits and a mechanism for solving free-rider problems that impeded occupational endeavors. The simultaneous increase in the value of cooperation among craftsmen and within congregations explains the rapid increase in the number, scope, and scale of guilds. The simultaneous surge gave guilds incentives to expand activities of all types and the means to do so.

Historians have long wondered how the reformation of Christian doctrine influenced economic activity. The hypothesis advanced in this essay suggests a potentially powerful mechanism. One of the principle activities of complex guilds was the provision of prayers for the souls of deceased members. This must have been a powerful lever for encouraging cooperation. Anyone found free riding lost these prayers into perpetuity. Religious reformers in many nations attacked the doctrine of purgatory and the ensuing expenditures on intercessory masses, which reformers believed, were wasteful, corrupting, and superstitious. The demise of the doctrine must have had an adverse affect on complex guilds. A principal mechanism for inducing cooperation suddenly ceased to exist. Its disappearance must have impeded efforts to keep members in line. When the efforts failed, free riding would increase. Guilds would no longer be able to attain ambitious occupational goals. The value of guild membership would fall. Craftsmen best able to operate independently

would abandon their organizations. Craft guilds would atrophy. Their role in the economy would diminish.

This application of my thesis has an intriguing implication. The Reformation followed different courses in different nations. Protestants in some locales attacked doctrines such as purgatory earlier and fiercer than Protestants in other places. Catholics maintained control over many regions, and in those regions, the Church reformed itself at a slower rate. Such differences in the trajectory and pace of reform may explain differences in the functioning of guilds across time and space. In England, the government suppressed superstitious doctrines swiftly and completely. Royal servants visited clerical institutions, confiscated immense amounts of property, and pensioned off tens of thousands of clerics who previously provided postmortem services. Auditors also visited every guild in the realm and confiscated all funds collected for pious purposes. The guilds that survived this onslaught became shadows of their former selves. Guilds' role in the economy declined rapidly. New institutions evolved to fulfill many of the old functions of complex guilds. In contrast, in France, Spain, and other regions where the Catholic Church retained religious dominance, complex craft guilds survived for several additional centuries. Guilds did not lose their grip on urban industry until the end of the 18th century when French revolutionaries critiqued the church and suppressed the guilds in the nations occupied by Napoleon's armies. These facts suggest that by linking spiritual and occupational activities within organizations, complexity linked religious and economic trends in the wider world.

That realization raises another interesting issue. Scholars have long wondered how the religious upheavals at the end of the Middle Ages influenced the development of the modern capitalist world. Many theories have been proposed. One was by Max Weber. Protestant religions inspired beliefs about work, austerity, and savings that encouraged the accumulation of capital and expansion of industry (Weber 1930). Another was that of Lynn White and Ernst Benz. Changes in Christian doctrine encouraged men to harness nature and improve technology as part of Gods' divine plans (Benz 1966: 124; White 1978: 217–253). A third appeared in the writings of Joseph Schumpeter. Increased longevity and the dissemination of future-oriented philosophies encouraged technological development and economic growth. The former increased returns to investment and innovation. The latter enticed investors with illusions of increases (Schumpeter 1950: 74). Other scholars tell similar

tales. Religious upheavals changed attitudes towards risk, work, leisure, savings, science, consumption, fashion, authority, the distribution of wealth, and willingness to adopt new ideas. These changes in attitudes towards economic activity engendered economic progress (Tawney 1926; Mokyr 1990: 201).

The argument in this article suggests a new hypothesis. Religious reformation influenced the effectiveness of economic organizations. Before the Reformation, almost all craftsmen and merchants belonged to guilds. These cooperative associations enforced agreements, regulated commerce, maintained roads, built bridges, opened schools, educated apprentices, developed new merchandise and manufacturing methods, indemnified members against the uncertainties of everyday life, and provided many public goods that governments provide today. Guilds accomplished those tasks with little direction from the feudal authority. After the Reformation, guilds functioned less effectively, particularly in Protestant nations. England is an example. The Tudor attack on religious practices disorganized or destroyed guilds. Many collapsed quickly. Others struggled onwards for several years. Few survived more than a generation. The exceptions were wealthy and well-connected associations in cities like London. At the same time, and at least in part due to the disruption of guilds, a terrible depression struck the nation. Output fell in many industries. Exports plunged precipitously. Recovery from this recession coincided with the creation of new types of economic organizations. Centers of manufacturing shifted from cities to towns and villages. Merchants increasingly employed workers through putting-out systems. Mutual-insurance societies expanded operations. Governments at all levels took on tasks previously performed by guilds.

