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What is This?

Structure and Dynamics of Religious Insurgency: Students and the Spread of the Reformation

Hyojoung Kim[a] and Steven Pfaff[b]

Abstract

The Protestant Reformation swept across Central Europe in the early-sixteenth century, leaving cities divided into Evangelical and Catholic camps as some instituted reforms and others remained loyal to the Roman Church. In offering a new explanation of the Reformation, we develop a theory that identifies ideologically mobilized students as bridge actors—that is, agents of religious contention who helped concatenate incidents of local insurgency into a loosely organized Evangelical movement by bridging structural holes. Building on existing literature, we offer a novel way to measure the influence of contending religious movements through university enrollments; we propose that the institution of reform can be partially explained by the varying degree of exposure that cities had to Evangelical activist and Catholic loyalist university students. Based on statistical analysis of a novel dataset comprising cities in the Holy Roman Empire with a population of 2,000 or more from 1523 to 1545, we find support for the role of university students as bridge actors linking critical communities at universities to arenas of urban contention. The greater a city's exposure to heterodox ideology through city-to-university ties, the greater its odds of instituting the Reformation.

Keywords

bridge leaders, diffusion, Reformation, university students

By convention, the Reformation began in October 1517 when Martin Luther began circulating "Ninety-Five Theses" with the intention of stirring debate about the selling of indulgences from sin and other ecclesiastical practices. The resulting theological debate soon became a full-blown rebellion. Emboldened by public acclaim and shielded by a sympathetic prince, Luther defied emperor and pope at the Diet of Worms in 1521. By this point, the conflict had become widely known and demonstrations had occurred in some towns. As for Worms, a papal emissary said, "nine-tenths of the people here shout 'hurrah for Luther,' the other one-tenth cry 'death to the pope'" (Tracy 1999:55).

Scholars have described the Reformation as the first modern social movement and as the progenitor of "distinctively activist" modes of religious advocacy that reshaped the world (Edwards 1994; Stamatov 2010:618). Understanding the Reformation as a social movement is fitting in terms of the

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general understanding of the term: "a collective, organized, sustained, and noninstitutional challenge to authorities, power holders, or cultural beliefs and practices" (Goodwin and Jasper 2003:3). Evangelical activists inspired by a new theology wanted to redeem the Gospels through profound changes in collective ritual and the civic constitution of society. They wanted to replace Latin with the lay language, abolish the priesthood, and fundamentally alter religious doctrine and sacraments.[1] In towns, this sparked a veritable culture war between Evangelicals and defenders of Catholic orthodoxy (Edwards 1994; Tracy 1999). As one witness recalled in 1525: "On Wednesday in Holy Week the last Mass was celebrated in Zürich. . . . All the alters which were still in churches were stripped bare; all the week was no more singing nor reading, but all the (liturgical) books were taken out of the choir and destroyed" (Kidd 1911:443).

Within a few years of 1517, the movement touched every corner of the Holy Roman Empire (hereafter HRE). It advanced largely through local, urban struggles that variously took the form of peaceful demonstrations and petitions, iconoclasm and anti-clerical rioting, and even armed uprisings. Emperor Charles V was committed to suppressing Evangelical heresy but was preoccupied with wars against France, the Papal States, and the Ottomans. He did not campaign earnestly against Protestants until 1545. Neither side, however, achieved a lasting victory, which led to peace under the principle of *cuius regio, eius religio*—the territorial prince would decide the religion of his people. Prior to the war, the Evangelical movement had achieved only mixed results. According to the data we collected, somewhat more than half of the large towns and cities had reformed their rites by 1545.

We seek to explain the rapidity with which the Evangelical movement spread and why it achieved such mixed success in the Empire's cities. Certainly, the coming of the Reformation was entangled with socioeconomic change and the geopolitics of its day, as past scholarship emphasizes. Yet structural conditions do not automatically translate into social movements—in the midst of cultural upheavals, actors require an ideological rallying point around which grievances are interpreted and organized. While some princes favored reform or patronized Evangelicals, reform failed in some cities in spite of such support and triumphed in others where territorial rulers opposed it. Nor can preexisting demand fully account for the movement. Although the late medieval Church is sometimes depicted as corrupted and deeply objectionable to its adherents, current historiography indicates that in many places the Church was vital and met the spiritual needs of its flock (Cameron 1991; Scribner 2001; Taylor 2002). As Blickle (1992:6) observes, "popular piety is not a meaningful way of approaching the question of why the reformation became in Central Europe a social movement that was broadly rooted among townsmen."

Furthermore, substantial obstacles confronted the reformers. It was not simply a matter of converting individuals; as Pettegree (2005) notes, Evangelicals also had to change the constitution of the community. To do so, leading theologians needed to reach dispersed, locally based actors who might be open to their appeals. Yet a tremendous gap—or "structural hole" to employ Burt's (1992) famous terminology—lay between Evangelical theologians, on the one side, and townsmen with their local grievances and interests on the other. Given this structural gap, the process by which new religious ideas were transmitted and instituted requires explanation. Who would have been prone to accept heterodoxy, commit to a dangerous cause, and instigate townsmen to act against the powerful ecclesiastical and political establishment? Who channeled insurgency into local arenas and helped concatenate local incidents of dissent into a wider movement?

Overcoming structural holes is an issue confronting nascent radicals in many times and places.[2] Building on social movement theory, we posit that during the Reformation, a cohort of students trained at universities in Wittenberg and Basel helped propel the

movement by diffusing ideological dissent and catalyzing urban contention. Based on historical evidence, we show that Wittenberg and Basel acted as "critical communities," which sociologists have identified in the birth of insurgent social movements. Such communities convince potential change agents of their conceptualization of a problem, advocate new social values, and export heterodox ideas to wider political arenas (Rochon 1998; Wuthnow 1989). Mische (2007), for example, traces Brazilian activists who bridged positions as students, ideological partisans, and civic actors. We hypothesize that some sixteenth-century students were deliberately tutored for insurgency by radical theologians in a fashion akin to that documented in the spread of the U.S. civil rights movement (Isaac 2008). Much like the "bridge leaders" studied by Robnett (1997:19) who linked U.S. civil rights organizations to Southern communities, Evangelical students "brought the movement home" by "foster[ing] ties between the social movement and the community."

As agents of diffusion, students connected universities and the outside world. Mobilized students spread the new theology to towns and catalyzed the formation of a local critical mass to bolster urban agitation. In returning to their places of origin, students risked the dangers of agitation, helped bear the costs of local organization, and endowed the emerging movement with trust and mutual expectations. Jointly embedded in global and local dissident communities, students channeled heterodox ideology to local communities and brought locally specific grievances and needs to the attention of dissident leaders at the emerging centers of Evangelical theology, where they could help inform action strategies tailored to local needs.

The Reformation also illustrates a point that is often neglected in studies of contentious movements. Actors seeking to establish heterodox ideas must contend with counter pressures from individuals loyal to institutionalized ideas (orthodoxy). Conflict is likely to occur between heterodox and orthodox actors who pressure others to embrace or reject the novel ideology (Kim 1998). Actors who were well-integrated into existing political and ecclesiastical institutions had much to lose if the Evangelicals prevailed—they needed alert and resourceful activists to defend the Catholic establishment. We thus posit that theologically orthodox university students may have provided cadres around which orthodox countermovements formed.

If our proposition is correct, then cities strongly influenced by heterodoxy through ties to emerging Evangelical centers, all other things being equal, were more likely to institute Evangelical reform. Conversely, cities with greater links to emerging centers of orthodoxy would have shown a greater tendency to resist reform and remain loyal to Roman Catholicism.

To test our hypotheses, we analyze reform outcomes in all cities with a population of 2,000 or more in the HRE that enjoyed privileges of self-government (*Stadtrecht*). Our analysis ranges from 1523, the year a town first abolished the Latin-rite Mass, through the advent of imperial religious warfare in 1545. Findings show that institution of reform in cities was determined not only by local structural factors and political opportunities, as emphasized in comparative-historical literature, but also by relative exposure to university centers where contentious heterodox and orthodox ideologies were being developed. Cities exposed to Evangelical activism through student enrollments were more likely to institute reform. Reform was less likely where Catholic loyalists were supported by orthodox university enrollments.

THE REFORMATION AS A SOCIOLOGICAL PROBLEM

The Reformation has been the subject of extensive research into its origins, its theology, its leading reformers, and its historical and cultural context.[3] In explaining the Reformation's success, many historians assert that reform was instituted, ultimately, because it served the interests of the rulers of nascent principalities (Brady 1998; Dixon 2000;

Schubert 1996; Tracy 1986). Other scholars emphasize the role of literate townsmen among the lower and middle strata of burghers in championing reform as a route to greater civic autonomy and sounder economic policy (Blickle 1992; Karant-Nunn 2005; Moeller 1972; Mörke 2005).

Sociologists have developed their own versions of these theses. Some researchers emphasize political opportunities. Swanson (1967), for example, advanced the elite interests thesis, contending that open and responsive regimes allowed for the institution of reform, while authoritarian and hierarchical regimes blocked reform. Fulbrook (1983) identifies sociopolitical environments that encouraged or suppressed reformers depending on whether their goals were congruent with the interests of state-builders. Where religious reformers enjoyed princely patronage, they were much more likely to succeed. In a similar vein, Stark (2003) posits an alliance between religious idealists repulsed by the Church's worldliness and modernizing princes interested in gaining control over ecclesiastical assets and revenues. Rulers who would benefit from the seizure of ecclesiastical resources tended to favor reform; rulers who already had substantial control over these resources, or advantageous alliances with the Church, tended to oppose reform.

Other scholars view the Reformation fundamentally in class terms. Engels (1966) offered an influential version of the nascent social class thesis, analyzing the Reformation as a movement triggered by the rise of mercantile capitalism: initially spurred to defy feudalism and the Roman Church by visions of a just (bourgeois) order, fear of peasant revolutionaries soon led the burghers to blunt the social gospel and side with the princes. Also focusing on economic interests, Ekelund and colleagues (Ekelund, Hebert, and Tollison 2006; Ekelund et al. 1996) argue that burghers rallied to Protestantism in hopes of gaining a cheaper alternative to the Catholic religious monopoly and making more rational use of economic resources.

