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22 August 2012

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Abstract

This paper investigates the relationship between the historical process of legal central-ization and increased religious toleration by the state. We develop a model in which legal centralization leads to the criminalization of the religious beliefs of a large proportion of the population. This process initially leads to increased persecution, but, because these persecutions are costly, it eventually causes the state to broaden the standards of ortho-dox belief and move toward religious toleration. We compare the results of the model with historical evidence drawn from two important cases in which religious diversity and state centralization collided in France: the Albigensian crusades of the thirteenth century and the rise of Protestant belief in the sixteenth century. Both instances sup-port our central claim that the secularization of western European state institutions during the early-modern period was driven by the costs of imposing a common set of legal standards on religiously diverse populations.

Key words: State Capacity, Religion, Secularization, Heresy, Legal Capacity, France

JEL classification: H10, N43, Z12, K42, P48

'Persecution produced its natural effect on them. It found them a sect: it made them a faction'

<div align="right">(Macaulay, 1967, 1848, 47)</div>

1   Introduction

How did the modern secular state emerge? All premodern states used religion to legitimize their authority. Religious freedom was limited and control over religion by elites ubiquitous. By contrast, governments in the developed world today — even in countries where there is an official state church or where levels of religiosity are high — are resolutely secular when compared with governments of the past. This paper provides a causal mechanism that helps to explain this transition from repression to tolerance and from the religiously sanctioned polities of the past to the modern secular state.

In contemporary political thought '[r]eligious freedom is not just one liberal freedom among others . . . it is the prototypical liberal freedom, a cornerstone of modern political rights' (Blackford, 2012, 1). Conventionally, the separation of church and state is dated to the ratification of the First Amendment in the United States in 1791 (Finke, 1991; Nussbaum, 2008). But the modern origins of religious toleration and freedom go back to the period of the Reformation in Europe (Kamen, 1967; Head, 1998; Laursen, 1999; MacCulloch, 2003; Zagorin, 2003). As John Rawls noted, 'the historical origin of political liberalism is the Reformation and its aftermath, with the long controversies over religious toleration in the sixteenth and seventeenth centuries' (Rawls, 1993, xxiv). In this paper we analyze how state formation and legal centralization led European states to gradually widen the range of permissible religious beliefs in the early modern period (1500-1700). We argue that the rise of the state thereby played a crucial, and largely unrecognized, role in the emergence of religious toleration and the secularization of modern life.

We build a theoretical model to illustrate our hypothesis that, under certain circumstances, an increase in political and legal centralization tends to increase *de jure* tolerance of religious belief. In a world in which both religious belief and legal authority are fragmented across regions, the bounds of religious toleration can be set relatively narrowly in each jurisdiction. As the centralizing state builds legal capacity and assimilates outlying regions, however, it is confronted with a choice. It can either maintain the standards of orthodox belief held by the center and be forced to define a significant portion of its newly assimilated population as heretics. Or, it can expand the range of orthodox belief, thereby avoiding potentially costly enforcement or outright civil war. The model highlights this process and outlines the relevant costs and benefits that determine the state's decision to either forcibly convert the dissenting population or secularize the legal system.

We combine the predictions from the model with detailed historical evidence from two examples in

France where state building and religious belief collided. First, we study a case in which increased state centralization *did not* lead to an increase in religious toleration. The consolidation of the medieval state and the church in the late twelfth and early thirteenth century led to the designation of certain groups as outsiders and to their condemnation as heretics. These movements were, ultimately, completely repressed. Our model shows why it was possible for the medieval state and church to eliminate these early heretical movements since they were unable to maintain a strong sense of corporate identity. Secondly, we contrast the thirteenth century experience with the sixteenth century confrontation between the centralizing forces of the French monarchy with the Protestant movement. In the sixteenth century, as the state increasingly defined followers of Martin Luther and other dissenters from orthodoxy as heretics, it was confronted by a relatively unified group which was costly to suppress. The French Protestants, known as Huguenots, became a national movement and a political party. As a result, within a few decades the French state decriminalized Protestant belief. Despite this, the country still broke down into a costly civil war that was only ended after the passage of the Edict of Nantes (1598) which acknowledged the co-existence of two religions within a single state and effectively separated civil and religious rights. Thus, investments in state capacity were accompanied by increased religious toleration in France in the sixteenth century, not because individuals were more enlightened, but simply because enforcing an intolerant state orthodoxy was too costly. Beyond French borders, the Edict of Nantes served as an example which shaped the gradual emergence of religious toleration in England, the Netherlands and North America in the seventeenth and eighteenth centuries.

There are several alternative hypotheses to ours that seek to explain the rise of religious toleration. One influential view attributes the growth of toleration to the Enlightenment movement of the eighteenth century. And it is certainly true that the most celebrated edicts of religious freedom and toleration such as the First Amendment and the French Declaration of the Rights of Man are Enlightenment documents. Nevertheless, we argue that important movements towards toleration and secularization occurred *prior* to the writings of leading Enlightenment thinkers such as Locke and Voltaire at a time when few if any writers advocated tolerance. Another explanation relies on the *doux commerce* hypothesis which associates the rise of toleration with the growth of markets and trade. While we believe this is important in explaining the gradual development of more tolerant attitudes at an individual level, it does not explain the relatively rapid changes in policy by major European states in the sixteenth and seventeenth century—a time when popular religious hatreds still remained strong. A final view attributes the rise of religious toleration to the overall secularization of the society and the declining importance of religion in everyday lives (Jordan, 1932; Chadwick, 1975). However, as we demonstrate, religious toleration by the state emerged at a time when, if anything, the fervor of religious belief was at its peak.

This paper contributes to a growing literature on the relationship between religious and political

institutions. Using cross-country panel data from the nineteenth and twentieth centuries, Barro and McCleary (2005) examine why some countries have state churches while others do not. They find that state religions are established where there is a high degree of religious homogeneity and suggest that countries with more heterogeneous religious preferences are more likely to have greater separation between church and state. These results are suggestive, but they are driven by the existing distribution of religious preferences and, as our research suggests, these preferences were themselves the product of waves of state centralization in earlier centuries. The emergence of centralized states in the early modern period involved integrating regions in which individuals held beliefs that were both well defined and varied. Consequently state formation and legal centralization forced rulers in France and in the rest of Europe into becoming increasingly secular.

There are large literatures in sociology, political science, and economics evaluating the secularization hypothesis.[1] However these tend to focus on the demand for and supply of religious goods and not on the secularization of the state which is the focus of this paper. We build on the argument that religious legitimation played a crucial role in enabling premodern rulers to obtain the compliance of the population.[2] What is new in our theory is that we explain under what conditions the process of state-building and legal centralization will tend to generate increased religious toleration.

Finally, a growing literature sees the separation of church and state as a crucial institutional feature that distinguished western Europe from other parts of the world in the period leading up to the Great Divergence (Kuran, 2010; Rubin, 2011; Coşgel et al., 2012). This separation originated in the aftermath of the Reformation. And while a number of papers study either the causes of the Reformation (Ekelund et al., 2002, 2006; Iyigun, 2008; Rubin, Forthcoming) or the consequences of the Reformation for economic growth (Becker and Woessmann, 2009; Cantoni, 2012), we believe this is the first paper to examine the institutional implications of the Reformation on religious toleration.[3] Our framework is the the first to explain why the efforts of early-modern rulers to centralize legal institutions was accompanied by a move towards increased religious toleration that laid the foundations for today's liberal secular states.

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[1]Important sociological works on this topic include Bruce (2002)and Norris and Inglehart (2004). The supply-side argument against the secularization hypothesis is discussed by Iannaccone et al. (1997).

[2]Coşgel and Miceli (2009) also build a model of the relationship between a state and religion. In their model autocratic states have an incentive to support religions that lend their regime legitimacy and thereby lower the cost of obtaining tax revenue. Also see Gill (2008), Rubin (2011), and Coşgel et al. (2012).

[3]Ekelund et al. (2002, 2006) analyze the emergence of Protestantism using ideas and language from industrial organization and public choice theory. Iyigun (2008) examines the relationship between interstate competition and the religious pluralism, arguing that it was the campaigns of the Ottoman Empire in eastern Europe that enabled Protestantism to establish itself. Rubin (Forthcoming) analyzes the empirical relationship between cities which had their own printing presses and the spread of the Reformation in Germany.

2   From the Persecuting State to the Secular State

All pre-modern states limited permitted religious beliefs. In medieval society the state and the church were coterminous. There was only one Church and the Church played a crucial role in legitimating secular authority.[4] The motto of the French king: *un roi, une loi, une foi* applied across Christendom. Nevertheless, the ability of either medieval church or state to enforce religious orthodoxy in practice was highly limited. Robert Moore observes the 'structure of the Western Church itself in the early middle ages was one which permitted, and was bound to permit, a much greater variety than would later be thought consistent with the maintenance of Catholic unity. It had not yet developed the means, or, some would say the inclination, to demand uniformity of worship and practice throughout Western Christendom' (Moore, 1987, 65).[5] But this should not be interpreted as tolerance: it is '...misleading to characterize [the Church's] earlier attitude as 'relatively liberal'. Without adequate central coordination, internal organization or infrastructure, the early medieval Church had no alternative but to accommodate ... *phenomenes folkloriques*' (Nelson quoted in Asad, 1986).

Early medieval legal systems were decentralized. Justice was accusatory: Charges were brought by victims against perpetrators, and individuals who levied false accusations could be severely punished. Heretical belief was not defined as a crime in early medieval legal codes, and could not be pursued in secular courts (Kieckhefer, 1979). Instead, local bishops pursued ad hoc methods against religious dissent during this period, but with little effect. Secular authorities were, moreover, weak and unconcerned with enforcing norms of belief; indeed, the state as we understand it did not exist (Strayer, 1970, 3).[6] Thus, early medieval rulers were not necessarily tolerant, rather, they lacked the capacity to impose a strict standard of belief. As a result, large-scale, state-sanctioned, judicial killings of individuals for their beliefs were rare.

In the twelfth century this began to change; first in England and then in France, monarchs 'equipped themselves with institutions of governance that were increasingly professionalized in their staffs and bureaucratized in their operations ...jurists and learned writers bent their efforts to the rationalization of legal systems' (Given, 1989, 336). At the same time religious dissent became more visible

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[4]Religious toleration was impossible in theory as it meant undermining the church's monopoly over religious authority. In practice, some toleration could be permitted through the use of exemptions (for example for Jews, and for Muslims in lands reconquered by crusaders). Religious justification for the use of force in coercive belief was provided by St. Augustine.

[5]See also Wakefield (1974, 15), Lambert (1998, 17). Priscillian of Avilia was sentenced as a heretic, or witch, in 383. No one was again executed for heresy until 1022 and then no heresy trials resulted in executions between 1022 and 1143 (Moore, 1987, 13-23). Note, however, that heretics were 'burnt by the people' in Cambrai in 1077, Soissons in 1114, and Liège in 1135 (Moore, 2012, 7).

[6]Joseph Strayer observes: 'It is not surprising that the *regnum* had little resemblance to a state, for, in the early Middle Ages, it is doubtful that anyone had a concept of a state. Some memory of the state lingered among the better-educated members of the clergy, but even they were not able to express the idea very clearly' (Strayer, 1963, 1971*b*, 342).

and secular rulers for the first time began to devote energy in repressing this dissent (Moore, 1987).[7] The rise of the medieval administrative state described by Strayer (1970), Given (1989), and Bisson (2009) was accompanied by a campaign against heresy and religious dissent. Moore (1987) has influentially termed this the birth of the persecuting society.[8] Historians debate the extent to which the rise of heretical movements in the twelfth century was a consequence of the economic change and dislocation brought about by the Commercial Revolution or the Papal reforms of the late eleventh century.[9] What is clear, however, is that the rise of the state and the establishment of newly centralized, and formally codified legal systems, resulted in deviant individuals and movements that might previously have gone unnoticed by religious and secular authorities being defined as heretical. The growth of the state resulted in the creation of new types of crimes. In the thirteenth century, the monarchies of England and France established administrative and legal institutions that enabled them to legislate for the whole realm for the first time. Common law and Roman canon were enforced and gradually replaced local customary laws and for the first time large numbers of religious dissenters were burnt to death for heresy.

