

Getting the Context Right in Quantitative Historical Analysis

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An accurate understanding of the historical context is important when conducting quantitative historical research. We argue that while qualitative research inherently prioritizes context, quantitative historical analysis often faces significant challenges in this area. Using the example of Bruce and Ethan Bueno de Mesquita's study on the Investiture Controversy, we demonstrate how misunderstandings of historical contexts can undermine the validity of quantitative findings. We evaluate the assumptions made by Bueno de Mesquita and Bueno de Mesquita regarding power shifts between the church and lay rulers during the Investiture Controversy and argue that their assumptions are not supported by the broader historical literature and fail to account for the complexities of medieval political and ecclesiastical dynamics. We show how this reflects two broader issues: the risk of "reading history backward," where modern concepts are projected onto historical contexts, and the issue of selection bias in the use of both quantitative and qualitative historical data. Ultimately, we make a call for greater integration of qualitative historical knowledge into quantitative research to avoid misinterpretations and to support more robust causal inferences. By focusing on the historical context, quantitative historical research can gain greater credibility and accuracy.

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... there is no reason to privilege the epistemic status of the nomothetic propositions they support over that of the idiographic accounts necessary to support them.

- Matthew Kocher & Nuno Monteiro (2016: 953)

Introduction

This chapter introduces a final issue, the need to get the context right in social science history. This applies both to qualitative and quantitative historical research. However, it is rather obvious that quantitative historical analysis faces bigger challenges than qualitative historical analysis on this score. Qualitative research almost by definition seeks to understand the context; quantitative research is empowered by observations across context in a way that makes it more difficult to properly understand the background of each observation. It is therefore no coincidence that the quantitative historical analysis that is proliferating in political science has generated pushback from qualitatively oriented scholars who argue that many recent historical findings are questionable because causal analysis of quantitative data is not anchored in a valid understanding of the historical context (Kreuzer 2010; 2023; Kocher and Monteiro 2016; Møller 2020; Kalyvas and Fedorowycz 2022). We use a prominent example from recent research to illustrate this issue. In that connection, we show how the historical context relates to the problem of history (Part II) and how the principles that we have developed allow researchers to tackle or at least address this issue (Part III).

BdM and BdM on the Investiture Controversy

The example we have chosen is Bruce Bueno de Mesquita and Ethan Bueno de Mesquita (2023) (henceforth BdM and BdM) *Journal of Politics* article “From Investiture to Worms: European Development and the Rise of Political Authority”. This is an interesting article written by two accomplished scholars. It draws on a broader historical project which Bruce Bueno de Mesquita (2000; 2022) has worked on for a quarter of a century. BdM and BdM argue that the Concordats of London (1107), Paris (1107), and Worms (1122), which ended the Investiture Controversy (1075–1122), strengthened lay political authority and incentivized lay rulers to foster economic development.

They follow Bueno de Mesquita’s (2022) understanding of the Investiture Controversy in his recent book, *The Invention of Power: Popes, Kings, and the Birth of the West*. BdM and BdM’s assumption about the historical context is thus that before the Investiture Controversy, the ‘church’ (popes) controlled bishop appointment, and after the concordats of 1107 and 1122, this power shifted towards lay monarchs in the concordat areas governed by the kings of England and France and the Holy Roman emperor. BdM and BdM (2023) refer to this as “power shifts” and “shifting relations” (3) between lay rulers and popes. On this basis, they deduce two testable implications, quoted in full below here (6):

1. “In dioceses with the concordats in effect, lay rulers’ bargaining power is increasing in diocesan wealth, so that, conditional on a bishop being in office, all else equal, the wealthier the diocese, the more likely the bishop was to align with the lay ruler.”
2. “The concordats drove a wedge between lay rulers and church leaders with respect to economic development. Lay rulers had unambiguous incentives to foster economic

development. By contrast, church leaders had incentives to limit economic development to curtail the loss of political power.”

The formulation of the first observable implication reflects a caveat they emphasize several times (2, 4): that the concordats need not have “caused an overall increase in lay bargaining power” (2), only a relative increase in wealthier dioceses. But the broad historical interpretation that the controversy weakened popes and strengthened emperors with respect to power over bishop investiture is clearly a general assumption for their analysis. This is not only signaled by their description of the Investiture Controversy (more on which below) and the references to *The Invention of Power*. It is also reflected in their more specific assumptions, including the following: i) that the ‘church’ controlled bishop investiture up until 1046; ii) that until the concordats, the revenue of the bishoprics stayed with the church rather than with lay rulers, and iii) that the concordats increased lay bargaining power compared to non-concordat areas. If these historical interpretations do not stand up to scrutiny, the entire historical framing of both Bueno de Mesquita (2022) and BdM and BdM (2023) as well the interpretation of BdM and BdM’s quantitative analysis is problematic.