An important variant of the social class thesis focuses on the role of intellectuals. Frustration with clerical corruption and abusive Church practices was nothing new, but a new class of intellectuals attempted to exploit changing conditions (Wuthnow 1989). Luther, Melanchthon, Bucer, Zwingli, and other leading figures of the early Reformation were young (Luther, the oldest, was just 34 in 1517), academically gifted, and deeply troubled by the state of Christianity. Influenced by Biblical Humanism, they embraced the authority of the "pure Gospel"—that is, spiritual justification through Christ alone rather than through the Church—and the restoration of doctrine and liturgy on the basis of original Scriptures. Stark (2003) observes that the initial Evangelical rebellion was meant to restore standards of religious belief and practice to a more demanding level, not to create rival sects or found new churches. But activists' zealous embrace of the Gospel and their confidence that the sincere believer had the right to challenge doctrines contradicting Scripture had explosive potential and made compromises with papal authority difficult. Where they were able to establish themselves on university faculties, they forged what Rochon (1998) calls critical communities, sites where existing institutions and practices were reconceived as deeply corrupted and where heterodox ideas were openly discussed. This perspective finds support in the history of universities prior to the Reformation (Courtenay and Miethke 2000; Grendler 2004; Hammerstein 2003; Rüegg 2003; Schwiebert 1996; Schwinges 1998).

Despite the great value of existing studies, from the perspective of social movement and social diffusion theories, puzzles remain. Evangelicals responded to grievances, exploited civic tensions, and built on existing efforts to improve local religious life. In joining the reform camp, urban leaders perceived a host of material incentives, including the opportunity to seize ecclesiastical assets, foundations, and endowments. Moreover, the promised Evangelical order would unify civic authority, abolish the clergy's special status, improve preaching and religious instruction, and eliminate ecclesiastical corruption (Witte 2002). The burden of ecclesiastical laws and penitential extractions had grown heavy

(Ekelund et al. 2006; Ekelund et al. 1996), and clerical exemptions from civil authority weakened councils and restricted revenue collection (Nicholas 1997), so the Evangelical message reverberated with the civic republicanism shared by burghers and guildsmen (Blickle 1992; Brady 1998; Moeller 1972; Mörke 2005). The presence of these interested factions was pivotal in forming the necessary critical mass for collective action in towns. Student dissidents served as vital would-be zealots during early phases of high-risk collective action: students were embedded in dissident communities, prone to move first and pay start-up costs, and modeled solidarity and commitment (Chong 1991; Coleman 1990; Gould 1995; Lichbach 1994).

Nevertheless, at its outset, the Evangelical cause had to overcome enormous skepticism, if not outright hostility, from established elites. As Dixon (2000:153) notes, "There seemed to be little a prince could do to stop the spread of the movement in the early 1520s, just as there was little that the German princes seemed to offer in support of it." As for the bourgeoisie, "the new reform ideas were often introduced in a manner which seemed to threaten the [city] Council's authority" and, given the dangers, many chose to "temporize and stall" rather than back reform (Sea 1986:236). Guildsmen and burghers were often won over, but only where influential voices strategically linked the Evangelical message to local grievances, anti-clericalism, and old civic ideals (Blickle 1992; Brady 1998; Moeller 1972).

The uncertainty facing actors was aggravated by the fact that the ultimate fate of a local insurgency would be influenced by the strength of the Evangelical movement across localities. The literature on innovation and diffusion shows that the spread of ideas and subsequent conversion is most likely in the context of dense social networks where information and social influence flow quickly and efficiently (Kim and Bearman 1997; Rogers 1995; Valente 1995; Watts 1999). The other side of this principle is, of course, that innovations are less likely to diffuse in sparse networks characterized by structural holes

(Burt 1992). This insight is especially instructive in the case of the Reformation. We should not overestimate the potential for the spread and adoption of heterodox ideas in early modern Europe. The average city in our sample had no more than a single connection to the network of trade routes, and only a few cities were located at the intersection of multiple routes. Politically, the Empire was divided into a host of rival polities and independent towns. The economy was dominated by feudal agriculture and most trade remained local. Urban life was divided by rigid social distinctions, the predominance of local cultures and dialects, and stultifying provincialism. Given this context, the central organizational hurdle that confronted reformers was how to overcome structural holes and reach out to dispersed, disunited, and culturally diverse cities and towns. How did reformers create crucial bridges to spread ideological innovations originating in one place to numerous cities over structural holes?

Naturally, the nascent print industry played an important role. Yet printing only goes so far in explaining the very mixed success of the movement—for one thing, printed materials were distributed in every region but reform was highly variable (Edwards 1994; Eisenstein 1980). Moreover, exposure to new ideas alone is rarely enough to trigger extensive collective action, much less remake the institutional order. For most actors, dangers of change loom larger than potential gains (Weingast 2005), and established elites are especially prone to loss aversion (Kahneman, Knetsch, and Thaler 1991). By its very nature, heterodoxy makes issues of status quo bias and collective conservatism even more acute. The Church and the emperor condemned Evangelical ideas as heresy, and the consequences could be dire: thousands of heretics were executed in the HRE. Printed materials alone would not have remade the social order because, as social movement studies have repeatedly demonstrated, heterodoxy "moves through flows of people" (Isaac 2008:36); moreover, radical movements often expand when activists link centers of cultural innovation to political arenas (Oliver and Myers 2003; Rochon 1998).

Before 1523, the clerical profession dominated the conflict and many of the theological issues being debated were beyond the experience or grasp of ordinary folk (Moeller 1994; Strauss 1978). So how did Evangelicalism move beyond scholarly disputes to ignite an insurgency? In a pioneering study, Hannemann (1975) explored sociological channels through which the Reformation expanded. His study of a single region suggests that particular messengers, such as preachers, may have been the vectors that spread Evangelicalism. Unfortunately, his study was limited not only geographically but also to the roles played by itinerant preachers, overlooking actors with stronger local ties. Furthermore, his study took no notice of possible Catholic countermovements.

Identifying the structure that knitted together an Evangelical movement is crucial for explaining issues left unanswered by the elite interest and rising class theses: Why did reform sometimes occur *against* the wishes of entrenched urban elites and territorial rulers, and why did it sometimes fail *despite* their wishes? Why did some economically and commercially advanced cities embrace reform while others rejected it? Our systematic, large-N comparison reveals that reform frequently occurred even in politically hostile contexts; reform sometimes failed in economically advanced areas where Evangelicals benefited from favorable opportunities and princely patronage. The uneven geopolitical distribution of reform strongly suggests the influence of agents whose bridging activities variably intersected with those of local elites.

UNIVERSITIES AND RELIGIOUS CONTENTION IN THE SIXTEENTH CENTURY: HYPOTHESES

The literature on diffusion and social movements helps identify characteristics typical of bridge leaders. Burt (2005:85) emphasizes actors whose advocacy makes innovations contagious for those with whom they interact;

they "are active in their own group, but their adoption-eliciting influence is in adjacent groups. They are in some ways structurally similar to the people they influence, but in one important way distinct; they have strong connections to other groups." These change agents are typically highly educated and highly mobile, facilitating the flow of innovations from centers of innovation outward (Rogers 1995). Research demonstrating the importance of a critical mass for initiating movements and revolutions also identifies this kind of strategic actor (Andrews and Biggs 2006; Kim and Bearman 1997; Marwell and Oliver 1993). These actors form a recognizable core around which a movement takes shape and from which subsequent mobilization goes forward. With this core in place, prospective converts find it easier to cross individual participation thresholds (Braun 1995). Lacking a daring cadre of activists, rational actors may stick with the status quo even when discontent is widespread (Centola, Willer, and Macy 2005).

McAdam and Paulsen (1993:659) observe that a movement's core is generally composed of actors with "a strong subjective identification with a particular identity, reinforced by organizational and individual ties." Characteristics of university students during the HRE, especially those trained in Wittenberg and Basel, appear to meet these expectations. Not only were students being trained in the very universities where debates surrounding reform and orthodoxy were raging, but because they traveled and maintained contacts between university centers and their hometowns, they often championed new ideas locally (Asche 1999). In a world where higher education was uncommon and cities were small, students' unusual levels of education and mobility made them important resources for local opinion leaders and potent agents of change. Indeed, as Grendler (2004:1) declares, "universities and their professors may have had greater influence on society in the Renaissance and Reformation than in any era since."

In 1517, there were 17 universities in the HRE; nine of them were founded between 1450 and 1506. During this period, between 1

and 2 percent of the male population enrolled at a university. Yet Central European students, unlike their counterparts in Latin Europe, could not expect to be absorbed into state, judicial, or clerical careers. The corps of educated people grew rapidly, but there was no expansion in career opportunities in the state or ecclesiastical administrations. Consequently, most students studied for degrees in the arts rather than in theology or law and had to be content with employment as ordinary pastors, tutors, or teachers (Grendler 2004; Kintzinger 1999; Schwinges 2000). Research shows that such a mismatch between expanding elite ranks and limited opportunities is a general structural condition favoring rebellion (Goldstone 1991).

In the crucial years from 1517 to 1522, when conflicts over Catholic doctrine erupted into public discourse, a unique cohort of activists was created. We examined standard biographical dictionary entries for 314 prominent Evangelical activists and their Catholic opponents in the early phase of the Reformation (i.e., those born prior to 1500). These biographies reveal that about 80 percent of activists from both groups had matriculated at a university, although most sought their first degrees in the liberal arts rather than theology (Ganzer and Steiner 2002; Stupperich 1984). In his study of clerical careers during our period, Scribner (1980) found that nearly 80 percent of clerics had studied at a university but only 15 percent achieved a doctor of theology. This meant that students usually found their first position as ordinary, salaried pastors employed by a town. Consequently, civic politics in their hometowns and maintenance of ties to their university fellows held more promise than did imperial or ecclesiastical patronage (Maczak 1988; Wriedt 2000).