The growth of the state in the middle ages was interrupted by the crisis of the fourteenth century. By the beginning of the sixteenth century, however, the centralizing efforts of rulers resumed in earnest. Indeed, after 1500 early-modern states developed a greater capacity to persecute heretics and religious dissenters than their medieval predecessors ever possessed. Yet, the Reformation is a crucial turning point in European history precisely because the Catholic Church and the Catholic monarchies were unable to prevent Protestantism from successfully establishing itself. As the opening quote from Thomas Macaulay suggests, religious prosecution in France turned various sects of religious dissenters into a faction and this eventually forced the state to grant limited toleration.

This was a gradual process. In France several thousand heretics were tried during the 1540s and 1550s before The Edict of January promulgated at St. Germain in 1562 decriminalized Protestant belief and brought an end to large-scale heresy prosecutions. Nevertheless, large numbers of Protestants and Catholics were killed for their religion during the subsequent civil war and small numbers of Protestants continued to be tried and executed for heresy. In 1598 the establishment of

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[7]Henry II was an early secular ruler to take heretical belief seriously by, for example promulgating the Assize of Clarendon in 1166. The Holy Roman Emperor Frederick II was the first secular ruler to legislate that all heretics should be burnt in 1224; other rulers followed him. Louis VIII of France enacted anti-heresy legislation in 1226 barring heretics from holding public office and appropriating their lands. In 1233 anti-heresy legislation was incorporated into the laws of Aragon (Hamilton, 1982).

[8]In this period: '[p]ersecution became habitual. That is to say not simply that individuals were subject to violence, but that deliberate and socially sanctioned violence began to be directed, *through established governmental, judicial and social institutions*, against groups of people defined by general characteristics such as race, religion or way of life; and that membership of such groups in itself came to be regarded as justifying these attacks' (Moore, 1987, 5).

[9]The tensions brought about by urbanization and increased inequality manifested themselves in religious movements celebrating poverty, the apostolic lifestyle, and in violent social movements (see Cohen, 1957).

peace was accompanied by the Edict of Nantes which confirmed the rights of Protestants to practice their religion in freedom. It acknowledged that Protestants could be honest and dutiful members of society and, although it was revoked after several generations, it unambiguously accompanied a shift in French law specifically, and European law more generally, in the direction of secularism.

Thus, it was not until centralized states had developed the capacity to impose their will on outlying regions and repress heretical belief, that the legal bounds of tolerance were expanded. In order to understand this, seemingly paradoxical, observation it is necessary to understand that persecution of deviant religious practices and intolerance of belief are not the same thing. Intuitively, a persecuting state has an incentive to tolerate a wider range of deviant belief than a group of local communities that persecute the same proportion of their populations simply because the central state must legislate for a more heterogenous population than any specific locality. Thus, as the model below will show, the development of state capacity was the first step towards widening the boundaries of accepted religious belief and eventually led to greater toleration and to the rise of the secular state.

3 A Model of Toleration, Legal Centralization, and Secularization

3.1 Setup

In this section we develop a model to illustrate the effect of legal centralization on religious toleration. We assume religious belief serves government by legitimizing its authority and that each government faces a trade-off in setting and enforcing the official standard of belief. If it sets the standard too broadly, then it doesn't convey much legitimacy. If it sets the standard too narrowly, then it creates a large number of heretics, which is also costly (because they have to be tried, because there might be civil conflict between believers in the legitimized religion and the heretics, or simply because the heretics will try to take over government). A key assumption of the model is that the distribution of religious belief varies across jurisdictions and, as a result, each local government will adopt a different, relatively narrow, definition of orthodox belief. However, when a centralizing agent attempts to impose a common standard of belief across all jurisdictions, it will be forced to adopt a broader definition of orthodoxy since it is legislating for a more heterogenous population than any individual region.

We assume there are n local (regional) governments indexed by j ruling over a large population of individuals indexed by i.[10] Individual i holds religious belief b_i where b is a unidimensional measure

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[10]In what follows we will use the term 'government' interchangeably to mean 'local government' or 'central government'. We reserve use of the word 'state' to refer to the centralized government. Furthermore, we follow Williamson (2005) in recognizing that governance within a region includes both hierarchical and private order arrangements. However, for the purposes of this paper, we exclude private order governance arrangements from our definition of
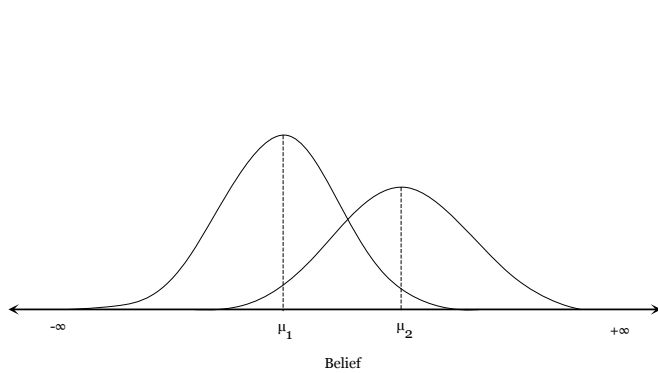
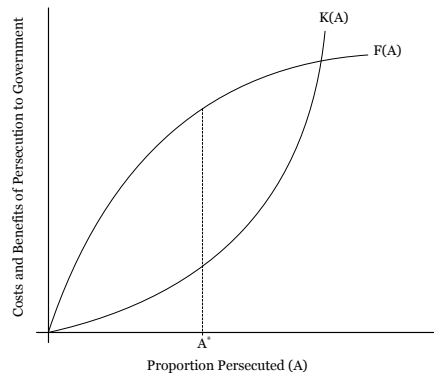**Figure 1:** Distribution of beliefs across regions 1 and 2.

Figure 2: The costs and benefits of persecution.

with support on the real line. This measure is intended to capture the distance of individuals from some baseline standard of orthodox belief as opposed to over-all religiosity. Thus, for example, it would measure adherence to orthodox traditions (e.g. eating certain foods, wearing certain clothes, etc...) or whether an individual believes in the dogma of the orthodox church (e.g. belief in consubstantiation or transubstantiation).

Each local government rules a region. Importantly we allow for heterogeneity in beliefs across regions. The belief of individual i in region j is consequently drawn from probability density function $B_j(b) \sim N(\mu_j, \sigma_j)$. Figure 1 depicts a possible distribution of beliefs across two regions indexed 1 and 2.

We assume the government self-interestedly sets the standard of orthodox belief to be at the mean of the distribution of believers in its region. More interestingly, the government must then decide on the extent to which a believer can deviate from the standard of orthodox belief and still be considered non-heretical. We adopt a very general framework and assume the benefits of defining a proportion of the population $A \in [0, 1]$ as non-orthodox, or heretical, is given by $F(A)$ where $F' > 0$, $F'' < 0$, and $F(0) = 0$. Intuitively, when A is low and the state is excluding the beliefs of only a small proportion of the population, the marginal benefit in terms of religious legitimation of excluding one more individual is high. Conversely, when A is very high, then most of the population is excluded from the orthodox belief and, therefore, the marginal benefit of excluding another individual is low. Similarly, we assume the costs of persecuting a proportion of the population A is given by $K(A)$ where $K' > 0$, $K'' > 0$, and $K(0) = 0$. As the number of individuals excluded from the official religion increases so does the marginal cost of persecuting them.[11]

government.

[11]Coşgel and Miceli (2009) and Ferrero (2012) both model the decision of a government to adopt a monopoly religion in terms of its costs and benefits. For them, monopoly religion confers benefits to the government in the form of political legitimacy, thereby lowering the cost of raising taxes. It also entails costs, however, which stem from the enforcement of sanctions against non-members or dissidents. While we do not restrict ourselves to a choice between one monopoly religion or another, the decision a government makes in our model concerning how narrowly to define orthodox belief also depends on similar costs and benefits.

3.2 Religious Toleration

Given, these assumptions, each local government j maximizes the following objective function:

$$U_j = F(A_j) - K(A_j). \tag{1}$$

Maximizing equation 1 yields a first order condition that equates the marginal benefits of persecution with the marginal costs. This defines an optimal proportion of the population to declare unorthodox A^* as illustrated in Figure 2. Since F and K are common across regions, we assume that the optimal choice of A^* is also identical across regions. This assumption can be relaxed without loss of generality.

We now derive a measure of tolerance as an interval surrounding the orthodox standard of belief within a region. We call this measure of tolerance $\tau_j \in \mathbb{R}$. Since B_j is normally distributed with standard deviation σ_j the range of religious belief tolerated is implicitly defined by:

$$\mathrm{erf}\left(\frac{\tau_j^*}{\sigma_j\sqrt{2}}\right) = \left(1 - A^*\right), \tag{2}$$

where $\mathrm{erf}(\cdot)$ is the error function.[12] The implicit error function is well defined and allows a closed form expression for tolerance to be written as:

$$\theta^*\sigma_j = \tau_j^*, \tag{3}$$

where θ^* is simply equal to the inverse error function times a constant and is identical across regions.[13] It follows from the implicit function theorem that τ_j^* is decreasing in A^*. Furthermore, τ_j^* is obviously increasing in the variance of belief in region i. Equation 3 has important implications which we state as follows.

Result 1 *An increase in religious toleration (τ) can come about for two distinct reasons: (1) an increase in the net marginal benefits of religious legitimation which raises θ^*; or (2) an increase in the dispersion of beliefs in a given region (σ).*

This result forms the basis of our claim in the last section that the degree of persecution of deviant religious beliefs in a society (the size of A^*) is distinct from a society's degree of tolerance (the size

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[12]The error function is defined as: $\mathrm{erf}(x) = \frac{2}{\sqrt{\pi}}\int_0^x e^{-t^2}dt$.

[13]The explicit expression for θ^* is $\mathrm{erf}^{-1}\left(1 - A^*\right)\sqrt{2}$.
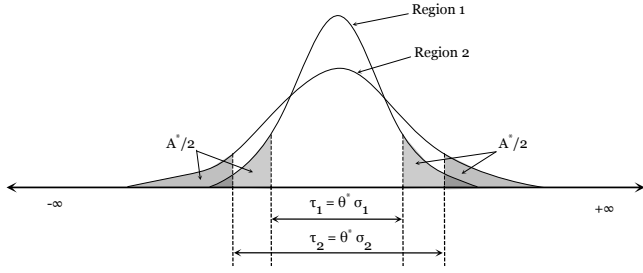
Figure 3: Result 1: Religious persecution and religious tolerance are not the same thing.
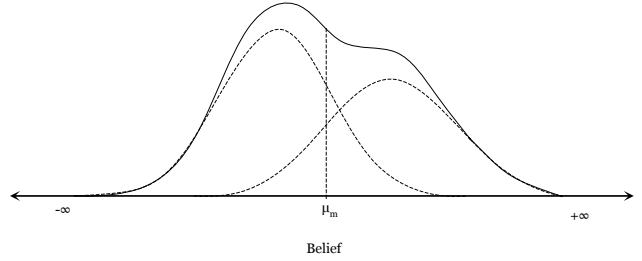

Figure 4: A mixture distribution composed of two underlying regions.

of τ^*). It is possible for two regions to persecute the same proportion of their population, but the region with a greater variance of belief will, in equilibrium, be more tolerant. Figure 3 illustrates this, seemingly paradoxical, result. In the Figure, Region 2 is more tolerant than Region 1 in the sense that it defines orthodox belief more broadly than does Region 1. However, in equilibrium, both regions are persecuting the same proportion of their populations as heretical. In effect, the government in Region 2 is forced to accommodate larger deviations from the orthodox belief because it has a more heterogenous population.

3.3 Religious Toleration and Legal Centralization

We now model what happens to toleration when one of the regions, which we call the central region, standardizes laws across all the other regions. In particular, we wish to investigate the difference between religious tolerance when each local government sets its own legal rules and the level of religious tolerance that results from a single centralized government imposing legal standardization. For clarity, we refer to variables associated with the centralizing region before centralization with the letter c. After centralization, we index variables associated with the single unified government with the letter m.

As with each local government, the central government chooses a range of legitimate belief centered on the orthodox standard, which is defined as the set of beliefs closest to that of the central mass of the population. We assume, without loss of generality, that the underlying costs and benefits of persecuting a certain proportion are the same for the centralized government as they are for the regional governments. The main assumption that makes the centralized government different from the regional governments is that it's definition of tolerance, τ_m, must be imposed on all regions. This means the central authority is choosing τ_m for the distribution of the distributions of belief across all the regions. This distribution is called a 'mixture distribution' and is defined as the

convex combination of the underlying distributions. We write this as

$$M\left(b;\mu_1,\ldots,\mu_n,\sigma_1,\ldots,\sigma_n\right) = \sum_{j=1}^{n}\omega_j B_j\left(b;\mu_j,\sigma_j\right), \tag{4}$$

where w_j is a weight assigned to each region such that the sum of all n weights is one. A natural interpretation of these weights is as the relative importance of a region in the overall distribution (e.g. population share, proximity to the center, etc...). Figure 4 shows an example of a mixture distribution along with its two underlying distributions.