This economic application of the thesis has a religious counterpart. The demise of craft guilds and the subsequent separation of profitable and pious endeavors facilitated the segmentation and radicalization of religious doctrines. During the Reformation, the Christian consensus imposed by the Catholic Church collapsed. Numerous new doctrines developed including Calvinism, Lutheranism, Puritanism, and Baptism. The rational-choice approach to the study of religion, advocated by scholars such as William Bainbridge, Roger Finke, Laurence Iannaccone, and Rodney Stark, elucidates one reason why this happened. Congregations developed new and unique doctrines to lock members into organizations and discourage free riding. Congregations that devised the strictest doctrines gained

the greatest leverage and elicited the most intense participation. The desire to belong to devout congregations encouraged the proliferation of Christian cults and sects. This essay argued that the bundling of congregation and occupation served as a substitute for strictness. Organizations of this form elicited effort from members without resorting to strict doctrines and sect-like behavior. Therefore, the demise of guilds and rise of secular corporations encouraged congregations, which were once part of guilds but were now independent entities, to adopt new and radical doctrines.

Section 5: Discussion – Toward a Theory of the Afterlife as a Disciplinary Device

The theory advanced in this article – that guilds linked spiritual and occupational endeavors because the linkage helped them overcome the free rider problems that hindered both – may have applications to organizations other than craft guilds. Most men and women wonder what happens after death. Some become obsessed with pondering the possibilities. Most religions discuss the fate of the deceased. Many include the concept of an afterlife where those who have lived well receive rewards and those who lived sinfully suffer punishments. Organizations that harness these beliefs gain powerful tools to motivate members. Believers can be convinced to carry out heinous acts. Examples include the promises of eternal salvation with which the Pope convinced crusaders to conquer biblical lands and similar solicitations with which Muslim clerics motivate suicide bombers in modern times.

While this essay does not elaborate a general theory of the afterlife, its examination of craft guilds suggests some of the features that might appear in a model of the phenomenon and some of the forces that influence the effectiveness of the afterlife as a disciplinary device. The mortality rate must be one of the key factors. Higher mortality reduces the effectiveness of all worldly mechanisms for deterring free riding, since higher mortality increases the attractiveness of cheating now and consuming the ill-gotten gains today and reduces the threat of being caught while cheating and punished in the future. Why not live for today? Why worry about tomorrow? When mortality is higher, tomorrow is less likely to come. In contrast, elevated mortality heightens the allure of the afterlife and the threat of being punished perpetually after death, since death is

likely to come sooner rather than later. Uncertainty may also play an important role. It appears to have done so during the Middle Ages, when one of the greatest fears was the unprepared death.

Uncertainty about faith must also play a role. The existence of the afterlife can neither be confirmed nor denied. No one can touch, taste, see, or hear it. It exists for all practical purposes only in the minds of mankind. Thus, the afterlife may be more important as a disciplinary device in religious and traditional societies, where beliefs about the afterlife remain unquestioned or perhaps even advocated and taught by the ruling elites, who use the threat of post-mortem punishment to control the minds of the masses and maintain. The afterlife may be less important in secular nation states, particularly those with comprehensive education systems that teach rationality and the scientific method. The role of rationality should not be overblown. The fact that beliefs about the afterlife remain ubiquitous in modern America, which may be more highly educated, scientifically trained, and conditioned to be rational than any that existed in the past, suggests that beliefs about the afterlife resonate with primal emotions in the human psyche. The afterlife may always remain significant as a means of motivating and manipulating the minds of mankind.