University students returning to their hometowns carried interpersonal networks that spanned beyond city boundaries and bridged structural holes separating dispersed cities. Of course, not all organizational ties promote activism. Random networks generated by students enrolling at uncommitted or conservative universities because of proximity or opportunity would be unlikely to generate a social movement (Kitts 2000). In fact, historians generally posit that universities had a modest effect on the early Reformation. Moeller (1999:42) notes that "as a whole the universities regarded the new [Evangelical] movement with many reservations or rejected it outright." Only faculties at particular universities committed themselves to clear ideological positions early on and sought to involve students in religious contention (Grendler 2004; Hammerstein 2003; Schwiebert 1996). In particular, four universities served as focal points of early heterodox and orthodox ideological formation: Wittenberg, Basel, Cologne (Köln), and Louvain (Löwen).

Founded in 1502, Wittenberg was "one of the earliest and most important universities founded in the humanistic spirit" (Hammerstein 2003:17). It was a new university located in a peripheral region ruled by an independent-minded prince. The school was an "academic Siberia" situated, as Luther acknowledged, "on the edge of civilization" (Hillerbrand 2007). Yet this remoteness offered advantages. Wittenberg's novelty, lack of inherited status, and indulgent patron made it far easier for faculty to sway their constituents than at more prestigious, better-established universities. Luther served as professor of Biblical theology at Wittenberg for more than three decades. Philip Melanchthon, the great humanist educator, joined the faculty in 1518. Melanchthon trained students in the arts, including the field of rhetoric; he was convinced that sermons and public addresses could mold opinion in favor of reform. Together, the Wittenberg faculty deliberately shaped a cohort of students dedicated to the Evangelical cause (Karant-Nunn 2001; Park 1995; Rüegg 2003). As Grendler (2004:18) remarks, "The activities of the first four or five years of the Lutheran Reformation resembled a young faculty uprising. Led by Luther, professors and students engaged in what appears to have been a continuous seminar, as they debated the foundations of traditional Catholicism." From the lecture halls, students went forth to "spread the Reformation through their preaching, by advising princes and city councils" (pp. 18–19).

Moeller's (1999) study of Evangelical sermons of the 1520s found a Wittenberg effect evident in texts evincing consistent doctrines and maxims and a strong partisanship. In addition to ideological preparation, study at Wittenberg provided a loose organization based on ties to the university and among alumni. Early activists who flocked to the Evangelical cause were not only better educated than most urban residents, but they were generally not yet established professionally (Evangelicals' average age in our biographical sources was 27 years in 1517), a factor that reinforced their identification with the movement. Common experiences, a unique status, and university ties seem to have defined a distinctive Evangelical protest identity (Gould 1995).

Biographies drawn from Stupperich (1984) and Hillerbrand (1996) reinforce this sense of activist identity. In 1519, Joachim Slüter (b. 1491) went to Wittenberg from Rostock. Returning home, he became the leading agitator for reform. Denounced by the council and barred from preaching, he held open-air sermons outside the city gates and published a hymnal in the local Low German dialect. With massive popular support, Slüter prevailed in 1528; Rostock's mayor and leading patricians endorsed reform, and in 1531 Slüter devised a new church order. Following his studies at Wittenberg, Tilemann Plettner returned to Stolberg where he agitated for Evangelical reforms that were finally adopted in 1539. Ambrosius Moibanus (b. 1494), son of a Breslau shoemaker, studied at Wittenberg and in 1525 returned to help reform his hometown. Thomas Blarer (b. 1499), a law student, was an early Evangelical enthusiast at Wittenberg (among other things, he eagerly took part in the burning of papal decrees). Returning to Constance, he was elected to the town council in 1525 and helped build a coalition for reform. In 1527, Blarer and his allies abolished the Roman church and drove the Catholic bishop into exile. Gottschalk Kruse (b. 1499) and Autor Sander (b. 1500) returned to Braunschweig and mobilized a grassroots insurgency that crippled the Catholic

establishment. Their movement mobilized guildsmen and young clerics, published the first tracts in the local dialect, and finally forced reform of the city in 1528 over objections of a conservative council and a hostile duke (Baeumer 1991). These examples are not meant to suggest that all Wittenbergers became leading activists or that they always succeeded—some were passive and others faced violent persecution, imprisonment, and exile—but rather that they linked their hometowns to the Evangelical movement and became key instigators in local religious contention.

In addition to Wittenberg, a second movement took shape around Ulrich Zwingli (1484–1531) and his followers in the southwest of the Empire (Gäbler 1986; Locher 1979; Potter 1977). Their intellectual center was the University of Basel (founded 1460). At Basel, students were influenced by the new humanistic spirit; among other things, in 1516 Erasmus published his influential annotated Greek New Testament there (Gäbler 1986; Hammerstein 2003; McGrath 1987). But cautious Erasmus only "laid the egg that Zwingli hatched"; it fell to Zwingli and his allies on the faculty to cultivate a corps of young teachers and preachers willing to throw themselves into "the reforming battle" (McGrath 1987:49).

Many of Zwingli's associates and disciples were recruited at Basel, including Leo Jud (graduated 1522), Johan Kessler (1522), Oswald Myconius (1521), Kaspar Hedio (1521), Kaspar Megander (1518), and Heinrich Utinger (1518). Like Luther's followers, they frequently began their careers as agitators in their hometowns. Some met success (e.g., Jud in Zürich, Kessler in St. Gallen, and Rhegius in Augsburg); others faced opposition and frustration, such as Myconius in Lucerne and Wyttenbach, "Zwingli's inspired pupil," in Biel (Locher 1979; Roper 1989). Basel was not identical to Wittenberg; it was not Zwingli's city, whose base was at Zürich (Hendrix 1984). At first, Basel and its university were bitterly divided. It was not until 1529 that the Zwinglian party, backed by an

uprising of the guilds, finally took control of the city. The divided faculty was reformed, leading to the ouster of the Catholic Humanists (including Erasmus). Evangelicals at Basel then recruited students who similarly went on the offensive in the name of the redeemed Gospel.

The Wittenberg and Basel universities constituted the two major critical communities where leading heterodox theologians were protected from orthodox cross-pressures; where radical ideas were articulated into coherent Evangelical theologies; and where a cadre of student activists were trained and sent out across the Empire. Because university students tended to return to their cities of origin after study, cities that sent students to these universities were more likely to be exposed to insurgent messages of Evangelicalism and thereby convert to it. We therefore hypothesize the following:

> *Hypothesis 1:* The more exposed a target city was to Evangelicalism through student ties to Wittenberg University and Basel University, the more likely it was to institute reform.

Facing an Evangelical insurgency, defenders of the Catholic establishment also relied on university ties in mobilizing countermovements. The Counter-Reformation, with its concerted campaign for the religious and political re-conquest of Europe, did not take shape until after the Council of Trent in December 1545 (Tavard 1957). Before 1545, Cologne and Louvain were the two leading bastions of Roman orthodoxy; they were the only universities officially to declare the writings of Luther anathema in 1519 (Park 1995). Local resistance to reform received limited and inconsistent support from Rome and the German bishops, so Catholic loyalists relied on orthodox scholars and the university networks they constructed in their struggle against the Evangelical insurgency (Bagchi 1991).

Like Basel, Cologne's university was founded in 1388 by the free-city government. The city boasted dozens of churches and

chapels and hundreds of foundations and charities. Its university developed a reputation for canonical theology and orthodox advocacy (Hammerstein 2003). Hillerbrand (1996:384) writes, "Cologne was an important center of religious orthodoxy, ensured by the close relationship between its leading religious institutions and the university." The famed priest and publicist Johannes Cochlaeus (b. 1479), one of the earliest and most renowned opponents of Luther, studied at Cologne, and a number of famed Catholic theologians were on the faculty (Bagchi 1991). Contra Wittenberg, Cologne became an early bulwark of orthodoxy that prepared agents to defend the Church (Ganzer and Steiner 2002); it earned the monikers "holy Cologne," the "German Rome," and the "true daughter" of the Church. Activists included Albert Pigge (b. 1490), who won his doctorate in theology in 1517 and returned to the Netherlands where he served as a canon and cathedral provost in Utrecht, published anti-Lutheran tracts, and zealously blocked Evangelical inroads. Johannes Dietenberger (b. 1475) studied at Cologne until 1517 and was then named Dominican prior in his native Frankfurt where he published anti-Lutheran pamphlets and led the opposition to reform. In 1522, law student Johannes Gropper (b. 1503) was appointed representative of the Archbishop of Cologne in the nearby city of Soest.