The cumulative distribution function of M also exists and is constructed as a convex combination of the underlying CDF's. Since M is a mixture of normal distributions, furthermore, it is established in the literature that the inverse of its CDF also exists (Everitt and Hand, 1981). Thus, there is a unique mapping of A^* to τ_m similar to Equation 3. Unfortunately, there are no closed form solutions for the inverse CDF of a mixture of Gaussian distributions and, thus, it is not possible to write this down an explicit expression for τ_m. There are closed form expressions for the mean and variance of M, however. The mean is simply the weighted sum of the means of the component regions:

$$\mu_m = \sum_{j=1}^{n}\omega_j\mu_j. \tag{5}$$

Similarly, the variance of the mixture distribution is the weighted sum of the underlying regional variances with an adjustment for how much each region is 'off-set' from the others:

$$\sigma_m^2 = \sum_{j=1}^{n}\omega_j\left[\left(\mu_j-\mu_m\right)^2+\sigma_j^2\right]. \tag{6}$$

Equation 6 makes clear the potential for fat tails in the mixture distribution.[14]. We can also use Equation 6 to draw some conclusion on the effect of legal centralization on tolerance and secularization.

For concreteness, we define an increase in secularization as occurring after legal centralization if $\tau_m > \max\left\{\tau_j\right\}$. Furthermore, we say region j has more 'cohesive' religious beliefs than region k

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[14]The potential for large higher-order moments (e.g. skewness, multiple modes, etc ...) is well known in the literature on mixture distributions (Ray and Lindsay, 2005; Titterington et al., 1985). Indeed, the ability of mixtures to accommodate high degrees of skewness and kurtosis is one of the main reason they are frequently employed in the field of empirical finance (Tsay, 2005).
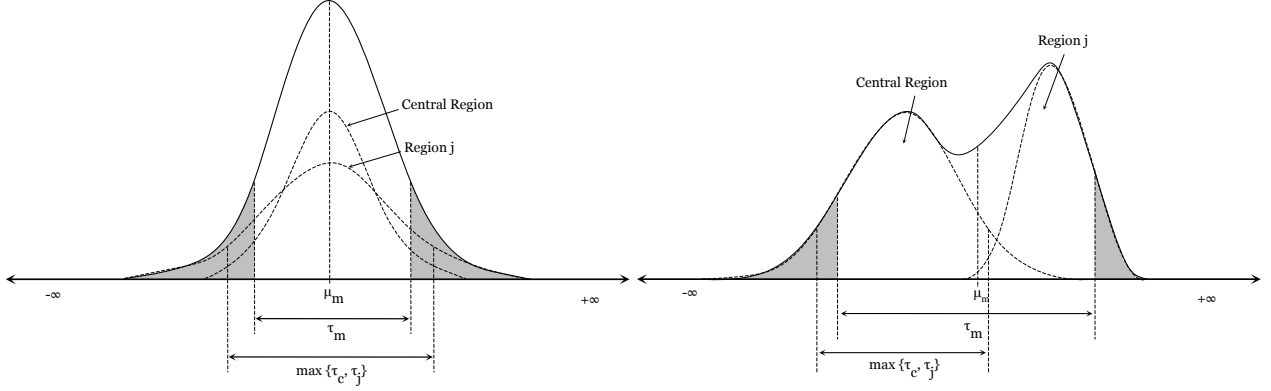
Figure 5: Secularization decreases after centralization. Region j has low cohesiveness and deviance.

Figure 6: Secularization increases after centralization. Region j has high cohesiveness and deviance.

if $\sigma_j < \sigma_k$. We say region j has more 'deviant' religious beliefs than region k if $\left(\mu_j - \mu_m\right)^2 > \left(\mu_k - \mu_m\right)^2$. We can then state the following based on the existence of τ_m and Equation 6.

Result 2 *Secularization is more likely to accompany legal centralization the more cohesive and deviant are the religious beliefs of the underlying regions.*

Figures 5 and 6 illustrate Result 2 for the simple case of two regions. The distribution of belief in the central region is the same in both figures. However, in Figure 5 region j has both low cohesiveness and low deviance. In effect, there is only a weak consensus among believers concerning what is orthodox in j, but at the same time, the average believer holds views consistent with those of the central region. As a result, when the central region imposes a common legal standard, the bounds of tolerance are reduced in region j. This is a case in which legal centralization is accompanied by a decrease in secularization.

In Figure 6, region j has both high cohesiveness and high deviance. Consequently, when legal centralization occurs, secularization increases. This is true since the new standard of tolerance, τ_m, is greater than the previous value of tolerance in the most tolerant region before centralization which, in this case, happened to be the centralizing region.

As a further illustration of Result 2 we use the statistical package R to numerically calculate the quantile function for the mixture distribution of two regions. We hold the distribution of beliefs constant for the central region at $\mu_c = 0$ and $\sigma_c = 1$. For the other region we allow μ_j to vary between 0 and 100 and σ_j to vary between 1 and 100.[15] In Figure 7 we plot the different combinations of cohesiveness and deviance for region j which result in $\tau_m = \tau_j$. If we assume A^* is equal to .05, for example, all combinations of cohesiveness and deviance for region j that

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[15]This parameterization facilitates interpretation since tolerance in region j is always weakly greater than tolerance in the central region.
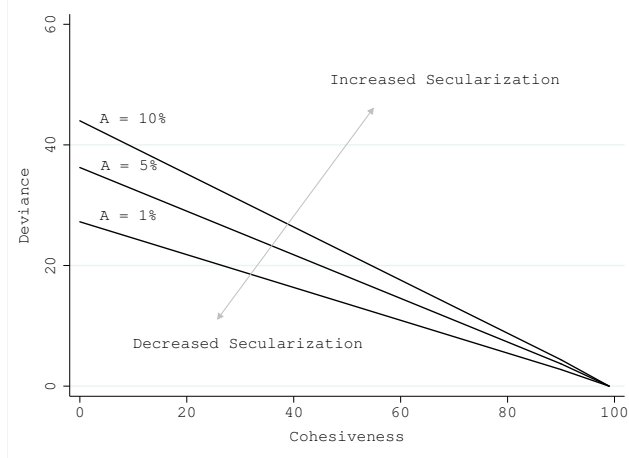
Figure 7: Numerical demonstration of Result 2. Lines show where $\tau_m = \tau_j$ for the case where $n = 2$. The central region has $\mu_c = 0$ and $\sigma_c = 1$. Cohesiveness and Deviance of region j measured on x-axis. Cohesiveness $= 100 - \sigma_j$. Deviance $= \frac{\mu_j}{2}$. A is equal to proportion of population excluded from orthodox belief. τ_m and τ_j calculated using R assuming equal mixing weights.

lie above the plotted line result in a mixture distribution which yields increases in secularization after legal centralization. Likewise, combinations of cohesiveness and deviance which fall below the line will result in a decrease in secularization after centralization. Consistent with Result 2, there is a positive relationship between both cohesiveness and deviance and the likelihood of increased secularization after legal centralization. If both regions have the same cohesiveness of religious belief (equal variances), then *any* difference in their means will result in increased secularization after legal centralization. Furthermore, as the cohesiveness of a region decreases, secularization becomes less likely. This relationship is exacerbated for higher values of A^*. In other words, the more religious persecution there is, the less likely it is that legal centralization will lead to greater secularization.

Our final observation concerning secularization concerns the evolution of A in the aftermath of legal centralization. In particular, some historians have noted that heretics are often created by centralizing states. Periods of intense state-building are often accompanied by spikes in persecutions for heretical beliefs. Our model can explain this behavior if we assume that the centralizing region initially imposes it's own standard of tolerance on the unified regions and if the central authority is slow to adjust this standard after heresy trials increase. This will always be the case, regardless of whether equilibrium secularization has increased or decreased so long as $\tau_c < \tau_m$. Figure 8 illustrates the logic behind this claim. The initial standard of tolerance after unification is that of the centralizing region, τ_c. After unification, this standard results in a number of prosecutions in excess of what is optimal from the point of view of the government. In other words, $A > A^*$. If the central authority only adjusts τ with a lag, then depending on how significant this lag is, heresy prosecutions could exceed what is optimal for an extended period of time. Eventually, however,
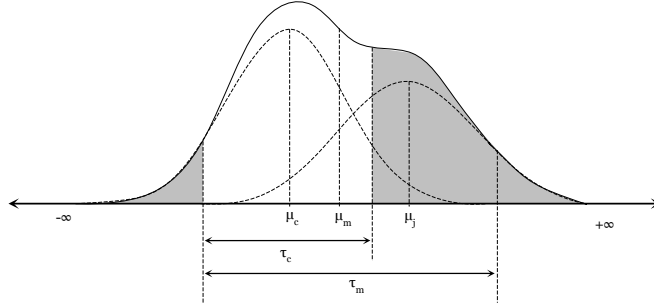
Figure 8: Result 3: If the central region adjusts tolerance slower than it centralizes other legal institutions, many more heretics are created than optimal.

the logic of Equation 1 will put pressure on the government to decriminalize a significant amount of heretical beliefs by expanding tolerance to its equilibrium value of τ_m. Thus, we can state

Result 3 *If $\tau_c < \tau_m$ and if the central region adjusts religious rules with a lag, then the amount of religious persecution (A) will follow an inverted-u shape over time.*

4   The Theory Applied to History

4.1   The Creation and Suppression of Medieval Heresies

The process of state building in medieval Europe led to the integration of fragmented regions, with different cultures and different religious traditions and customs into large proto-nation states such as France and England. The south of France, *Provençal* or Languedoc, was linguistically and culturally separate to northern France.[16] The institutions of the Catholic Church were less developed in Languedoc than in northern France.[17] As a result, Church leaders from northern France and Italy saw Languedoc as a land rife with heresy. Pope Innocent III described the clergy of Languedoc as 'blind creatures, dumb hounds, who can longer bay, simoniacs who sell

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[16]The language of its inhabitants was *langue d'oc* rather than *langue d'oil* and in many ways it was culturally and economically more connected to Catalonia and northern Italy than it was to the region north of the Loire (Given, 1990; Pegg, 2008). Given notes 'the French monarchy, however, had little to do with Languedoc since the break-up of the Carolingian empire. In the middle of the twelfth century the Capetians began to show a renewed interest in the affairs of the south. But when the wars to end Languedocian autonomy began in 1209, the French monarchy and the various southern lordships had behind them only a relatively brief history of important political contacts' (Given, 1990, 39).

[17]Goldsmith notes: '[t]he contrast between the wealth and institutional strength of the church in the north of France and the church in the Midi was long standing' (Goldsmith, 2003, 238). Le Roy Ladurie found that the peasants of the region were often ignorant about many details of the Christian faith: 'Sometimes people failed to fast through ignorance, *I do not know what the fast days of the Church are, apart from Lent and Friday,* said Guilaume Baille, a migrant shepherd of Montaillou' (Ladurie, 1978, 314). The Church was distant to ordinary people and while major rites of passage like marriage were solemnized by a priest many rituals such as confirmation were neglected and ignored by ordinary people (Ladurie, 1978, 311-313).

justice, damning the poor and giving absolution to the rich. They do not even observe the laws of the Church. They acquire endless benefices, entrusting the priesthood and other ecclesiastical responsibilities to unworthy pastors and illiterate children. Hence the insolence of the heretics' (quoted in Oldenbourg, 1961, 53). This disparity between local religious practices and Catholic orthodoxy and the failure of local rulers to suppress these 'heretics' became the justification for the Albigensian Crusade (1209-1229), the largest campaign against heresy in medieval Europe. We will show how the process of medieval state building led to certain beliefs becoming defined as heretical and to the suppression of the Albigensians and their assimilation into orthodox Catholicism. We will also describe how the different values of cohesiveness and deviance for the thirteenth century Albigensians and the sixteenth century Protestants resulted in genocide for the former, but legal recognition for the latter.