If BdM and BdM’s argument is correct, the following observable implications should thus be confirmed by the historical literature on the period: (i) The Investiture Controversy and the concordats weakened the popes’ power over bishop appointments and strengthened that of lay monarchs; (ii) the concordats were reasonably binding in the realms of the kings of England and France and the Holy Roman Emperor; (iii) it is meaningful to quantitatively code whether bishops were church-aligned or lay-aligned in this area; and (iv) qualitative evidence indicates that in this area lay monarchs encouraged economic development whereas popes tried to stifle it.

This chapter shows that none of these implications are supported by a closer look at the work of medieval historians. This reflects two more general problems that we have introduced in this book. First, the risk of ‘reading history backward’ by projecting modern concepts and assumptions (e.g., about state power, international agreements, and lay versus religious spheres) onto historical contexts that looked very different (Møller 2020; Kalyvas and Fedorowycz 2022; Kreuzer 2023). Second, the risk of ‘selection bias’ which can affect both broader historical interpretations that the quantitative analysis is based upon and the supporting qualitative evidence (Lustick 1996; Kreuzer 2010). This underlines how qualitative historical knowledge is needed to support assumptions that power the main inference in quantitative historical research.

The nature of the Investiture Controversy

BdM and BdM (2023) follow Bueno de Mesquita’s (2022) understanding of the Investiture Controversy in *The Invention of Power*. *The Invention of Power* dates the Investiture Controversy to 1046 when something novel happened: The pope was deposed by Salian King Henry III, soon to be Holy Roman Emperor (15, 25, 43). Until this event, the pope had overawed lay rulers (25). Papal strength had increased from around 800 AD (38–39). In the ensuing centuries, popes sought to control the appointment of bishops in the Latin West (39), and “papal hegemony was near its peak” (41) when Pope Benedict IX was elected in 1032. The intervention in 1046 threatened papal hegemony and therefore triggered a papal reform movement that was a hostile reaction to King Henry’s deposition of the pope (45–49). An 86-year-long clash ensued, which was to be solved by the concordats of London and Paris in 1107 and that of Worms in 1122 (28). These agreements marked a decisive defeat for the papal side in the Investiture Controversy. The English and French concordats of 1107 “made bishops essentially into vassals

of the secular ruler who presided over the diocesan territory where they were to serve” (61). The same happened for the Holy Roman Empire (henceforth HRE) at Worms in 1122; a “disastrous” agreement for the “future of the church and its popes” (71).

BdM and BdM (2023) repeatedly echo¹ this description of the Investiture Controversy.² We now proceed to provide a brief and terse description of the nature of the Investiture Controversy based on what medieval historians and church historians write, which can be directly compared with the version Bruce Bueno de Mesquita (2022) presents in *The Invention of Power*. Of course, all medieval narrative sources were colored by political conflicts, and as we know from Part II of the book, the modern interpretation of these sources are colored by the biases of contemporary historians, so we shall never know the absolute truth of these matters (e.g., Howell & Prevenier 2001; Arnold 2000; Gaddis 2001; Wickham 2009: Introduction; see also Goldthorpe 1991; Lustick 1996; Møller & Skaaning 2021). But here is a sketch of what we think we know:

The dominant model in the Latin West in the ninth, tenth, and early eleventh century was a form of sacral monarchy that historians have seen as broadly similar to the one in the Byzantine Empire (Oakley 2010, 103), known as *caesaropapism* or *Rex Sacerdos* (Berman 1983, 88–91; Jordan 2001, 86; Oakley 2010, 165–73; 2012, 1). Historians have dated this fusion of law and religious power in the Latin West to the eighth century and described it as a “theocratic form of

¹ For instance, they write that “[i]n removing the pope [in 1046], Henry raised the potential for lay authority to trump the ecclesiastical in the selection and removal of high church officials” (3) and that their model “elucidates the implications of lay political leaders’ *newly extracted power* to reject bishops” (3, my emphasis).