Founded by the Duke of Brabant in 1425, the University of Louvain differed in some respects from Cologne. It was an orthodox redoubt that, under the advice of Erasmus, modified its curriculum in accord with humanistic principles. Although Humanism is commonly associated with the Reformation, Louvain remained an orthodox bastion (Schwinges 1998). Evangelical ideas were officially reviled and all students were required to take an oath against Luther. Influential teachers such as the future Pope Adrian VI (1459–1523), Johannes Dridoens (b. 1480), and Jacobus Latomus (b. 1475) trained zealous defenders of the Church and imperial interests, among them Bartholomaeus Latomus (b. 1490), Ruard Trapper (b. 1487), Josse
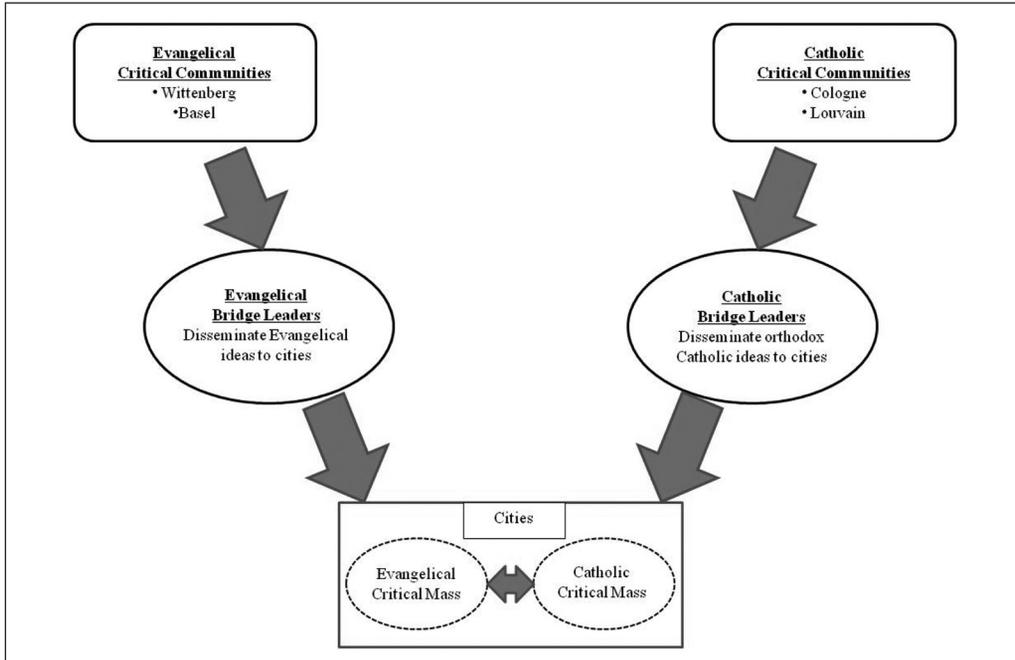
Figure 1. Theoretical Model of the Reformation: Critical Communities, Bridge Leaders, and Critical Masses

Ravesteyn (b. 1506), and Peter van der Vorst (b. 1500).

Orthodox agents and polemicists trained at Cologne and Louvain attempted to counter Evangelical agitation. Catholic loyalists provided a powerful resource for the Catholic cause, especially in concert with the Habsburgs and conservative princes (Bagchi 1991; Tracy 1990). In summary, historical evidence indicates that opposition to Evangelicals crystallized at universities serving as early bulwarks of religious orthodoxy, which may have helped bolster Catholic resistance. This leads to our second hypothesis:

> *Hypothesis 2:* The more exposed a target city was to orthodox Catholicism through student ties to Cologne and Louvain, the less likely it was to institute reform.

As Figure 1 illustrates, the theoretical model we develop here posits that towns were exposed to different layers of influence. Locally, a city's ideological disposition toward

Evangelicalism was likely affected by the presence and strength of reform-oriented social and economic classes (e.g., burghers and guildsmen) and the nature of regional princes' political patronage. However, these factors were not enough to determine the fate of reform. Cities were also exposed to wider ideological contention between Evangelicalism and Catholicism, which was expounded by the respective critical communities at Wittenberg and Basel and Cologne and Louvain, and communicated through the bridging role played by students. A city's relative exposure to these countervailing ideological influences, in addition to its local economic and political structure, determined its likelihood of reform.

RESEARCH DESIGN AND MEASUREMENT OF VARIABLES

To test our hypotheses, we examine the propensity of cities to institute reform in the

period from 1523 to 1545. The first official abolition of the Mass in a town was in 1523. The movement dynamics of interest to our study persisted through 1545, after which general warfare began between imperial and Protestant forces.

A common limitation in historical analyses of adoption of innovations is the unavailability of individual-level data on adopters (Palloni 2001). In these circumstances, researchers can draw inferences from larger units so long as they engaged in decision making (see, e.g., Hedström 1994). In sixteenth-century Central Europe, settlements possessing the formal status of city (*Stadtrecht*) were self-governing. They had their own laws and courts, communal associations, feudal exemptions, property rights, and a civic administration that was selected by and accountable to local burghers (Nicholas 2003; Weber 1962).

Accordingly, we selected cities as the unit of analysis and observation. According to Scott and Scribner (1996), 2,000 inhabitants was roughly the mean size of a Central European town during this period. To ensure reliability and complete information, we limited our analysis to cities with an estimated population of 2,000 or more in 1520. We eliminated a handful of towns because they did not enjoy self-government, resulting in a sample of 461 cities, closely corresponding to the historical estimate (ca. 500) of the number of settlements of this size in Central Europe (Scott and Scribner 1996). Note that exclusion of towns with a population of fewer than 2,000 is appropriate for two reasons. First, smaller towns generally lacked *Stadtrecht*— that is, they lacked institutions of self-government that are a critical scope condition for our analysis. If a town's citizens could not practically decide for the Reformation, then the very question of identifying determinants of a city's decision to convert to Evangelicalism is irrelevant. Second, there is not enough documentation about small towns to permit systematic coding of variables.

For 461 cities, we identified reliable sources for coding a number of important variables; sources include sixteenth-century matriculation lists, historical monographs, historical atlases, and published source materials. Table 1 lists the variables employed in our analysis; Table 2 reports their Pearson's correlation coefficients.[4]

Abolition of the Mass: Dependent Variable

As an indicator of our dependent variable, we focus on whether the Catholic Mass was officially abolished (or reformed) in a town. Fortunately, reform is a well-documented phenomenon, and we coded the variable from secondary sources (e.g., Brady 1999; Cameron 1991; Greengrass 1998; Köbler 1989; Littell 2001; Moeller 1972). We coded this variable 1 if the Mass was officially abolished during the study period, and 0 if a city remained Roman Catholic or bi-confessional.

City-to-University Ties: Key Independent Variables

To assess whether the probability of a town's adopting reform was affected by its contacts with heterodox and orthodox universities, we focus on the number of students from a given town who enrolled in Central European universities. Ideally, one would measure student returns to hometowns directly, but no source exists that would allow us to track movements of the thousands of students who matriculated at universities from 1517 to 1522. However, the biographical evidence on prominent activists that we collected indicates concretely that more than a third of students who attended a university were subsequently active in religious contention in their town of origin. Scribner's (1980) study of the structure of clerical careers found that the majority of theology students began their careers in their hometowns and that this was the typical career progression for students in German-speaking lands (see also Grendler [2004] on this point, showing how Central Europe was different from Latin countries in that there were far fewer career openings outside of hometown settings). It is reasonable to conclude that most students—especially those

Table 1. List of Variables Used in the Analysis

Variables	Measurement	Mean (SD; Range)
Abolition of the Mass	1 if abolished Mass; 0 otherwise	.59
Population	Logged population size in thousands	1.57 (.7; 0–3.8)
Mining Center	1 if a mining center; 0 otherwise	.06
Trade Links	Number of land-based trade routes intersected in a town	.54 (1.19; 0–8)
Seat of a University	1 if a university in a town; 0 otherwise	.03
Printing Press	1 if there is a printing press in a town; 0 otherwise	.17
Luther Bible	1 if Luther Bible was printed in a town; 0 otherwise	.03
Free/Imperial Cities	1 if a free city; 0 otherwise	.20
Neutral Patronage	1 if a city belonged to a territory whose rulers were neutral concerning religious conflict; 0 otherwise	.11
Pro-reform Patronage	1 if a city belonged to a territory whose rulers favored Evangelicals; 0 otherwise	.24
Distance from Wittenberg/ Basel	Distance from Wittenberg or Basel, whichever is closer (in 100 km)	2.85 (2.49;.0~31.5)
Distance from Cologne/ Louvain	Distance from Cologne or Louvain, whichever is closer (in 100 km)	3.74 (3.14;.2~35.1)
Students to All Universities	Logged number of students per 1,000 residents from a town who were enrolled in any university	1.19 (.69; 0–3.09)
Students to Wittenberg/ Basel	Logged number of students per 1,000 residents from a town who were enrolled in Wittenberg/Basel University	.27 (.37; 0–1.90)
Students to Cologne/ Louvain	Logged number of students per 1,000 residents from a town who were enrolled in Cologne/Louvain University	.30 (.54; 0–2.69)

Table 2. Pearson's Correlation Coefficients among Variables Used

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Abolition of the Mass	1														
(2) Population	−.03	1													
(3) Mining Center	.07	.08	1												
(4) Trade Links	*.10*	*.40*	*.28*	1											
(5) Seat of a University	−.06	*.21*	.07	*.29*	1										
(6) Printing Press	−.08	*.43*	.04	*.26*	*.34*	1									
(7) Luther Bible	.00	*.29*	*.21*	*.41*	*.35*	*.34*	1								
(8) Free/Imperial Cities	.08	*.22*	−.08	.05	.02	*.13*	.08	1							
(9) Neutral Patronage	.04	*−.19*	−.00	*−.13*	−.01	−.08	−.05	*−.17*	1						
(10) Pro-reform Patronage	*.28*	*−.16*	.03	−.00	.00	*−.12*	−.05	*−.28*	*−.20*	1					
(11) Distance from Wittenberg/Basel	*−.16*	*.13*	−.02	−.02	−.01	.01	−.02	*−.11*	.02	−.05	1				
(12) Distance from Cologne/Louvain	.13	.04	.04	.09	.05	.03	.01	−.08	−.01	.06	*.66*	1			
(13) Students to All Universities	−.01	−.03	.05	*.13*	.08	*.16*	.07	*.14*	−.08	*−.13*	*−.10*	1			
(14) Students to Wittenberg/Basel	*.26*	−.02	*.13*	*.13*	.02	*.14*	.03	.08	.01	*.11*	*−.23*	.00	*.49*	1	
(15) Students to Cologne/Louvain	*−.34*	*.18*	−.02	−.03	−.04	.02	−.06	*−.10*	*−.11*	*−.16*	*.26*	*−.22*	*.32*	*−.19*	1

Note: Statistical significance at .05 level is indicated by italics. The table does not include the ideological centers of reformation (Wittenberg and Basel) and anti-reformation (Cologne and Louvain).

who were not subsequently famous enough to have a biographical entry—went to their hometowns first after leaving the university, even if they ultimately completed their careers elsewhere.