The heretics suppressed in thirteenth century Languedoc are usually labelled Cathars. Traditional historical accounts view the Cathar heresy as a distinctive dualist religion influenced by eastern heresies and by older Gnostic and Manichean ideas.[18] However, the most recent historical scholarship casts doubt on the existence of Catharism as a distinctive set of beliefs prior to the crusade and the introduction of the Inquisitorial method. The best evidence we have on the beliefs of ordinary people comes from the Inquisitorial records. The largest Inquisitorial investigation of heresy of the medieval period was conducted in Languedoc in 1244-1245 and revealed no trace of an alternative, organized, dualistic religion (Pegg, 2001). Instead, what this research suggests is that it was the very process of state formation and legal centralization that led to beliefs that were previously considered within the limits of accepted Catholicism becoming defined as heretical.

The heretics were not called Cathars or Albigensians in the contemporary literature, instead they were often referred to as the good men or *bons omes* (see, Pegg (2001, 19) and Moore (2012, 302)).[19] Importantly, ordinary people, even those who declared themselves heretics, did not necessarily have a clear idea of what ideas distinguished the 'good men' from the Catholic Church.[20] Pegg concludes

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[18]According to this view, the Cathars held that the devil had created the material world and that Christ could not therefore have been born in human flesh and have suffered on the cross. Following the writings of contemporary Cistercians chroniclers, historians saw the Cathars as developing a church-like organization in opposition to the Catholic Church. Oldenbourg (1961, 28-81), Lambert (1998), Hamilton (1999), and Barber (2000). This view sees the Cathars as decisively influenced by the Bogomil heresy which arose in Macedonia in the tenth century.

[19]Traditionally the term 'good men' has been translated as *perfecti* as this was the term used to describe initiated or 'perfected' members of the Cathar Church. Pegg notes 'What is so intriguing about the epithet "good man," *bons ome* beloning to a person deserving of honour, and transcribed at Saint-Sernin as *bonus homo* or less frequently as *probus homo*, is that "good man" was the title adopted by any Lauragais man in situations circumscribed by courtesy' (Pegg, 2001, 95).

[20]For example, 'Pons Estotz, while confessing that he first believed in the faith of the *bons omes* in 1215, managed, somehow or other, not to listen to a word the good men said, or even to what anyone else might have said about them, until 1233, when, much to his surprise, he finally heard the good men say "that God did not make visible things, that the sacred Host is not the body of Christ, that baptism, like marriage is no salvation, and the the bodies of the dead will not be resurrected" ... Pons Estotz swore that "when I heard the heretics saying these errors, I left their faith at once" (Pegg, 2001, 75).

that '[n]o systematic dualist philosophy comes through the confessed thoughts of all these men and women; rather, instead of valid generalizations, a collection of vague generalities appear to have been recorded at Saint-Sernin' (Pegg, 2001, 79).[21] Prior to the crusade against them, the heretics of the Languedoc did not necessarily reject the Catholic faith: they were often buried with orthodox Catholics and participated in the Catholic sacrament.[22]

This new historical research poses a puzzle. The suppression of the Cathars was the largest and bloodiest event of its kind during the middle ages. This brutal response would make sense if Catharism posed as a genuine alternative religion to Catholic Christianity as some twentieth century historians supposed. But if Catharism did not exist as a distinct religion, directly confronting the Catholic Church, what explains the crusade and burnings that took place in thirteenth century Languedoc?

Historians have focused on the rise of a persecuting society in the thirteenth century: a society that sought legitimation in the persecution of outsiders such as Jews and lepers, as well as heretics (see Moore, 1987).[23] Result 1 of our model clarifies the distinction between the bounds of religious toleration within a society (τ) and the extent to which that society persecutes deviant belief (A^*). The model also explains how an increase in legal centralization can lead to the *redefinition* of some beliefs as outside the scope of toleration. Result 2 suggests that such a redefinition (or reduction in secularization) is more likely to occur if the region being absorbed into the centralizing state has a distribution of religious beliefs that lacks a clear sense of identity separate from that of the center. This seems to describe the 'good men' of the Languedoc in the thirteenth century quite well. To use the language of the model, the distribution of religious belief in the Languedoc was relatively non-cohesive (large value for σ_j) and non-deviant (low value for $\left(\mu_j - \mu_m\right)^2$). It follows that the persecution of heretics in Languedoc can be seen as a consequence of the centralization of the French monarchy and the increased centralization of the Catholic Church. These two developments led to the local religious practices being redefined as heretical. In the period before the crusades the good men of Languedoc seem to have seen themselves as orthodox Christians.[24] Persecution

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[21]Similarly Ladurie (1978) found that heretical beliefs could co-exist with orthodox ones and that individuals could move back and forth between heresy and orthodoxy (see Ladurie (1978, 311-313) and Ladurie (1978, 324-325). Also see Arnold (2001, 158) for a like conclusion.

[22]Pegg argues that 'the good men, while scathing in debate about vainglorious bishops and priests, never assumed that divinity was denied to worthy clerics, such as honorable monks and prudent priests' (Pegg, 2008, 44). Thus, in lieu of a separate religion he sees a 'distinct and highly developed Christian culture' 'in the lands of court of Toulouse before the crusaders arrived in 1209' (Pegg, 2008, 190).

[23]For the rise of anti-Semitism in medieval Europe see Poliakov (1955); Menache (1985, 1997); Langmuir (1990); Stow (1992); Nirenberg (1996); Koyama (2010). The Augustinian pledge to preserve the Jews as 'witnesses' protected them in theory from massacres and forced conversions but in practiced anti-Jewish violence increased from the late twelfth century through to the fourteenth century and eventually ended in the expulsion of Jews from almost every western European country.

[24]For example, 'the *perfecta* Rixende Buassan (later burnt), who was reported to have heard mass regularly, and to have made offering to the priest at the alter in the church of Sorèze' (Arnold, 2001, 160).

turned them into Cathar heretics.

Religious practices in Languedoc in the period prior to its integration into France had evolved somewhat differently than those in northern France where the presence and organization of the Catholic Church was much stronger and feudal lordship was more concentrated. Christianity in Languedoc was more localized and focused on the holiness of specific individuals and preachers. Clerics educated in the political centers of Europe found very different religious institutions and practices in peripheral regions. Moore observes:

> 'The Church . . . was far less developed in large parts of this vast and varied territory between the Rhône and the Loire than the lowland region, both north and south of the Alps . . . the mountainous and relatively undeveloped lands between the Alps, the Massif Central and the Pyrenees had been little touched by the work of Charlemagne and his successors in the ninth century, which had not only given schools to the cathedrals of the north but made them in varying degrees hubs of parochial organization and services in many places and contributed much to the Christianization of the countryside' (Moore, 2012, 120).

He notes that the 'Christianity south of the Loire was often, for this reason, very different from that of other parts of Europe . . . Local saints and their festivals, commemorations and customs were cherished with corresponding fervour. Doctrine, on the other hand, cannot have been at all clearly or precisely disseminated or understood among lay people, and was doubtless subject to a good deal of local variation in its expression' (Moore, 2012, 120).[25]

The failure of the local nobility of Languedoc to repress practices now viewed as heretical by the Pope and the clergy of northern France provided the justification for the Albigensian crusade. The crusade led to the defeat of the nobility of Languedoc, the incorporation of the region into France, and to the creation of the Inquisition.[26] The process of state formation was accompanied by legal centralization and standardization, the adoption of Roman canon law, and the inquisitorial

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[25]The medieval Church was responsive to the needs of local elites. In northern France, centralization of feudal holdings in the hands of the higher nobility went hand-in-hand with the consolidation and centralization of the Church. These demands often conflicted with the religious demands of the majority of the laity who venerated local holymen and this was a source of many popular 'heresies'. By contrast, in Languedoc, the religious demands of the local elite differed to those of the northern nobility. No single lord had consolidated the scattered feudal holdings of the nobility and, as a region, 'it was less highly feudalized and manorialized than northern France' (Given, 1997, 6). Moore and Pegg suppose that the heresy of the Good Men can be seen as an idiosyncratic and local response to the religious demands of the local population in the Languedoc. For example, they suggest that the temporary sanctity of 'good women' was a way of protecting the virginity of young girls in a society where the desire of maintaining the unity of often fragmented landholdings frequently meant that young women were forced into early marriages.

[26]The medieval inquisition was a personal office and not a permanent institution, unlike the later Spanish and Roman Inquisitions (see Kelly, 1989; Kieckhefer, 1995). The inquisitors did not employ torture until 1256. There is no evidence that any of the major noblemen targeted by the Albigensian crusade was actually a heretic (see Graham-Leigh, 2005). In many accounts heresy is simply equated with opposition to the crusade.

Year	
1028	First heresy executions in western Europe since fall of Roman Empire.
1166	Assize of Oxford. First edict of a secular monarch against heresy.
1184	Papal Bull *Ad abolendam*. Introduction of inquisitorial procedure against heresy.
1209	Beginning of the Albigensian Crusade.
1215	Fourth Lateran Council.
1229	Treaty of Meaux-Paris ends Albigensian Crusade. Languedoc incorporated into France.
1233	Appointment of Inquisitors in Toulouse.
1244	Capture of Montségur. Over 200 heretics burnt.
1244-1245	Inquisition of Bernard de Caux in the diocese of Toulouse.
1307-1314	Trial of the Templars. Philip IV uses inquisitorial methods to suppress Templars.

Table 1: Brief Chronology of Medieval Heresy

procedure. In the early medieval period 'Germanic folk-judgement procedure had been widely perpetuated in France' (Langbein, 1974, 213). This localized and decentralized legal system, reliant on ordeals, folk-methods of proof and on a form of group inquest, was not able to meet the demands of the French monarchy, nor was it qualified to investigate crimes like heresy. The office of the inquisition was instituted precisely because of this shortcoming and because local bishops and other authorities were unable and often unwilling to hunt down heretics.[27] Although the initial onus to persecute heretics came from the Church, the suppression of heresy was conducted by or with the assistance of the secular authorities with whom the inquisitors worked in close collaboration:[28]

> 'Once they had decided that a region was infected with heresy, they undertook a tour of inspection. When they arrived in a town, they assembled the population and preached a sermon setting forth the purpose of their visit. To entice those with knowledge of heretical activities, the inquisitors declared a grace period during which those who came forward with confessions were assured of light penalties. At the end of this period, the inquisitors began the business of summoning and interrogating suspects. A fragment of the investigation carried out by Bernard de Caux in 1245 and 1246 in the diocese of Toulouse has survived. This fragment concerns only the two archdeaconries of Lanta and Vieilmorez. From this relatively small region, Bernard summoned at least 5,471 individuals to testify. Often, entire villages were required to appear before the inquisi-

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[27]Philip IV would use inquisitorial methods and (many individual inquisitors) in order to torture confessions from the Knights Templar and to seize their goods and possessions. One historians notes 'The use of inquisition as a suitable weapon for combating heresy can be placed within the context of the growing bureaucratization of European society' (Arnold, 2001, 21).

[28]This was part of Laicization of thirteenth century Europe identified by Strayer (1940, 1971*c*). He defines Laicization 'as the development of a society in which primary allegiance is given to governments, in which final decisions regarding social objectives are made by lay governments, in which the church is merely a private society with no public powers of duties. When society has been laicized leadership has passed from the church to the state' (Strayer, 1940, 1971*c*, 251). Strayer identifies the starting point of process as occurring in the thirteenth century.

tors. At least 420 people from the village of Le Mas-Saintes-Puelles were interrogated by Bernard and his assistants (Given, 1989, 340)

However, as we have noted, Pegg's (2001) study of the Inquisitorial records confirms that there was no evidence of an organized Cathar church.[29] Rather, and in a manner completely consistent with our model, the inquisitors created the image of the organized heresy they expected to encounter and in so doing they hardened the boundaries between orthodox Catholicism and heresy as 'those who still believed in the heretics now did so with a new awareness about themselves: a self-consciousness that was, ironically, made precise and clear through the very men who wished to punish them, that is, through the two friar inquisitors' (Pegg, 2001, 130). Discontent with the church hierarchy and church corruption was common throughout the middle ages and often led to dissenting belief (Leff, 1961, 1967). It was the growth of the medieval state, however, that criminalized this dissent and turned it into heresy.[30]

4.2 The Rise of Protestantism in France

As we have seen, the vast majority of medieval heresies were suppressed. We argued in the previous section that the growth of state power enabled medieval monarchs to eradicate deviant religious practices as way of enhancing their own legitimacy. Furthermore, consistent with our model's predictions, because of the amorphous nature of religious belief in the south of France during the thirteenth century, the centralizing state faced little incentive to secularize legal institutions. Instead, it chose to restrict tolerance and, in the process created a 'persecuting society'.[31] Nowhere was this tendency more marked than in France; the French king cultivated the title *rex Christianissiums* (Most Christian Monarch) and claimed that his land was the freest from heresy in all of Christendom. (see Strayer, 1969, 1971*a*, 308).[32] The French monarch was consecrated as well as

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[29]'[N]o elaborate heretic organization was discovered by the two Dominicans, nor, no matter how many times manuscript 609 is read, will a "Cathar Church" be found by modern historians' (Pegg, 2001, 130).