This conception of the afterlife as a disciplinary device has close parallels with Max Weber's theory of authority, legitimacy, and dominance (Weber 1947). A traditional authority – the Catholic Church – devised and disseminated the doctrine of purgatory. It did so for many reasons including the desire to have greater influence over the actions of individuals and to extract additional funds from penitent parishioners. Guilds took advantage of the legitimacy of this doctrine to encourage members to act in the interests of the organization. Initially, guilds' objectives coincided with the ends of the church. Eventually, after members complied voluntarily for generations, compliance became dominance and the form and function of guilds became imbedded in the structure of society. Guilds employed this dominance to organize collective action in spheres of activity far removed from those of concern to the clerics who developed the doctrine of purgatory. The traditional authority, on which guilds were based, in other words, eventually became a mechanism used to enforce the rational authority of collective economic enterprises. When the synergy between religious and rational authority collapsed during the Reformation, societies sought to replace the traditional foundation of collective action with new

forms. The nation studied in this essay, England, expanded its system of courts and contracts, substituting legal frameworks for religious authority. Some nations followed the same road. Others took different paths. The history of early modern Europe, with its rapid economic change, widespread military conflicts, and diverging fates of states, may in part be explained by the divergence in types of authority underlying collective action in different parts of the continent.

Philip Gorski pursued this line of inquiry in his research on the *disciplinary revolution* in Protestant states such as Holland and Prussia (Gorski 1993, 2003). Protestant movements such as Calvinism promoted self-discipline within individual believers, invented a variety of institutional strategies for maintaining collective discipline within the church, and promoted social reforms aimed at increasing popular discipline. Disciplinary revolutions led to the formation of republican states in the core region (Holland) and made possible the construction of strong, centralized, monarchical states in the semi periphery (Prussia). Underlying Gorski's analysis are a question – why did the disciplinary revolution occur when and where it did? – and an assumption – that the disciplinary differences driving the development of states in Gorski's system arose during the disciplinary revolution and were not simply symptoms of older, transcending differences in the organization of European societies. My article answers the question and validates the assumption. It shows that during the later Middle Ages, societies throughout Europe organized collective action through local associations which employed the afterlife as a disciplinary device. The Reformation weakened or swept away those ubiquitous associations, forcing societies throughout Europe to adopt new mechanisms for organizing social action. Some of those mechanisms, as Gorski demonstrates, proved conducive to the formation of modern states and economies. Other mechanisms did not.

Avner Greif addressed similar issues in his research on trading groups during the late medieval commercial Revolution (Greif 1989, 1993, 1994a, 1994b). Maghribi traders, who were part of the Muslim world, organized collectively. Individuals interacted mainly with members of their group and contracts were enforced through informal institutions. Genoese traders were part of the Latin world. Their organization evolved into an individualist society where transactions occurred among individuals who shifted frequently among groups. Contracts were enforced principally through

specialized organizations such as courts of law. Differences in the organization of these two trading societies reflected rational cultural beliefs, which captured individuals' expectations about how others would act in various contingencies. This article compliments that research both theoretically and historically. This essay shows that non-economic cultural beliefs can influence the structure of economic institutions and efficiency of the economy by changing the structure and equilibrium of the collective action game. In addition, the realization that the Reformation represented a large scale transformation of European society from a collectivist to individualistic framework suggests that exogenous changes in beliefs, such as beliefs about the afterlife, that alter the relative costs and benefits of individualistic and collectivistic organizations, can alter the trajectory of societal organization. In turn, altering the evolution of contract enforcement mechanisms could influence the rate of economic progress, since the former influence the later, as Douglas North and Barry Weingast have shown (North and Weingast 1989; North 1981, 1990, 1991).