Contemporary matriculation lists give each enrollee's name and place of origin (see the Appendix). Places are reported in Medieval Latin or German. We located and translated Latin place names with the assistance of Graesse's *Orbis Latinus*, a comprehensive Latin place-name dictionary, supplemented by the linked Bibliographic Standards Committee's Latin Place Name Directory and the Cathedral Library Catalogue (http://www.columbia.edu/acis/ets/Graesse/contents.html).

Students in Wittenberg/Basel measures the number of students from a town who enrolled at Wittenberg or Basel from 1517 to 1522. Based on matriculation lists, we identified 1,097 students enrolled at Wittenberg, 9.2 percent of whose place of origin was missing or indeterminate. For Basel, we identified 301 matriculated students, 6.7 percent of whom had an indeterminate place of origin.

We measured *students in Cologne/Louvain* by the number of students from a town who registered at Cologne or Louvain from 1517 to 1522. We identified 1,397 students enrolled at Cologne, 7.4 percent of whom had an indeterminate place of origin. For Louvain, we identified 4,743 matriculated students, 12.5 percent of whom had an indeterminate place of origin.

We include *students in all universities* to examine whether the total number of students from a town who enrolled in any university in HRE influenced the odds of instituting reform. Complete matriculation lists are available for 14 of the 17 universities in the HRE (for a total of 18,856 entries). In addition to Wittenberg, Basel, Cologne, and Louvain, this measure includes the total number of matriculates and the percentage of matriculates with indeterminate origins from the following universities: Erfurt (1,248; 6 percent); Freiburg/Breisgau (614; 6.25 percent); Frankfurt/Oder (705; 6.8 percent); Greifswald (227; 5 percent); Heidelberg (722; 5.3 percent);

Ingolstadt (1,321; 12.1 percent); Leipzig (1,478; 1.25 percent); Rostock (859; 3.8 percent); Tübingen (625; 8.5 percent); and Vienna (3,519; 20.3 percent).

Matriculation lists for Mainz, Prague, and Trier universities were not complete enough to permit coding. Across coded matriculation lists, place of origin for 10.5 percent of students was indeterminate, sometimes because the place of origin was lost or because the student originated from outside the HRE. Student variables are log-transformed to correct for a skewed distribution.

Other Variables

To assess the net effect of university students on the Reformation, we control for effects of other social, political, economic, cultural, and geographic conditions described by the literature as salient for reform outcomes.

Aristocratic patronage and political opportunities. At the macro level, a favorable political opportunity structure seems to have been vital for Reformation success (Fulbrook 1983; Stark 2003; Swanson 1967). The Empire was an electoral monarchy based on a loose confederation of principalities, domains, and free cities (Köbler 1989; Kohler 1990; Neuhaus 1997; Schindling and Ziegler 1989–1997; Schubert 1996; Spruner von Merz 1880). It included nascent states ruled by dukes and prince-electors, ecclesiastical states, free cities and city-states, petty aristocratic domains, and direct holdings of the imperial (Habsburg) dynasty (Neuhaus 1997).

Imperial politics provided macro-level opportunities for the Reformation. The emperor's authority was limited outside Habsburg domains, and princes and cities routinely frustrated centralizing policies. Some regional rulers opposed reform, others supported it, and yet others maintained non-interventionist or neutral positions. We coded the disposition of territorial rulers toward reform based on historical accounts detailing a ruler's support or opposition to Evangelical inroads in his territory, including membership in the Protestant party at

imperial diets, hostility or alliance with the Habsburg emperor, signatory status to the Augsburg Confession, as well as efforts to support or prevent introduction of reforms in their territories (Dixon 2000; Köbler 1989: Neuhaus 1997; Schubert 1996). Our cities were located in the 21 largest princely territories, the Habsburg domains, the ecclesiastical territories, and the Swiss territories.

Specifically, we coded the territories of Ernestine (electoral) Saxony, Mecklenburg, Holstein, Hessia, Lüneburg, Ansbach, Anhalt, and Prussia as favoring reformers. We coded the Habsburg territories, and those of Brandenburg, Albertine (ducal) Saxony, Bavaria, Pomerania, Wurttemberg, Braunschweig-Wölfenbuttel, Geldern, Lorraine, and the ecclesiastical states as opposing reformers. We coded the territories of Kurpfalz, Nassau, Cleves, Jülich-Berg, Baden-Durlach, petty states, and the Swiss confederation as neutral in religious politics.

To capture political dynamics caused by rulers changing their stance, if a city was located in a territory whose ruler shifted his policies we used the posture of its ruler immediately preceding the city's reformation year. Specifically, the territories of Albertine Saxony (1539), Brandenburg (1539), Pomerania (1534), Nassau (1536), Cleves (1533), Jülich-Berg (1533), Württemberg (1535), and Geldern (1538) changed their position in favor of reform (change year in parentheses). This coding rule avoids the problem of reverse causality in the analysis between aristocratic patronage and reform outcomes.

Not all cities in the HRE were subject to the authority of territorial rulers. Some enjoyed their charter from the emperor, rather than from local princes or bishops, making them fully independent. Other towns were released from feudal obligations because of privileges they had been granted or had purchased. These imperial and free cities (*Reichs-und Freistädte*) had the greatest independence. Historical scholarship stretching back to Moeller (1972) depicts free and imperial cities as especially hospitable to Evangelical mobilization.

Accordingly, we use the following three indicator variables to measure the range of aristocratic patronage in the HRE: *neutral patronage,* which we coded 1 if a city was located in a territory whose regional ruler positioned himself as neutral or outside of the religious conflict; *pro-reform patronage,* which we coded 1 if a city was located in a territory whose regional ruler favored the Evangelicals; and *free/imperial cities,* which we coded 1 if a city was granted as an imperial or free city. The omitted category of anti-reform patronage (which includes the princely states identified earlier, the ecclesiastical states, and the Habsburg dominions) is the reference group against which we evaluated these three indicators.

Economic structure of cities. Several studies ascribe the Reformation to newly emergent commercial classes, the bourgeoisie, and proto-industrial workers such as miners (Blickle 1992; Engels 1966; Karant-Nunn 2005; Moeller 1972). Unfortunately, we could not obtain detailed information on the class structure of a large sample of cities. As is standard in economic history, we measure the economic and class structure of early cities indirectly by employing measures of their population size, mining activity, and the number of trade routes that intersected in them.

Population. As Nicholas (2003:43) observes, "the larger the city, the more diversified and specialised its labour force." Particularly in larger towns, merchants, artisans, and tradesmen were organized into guilds, brotherhoods, and other corporations with a substantial say in civic affairs. In larger cities, guilds and fraternal organizations were extensive, sought political influence, and were frequently anti-clerical—all factors expected to favor Evangelicals (Brady 1998; Moeller 1972).

Historical demographers have developed standard techniques to estimate urban populations in the sixteenth century (Scott and Scribner 1996). In coding these estimates, we

took the average value of two estimates (i.e., town size gathered from two secondary sources that report populations from 1400 to 1600) (Bardet and Dupaquier 1997; Brady 1999; Dollinger 1964; Eckert 2000; Israel 1995; Köbler 1989; Nicholas 2003; Pfister 1996; Russell 1972; Scott and Scribner 1996). Because population grew slowly in agrarian Central Europe, we sometimes took available estimates from the century before and after 1520 as an estimate of the size of a town. The variable is measured in thousands of persons, which is logarithmically transformed.

Mining. Mining and associated metal trades were among the most important new industries of the sixteenth century. Some cities (e.g., Annaberg and Zwickau in Saxony, Joachimsthal and Kuttenberg in Bohemia, and Goslar in the Harz) developed quickly and became rich due to discovery of silver, copper, salt, and other minerals. Miners were specialized craftsmen with distinctive interests, a taste for political and social autonomy, their own associations, and a tendency to live in specific boroughs. Some accounts depict mining towns as fertile ground for the Reformation (Karant-Nunn 1987; Kautsky 1897).

Trade links. Central Europe's geography was marked by structural holes, with many medium-sized towns serving as centers of autonomous regions (Nicholas 2003; Rozman 1978). The road network was poor and cities were relatively isolated from each other. Most trade occurred in local market centers, which were spaced 20 to 35 miles apart (Russell 1972). Even so, commercial exchange did connect cities to one another and could have facilitated the spread of Evangelical ideas. To control for effects of intercity trade on reform, we measured the number of trade routes that intersected in a town, including local, regional, and long-distance (*Fernhandelstrassen*) routes (Berthold 1976; Magocsi 2002).

Cultural resources. Printing facilitated cultural innovation in the late medieval world. In 1520, about a third of male urban residents were literate (Schilling 1988). Early in the Reformation, printers quickly turned to the production of pamphlets and woodcuts to reach a broad swath of the population (Pettegree 2005). Evangelicals pursued an "aggressive media campaign" centered on "little pamphlets advocating radical reform" (Edwards 1994:15). In the brief period between 1517 and 1521, more than half a million Evangelical pamphlets were printed (Gilmont 1998; Schilling 1988). In other European countries, presses were located only in the largest cities, but in German-speaking lands, dozens of towns had presses, which probably reduced the cost of pamphlets and frustrated censorship (Edwards 1994; Gilmont 1998; Pettegree 2005).

Finally, another local cultural resource was the presence of a university. In 1520, 17 universities were distributed across the HRE. These universities enjoyed many scholarly liberties, increased the local density of literate people, and were centers of humanist sentiments (Hammerstein 2003; Moeller 1999; Schwiebert 1996; Wuthnow 1989). To control for the effect of cultural resources on the Reformation, we measured the presence of printing presses in a town circa 1520 (Gilmont 1998). To investigate whether local printers were Evangelical partisans, we measured if a first edition (1522) of Luther's translation of the New Testament was printed in a given town (Ganzer and Steiner 2002). We also measured whether a university was present in a town in 1517.