[30]Our framework is also applicable to other medieval heresies. Robert E. Lerner has demonstrated that the most important heresy of the fourteenth century, the Heresy of the Free Spirit was largely a construction of inquisition and that those convicted as belonging to this heresy had a range of beliefs that emphasized mysticism and apostolic poverty (Lerner, 1972). Forrest (2005) depicts in detail the construction of an apparatus for detecting heresy in England in the early fifteenth century. He observes that persecution created 'a new community of the orthodoxy' and 'heresy and anti-heresy were produced co-dependently' (Forrest, 2005, 235-236).

[31]The only medieval heresies that survived until the early modern period were the Waldensians and the Hussites and the latter only survived because they became allied to a nascent nationalist movement in Bohemia.

[32]Walter Ullman observes that the 'accentuation of the theocratic functions in the French king could hardly be better demonstrated to contemporaries and also illustrated to later generations than through the elaborate coronation ceremonial. In fact, it would be difficult to point to a coronation symbolism which was better thought out, more elaborate and indicative, than the French *ordines*. Each succeeding recension of the *ordo* improved its predecessors by symbolic details and expansion of individual features. Here we can only briefly refer to the one or the other element. The holy oil of Chlovis — the *sainte ampoule*— was one such element which distinguished the French theocratic king from any other in medieval Europe: none had that distinguished ancestry and an oil of such hallowed origin as the *rex christianissimus*. It was not mere chris, but oil brought on a dove from heaven on the occasion of Chlovis'

crowned on his coronation ceremony, and as part of his coronation oath he swore 'that in good faith to all men I shall be diligent to expel from my land and also from the justification subject to me all heretics designated by the Church' (Holt, 2005, 7).

In 1500 there was little *organized* heresy in France. Nevertheless there was a considerable amount of religious debate within humanist circles about religious heterogeneity in the provinces.[33] The humanists who were critical of the Church were associated with the *Cercle de Meaux* and they received the patronage of the sister of King Francis I (1515-1547), Marguerite of Angouleme. There was, at that time, no hard distinction between those who wished to reform the existing institutions of the Catholic Church and those who would eventually come to reject Catholicism entirely (Cottret, 2003).[34]

From the 1520s onwards, the Reformation in Germany and Switzerland began to filter into France. The Sorbonne ordered Martin Luther's works to be seized and burnt in 1523. Heretics were increasingly identified as 'Lutherans' and the first heretic executed as such—a weaver from Meaux—was burned to death in 1524.[35] The most important high court in the country, the Parlement of Paris, tried a number of individuals for adhering to the Lutheran heresy in the 1520s and early 1530s.[36]

Official edicts against heresy were only as effective as local authorities were able, or motivated, to make them and beyond the seats of royal power, local officials typically took no action against suspected heretics.[37] The French state lacked the legal capacity to enforce many of its decrees. Greengrass observes that '[e]verything we know about the sixteenth-century legal system suggests its manifest inability to enforce its authority uniformly and effectively and we should not expect it to have performed markedly better in the pursuit of heresy than of other crimes' (Greengrass, 1987, 37). In most of France heresy was a matter for the religious courts and these courts were

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baptism. Other kings had to go to the apothecary to buy their oil, the French king alone had his brought from heaven' (Ullman, 1961, 201).

[33]Knecht notes '[h]eresy was not unknown in France at the end of the Middle Ages, but, except in Dauphiné and Provence, where there was an infiltration of Waldensianism from the Alpine valleys of Piedmont, it was not in any sense an organized movement' (Knecht, 1982, 139).

[34]'In the twentieth century, we take the existence of separate churches and the division between Roman Catholic and Protestants as self-evident. Yet the beginnings of the Reformation were extremely complex . . . There had been a reforming spirit in the French church, which did not necessarily lead to a separate confession. Jean Vitreir, Guillaume Briçonnet, bishop of Meaux, or Lefèvre d'Étaples were roughly the equivalent of John Colet, Thomas More or John Fisher of the English church' (Cottret, 2003, 109).

[35]At this stage, though 'the authorities had often little conception of what the term 'Lutheran' actually meant' (Greengrass, 1987, 11).Greengrass further notes 'The clarity between orthodoxy and heresy was, however, a long way off, even in 1530' (Greengrass, 1987, 10).

[36]As Salmond observes: 'There was no organized Protestant churches in France during this period of the préréforme' (Salmon, 1975, 87). Another historian comments: 'it was to be a long time before heresy was adequately disentangled from humanism, a miscellany of advanced opinions, and a great deal of fluctuating confusion of thought and mind (Sutherland, 1980, 11).

[37]Knecht describes the actions of the regional parlements as 'uneven,' commenting that in 'Duaphinè only eleven cases of heresy in seven years were reported and only light sentences given. Yet there were certainly Protestant groups in that province' (Knecht, 1982, 401).

typically held to be inefficient. Papal inquisitors fervently pursued heretics in some regions, but were also often venal and ineffective. Monter observes that '[f]rom top to bottom from pope to bishop, church courts and canon law simply could not cope with the early Reformation' (Monter, 1999, 45). Some parlements were known to be lenient to Protestantism, while others were known to take a hardline position. However, the parlements everywhere struggled to enforce royal authority '...in the more distant parts of their jurisdictions. Pockets of immunity would therefore continue to exist for Protestantism almost everywhere within France, but particularly in the big cities and on the domains of the powerful nobility who protected their tenants from judicial enquiry' (Greengrass, 1987, 38).

A detailed study of Languedoc by Raymond Mentzer demonstrates how local authorities were ill-equipped to investigate heresy cases (Mentzer, 1973, 1984). Throughout the 1520s and early 1530s, heresy remained the responsibility of church courts and the inquisition which worked in collaboration with the secular authorities. However, in the 1530s several inquisitors were themselves implicated as heretics. Arnauld de Badet, the new inquisitor selected in 1531, was accused of being a Lutheran and denying free will, praising Cicero, Plato, and Ptolemy while neglecting the Church Fathers. Another inquisitor, Louis De Rochette, was executed. Unsurprisingly this 'prolonged crisis and especially the execution of de Rochette' discredited 'the Inquisition as an effective institution for the control of heresy' (Mentzer, 1984, 34).

4.3 Sixteenth Century Centralization and the Campaign Against Heresy

The crisis in the regional and religious courts coincided with Francis I's (1515–1547) attempts to centralize the French state.[38] The French legal and fiscal system was highly fragmented and heterogenous at the close of the Middle Ages (Wolfe, 1972; Hoffman, 1994; Monter, 1999).[39] The edict of Villers-Cotterêts of 1539 imposed a set of common legal standards on this system. It mandated the use of French in all courts and legal documents and solidified and standardized the use of the Roman-canon inquisitional model across all regions of France (Mentzer, 1984).[40] It was followed by The Edict of Paris in 1539 and The Edict of Fontainebleau in 1540 which specifically addressed the problem of heresy. The Edict of Paris was the first time the Crown took a direct role in the persecution of heresy. The Edict of Fontainebleau:

'entrusted to all royal judges (i.e. members of the sovereign courts, *baillis*, sénéchaux,

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[38]Francis I initially attempted to protect heretics. However, this changed with the Affair of the Placards in 1534, after which heresy became associated with challenges to the existing political and social order (Sutherland, 1980; Knecht, 1982; Roelker, 1996; Monter, 1999).

[39]For further details on the fragmentation of the French fiscal system, see Johnson and Koyama (2012, 2011).

[40]Villers-Cotterêts also was the first royal decree requiring marriages to be registered and ratified by a parish priest.

prévôts etc.), 'indifferently and concurrently', the right of enquiry (*inquisition* in respect of all persons, lay and ecclesiastical, except clergy in major orders. After prosecution, suspects were to be sent immediately to the sovereign courts for sentencing, regardless of any privilege or franchise they might claim. All feudal lords (*hauts justiciers*) were enjoined on pain of deprivation of their jurisdiction to carry out searching enquiries within their respective areas and to refer suspects to the king's judges' (Knecht, 1982, 398).

The Edict of Fontainebleau was thus an important instance of Laicization; it asserted secular control over heresy as a crime making its suppression the responsibility of the regional parlements as these alone were permitted to use torture and to pronounce sentence (Mentzer, 1984, 45). It also represented an significant movement towards local standardization and it asserted royal control over the regional courts (which had to report to the king every six months) while at the same time granting those courts authority over religious affairs. Furthermore, for the first time, the Edict identified heresy with sedition and thus defined it as a crime against the state as opposed to the church (Sutherland (1980, 34) and Roelker (1996, 207)). Those church courts that continued to exist where increasingly supervised by royal officials (Mentzer, 1984, 10).[41] At the same time the definition of heresy was standardized in such a way that made it easier for the courts to convict suspects. It was shifted away from one based in theology (i.e. a judgement of the orthodoxy of one's beliefs) towards an assessment of whether or not an individual's visible behavior implied that they were heretical, as the latter was easier to ascertain.[42] In 1544 the king published a list of prohibited books prepared by the Sorbonne and in 1545 'special commissions of parlementaries to seek out heresy in particular regions began to function' (Roelker, 1996, 182).

These royal edicts had the effect of creating an official 'engine of repression' (Roelker, 1996, 211).[43] Using trial data collected by Monter (1999) we can illustrate the effect the creation of this engine of judicial repression had on the both the number of individuals executed for heresy and the geographic scope of these heresy trials.[44] Figures 9, 10, and 11 show both the dramatic increase in heretic executions after 1540 and the accompanying increase in their geographic spread.[45] Before the Edict

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[41]'At the same time, the number and proportion of heresy cases handled by the royal courts spiraled, with the bulk of this increased case-load passing to the parliaments' (Mentzer, 1984, 10).

[42]It became heretical for schoolmasters to interpret scripture a certain way, for individuals to damage or deface religion icons, to sell or distribute heretical books or to speak words contrary to the Catholic religion (Greengrass, 1987, 34).

[43]The 'momentum could not be arrested, even had François wished to do so. The point of no return had been passed' (Roelker, 1996, 211).

[44]Monter (1999) collected the data on executions for heresy between 1523 and 1560 by combing through all of the parlementary criminal records in France. This was a significant undertaking considering the lack of an index system and that there were between eight and ten parlements operating at any time during this period. Monter reports the village of arrest for each trial. We geocoded this location as well the location of the closest regional parlement. We then used ArcGIS to measure the distance between these two locations for each trial.

[45]We calculate the total number of trials by généralité for each period. The généralités were created by order of Francis I in 1542 in order to facilitate collection of royal taxes. For our purposes they serve as convenient regional
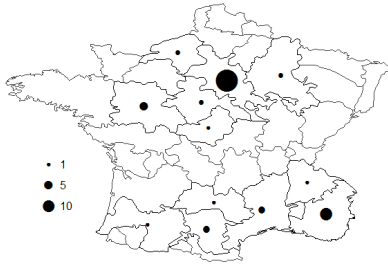
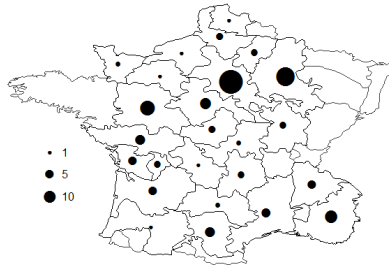**Figure 9:** Executions of heretics by généralité, 1523 – 1539

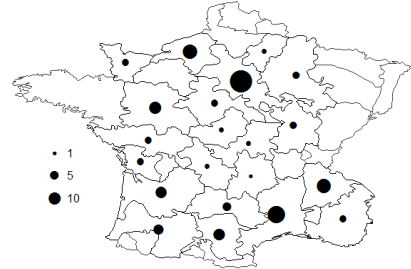**Figure 10:** Executions of heretics by généralité, 1540 – 1549

Figure 11: Executions of heretics by généralité, 1550 – 1560

of Fountainebleau, most executions occurred either in Paris or Provence. After 1540 almost all the regions in France began to execute heretics. These figures suggest strongly that the centralizing reforms of Francis I were not just pieces of paper; they were actually obeyed.