² As described in the preceding section they introduce a caveat: The concordats need not have “caused an overall increase in lay bargaining power” (2), only a relative increase in wealthier dioceses, compared to the situation before and in areas outside the concordats. However, this does not solve the main problem of historical description; lay control of bishop appointment in wealthy dioceses in concordats areas had *fallen* dramatically due to the Investiture Controversy.

Christian kingship” or “liturgical kingship”, which was to serve as “the dominant political institution for three centuries” (Oakley 2010, 159; Jordan 2001, 86). Lay rulers completely controlled ecclesiastical investiture (Southern 1970, 32, 156; Berman 1983, 88–91; Howe 2016, 232–5), and by the ninth century, they were seen as having priestly status as vicars of Christ (Oakley 2010, 165).

Lay control of the church was mirrored in papal weakness. Outside of Rome and its immediate environs, the pope was virtually powerless in the period from the death of Pope Adrian II in 872 until the start of the papal reform movement in 1046. This is also known as the centuries of “bad popes” (Sayers 1994, 324–5; Wickham 2009, 172; Oakley 2010, 215). While there were some exceptions, the depravity and political impotence climaxed under Benedict IX, whose feckless rule sparked what is normally termed the “Crisis at Rome, 1044–9” (Cowdrey 1998, 21).

One reflection of this lay dominance of the church was that in the century that led up to 1046, Holy Roman emperors had regularly removed popes. Henry III’s intervention in Rome in 1046 was not at all novel; it was simply the most recent manifestation of a general pattern. In the period 955–1057, the strong Ottonian and Salian emperors appointed twelve out of twenty-five popes (Oakley 2010, 218; see also Southern 1970, 153; but see Cowdrey 1998, 4). However, the 1046 deposition was important in another respect. We normally date the papal or Gregorian reform movement to this event. This reform movement was originally sponsored by Henry III; not an attempt to challenge him (Tierney 1988, 27; Cowdrey 1998, 4, 22). In 1049, after two failed starts, Henry appointed his relative, Bruno of Egisheim-Dagsburg, as Pope Leo IX. Leo is normally seen as the first reform pope, and he and several later imperially backed popes tried to combat simony and enforce clerical chastity, for instance, at the Council of Rheims in 1049

(Morris 1989, 33, 80; Cowdrey 1998, 12; Oakley 2010, 220–1; Fried 2015, 137; Wickham 2016, 111–16). To quote Cowdrey (1998, 272), “Without Emperor Henry III’s intervention at Rome in 1046 and its sequel in the accession of Leo IX to the papacy in 1049, there would have been no reform papacy”. Similarly, Hildebrand/Gregory VII was not anti-Salian from the beginning of his career (as Bueno de Mesquita (2022, 46) indicates) but a former client of Emperor Henry III (Cowdrey 1998, Chapter 3).

The Investiture Controversy was a consequence of the papal reform movement radicalizing after the death of Henry III in 1056, in part enabled by the weakness of imperial power that resulted from King Henry IV being underage (Cowdrey 1998, 80). Under Gregory VII (r. 1073–1085), a new and revolutionary interpretation of simony as any kind of lay investiture brought the papacy into conflict with the now adult Henry IV. This new interpretation had first been broached by Cardinal Humbert in the 1050s (Morris 1989, 106). Initially, it found little broader support in the papal reform movement, but gradually it became more accepted, and under Gregory VII, it became official papal policy (Morris 1989, 106; Cowdrey 1998, 546–7, 690; Wickham 2016, 114). This happened when Gregory seemingly forbade lay investiture of bishops at his Lent Synod in 1075 (Cowdrey 1998, 103–4, 546–53), to which we normally date the start of Investiture Controversy (Berman 1983; Oakley 2010, 220–1; 2012, 17–39). To quote Cowdrey (1998, 75) again, the Investiture Controversy happened despite “the depth of the personal commitment to the Salian royal family with which Gregory [VII] came to the papal office”, reflected in Gregory’s repeated attempts to come to terms with Henry IV in 1073–1076 and his alliance with Henry’s mother, Agnes (see Cowdrey 1998, Chapter 3).