Geographic proximity. Physical proximity can be an important factor in determining the diffusion of innovations. Scholars have shown that regions geographically proximate to Wittenberg had a greater probability of adopting reform than those distant from Wittenberg (Becker and Woessmann 2009; Cantoni 2009). Although the specific mechanisms for this phenomenon remain underspecified, it may capture various contact opportunities enabled by geographic proximity such as commerce, political emulation, or the flow of print materials. Whatever the operative mechanisms, it is important

for our study to demonstrate that the roles played by university students are not confounded by geographic proximity.

To control for a possible proximity effect, we measured the distance between cities and university centers of the Evangelical insurgency (Wittenberg and Basel) and the Catholic orthodoxy (Cologne and Louvain) in the following way. We first measured the distance between a city and each of these four focal universities using the Haversine measure (i.e., as the crow flies) of distance between two points on the globe (Sinnott 1984). This generates two separate distance measures for the same ideological camp (i.e., distance from Wittenberg and Basel for the reformation camp and distance from Cologne and Louvain for the Catholic camp). We created a composite distance index for each camp on the basis of minimum distance of the two. This minimum-based composite index captures the theoretical thrust of the proximity argument; that is, students were more likely to attend more proximate universities and there could be proximity effects in the abolition of the Mass, either through diffusion or shared contexts. We measured distance scores in 100 km.[5]

Historical studies always entail limitations. We acknowledge the possibility that some towns might have had a preexisting ideological propensity or that students simply studied at the closest universities, thereby influencing university enrollments. Self-selection could result in reverse causality in which, for example, more students went to Wittenberg or Basel from Evangelically inclined cities. But this scenario seems unlikely. First, we measured city-to-university ties from 1517 to 1522, that is, the period beginning with Luther's publication of the "Ninety-Five Theses" and prior to the first abolition of the Roman Catholic Mass. During this period, uncertainty surrounded the controversy, no city formally aligned itself with the Reformation, there was no Protestant league to join, and a permanent break with the Roman Church was not inevitable. Second, our inclusion of a measure of geographic

proximity addresses the possibility of ideological spillover from nearby universities. Finally, we employed a number of variables to capture cities' political, economic, and cultural characteristics. To the extent that a city's ideological orientation reflects its structural characteristics, the strategy we employed should provide a conservative test for our central hypotheses.

FINDINGS

Because our dependent variable is a dichotomous variable, we analyzed the propensity of cities to institute reform from 1523 to 1545 by logistic regression analysis (Long 1997). Table 3 reports the outcomes. For the sake of exposition, we estimated regression models by groups of independent variables: structural control variables, geographic proximity variables, and city-to-university ties (we estimated university students separately). We then estimated a final comprehensive model including all the variables to determine their net effects while controlling for other variables. Note that the reported regression coefficients indicate the net additive effect of corresponding independent variables on the log odds of a city abolishing the Mass; a positive coefficient indicates a positive effect on log odds and a negative coefficient indicates a negative effect. We removed cities housing the four focal universities (Wittenberg, Basel, Cologne, and Louvain) from the analysis to focus on their influences over the other cities.

Economic Structure and the Reformation

Control variables selected on the basis of existing historiography explain variation in the institution of reform rather well. The log-likelihood ratio test is statistically significant and the model has a pseudo *R*-square of .121, indicating that these structural variables explain 12.1 percent of the variance in the latent dependent variable of Evangelical reform.

Table 3. Logistic Regression Analysis of the Abolition of the Mass

Independent Variables	Baseline		Geographic Proximity		University Students		Combined	
Intercept	−.534	(.300)	.385	(.196)*	.449	(.204)*	−1.093	(.412)**
Population	.021	(.175)					.449	(.198)*
Mining Center	.459	(.495)					.299	(.541)
Trade Links	.316	(.130)*					.160	(.120)
Seat of University	−1.276	(.809)					−1.502	(.737)*
Printing Press	−.342	(.316)					−.816	(.331)*
Luther Bible	−.029	(.890)					.027	(.797)
Free/Imperial Cities	1.132	(.271)**					.754	(.317)*
Neutral Patronage	1.117	(.333)**					.994	(.393)*
Pro-reform Patronage	2.042	(.311)**					1.813	(.314)**
Distance from Wittenberg/Basel			−.374	(.060)**			−.225	(.072)**
Distance from Cologne/Louvain			.282	(.044)**			.185	(.057)**
Students to All Universities					−.084	(.196)	.099	(.229)
Students to Wittenberg/Basel					1.555	(.423)**	1.095	(.468)*
Students to Cologne/Louvain					−1.374	(.240)**	−.888	(.338)**
Log Likelihood (LR χ^2)	58.54**		54.81**		62.93**		108.70**	
Pseudo *R*-squared	.121		.092		.128		.227	
N	457		457		457		457	

Note: Numbers in parentheses are robust standard errors. The table does not include the ideological centers of reform (Wittenberg and Basel) and anti-reform (Cologne and Louvain).
*$p < .05$; **$p < .01$ (two-tailed tests).

Individual regression coefficients show how reform was affected by various economic, cultural, and political factors. Mining centers do not show any significant propensity to adopt reform. However, the regression coefficient for cities' population size is statistically insignificant in the baseline model but turns significant at the .05 level once we control for effects of geographic proximity and university students. This coefficient is positive, indicating that larger cities had greater propensity to reform. This finding shows that net of effects of city-to-university ties, larger cities were more prone to reform than were smaller cities. Because population size reflects a larger economy—a diversified and specialized labor force of merchants, artisans, and tradesmen—our findings render basic support, albeit indirectly, to the thesis based on early capitalist development.

By contrast, the regression coefficient for long-distance commercial networks as indicated by trade links is statistically significant in the baseline model but loses significance once effects of geographic proximity and university students are controlled for in the combined model. This may indicate that trade routes affected reform outcomes only indirectly, by providing channels for university students to travel and spread dissent, or they are confounded by geographic proximity.

Cultural Resources and the Reformation

The regression coefficient for *seat of university* is statistically insignificant in the baseline model but attains statistical significance when geographic proximity and university students are controlled for. This coefficient is negative, indicating that reform was less likely in cities that housed universities. This finding reinforces historical accounts that, apart from a few faculties at specific universities, universities generally had a conservative influence. The coefficient for the *Luther Bible* variable is positive but statistically insignificant,

whereas the coefficient for *printing press* is negative and statistically significant (in the combined model). These results indicate that while printing presses publishing the Luther Bible did not influence reform outcomes, having a printing press, in general, worked as a deterrent to reform. These findings should not be interpreted as denying the role that print materials played in the Reformation. Presses as fixed objects could be readily controlled or censored by the ecclesiastical establishment, but the larger book trade did not rely on local publishers; books, and especially pamphlets, were carried from place to place by preachers, peddlers, and merchants. Indeed, an extensive propaganda campaign was carried out through these cheap, portable pamphlets (Edwards 1994). Our variables simply measure potential effects of printing presses on host cities' odds of reform. Moreover, the fact that presses printed Luther's Bible may not indicate a particular ideological orientation; it may well have been good business.

Political Opportunities, Aristocratic Patronage, and the Reformation

Our results reinforce the importance of political opportunities in determining local outcomes of the Reformation. Historians have long viewed free and imperial cities as important supporters of the Evangelical cause. Our analysis finds that pro-reform effects of free and imperial status are indeed significant. Historians and sociologists have often found that aristocratic patronage was necessary for the Reformation's success. Our analysis renders strong support for the elite interests thesis: Evangelicals had a greater chance of success in cities where surrounding territorial rulers favored—or at least did not actively suppress—reform movements. Where territorial rulers actively supported Evangelical reformers, odds of success were about twice as high as in places where rulers adopted non-interventionist policies.

Ecclesiastical states and the Habsburg dominions were bastions of loyalist patronage and repression of Evangelicals. In the Habs-burg-ruled Low Countries, for example, an edict against Luther's followers threatened "loss of life and property." In 1521, Luther's works were publicly burned in Ghent and other cities. Hundreds of Evangelicals were arrested, executed, or exiled across the region (Fühner 2004; Tracy 1990). As Tracy (1990:160) reports, "Charles' religious policy had succeeded in driving into exile most of the educated men who would be the natural leaders of any dissident movement." Similar patterns were seen in many Habsburg territories and ecclesiastical states.

By contrast, the majority of princely states provided favorable political opportunities for the reform movement. Although not all princes welcomed the Reformation, most eventually supported Protestantism and others maintained a neutral stance. Bitter conflicts of interest between the emperor and territorial rulers made reformist inroads more likely in princely territories. Indeed, many princes preferred a weak imperial government and resented extraction of revenues for the sake of Rome. The Evangelical cause could thus serve princes' strategic and material interests. The Saxon prince-electors, Luther's patrons, are famous examples of the sort of principled opportunism that furthered the Evangelical movement.

Geographic Proximity/Distance

As another set of control variables, we used cities' geographic proximity to ideological centers of the reform movement (Wittenberg and Basel) and the Catholic countermovement (Cologne and Louvain). The third column of Table 3 reports the findings. The geographic proximity model is statistically significant (see the log likelihood statistic) and it explains 9.2 percent of the variance in the latent dependent variable of reform.

Coefficients of individual variables conform to expectations of the proximity thesis. The negative and significant coefficient for *distance from Wittenberg/Basel* indicates that cities located farther from these ideological centers of the reform movement had less chance of reform success than did cities close

Table 4. Reform Rate by Princely Patronage Type and University Students in Towns

Pattern of University Students	Princely Patronage Type			
	Anti-reform	Neutral	Pro-reform	Total
Wittenberg/Basel Only	.620	.556	.949	.729
	(50)	(18)	(39)	(107)
Cologne/Louvain Only	.190	1.000	.500	.291
	(63)	(6)	(10)	(79)
Both	.441	.571	.850	.590
	(34)	(7)	(20)	(61)
Neither	.443	.650	.800	.595
	(61)	(20)	(40)	(121)
Total	.409	.647	.835	.568
	(208)	(51)	(109)	(368)

Note: The table does not include free cities and the ideological centers of reform (Wittenberg and Basel) and anti-reform (Cologne and Louvain). Numbers of cities for the corresponding cells are shown in parentheses.

to them. By contrast, the positive and significant coefficient for *distance from Cologne/Louvain* reveals that cities located farther from the ideological centers of the Catholic countermovement had a greater chance of reform than cities close to them. Geographic proximity and distance appear to have moderated the degree of exposure and influence cities received from critical communities at the heart of the contending Evangelical movement and its orthodox countermovement.