The efforts of the King and the parlement of Paris also resulted in an increase in the geographic reach of the French centralized state as 'inquisitors of the faith' were appointed and sent out into the provinces in order to seek out and detect heretics (Roelker, 1996, 208).[46] Figure 12 depicts this increase at a local level by showing the geographic location of heretic executions in the généralité of Provence. Squares show where executions occurred before 1540 (each symbol may represent multiple executions). Triangles show the location of executions after 1540. The seat of the high court of Provence in Aix-en-Provence is also marked. The Figure makes clear that before legal centralization in 1540, executions clustered closely to the primary seat of legal power for the crown in Aix-en-Provence. However, after 1540, executions occur much further away from the high court. In effect, the scope of royal authority, as measured by the willingness and ability of local courts to execute heretics, increased after 1540.

Figure 13 shows similar data for all the généralités of France between 1523 and 1560. Each point in the scatter plot represents the distance of a trial from its regional high court (parlement). The plotted line is a kernel weighted local polynomial regression of distance of trial on year, or more simply, the average distance of trials from their high courts in that year. The data show that the centralizing reforms of Francis I between 1538 and 1540 were responsible for increasing both the number and geographic scope of heresy executions.

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boundaries, but we don't suggest these boundaries were significant for religious belief. Rather, they are purely fiscal regions.

[46]The first "inquisitor of the faith" was Mattheiu Ory. He was not really an inquisitor, but rather a royal official. Other regional commissioners included Jacques Le Roux who was sent to Sens and Nicole Sanguin who was dispatched to Meaux (Roelker, 1996, 208-212).
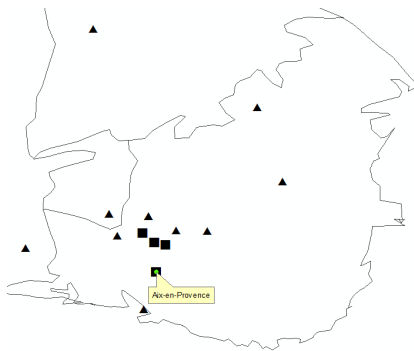
Figure 12: Distance of heresy executions from high court in Provence located at Aix-en-Provence. Squares represent executions before 1540. Circles represent executions after 1540. Multiple executions may be represented by one symbol.
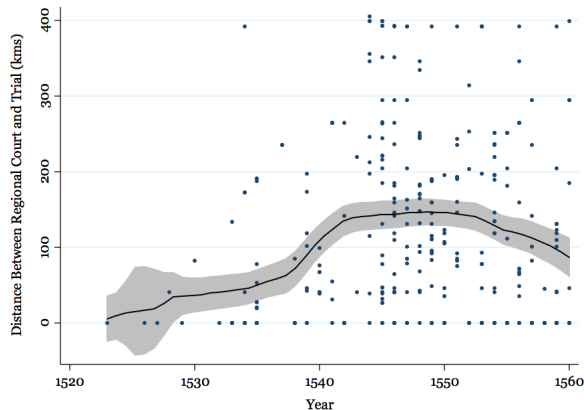

Figure 13: Distance of trials from regional Parlement, 1520 – 1560. Each dot represents a trial. Plotted line is a kernel weighted local polynomial regression of distance of trial on year (bandwidth = 2). 95% confidence interval shown.

The increase in legal capacity resulted in a tremendous growth in heresy trials, but it was not enough to suppress the Protestants: the number of heretics continued to grow throughout the 1550s. The campaign against heresy continued in the reign of Henri II (1547-1559) with the creation of the *Chambre Ardente* (burning chamber)—a special court devoted to prosecuting cases of heresy–and the Edit of Chateaubriand in 1551. These marked the high point in the judicial repression of heresy.[47]

Donald Kelly argues that these persecutions were counterproductive in part because the 'result was to intensify the impression of Protestants that they were recapitulating the experiences of early Christians' and thereby to consolidate their view of themselves as belonging to the true faith, while their persecutions were enacting the will of the Devil (Kelley, 1972, 1329).[48] The Protestants became increasingly well organized. They were heavily influenced by the rise of Calvinism in Switzerland and they began to develop a distinct corporate identity as Huguenots. As Kelley (1981, 92) observes, '...out of transient and sporadic dissidence the "so-called reformed religion" had created a coherent movement and an almost complete corporate organization'.

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[47]The Edict of Châteaubriant of 27 June 1551 was 'un vrai code de persécution' (Sutherland, 1980, 44). Many members of parlement themselves became suspects under its auspices. It included twenty articles 'covering in exhaustive detail all matters of censorship, the possession, production, sale, and dissemination of religious works; the rigid control of printing, and the inspection of bookshops. But even more vexatious and dangerous were the articles (27-33) relating to informing, which became mandatory (Sutherland, 1980, 46).

[48]Parker observes that '[o]ne of the central motifs within the *Histoire des martyrs* is the parallel between contemporary martyrs and the godly champions of biblical eras who attempt to console fellow Reformers, to explicate the endemic brutality of their situation, and to legitimize their cause' (Parker, 1993, 230).

The Huguenots, unlike the heretics of the thirteenth century, could call upon an international Protestant movement for intellectual and spiritual support, and perhaps more importantly still, they could employ the printing press to celebrate those who died as martyrs.[49] Jean Crespin and other martyrologists recorded, carefully preserved, and then publicized the deaths of all of those executed just as John Fox did in England (Kelley, 1972; Parker, 1993).[50]

As Monter (1999, 120) observes, the '...great heresy hunt begun in mid-1540s had strained the resources of the Paris Parlement to their limits. Accused heretics crowded their jail and their workloads. Moreover, some of these cases presented serious professional difficulties. Heretics were not easily or comfortably judged by men who had mastered every nuance of Roman Law but were untrained in theology'. Despite the imposition of royal control over the regional and church courts, enforcement of the laws against heresy continued to vary from region to region. In the south particularly, landowners sympathetic to Protestantism sheltered and failed to try individuals suspected of heresy.[51]

The numbers of individuals executed for heresy did not deter the growth of the Protestant movement. Indeed, it may have encouraged the formation of an organized Protestant sect.[52] Upon the death of Henri II, a power vacuum was created as his successor, Francis II (1559-1560), was still a child. One party formed around the Duc de Guise and was associated with a policy of intensifying the persecution of the Protestants. Another formed around the Bourbon family and became associated with relaxing the policy of persecution.[53] At this point a group of Protestant nobles attempted to seize Francis II. What became known as the 'Conspiracy of Amboise' failed

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[49]Here the printing press played a crucial role in enabling religious dissenters to organize themselves and establish a corporate identity in a way that had not been possible in the thirteenth century. Rubin (Forthcoming), for instance, finds that the presence of a printing press in a city in 1500 had a significant causal effect on the likelihood of that city becoming Protestant.

[50]'It is not going too far to suggest that the coherence of the modern tradition of martyrs was created as much by external pressures as by the sharing of a common ideology and a common "Cause". Catholic attempts to discredit individual martyrs only provided further publicity. Stories about last-minute recantations were always being circulated, remarked Erasmus, rejecting one such rumor about Louis Berquin, the first notable French martyr ...what counted most, however, was the fact of execution. The Catholic solution was to create a kind of countermythology about heretics and, ultimately, an "antimartyrological" tradition to undo the work of Crespin and his fellow authors' (Kelley, 1972, 1329).

[51]Monter observes: 'If it was difficult to remove royal officials with previous major convictions for heresy, it was impossible to remove those who had only been accused of helping heretics ...Perhaps such situations usually occurred in places where an evangelical movement was already well entrenched by 1540. But seven in a town where Protestantism was not widely accepted among the local notables, it was impossible in the 1550s for local Catholic zealots to convict and remove a royal official who was almost certainly a Protestant' (Monter, 1999, 159).

[52]'the number of heretics was constantly increasing and "the blood of the martyrs is the seed of the church"— in this case, the Reformed Church. According to [Nathanael] Weiss, the measures taken by the Chambre Ardent constituted "overkill. It was better to keep wavers in the fold, even if only formally, rather than 'exterminate' them in a way that increased their numbers"' (Roelker, 1996, 219).

[53]The leader of the Huguenot faction in the 1560s was Louis de Bourbon, Prince of Condé. The other important leader was Jeane d'Albret, wife of Antoine de Bourbon, King of Navarre, who privately converted to Calvinism in the 1550s and declared herself a Protestant in 1560. Her son, Henri IV of France would later become the leader of the Huguenots.

and the bloody response of the monarchy and the Guise faction promised a still more bloody policy of persecution. It was this threat of further persecution that led to the formation of a Huguenot political party out of the Protestants religious movement.[54]

This situation now threatened to morph into an all-out civil war. Catherine de Medici, the queen regent, recognized the increasingly high costs of maintaining the campaign against heresy and acted to decriminalize Protestant belief. As a first step in this direction, she issued the Edict of Amboise in March 1560, which promised a general pardon for all heretics so long as they returned to the Catholic fold.[55] It aimed at avoiding a massive effusion of blood and was an acknowledgement that the eliminationist policy initiated by the Edicts of Paris and Fontainebleau was self-destructive (Sutherland, 1980, 105). However, it did not offer the Protestants freedom of worship, which is what their leaders now demanded. This came with the Edict of January issued at St. Germain in 1562 which was the first Edict to offer some form of religious toleration. While it included a number of anti-Protestant measures, for the first time in French history, it recognized the right of private individuals to practice their own faith in their own homes: it was the 'first indication of the possibility that citizenship and the political allegiance of subjects to their king and country might be consistent with a diversity of religions in the state' (Zagorin, 2003, 91).[56]

The evolution of legal tolerance for religious belief between 1523 and 1562 in France is consistent with the predictions of our model. The timing of the events we describe provides support for Result 1 which states that increases in legal toleration of religion can stem from either changes in the costs and benefits of persecution (A^*) or an increase in the variance of belief (σ). As we've established, before law was secularized after 1562, there was a significant increase in state capacity that resulted in the standard of tolerance of Paris becoming the standard for all the other regions as well. These other regions, however, did not posses the same distribution of belief as those making the laws in

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[54]Sutherland notes that '[b]y 1560 there were many contemporary names for describing Protestants: *les Luthériens, les Calvinists, les réformés ceux de la religion prétendu réformé*—often known as RPR—*les sectataires, les consistoriaux* and so forth' (Sutherland, 1980, 101). Thus 'the epithet Huguenot was not used before 1560. it then denoted a party, whose fortunes therefore became political' (Sutherland, 1980, 1).

[55]Catherine de Medici was in favor of a police of toleration as a means to achieve peace. 'A letter from Catherine to procureur général Gilles Bourdin interprets the royal intentions clearly, by saying that the authorities should not be "too curious" about what went on in private houses. This would indicate a sort of unacknowledged toleration, analogous to that of Queen Elizabeth toward English Roman Catholics at the same period' (Roelker, 1996, 250).

[56]Nevertheless, the toleration it offered was extremely partial: 'Upon first reading the text of the Edict of January, we might find it hard to believe that through all the succeeding decades of the century the constant cry of the French Huguenots would be "Give us the Edict of January!" because most of its provisions were directed against the reformed: they were obliged to restore all church property, from buildings to relics; forbidden to interfere with any activities of the ecclesiastical authorities (such as officiating on saints' days, collecting tithes); forbidden to build churches anywhere or hold assembles either by day or by night inside the limit of any town; forbidden to harbor criminals or to raise money or troops. Iconoclasm and sedition would be punished by the death penalty, as would a second offense of printing or distributing prohibited books. To balance these negatives there were some concessions: services inside private houses, for the household only, could be held inside town limits, public assemblies, by day, would be tolerated outside them (provided that the local seigneur gave his permission and that nothing contrary to scripture or to the Nicene Creed was said)' (Roelker, 1996, 263).

Paris. Furthermore, unlike the 'good men' of the thirteenth century who lacked a strong sense of identity, the Protestant movement was well defined and distinct from the Catholic Church. To use the terms of our model, the sixteenth century Protestant movement was more cohesive (low σ_j) and deviant (high $\left(\mu_j - \mu_m\right)^2$) than the Catharistic beliefs of the thirteenth century. Thus, the mixture of the distributions of religious belief faced by the centralizing state resulted in a much higher variance in belief than for any individual region. Furthermore, the initial spike in persecutions after 1540 and the lag before eventual decriminalization of Protestant belief is consistent with Result 3 of the model. Result 3 states that if the central region is slow to adjust the bounds of tolerance after an increase in the cost of maintaining an intolerant standard ($A > A^*$), then prosecutions will follow an inverted-u shape. This is precisely what happened in France. Unfortunately, while *judicial* killings of Protestants ceased after 1562, the conflict between Catholic and Protestant subjects engendered by the initial wave of persecution that accompanied centralization was not so easy to quell. Official decriminalization in 1562 was not enough to ameliorate the tensions and civil war proved unavoidable.