The influence could come through many channels. Margaret Levi suggests one – the efficiency of gathering the resources needed to provide public goods – in her research on *Rule and Revenue* and quasi-voluntary compliance (Levi 1988). Quasi-voluntary compliance occurs when most people comply voluntarily with system that employs compulsion against in certain circumstances. Legal sanctions exist to assure the compliant majority that the small non-complaint minority will not free-ride, thereby ensuring that the majority do not become cynical, and cease to contribute to the common good. Levi's theoretical framework seems to be a good description of the workings of a medieval craft guild. Christian ethos encouraged individuals to cooperate by teaching them the golden rule, treat others as you want them to treat you. Guilds fostered trust by bringing individuals together for social and religious services. Cooperation thrived in a climate of trust. Coercion hovered in the background to force the recalcitrant to contribute their share and to reassure the complaint that no one would not take advantage of their efforts.

The applicability of Levi's theories to craft guilds suggests lines of research that should be pursued in the future. Craft guilds were neither the first nor the last organizations to solve free rider problems with a mixture of material, cultural, and spiritual incentives. Such organizations abound as do theories for understanding

them. This essay stresses how belief in the afterlife served as a mechanism for solving free rider problems and how changes in this mechanism influenced the evolution of economy, polity, and society in late medieval and early modern Europe. It seems likely that other mechanisms existed whose effectiveness may also be traced through time. It also seems likely that similar mechanisms operate in the world today. Exploring these parallels may yield insights into the impact of ideas on the organization of society and the origins of ideas such as beliefs about the afterlife.

Appendix on Sources

The evidence presented in this essay comes from primary sources of two types. The first are records of guilds published by academic presses and historical societies. These publications contain transcriptions or translations of documents left by hundreds of guilds from throughout the Middle Ages. I collected all that I could via the following process. I consulted Mullins' *Texts and calendars: an analytical guide to serial publications*, which is an analytical guide to printed texts and calendars relating to English and Welsh history issued in general collections or in series by a public body or private society before the end of March 1957, and Mullins' *Texts and calendars II: an analytical guide to serial publications, 1957–1982*, which continues the original series. I collected all of the records mentioned by Mullins from the Libraries of the University of California, the Library of Congress, and via interlibrary loan. I also perused all books containing English historical documents available in the libraries of the University of California, and all books containing original records or historical descriptions of guilds available at the Institute of Historical Research, which I visited in 1997, and the Guildhall Library, which I visited in the years 1997 and 2000.

The second source is set of extant returns from the corporate census of Richard II. After Parliament commissioned this data collection endeavor in the fall of 1388, the Chancery dispatched writs announcing the decision to every sheriff in the realm. The writs ordered sheriffs to inform fraternities of the census by making public proclamations in all of their jurisdiction's principal towns and villages. Sheriffs then returned the writs to the Chancery with a description of how and when they accomplished that task.

The writs ordered fraternities as well as all other types of guilds to describe the

manner and form . . . of the[ir] foundation and beginning and continuance and governance . . . the oaths, gatherings, feasts, and general meetings of the bretheren and susteren . . . statutes, ordinances, uses, and customs . . . and . . . all other such things [as well as their] lands, tenements, rents, and possessions, whether held in mortmain or not, and . . . all goods and chattels whatsoever . . . in any wise belonging or in expectancy, and in whose hands soever such lands, tenements, rents, possessions, goods, or chattels may now be for the use of such guilds and brotherhoods: And as to the true annual value of the said lands, tenements, rents, possessions and the true worth of the said goods and chattels . . . [and their] . . . charters and letters patent if they have any granted by us [the King in Parliament] or any of our forefathers.

Descriptions were to be returned to the chancery 'before the feast of the blessed Virgin Mary now next [February 2nd, 1389]' (T. Smith 1870: 128–9).

The census provides the best single source of information about occupational guilds in late medieval England. It is the only extant and intentionally collected cross section. It must, of course, be used with care. The composition of the sample influences our interpretation. Key concerns include the proportion of organizations that responded to the census, the proportion of documents lost during the five centuries that the returns sat unused in the basement of the Chancery, the proportion of the fraternities that once existed which appear in the census, and the comprehensiveness and accuracy of the responses.