City-to-University Ties and the Reformation

Returning to our main argument, our hypotheses find clear support in the significant and positive effect of Wittenberg and Basel enrollments on a town's probability of subsequently adopting reform. Cologne and Louvain enrollments significantly decreased the probability of reform. A given town's probability of adopting reform was substantially influenced by the relative exposure that a town had to the Evangelical student network versus the orthodox network, as indicated by the relatively high pseudo *R*-square of the *university students* model, which explains 12.8 percent of the variance in the latent dependent variable. This finding remains even when we

control for effects of baseline structural variables and geographic proximity variables.

The regression coefficient for *students to all universities* is statistically insignificant, net of effects of the countervailing Wittenberg/Basel and Cologne/Louvain networks. This indicates that the general exposure cities had to universities was not a significant factor in reforming towns. This is an interesting finding given scholars' tendency to attribute the Reformation to the spread of humanism and literate culture. Rather than humanism per se, evidence indicates that what mattered was whether theologians at particular universities had the willingness and the opportunity to unleash the radical potential of the new learning, coupled with students who would carry these insurgent ideas back to their hometowns. In other words, the Reformation was propelled by ideologically charged activists, not simply by ideas.

Our analysis helps resolve the political puzzle that remains in many structural accounts of the Reformation: How did reform succeed in the face of opposition from imperial or Catholic loyalist territorial rulers and fail despite their support? Table 4 reports the rate of reform by the type of princely patronage and the pattern of students attending Wittenberg/Basel and Cologne/Louvain. Because

free cities were not subject to princely patronage, we removed them from the analysis. As Table 4 shows, reform succeeded in 85 (40.9 percent) out of 208 cities in anti-reform territories, such as the ecclesiastical states and Habsburg dominions. Although this rate of success is much lower than in territories with pro-reform patronage (83.5 percent), it is still far greater than one would expect based on the princely patronage thesis alone. By contrast, reform failed in 18 (16.5 percent) out of 109 cities coded within pro-reform territories.

Why is this so? Our finding that city-to-university ties through university students had a significant *independent* effect on reform outcomes *net of effects of political patronage* strongly indicates that political and ideological conflict occurred side-by-side, sometimes conjointly and sometimes independently. This can be seen more clearly if we examine the strength of contending university networks within each aristocratic patronage type and reform rate. Table 4 classifies cities into four categories: cities with only Wittenberg/Basel students, cities with only Cologne/Louvain students, cities with Wittenberg/Basel and Cologne/Louvain students, and cities with no students enrolled in these universities.

On average, reform had less than a 50 percent chance for success ($p = .409$) in territories ruled by anti-Reform princes, whereas reform had a far greater chance of success ($p = .83$) in cities ruled by pro-Reform princes. Yet, the rate of success varied greatly even within princely territories depending on the presence of Wittenberg/Basel and Cologne/Louvain students. In cities where only Wittenberg and Basel students were present, reform had a .62 probability of success even under anti-Reform princely patronage. This figure represents three times as great a chance as in cities with only Cologne/Louvain students ($p = .19$). We see a similar pattern in territories ruled by pro-Reform princes: reform was a virtual certainty ($p = .949$) if Wittenberg/Basel students' activities were not checked by their Cologne/Louvain counterparts, yet it was significantly reduced to a 50 percent chance ($p = .50$) if Cologne/Louvain students' activities were not

counterbalanced by their Wittenberg/Basel counterparts. The competition between activist students in determining the fate of reform is further indicated by the pattern of reform in cities where both Wittenberg/Basel and Cologne/Louvain students were present. In these cities, the pro-reform effect of Wittenberg/Basel students was offset by the anti-reform effect of Cologne/Louvain students; chances of success in these places were close to that observed in cities with none of these students.

Note that there appears to be an anomaly in regions governed by neutral princes. The rate of reform success appears to be much higher where there were only Cologne/Louvain students compared with cities where there were only Wittenberg/Basel students. This unexpected pattern occurs largely because all of the *Cologne/Louvain only* cities experienced reform success. However, the number of cases in this category is extremely small (only six cities) and, excluding them, cities under neutral princely patronage had a similar rate of success regardless of the presence of university students. Because outcomes reported in Table 4 obtain without controls for the effect of other variables, especially geographic proximity, we re-estimated the combined model of Table 3 including interaction terms between the princely patronage and university student variables. Table 5 reports these outcomes. Note that with the interaction terms, the baseline university student variables—*students to Wittenberg/Basel* and *students to Cologne/Louvain*—capture the effect of university students from each ideological center on cities under anti-reform patronage.

Focusing first on *students to Wittenberg/Basel,* the baseline variable is statistically significant and positive, indicating that cities that sent more students to Wittenberg or Basel were more likely to successfully institute reform. However, the interaction term with *neutral patronage* is statistically significant and negative, suggesting that the pro-reform effect of Wittenberg/Basel students was conspicuously reduced in regions where princes

Table 5. Patronage-Student Interactions in Logistic Regression Analysis of the Abolition of the Mass

Independent Variables	β	se
Intercept	−1.204	(.426)**
Population	.461	(.201)*
Mining Center	.258	(.550)
Trade Links	.144	(.122)
Seat of University	−1.529	(.755)*
Printing Press	−.930	(.333)**
Luther Bible	.172	(.806)
Free/Imperial Cities	.756	(.322)*
Neutral Patronage	1.486	(.496)**
Pro-reform Patronage	1.950	(.417)**
Distance from Wittenberg/Basel	−.230	(.071)**
Distance from Cologne/Louvain	.192	(.056)**
Students to All Universities	.088	(.230)
Students to Wittenberg/Basel	1.461	(.551)**
Students to Wittenberg/Basel x Neutral Patronage	−2.299	(.887)**
Students to Wittenberg/Basel x Pro-reform Patronage	1.013	(1.296)
Students to Cologne/Louvain	−.707	(.334)*
Students to Cologne/Louvain x Neutral Patronage	.841	(1.181)
Students to Cologne/Louvain x Pro-reform Patronage	−1.732	(.848)*
Log Likelihood (LR χ^2)	103.65**	
Pseudo *R*-squared	.246	
N	457	

Note: The table does not include the ideological centers of reform (Wittenberg and Basel) and anti-reform (Cologne and Louvain).
*$p < .05$; **$p < .01$ (two-tailed tests).

retained neutral positions vis-à-vis the reform movement. In fact, the sum of the two coefficients of the baseline variable and its interaction with neutral patronage is statistically insignificant; this indicates that the number of students sent to Wittenberg and Basel had no significant effect on reform chances of corresponding cities. In pro-patronage areas, however, the trend is reversed. The interaction term with *pro-reform patronage* is positive but statistically insignificant at the .05 level. This indicates there is no statistically significant difference in the effect of the number of Wittenberg and Basel students, whether they were operative in anti- or pro-reform princely territories.

Although it may seem unexpected, this finding is consistent with the literature on social movements. One conspicuous paradox in the study of social movements is that insurgent mobilization tends to be invigorated by threats and (moderate) repression as well as by facilitation (Almeida 2003; Goldstone and Tilly 2001; Hoover and Kowalewski 1992; Lichbach 1987). Repressive responses by authorities may engender a sense of urgency among potential activists; they may also inadvertently help frame the authorities as unjust. While specific mechanisms of such threat-induced mobilization remain to be explained, we note that Wittenberg and Basel student activists appear to have faced a similar paradox in their campaign to spread reform in territories with neutral rulers. Students tended to have greater success if territorial rulers were supportive of their efforts or if rulers visibly opposed them. Student activists had much less success where territorial rulers handled them neither favorably nor antagonistically but with circumspection or opportunistic ambivalence.

Focusing on *students to Cologne/Louvain,* the baseline variable is statistically significant and negative. Furthermore, its interaction with neutral patronage is insignificant, indicating no statistically significant difference between anti-reform and neutral patronage. This means that Cologne and Louvain students were equally effective in deterring reform in territories ruled by anti-reform or neutral princes. By contrast, the interaction term with *pro-reform patronage* is statistically significant and negative, indicating that the presence of Cologne and Louvain students had a greater deterrent effect in territories ruled by pro-reform princes. The pattern here is consistent. Wittenberg and Basel students needed either clear support or clear opposition to mobilize insurgency effectively; the deterrent effect of university students from Cologne and Louvain, however, was consistent across all types of princely patronage, attesting to the advantage of status quo incumbency. The effect of loyalist activists was more pronounced in areas where threats to the religious establishment were made visible by territorial princes' pro-reform positions.

In summary, university students from Cologne and Louvain benefited from advantages of Catholic incumbency, and their deterrent effect was felt across all types of princely patronage. By contrast, effects of Wittenberg and Basel students were felt unevenly. These students were more effective in instituting reform where territorial rulers maintained a clear position vis-à-vis the Evangelical movement by either supporting or repressing it. Rulers who carefully remained on the sidelines of the religious conflict deprived local Evangelical activists of a clear target for mobilization. This rather complex pattern between university students, the reform movement, and princes helps to explain why reform sometimes occurred in anti-reform regimes and sometimes failed in pro-reform regimes.