4.4 The Wars of Religion and the Edict of Nantes

The Edict of January was important as the first acknowledgements of religious toleration in French history. It accompanied similar edicts in the rest of north-western Europe such as the Peace of Augsburg in Germany in 1555 and the Act of Uniformity in England in 1558. The Peace of Augsburg recognized the right of Lutherans to practice their religion in those German states ruled by Protestants and the Act of Uniformity recognized the right of Catholics in England to private worship. However, in France at least, there was a sense in which official secularization came too late as civil war between Protestant and Catholic factions soon followed. The war was accompanied by large-scale killings of Protestants by Catholics, culminating in the St. Bartholomew's Day massacre in 1572 which resulted in between 5,000 and 20,000 deaths according to modern estimates.[57]

The civil war ultimately resulted in a victory for the Protestant leader Henri of Navarre, but in order to be accepted as king of France as Henri IV he had to credibly commit his side to maintaining a secular legal stance by converting to Catholicism.[58] In order to conciliate the Protestants, Henri IV (1589–1610) issued the Edict of Nantes in 1598 which provided religious toleration for the Huguenots and ensured their position within France for roughly the next 100 years. The Edict of Nantes solidified the new, secular, equilibrium that the legally unified kingdom of France started moving towards after the reforms of Francis I in the 1530s.

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[57]There were only a small number of actual heresy trials during the Wars of the Religion. The vast majority of those executed where either killed extra-judicially or for treason.

[58]Henri reportedly did this with the words 'Paris is well worth a mass', though this may be apocryphal.

Year	
1523	First heretic executed for 'Lutheranism' in France
1534	Affair of the Placards marks intensification of repression.
1540	Edict of Fontainebleu; imposes secular and royal control over heresy trials.
1547	Creation of the *Chambre Ardent*, a specialist court to sentence heretics.
1560	Conspiracy of Amboise fails.
1562	Edict of January promises toleration to Protestant.
1562	Beginning of the French Wars of Religion.
1572	St. Bartholomew's Day Massacre
1598	Edict of Nantes issued. Protection of civil liberties and toleration for Protestants.
1685	Revocation of the Edict of Nantes.
1724 onwards	Relaxation of the enforcement of the Edit of Nantes.
1787	Edict of Versailles grants toleration to non-Catholics.

Table 2: Brief Chronology of the French Reformation, and the rise of toleration.

The Edict of Nantes marks the first official separation of Church and State in European history. Nevertheless, it did not contain a statement in favor of religious toleration. Benedict notes that 'no-one in sixteenth-century France' thought toleration was 'a good thing' (Benedict, 1996, 67). Both Huguenots and Catholics believed that it was right to kill individuals for their religious beliefs.[59] As MacCulloch observes: 'It took a great leap of imagination, beyond most sixteenth-century people who enjoyed power, to think that toleration might not only be a useful or necessary expedient, but that the ultimate aspiration might be to seek religious freedom for all' (MacCulloch, 2003, 678).

Consistent with our model, the Edict of Nantes was seen initially as an undesirable compromise: the only way of ensuring a lasting peace between the religions. It's passage was not motivated by enlightened opinion, but by enlightened self-interest. The imposition of an official legal standard of belief that was narrowly defined in favor of one religion or another was too costly. The distribution of belief across France was simply too varied. Henri IV himself described the Edict of Nantes as necessary but not as good or desirable and he envisioned reuniting Catholics and Protestants in the future (see Sutherland, 1980, 330-332). Nevertheless, the Edict was of great historical importance as it broke the unity of Church, state, and society for the first time. Furthermore, its significance grew over time as it symbolized the kinds of toleration that could be achieved within an early modern state and it became seen as an example that other European countries might follow (see

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[59]Calvin had Michael Servetus condemned to death in Geneva in 1553 and Protestant opinion across Europe supported him in this (see MacCulloch, 2003, 244-245). The only notable Protestant writer to disapprove of it and to argue in favor of toleration was Sebastian Castellio but he was an isolated voice (see Zagorin, 2003, 93-144). At a Protestant meeting in the 1550s a 'deputy from Poitiers who suggested that the May synod should tolerate theological differences was expelled from the meeting, which affirmed the policy, held in common with its persecutors, that heretics should be burnt' (Salmon, 1975, 119). Indeed '[t]he verb *tolérer* was most often employed around 1560 by the partisans of a hard line against heresy to denote a distressing course of action that they opposed' (Benedict, 1996, 67).

Ocibal, 1976). Jordan described it as the 'culmination' of sixteenth century moves towards religious toleration (Jordan, 1932, 38).[60] Thus, as MacCulloch concludes:

> 'For most of the seventeenth century, despite many imperfections, France stood . . . as a symbol of toleration, in contrast to Protestant monopoly states like England or Catholic monopoly states like Spain, and at a time when the Habsburgs had done their best to dismantle similar provisions in central Europe during their victories in the Thirty Years War' (MacCulloch, 2003, 473).

This is not to say that the rise of powerful and centralized states ineluctably led to increased religious toleration. There were setbacks. In 1685 Louis revoked the Edict of Nantes and the Huguenots were given the option of exile or conversion. The revocation was accompanied by brutality and bloodshed. Nevertheless, it was much less violent than the persecution of the sixteenth century had been.[61] Furthermore, the revocation did not eliminate Protestantism in France or, by extension, the forces we've described which pushed law-makers towards secularization. The enforcement of the revocation lapsed after 1715 and there were no widespread persecutions of Protestants after that date.[62] Moreover, the revocation of the Edict of Nantes during the reign of Louis XIV, three generations after its initial passage, does not undermine its historical significance. Post-civil war France provided an example of limited but workable religious toleration that helped to inspire other experiments in permitting greater amounts of religious freedom.[63]

4.5   The Theory Applied to Other States

As in our model, the historical rise of religious toleration in England was a gradual process, or in the words of, MacCulloch, 'crabwise' (MacCulloch, 2003, 679). As in France, the 1530s saw a process of intensive political centralization which historians have termed the 'Tudor Revolution in Government' (Elton, 1953). At the same time, an increasing number of individuals were executed for heresy in the 1530s and 1540s. This culminated in the the reign of Mary I (1553-1558) who

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[60]The full quotation reads: '[b]y 1600 it had become quite apparent, after a rather complete trial in France and the Netherlands, that heresy could not be exterminated by the sword. Heresy had come to stay, and it remained for the State to accept the fact, to arrange the legal and political structure to accommodate a necessarily nuisance, and to secure the dissenting bodies to the State by ties of patriotism and loyalty . . . These related developments may best be traced in France during the sixteenth century, and they found their culmination in the Edict of Nantes. A little later the same trends found their conclusion in Holland, while in England the full recognition of these principles did not come before the closing ears of the seventeenth century' (Jordan, 1932, 38).

[61]One indication that the climate of opinion had changed since the sixteenth century was that the final clause of the edict of revocation 'pretended that freedom of conscience was preserved' (Ocibal, 1976, 165).

[62]Nevertheless, it was only in 1787 just before the French Revolution that an edict offering religious tolerations was issued.

[63]Thus Jordan notes that '[t]he devastating effect of the Religious Wars in France were repeatedly pointed out in Elizabethan literature, and the reviviscence effect of the recent policy of toleration on commerce was constantly urged as a reason for the acceptance of such a policy in England' (Jordan, 1932, 22).

had more than 280 Protestants executed in less than five years. However, the costs of these trials put severe strain on Mary's government (in terms of our model $A > A^*$) and on the accession of Elizabeth I (1558-1603) a decision was made to end heresy trials because it too costly to criminalize the beliefs of such a large proportion of the population (McGrath, 1967; Solt, 1990). The Act of Uniformity of 1560 made Church attendance on Sunday compulsory and punishable by a sizable fine. It did not enquire deeply into an individual's actual beliefs and so-called Church Papists—those who confirmed to Anglican worship but considered themselves Catholic—were tolerated (Walsham, 1993). Like the Edict of Nantes, this represented a widening of the bounds of toleration even if it heavily restricted freedom of worship. The last individual to be burnt for heresy died in 1612. Catholic priests and those who aided them continued to be executed for treason until 1681 and a severe campaign of repression against Protestant dissenters was launched in 1662. The Act of Toleration of 1689 represents a further extension of the bounds of toleration—it granted toleration to all Protestants but maintained civil disabilities on Catholics, which continued until 1828.[64]

The Netherlands also experienced a severe religious persecution in the mid-sixteenth century associated with attempts by the Habsburgs to impose more centralized and direct government which eventually provoked a fierce civil war colored by religious tension. The success of the Dutch rebellion against Habsburg rule brought to power a Calvinist party that believed in religious persecution. However, because of the Reformation and civil war, there was now a large number of people in the new Dutch Republic who did not subscribe to Calvinism (MacCulloch, 2003, 367-378). As a result the Calvinist party had to accept that it was infeasible to persecute Catholics or other Protestants and out of the resulting comprise a form of *de facto* religious toleration gradually emerged during the seventeenth century (Zagorin, 2003).

In Germany, the Wars of Religion of the mid-sixteenth century were brought to an end by the Peace of Augsburg (1555) and the maxim *cuius regio, eius religio*. It recognized Lutheranism and Catholicism (though not Calvinism) as a legitimate religions and left it in the hands of each local ruler to decide which would be the official belief of his region. Thus, according to our definition, the Peace of Augsburg represented, if anything, a *decrease* in secularization. It made official the policy that each local jurisdiction could set its own, relatively narrow, standard of orthodox belief. As one historian puts it 'the license was for the princes rather than the subjects' (Sutherland, 1984, 159). From the point of view of our theoretical framework, this devolution of legal authority is highly

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[64]Murphy (2001) notes that it was less liberal than James II Acts of Indulgence (1687 and 1688) or the policy of Oliver Cromwell during the Protectorate. MacCulloch further notes, even 'when John Locke published his celebrated *Letters concerning toleration* in the aftermath of England's Glorious Revolution, he still excluded Roman Catholics and atheists from his proposals, on the grounds that they were enemies to the English state' (MacCulloch, 2003, 679). The last person to die for their religious beliefs in the British Isles was a student in Edinburgh for blasphemy in 1697 (Coffey, 2000, 200).Coffey notes: '[i]f 1689 marked the end of the persecutory society, it did not mark the beginning of the secular state' and throughout the eighteenth century anti-Catholic legislation continued to be passed and enforced (Coffey, 2000, 201).

consistent with what one would expect in the presence of a weak central state. This is precisely how historians describe the situation. The Holy Roman Emperor was too weak to impose religious conformity at an empire-wide level, but this was a reflection of the fact that real sovereignty in the Germany was increasingly held by the states and principalities within the empire. As Sutherland observes: 'toleration could not simply be proclaimed. No government could—successfully—be more tolerant than the governed and tolerance was emphatically not the spirit of the age. Toleration required . . . an exceptionally strong secular power, such as Henri IV of France' (Sutherland, 1984, 155).

Like the German states, Poland provides a interesting counterexample to France, but one that also supports the predictions of our model. Sixteenth century Poland has been heralded as 'a state without stakes'—an almost unique example of religious toleration and pluralism in a period of ubiquitous religious conflict (Tazbir, 1973). Catholic Poland did not prosecute Protestants, nor did it even prosecute Anti-Trinitarians who were denied toleration almost everywhere else. And, although it is not true that Poland was a state entirely without stakes—a woman was burnt to death in 1539 for denying the divinity of Christ and attempting to convert to Judaism—it certainly did not go through a campaign of religious persecution on the same scale as other regions in Europe.[65]

What makes the example of Poland consistent with our framework is that the Polish state *did not* go through the same process of state centralization which accompanied religious prosecution in England, France, and the Netherlands. The Polish monarchy under Sigismund I (1506-1558) passed edicts against heresy, but, unlike the actions of the kings of France, these were ineffective because the Polish state was decentralized and the monarchy—circumscribed by the *liberum veto* which enabled the nobility to veto royal policy—comparatively weak (see Roháč, 2008).[66] Religious policy remained the responsibility of ecclesiastical courts with limited jurisdiction—there was no Polish equivalent to the Edicts of Paris and Fontainebleau. The power of the Polish aristocracy was such that no noblemen was sentenced to death for his beliefs throughout the period and '[n]o parliament could agree to any law invoking the death penalty for noblemen' prevented the state from every being able to take serious action against religious dissenters so long as they had protectors or patrons among the nobility (Tazbir, 1973, 73).[67] This remained the case even in the later seventeenth century when religious toleration declined. Anti-Trinitarians heretics were expelled on pain of death in 1658. While some of these left the country or converted, however, many

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[65]See Teter (2006, 44) for details of the execution of Katarzyna Malcherowa in 1539.