This papal attempt to control bishop investiture challenged the established model of lay control described above. The Concordat of Worms in 1122 was an attempt to solve the

Investiture Controversy by recognizing some lay control of bishop appointment (in the form of a veto right), but it was mainly a victory for the Gregorian line (Jordan 2001, 87), and it hugely weakened the Holy Roman Empire (Jordan 2001, 143; Wickham 2016, 116). It stipulated that bishops were to be canonically elected rather than simply invested by lay rulers. More importantly, it spelled the end of sacral monarchy. Worms established that a “king, even an emperor, was a layman”³ (Jordan 2001, 99; see also Southern 1970, 37–8; Wilson 2016, 60–1). It is telling that the immediate trigger of the concordat of 1122 was that at an imperial diet in Würzburg in 1121, the German high nobles and high clergy had forced Henry IV to obey the pope (Whaley 2018, 43). In the period that followed the Concordat, the power of the papacy was at an all-time high (Oakley 2012, 12; Wickham 2016, 149) before it weakened again under the Avignon Papacy (1309–1417).

In summary, we here basically get the opposite story of the one told by Bueno de Mesquita (2022) and echoed by BdM and BdM (2023): Lay rulers controlled the church until the Investiture Controversy, including bishop investiture; the power of the pope was at a nadir in the two centuries prior to 1046; the papal side was strengthened by the Investiture Controversy, including with respect to bishop investiture; and the Holy Roman emperor was weakened both with respect to bishop appointment and in a more general sense. The Investiture Controversy thus did the opposite of establishing a novel lay influence over investiture: it weakened a centuries-old model where lay rulers had freely appointed bishops and sometimes even the pope.

Describing the development of modes of bishop appointment

³ Just as the Concordat of London in 1107 had done in the English case. To quote Gillingham and Griffiths (2000[1984], 15): “The Church could no longer tolerate the old idea that anointed kings were sacred deputies of God. In giving up lay investiture Henry [II, r. 1100-35] was acknowledging the secular nature of his office”.

This lack of appreciation of the historical context comes out more specifically in the way BdM and BdM describe pre-concordat bishop appointment. They (2023, 4) reference a singular and very old piece by Costigan (1966) to the effect that it took three forms: “(1) The local community and clergy nominated and elected a bishop who was then accepted or rejected by the local metropolitan bishop, (2) the metropolitan put a candidate forward who then had to be elected by the local clergy and Catholic community, or (3) a lay ruler nominated a candidate who was then accepted or rejected by the church leaders”.

BdM and BdM make no attempt to situate these three prior forms of appointment in time and space. In fact, Costigan (1966) dates the first two forms to the early Church. He then goes on to argue that at least from the Merovingians (continued under the Carolingians), there was a very strong lay control of bishop appointments in the Latin West, with only lip service paid to the election by people or clergy (Costigan 1966, 85). Only with the Council of Rheims in 1049, called by Leo IX, was an attempt made by church reformers to restore the right of the people and clergy in bishop appointment. Costigan argues that a period followed in the thirteenth century when canonical election (increasingly under papal control) actually took place before lay rulers took back control; a process that was concluded no later than the fifteenth century (85–87). He mentions the concordats of 1107 and 1122 in passing but merely notes that the king/emperor “yielded the external forms of lay investiture...[but]...in practice his influence over selection too remained high” (86).

While there are much better (and more up to date) sources for what we today know about medieval bishop appointment, Costigan (1966) is thus broadly in line with the general literature that we reviewed above. He argues that the status quo ante (characterizing the period up until the Investiture Controversy) was one where lay rulers controlled bishop appointments, that this was

challenged by the church reform movement after 1046/9, and that a period with diminished lay control followed in the twelfth and thirteenth centuries before lay rulers took back control. By listing the appointment forms of the early church along with the one of lay control that preceded the Investiture Controversy, BdM and BdM (2023) create the wrong impression that the Controversy increased lay influence when in fact it did the opposite.

BdM and BdM defensively note that “the frequency with which these [three] means of choosing bishops was used is hard to know. Importantly, under all three the revenues from the bishopric flowed to the church whether or not a bishop was in place” (4). Both parts of this quote are problematic. The first part might be correct if we include the early Church. But as argued above, there is clear consensus that the third model, i.e., lay control, was the prevailing one up until the Investiture Controversy; hence, the controversy. This oversight is a result of not providing historical detail and chronology.