More than 500 census returns survive. Half of those come from organizations in rural hamlets and villages. Forty are from urban craft guilds. Approximately ten are from urban merchant guilds. The remainder comes from urban social and religious societies. The census is certainly incomplete. Many fraternities that existed at the time do not appear in the returns at the Public Record Office. For example, Bristol's municipal archives contain records from the Guild of Fullers, which operated throughout Richard II's reign. So did scores of other organizations in Britain's third largest city with a population of over 10,000. Those fraternities certainly knew about the census. Bristol's sheriff returned his writs to the Chancery with notations indicating when and where his staff informed fraternities of their duty and suggesting that the returns would follow soon thereafter. Yet, no census returns exist from

any organization in Bristol. Similarly, no returns exist for Exeter, Newcastle, Preston, Southampton, and many other medieval towns known to have had numerous guilds.¹¹ In another essay, I calculate that roughly one-in-six (15.9%) of the occupational guilds that definitely existed in London in 1388 and slightly less than one-in-ten (9.9%) of the guilds that probably existed in London in 1388 appear in the census. Analogy suggests that a similar or smaller proportion of all guilds that existed at the time appear in the census.

The original returns are available in the Public Record Office, where I studied them during the spring of 1997 and summer of 2000. Many translations have been published. The most widely used sources include Toulmin Smith's *English Gilds* and H.F. Westlake's *Parish Gilds of Medieval England*. Table 1 lists the craft guilds whose census returns survive. Descriptions include the town where the guild was located, the occupation of its members, the saint to which it was dedicated, and categorical variables indicating the existence of provisions pertaining to occupational and religious activities. Occupational activities included teaching new craftsmen the techniques of the trade, regulating working conditions for journeymen and apprentices, monitoring the quality of merchandise, coordinating the manufacturing of complex products, and ensuring everyone access to inputs and outputs markets. Religious activities included hiring priests, financing parishes, purchasing religious paraphernalia, organizing prayers for the souls of members living and dead, assisting members beset by the adversities of everyday life, and hosting festivals and feasts. The dedication reveals the spiritual affiliation of the organization and also the name that it used on legal documents, allowing scholars to match census returns with other sources. The guild of cordwainers of Lincoln, for example, was officially entitled the Fraternity of the Blessed Virgin Mary. Many contemporary written accounts would have referred to it that way rather than with modern colloquial convention of calling it the guild of cordwainers or the cordwainers' guild.

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NOTES

1. See also Cawley (1994: i–xxiii) for a description of the cycles of religious plays that craft guilds performed in ‘Ireland, Scotland, and in many of the more prosperous towns of England’ and speculation about the linkages between religion, drama, and industry.
2. See also Bridbury (1962) and (Lopez 1971).
3. See Westlake (1919) and T. Smith (1870) for the cost of prayers. See Dyer (1994: 215) for daily wages.
4. See Richardson (2000) for calculations of the potential profit from selling sub-standard pewter and for extensive citations concerning this example.
5. Many synonyms existed for the terms aldermen, stewards, deans, and clerks. The nomenclature of guild hierarchies differed from time to time and town to town. In London for example, officers known as wardens performed the duties of the officers called deans in this article. Officers known as masters performed the duties of officers here called aldermen. See Pooley (1947: 9) and Hazlitt (1892: 19) for more information on the hierarchies of London guilds.
6. I have modernized the vocabulary, spelling, and punctuation of this quote and removed some superfluous words without marking these removals by ellipses.
7. For additional examples see Blair and Ramsay (1991: 73); Cherry (1992: 59); and Thomas (1926: 264).
8. Brentano (1870: ciii), cited from Milnes (1910: 28).
9. See also Pantin (1955).
10. See also Brentano (1870: cxviii); Ditchfield (1904: 1); McKisack (1991: 373); Megson (1993: 5); Swanson (1989: 6).
11. For population data see Keen (1990, p.86). For Southampton see Studer (1910). For Preston see Wilcockson (1822) and Alexander (1884). For Newcastle see Walker (1824). For Berwick, Bristol, Burford, and Reading see Smith (1870: 257, 272, 283, 286–287, 299–337, 338).

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