[66]Furthermore, Poland unlike other western European countries was never religiously homogenous, and consequently, Catholicism played a much less important role in legitimizing the state in Poland than elsewhere in Europe. The state of Poland-Lithuania extended over a vast territory, and although its rulers were Catholic, its population included significant Greek Orthodox, Armenian, Jewish and Muslim minorities (see Tazbir, 1973, 31). The religious diversity of medieval Poland meant that even prior to the Reformation the hardline Church position against heresy was not enforced. Consequently, the clergy in Poland advocated toleration and peaceful coexistence; in terms of our theory: the Polish-Lithuanian commonwealth survived in part because the bounds of toleration were set fairly widely

[67]Also see Lecler (1960). Transylvania is also a case in point.

'. . . continued to live in Poland without abandoning their faith . . . One of the reasons was the general slackness of the executive, which never enforced the anti-Arian laws very strictly, especially against members of the nobility who always enjoyed certain immunities' (Tazbir, 1973, 198). As Davis notes: 'The nobility believed what they wished, and protected whom they liked. The bourgeoisie and the Jews were secure within the framework of their autonomous estates . . . the 'Golden Freedom' of the nobility, proved an obstruction to efficient government and to religious fanaticism alike' (Davies, 1981, 200).

Finally, our interpretation is supported by the fact that other large empires with strong states and heterogenous populations have also been characterized by surprisingly high levels of religious toleration. Notable among these are the Persian empire, the Roman empire and the empire of Genghis Khan and his successors.[68] Our model is perhaps best illustrated, however, by the Islamic empires of the Middle East which were relatively tolerant for most of their histories.

Islam promised toleration for people of the Abrahamic religions, and historians agree that their attitude of comparative religious tolerance (and indifference to say, the disputes between Mono-physites and Dyophysites) enabled Arab armies to make rapid conquests throughout the Eastern Mediterranean. Our theory suggests that Islamic societies were tolerant because the Caliphate was large and encompassed many groups with heterogenous beliefs.[69] The Islamic Caliphate had to be religiously pluralistic for pragmatic reasons. Even within the Arabian peninsula Muhammad and the early caliphates received support from Jews and later Christians and Zoroastrians who 'stood firm over their own faiths but were friendlily disposed toward the Prophet and his new creed' (Bosworth, 1982, 41-42). What was later known as the pact of Umar a 'contract in which the non-Muslims agree to a host of discriminatory regulations in return for protection' was in fact a rationalization of these *ad hoc* arrangements (Bosworth, 1982; Cohen, 1994).

The explanation for state secularization suggested by our theory is supported by the fact as the Arab armies continued to conquer new regions their political leaders found themselves forced to extend the toleration first to 'people of Book', then to Zoroastrians, and then, during the conquest of northern India in the eighth century, to polytheistic Hindus.[70] This tradition of religious pluralism

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[68]The Persian empire during the Achaemenid period (559–330 B.C.) similarly practiced religious tolerance (see Masrooi, 1999). It appears to have done so in part to order rule a large empire with a number of diverse religions. Interestingly, later Persian empires such as the Sassanid empire (224–651 A.D.) which ruled much smaller, and more cultural homogenous territories, practiced religious persecutions.

[69]Furthermore, once the Caliphate had been established the economic role played by minorities in the Islamic Middle East and the special taxes that they paid helped to ensure that they would be tolerated, although, minorities were occasionally persecuted at various points in time (Cohen, 1994). Bernard Lewis notes: '[v]iolent persecution, forced conversion and banishment were rare, though not unknown. They usually occurred at times of stress and danger, when the Islamic world was threatened from within or without, by pestilence or famine, religious division or foreign invasion' (Lewis, 1986, 124).

[70]The granting of *dhimmi* status to Zoroastrians was justified because it was claimed that they had been granted a revelation from God but the Holy Books has not survived. However, '[w]hen the Muslims first acquired a foothold in the Indian subcontinent through the conquest of Sind in the early eighth century, a situation arose similar to that of

was continued by the Ottomans when their conquered Eastern Europe where it became known as the *millet* system (Runciman, 1970; Bruade, 1982). Non-Muslims had *dhimma* status: they could not proselytize and had to pay additional taxes, and sometimes had to wear special, distinctive, clothing, but they were largely free from persecution and they were allowed to continue to use their own legal systems (Bruade and Lewis, 1982).[71] The Ottoman empire was much more tolerant of religious diversity than almost any European state through the early modern period, but it did not move towards the liberal model of religious freedom that eventually emerged in Europe.[72]

5   Discussion and Concluding Comments

Our thesis that the rise of centralized and powerful administrative states in the early modern period played an important role in increasing the official bounds of religious toleration finds considerable support from European history. Throughout the early middle ages most states in Europe had little ability to affect the lives of the majority of their populations. As a result there was a large amount of religious heterogeneity, and local religious customs and practices flourished. This weakness did not, however, reflect a commitment to religious toleration. Rather, as our model makes clear, the persecution of deviant belief and intolerance are distinct concepts.

In the early middle ages, regional authorities simply set the bounds of tolerable belief to be consistent with the diverse interpretations of what 'orthodox' was to their populations. Both the thirteenth and the sixteenth centuries witnessed significant increases in legal centralization which made it possible for the centralizing region to impose greater religious conformity on its neighbors. In the thirteenth century this led to large-scale religious persecution and no significant increase in religious tolerance since, at that time, heretical movements lacked a strong sense of corporate identity. It was the centralizing state itself that imposed an artificial sense of cohesiveness and deviance on these groups, after the fact. In the sixteenth century, however, centralization had a much different effect on the state's attitude towards religious tolerance. Since the Protestant movement was both distinct from orthodox Catholicism and relatively cohesive the very developments that made it possible for the state to enforce a common religious standard across its domains also increased the costs of setting that standard too narrowly. Thus, during the sixteenth century, legal

Persia; the teeming populations there could not be slaughtered *en bloc*, but how in the absence of any Quranic *nass*, could the pagan Hindus be assimilated to *dhimmi* status? On the evidence of Balhduri's account of the conquest of Sin, there were certainly massacres in the towns of Sind when the Arabs first arrived'. But, eventually '[p]eace treaties were made with the local communities . . . on what had been the standard conditions during the overrunning of the Fertile Crescent and Persia' (Bosworth, 1982, 43).

[71]And, as Kuran (2004, 2010) has argued, this choice of legal system gave Christian and Jewish minorities and economic advantage once trade with western Europe opened up in the eighteenth and nineteenth centuries.

[72]The failure of the Ottoman Empire to continue on the same path of secularization as its European neighbors can be at least partly explained by the gradual weakening of the Ottoman state that began in the seventeenth century (Balla and Johnson, 2009; Pamuk, 2004).

centralization inadvertently put Europe on the path towards religious tolerance and the separation of church and state. This occurred prior to the intellectual movement in favor of greater religious toleration.[73] Indeed, Europe in the early modern period remained 'a persecuting society'—a society which demonized outsiders as a way of legitimizing itself—but it was a persecuting society in which the bounds of toleration were wider than they had previously been—and this initial increase in toleration played a crucial role in the gradual development of a liberal social order.

What of the many alternative explanations for the rise of the secular state that do not portray legal centralization as the *primum mobile*? Traditionally, religious toleration has been seen as a product of the Enlightenment and is associated with the ideas and writings of the French *philosophes* (Kamen, 1967; Grell and Porter, 2000). However, the historical literature we have discussed in this paper demonstrates that the origins of religious toleration lie in the Reformation in the sixteenth century, a time when almost no one was arguing in favor of religious liberty.

It was the practical example provided by the Edict of Nantes along with the experience of religious toleration in the Dutch Republic that helped to inspire many of the most powerful intellectual voices for greater religious toleration such as John Milton (d. 1674), Roger Williams (d. 1683), Pierre Bayle (d. 1706), and John Locke (d. 1704). While almost no sixteenth century thinker openly defended the idea of complete religious freedom, in the seventeenth century increasingly radical arguments in favor of greater tolerance were developed.[74] Locke argued that faith could not be compelled and argued for complete religious toleration for Protestants, but nonetheless maintained that a state could persecute Catholics, Muslims, and atheists on secular grounds. Bayle went much further in arguing that, contra-Locke, a society of atheists could in fact function perfectly adequately. Building on this, Adam Smith would argue that '[s]ociety may subsist among different men, as among different merchants, from a sense of its utility' (Smith, 1759, 100). This was the argument that allowed the American Founders to argue for complete religious freedom in establishing the First Amendment in 1791.

Our argument in this paper takes nothing away from the ideas of these advocates for religious toleration. However, important as these intellectual justifications for religious freedom were, they followed *de facto* increases in religious toleration that were driven, not by Enlightenment philosophy, but by the centralizing legal reforms which accompanied the rise of the early modern state. In our framework, the increased value attached to individual liberty and the gradual emergence of democratic forms of political legitimation represent decreases in the utility of persecution for the government ($F(\cdot)$). They had the effect of diminishing the extent to which western European societies were persecutory societies but the consequent reduction in A^* can be taken as separable

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[73]It parallels the relationship between legal centralization and the decline of witch trials studied by Johnson and Koyama (2011).

[74]Castellio wrote under a pseudonym. Jean Bodin's argument in favor of religious toleration for other faiths (not for atheists) in the *Colloquium Heptaplomeres* was not published (see Kuntz, 1998).

from the initial increase in tolerance (τ^*) that we identify as being driven by state centralization and the accompanying increase in the diversity of religious belief (σ).

A second, influential explanation for the rise of religious toleration is the *doux commerce* thesis associated with Montesquieu, Hume, and Smith (see Hirschman, 1977). This argument suggests the growth of markets and trade increases tolerance by bringing together individuals with different customs and religious practices. This is undoubtedly true and has found support in recent empirical studies by economists.[75] Nevertheless, the *doux commerce* thesis explains the gradual amelioration of religious hatreds and tensions, while religious toleration was a political achievement—one that took place in Europe at a time when religious hatreds remained strong.[76] The evidence we provide suggests that any effect of *doux commerce* occurred after a political framework for religious toleration had already been established. The *doux commerce* hypothesis thus complements, and is not a substitute for, the thesis we have advanced in this paper.[77]

The framework developed in this paper can explain the inverse-u relationship between the centralization of state institutions and religious persecutions in medieval and early modern Europe. This historical observation has important implications since it implies, not only that legal centralization played a causal role in the secularization of the state, but also that contemporary states which are investing in legal capacity may initially experience increased levels of religious violence before the official bounds of tolerance are eventually relaxed. Zagorin (2003) makes the intriguing observation that no society was as intolerant of religious differences as was western Europe in the medieval and early-modern period, but paradoxically, it was also in western Europe that the idea of religious freedom was fully developed in the sixteenth century. As he writes, it 'is only in Western society, nevertheless, and only since the sixteenth century because of the conflicts and debates between contending Christian churches, sects, and confessions, that there has appeared a massive body of writings by many different authors exploring the problem of religious toleration from many angles and presenting an array of arguments in behalf of the principles of liberty of conscience, mutual toleration, and religious coexistence and diversity' (Zagorin, 2003, xiii). According to our thesis, the great outburst of writings making the intellectual case for toleration described by Zagorin was preceded by the legislative work of European rulers who were motivated less by lofty ideals than by their own enlightened self-interest. The secular state was born of necessity and compromise, a reluctant concession on the part of rulers of increasingly centralized states.

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[75]Clingingsmith et al. (2009) find that attendance of the Hajj increased tolerance and inter-faith harmony. They suggest that this is due to the contact made with other pilgrims from other parts of the world during the Hajj. Jha (2010) finds that a historical legacy of trade between Hindus and Muslims going back to the middle ages reduced the probability of a religious riot in Indian ports between 1850 and 1950.

[76]A related, argument suggests that religious tensions and conflicts diminish in intensity along with the overall trend towards secularization in society (Chadwick, 1975). This observation is highly plausible, but, contrary to the claims of Jordan (1932), does not apply to the early modern period when religious was, if anything, increasing.

[77]This complementary relationship would only be strengthened, furthermore, by any beneficial effects on commerce due to the centralization of legal institutions by the state.

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