CONCLUSIONS AND IMPLICATIONS

In the early Reformation, ideologically mobilized students moved ideas across structural holes from critical communities to cities. As network actors intentionally spreading heterodoxy across institutional settings, Wittenbergers and Baslers returning to their hometowns played an important role in instigating religious contention. These students were among the first and most committed proponents of the new ideology and prone to further it in places they knew best. Exploiting political opportunities and countering orthodox threats, students helped turn theological debates into an ideologically charged movement that permanently altered European civilization and, by extension, other major civilizations around the globe (Stamatov 2010). In explaining how this movement arose and spread, our study emphasizes a triple connection among heterodox challengers in organizing an insurgency against an orthodox status quo: (1) critical communities in which insurgent ideas are produced and disseminated; (2) local actors willing to bear start-up costs for initiating and organizing insurgency—that is, a critical mass; and (3) bridge leaders who deliver insurgent ideas to a local arena, convert local actors, and instigate insurgency. The swift rise of the Evangelical movement and the widespread occurrence of reform across the Empire's cities would not have been possible without these three functionally distinct groups of actors. While each was necessary for reform to occur, bridge leaders linked the other two groups, uniting insurgent ideas with a local critical mass motivated by long-standing grievances and newly recognized incentives for striking against the Catholic establishment.

The theoretical model we developed here identifies collective action at three different levels. At the global level, Evangelical theologians waged a campaign to challenge the theological foundations of the Roman Catholic establishment. In the resulting ideological warfare, the presence of critical communities at universities played a crucial role. Most universities and most students, operating under strict ecclesiastical or political supervision, were not involved in the movement. At Wittenberg and Basel, however, students

were trained to serve as preachers and agitators for the Evangelical cause. These universities appear to have served as the "ideological envelopes" (Kim and Bearman 1997:85) within which heterodox convictions were nourished and an empire-wide social network of agitators could be assembled without having to contend with serious orthodox counter-pressures.

At the local level, cities provided a battlefield in which Evangelical activists and Catholic loyalists fought for control over civic governance. The balance of power in this arena was affected by social, economic, and political forces. Reform-oriented burghers abetted by centralizing princes often swung the contest in favor of the Evangelicals. Open and responsive political regimes shielded from imperial and ecclesiastical pressures—in particular the free and imperial city-states—also provided favorable contexts for Evangelical movements.

Despite their long-standing political and economic grievances, dissatisfied urban leaders needed an ideological rallying point around which to organize. Yet a tremendous gulf existed between ideological innovators on theology faculties, on the one side, and, on the other, dispersed towns and cities. This distance was not overcome by pamphlets alone. Diffusion of heterodoxy relies on human carriers of insurgent ideas who advocate its institutionalization against the established social order. Bridging actors willing to commit to novel ideas, endure repression, spread these ideas, and organize collective action on its behalf make ideas into movements, a pattern vividly illustrated by studies as diverse as Stark's (1996) on the rise of Christianity, Robnett's (1997) and Rochon's (1998) on the U.S. civil rights movement, and research on the genesis of nineteenth-century socialism (Ansell 1997; Hedström, Sandell, and Stern 2000).

Our empirical findings render strong support for the proposed model based on an analysis that is uniquely systematic for research on the Reformation. Scribner (1986:26), a pioneering social historian,

rightly noted that "research so far has been too unsystematic, concentrating either on large towns, such as Nuremberg or Strasburg, or on the imperial cities, to the neglect of small towns under territorial rule." While historians have provided a host of detailed case studies, it has so far been difficult to test hypotheses or identify general mechanisms. Nevertheless, our statistical findings are consistent with narrative histories of urban reform. In cases as varied as Nuremberg (Strauss 1966), Augsburg (Roper 1989), and Braunschweig (Baeumer 1991), Evangelicalism arrived on the shoulders of recent graduates from Wittenberg and Basel, and these graduates were key players in instigating religious contention. Evangelical preaching and propaganda spurred lay movements that pressed elites for reform. Naturally, such efforts usually met resistance from Catholic loyalists (Bagchi 1991). The stakes were high in the culture war waged for control of the towns (te Brake 1998). Confronted with loyalist counter-mobilization or elite intransigence, Evangelicals and their allies frequently turned to outright rebellion. They attacked priests and monks, smashed icons, and looted monasteries and the property of prominent loyalists. Generally, once the conflict reached this intensity, either Evangelical insurgents triumphed or Catholic loyalists prevailed. The victors then expelled the defeated camp from the town.

Our theoretical model and empirical findings suggest the value of the ongoing synthesis between social movement and diffusion theories in the study of social change. Yet there are gaps in these literatures. Despite holding a better understanding of the dynamics of diffusion in innovations, the literature in general suffers from what Rogers (1995:100) calls a "pro-innovation bias": "the implication . . . that an innovation should be diffused and adopted by all members of a social system, that it should be diffused more rapidly, and that the innovation should be neither reinvented nor rejected." Research has paid little attention to how diffusion outcomes can be altered by the opposition of individuals with vested interests in the status quo. Yet our theoretical model shows how

movements and countermovements are shaped by the same social processes. While social movement studies have been paying attention to movement–countermovement dynamics (Andrews 2002; Lo 1982; Luker 1984; Meyer and Staggenborg 1996; Zald and Useem 1987), the importance of the meso (e.g., network) level has largely been overlooked.

Just as with Evangelical activists, successful mobilization by Catholic loyalists in the cities was critically affected by bridge leaders: the more exposed cities were to ideological appeals from their own orthodox critical communities, the less likely that reform succeeded. In the absence of a coordinated imperial and papal campaign, which may well have crushed the Evangelical movement in its infancy (Nexon 2009), the reform movement's local outcomes were influenced by countervailing pressures exercised by rival networks of university-trained activists. In each town, the Evangelical movement's fate was decided by a complex set of local conditions, elite interests, and contending ideological spheres of influence operating far beyond the city walls.

The early Reformation can thus best be explained not only by political and social-structural conditions, but also by a distinctive social movement spearheaded by a cohort of former university students who bridged the gap between the lecture hall and city hall. More generally, the case of the Reformation suggests that to better understand the structure and dynamics of social movements, we should analyze countervailing webs of influence and the role of bridge leadership in spanning structural holes.

APPENDIX

Primary Data Sources for University Enrollments Coded for this Study

Acten der Erfurter Universität, II. Theil, 1492–1636. Edited by J. C. Herman Weissenborn (Halle, Germany: Hendel Verlag, 1884).

Aeltere Universitätsmatrikeln I: Universität Frankfurt an der Oder. Edited by E. Friedländer (Osnabrück, Germany: Zeller Verlag, [1887] 1965).

Aeltere Universitätsmatrikeln II: Matrikel der Universität Greifswald, 1456–1645. Edited by E. Friedländer (Leipzig, Germany: Hirzel Verlag, 1893).

Album Academiae Vitebergensis: Volumen primum, AB A. CH. MDII Usque AD A. MDLX. Edited by K. E. Foerstmann (Leipzig, Germany: Karl Tauch, 1841).

Codex diplomaticus Saxonie Regiae, Zweiter Hauptheil, XVI Band [Universität Leipzig]. Edited by O. Posse and H. Ermisch (Leipzig, Germany: Gieske and Devrient, 1895).

Die Matrikel der Ludwig-Maximlians-Universität Ingolstadt-Landshut-München, Teil I Ingolstadt Band IV: Personenregister. Edited by L. Buzas (Munich, Germany: Lindauersche Universitätsbuchhandlung, 1981).

Die Matrikel der Universität Basel, Band I., 1460–1529. (Basel, Switzerland: Verlag der Universitätsbibliothek, 1951).

Die Matrikel der Universität Freiburg im Breisgau von 1460–1656. Edited by H. Meyer (Freiburg im Breisgau, Germany: Herdersche Verlagsbuchhandlung, 1907).

Die Matrikel der Universität Heidelberg von 1386–1662, Erster Teil, 1386–1553. Edited by G. Toepke (Heidelberg, Germany: Winter Verlag, 1884).

Die Matrikel der Universität Köln, Zweiter Band, 1476–1559. Edited by H. Keussen (Düsseldorf, Germany: Droste Verlag, [1919] 1979).

Die Matrikel der Universität Rostock, 1419–1831. (Schwerin and Rostock, Germany: 1889).

Die Matrikel der Universität Tübingen, 1477–1600. (Stuttgart, Germany: 1906).

Die Matrikel der Universität Wien: II. Band 1451-1518; III. Band 1518–1579. Edited by the Institute for Austrian Historical Research (Graz, Austria: Verlag Hermann Böhlhaus, 1959).

Matricule de L'Université de Louvain III: 1485–1527. Edited by A. Schillings (Brussels, Belgium: Palais des Academies, 1962).

Authors' Note

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Notes

1. Schilling (1988) describes the movement as "Evangelical" because of its professed inspiration by and commitment to the authority of the Gospels. In this article, we generally use the term "Evangelical" rather than "Protestant" (a pejorative coined at the Diet of Speyer in 1529).

2. Drawing on Burt (1992, 2005), by *structural hole* we mean a gap between two proximate but unconnected social networks. Following Burt (2005), we contend that strategic actors can exercise social influence by bridging these positions through deliberate linkages across networks.

3. The historiography of the Reformation is too great to describe here in adequate detail. In this brief review of the literature, we focus on studies relevant to identifying structural factors and social groups that might help explain the Reformation's variable success.

4. For a detailed explanation of the coding syntax and statistical commands, along with a 25 percent random sample of the data used for the analysis, see the online supplement (http://asr.sagepub.com/supplemental).

5. Initially we used four separate distance measures. However, because of high collinearity, this approach resulted in the counterintuitive finding that the more distant a city was from Cologne the less likely it was to reform. An alternative would have been to average the two distance items for each camp. However, this approach has critical limitations. The four focal universities were geographically distant from each other; Wittenberg is about 590km from Basel, and Cologne is about 160km from Louvain. The averaging approach would not differentiate between cities located in-between the two universities of each ideological camp, whether they were right in the middle of the two, or right next to one university but far away from the other. In the average method, these cities would have the same degree of distance, which defies the conceptual thrust of the proximity argument. Resolving these issues of measurement required using a minimum-based composite distance index, the best approach conceptually and in terms of accuracy.

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