The second part of the quote reflects another lack of appreciation of the historical context. In a status quo ante where lay rulers controlled the appointment of bishops, it makes little sense to say that the revenues stayed with the ‘church’. They stayed with the man that the prince/king/emperor appointed to the bishopric and, hence, in the power network of the lay ruler. Especially in the Holy Roman Empire, but also in the Kingdom of England, the bishops were an integrated part of royal government before the Investiture Controversy (Jordan 2001, 49; Wilson 2016, 89–90). In a situation where power was fragmented and decentralized, kings and emperors depended on church institutions—and bishops in particular—for projecting public power (Tierney 1988, 86; Ullmann 1970[1955], 296; Wilson 2016, 89–90). Indeed, in the case of the Holy Roman Empire under the Ottonians and Salians, it has been argued that the bishops were in many ways the most important part of the imperial government (Wilson 2016, 89–93). However,

BdM and BdM's assumption that popes controlled investiture before 1046 means that they completely miss this and therefore convey the misleading impression that popes controlled bishop wealth before the Investiture Controversy. As pointed out above, outside of Rome and its surrounding areas, the power of popes was in fact negligible in the centuries up until the start of the papal reforms in 1046/49.

In summary, by bundling together the models used in the early Church with those that were common up until the Investiture Controversy, BdM and BdM miss that the backdrop of the controversy was a situation where bishops were appointed by lay rulers, not the pope. This also means that BdM and BdM misunderstand the difference between areas under the concordats and those outside of it. Even the uncompromising Pope Gregory VII never challenged lay monarchs' traditional right of investiture of bishops outside the HRE and France (Bartlett 1993, 248; Cowdrey 1998, 550; see Møller and Doucette 2022, Chapter 5). The concordats were necessary in the HRE and France because these were the areas where reform popes tried to put a stop to lay control of bishop investiture (Cowdrey 1998, Chapter 3, 4 and 6). When reading BdM and BdM (2023), one gets the misleading impression that lay control over investiture was strengthened in these areas compared to the rest of the Latin West when, in fact, the situation was the opposite.

The power of medieval formal agreements: state power and communication

BdM and BdM's concordat game generally assumes that the concordats were binding treaties that were effective throughout the territory of England, France, and the Holy Roman Empire from day one until 1309 when the popes' move to Avignon meant that they lost force entirely. The only reflection that something changes in this period is that Ireland is only included as being under the concordat rules in the period 1171–1309 when it was under English dominance.

This is a modern view of compliance with international treaties that does not fit the historical context for two main reasons: First, “the lack of density in political communication” (Wickham 2016, 141) meant that even the most prominent papal announcements were often not known by local actors. Second, this was a period where power was fragmented and decentralized (Cowdrey 1998; Moore 2000; Jordan 2001; Oakley 2010; 2012; Wickham 2016).

Regarding the latter issue, BdM and BdM fail to recognize that state power was extremely feeble, especially in some parts of realms such as France and The Holy Roman Empire,⁴ and that agreements between kings and popes were often not even known in the period they analyze. This reflects a more general problem: BdM and BdM (2023) project an image of unitary, modern states and public power onto a period where power was fragmented and decentralized (Bisson 2009; Wickham 2009; 2016; Møller and Doucette 2022, Chapter 1 and 3). In most situations, the king and the pope were too far away and did not have enough power to implement their preferred policies. Or they strategically chose not to exercise their formal power (Grzymala-Busse 2023). Normally, popes did not press their claims against lay rulers, especially outside the Holy Roman Empire. Reform popes such as Gregory VII would deliberately give peripheral rulers outside of the Holy Roman Empire sole discretion over investiture, even after his 1075 ban (see Møller and Doucette 2022, Chapter 5; Grzymala-Busse 2023).

Perhaps the best illustration of the unevenness of public power is that royal influence on bishop appointment was almost completely lacking in northern Italy in the entire concordat

⁴ England is a partial exception. Royal power was much stronger here than in especially France but also, after the Investiture Controversy, than in the Holy Roman Empire (Jordan 2001, Chapter 3; Wickham 2016, 88; see also Stasavage 2020, chapter 5). It is worth noting that the limited qualitative evidence of kings behaving as predicted by the concordat game that BdM and BdM (2023, 3, 14) adduces, come from England, the partial outlier in this respect.

period and southern France for more than a century after the 1107 concordat.⁵ After the devastating civil wars of the 1070s and 1080s, Holy Roman emperors had little or no authority in northern Italy, including over bishop appointment (Southern 1995, 314; Cowdrey 1998, 243; Wickham 2015, 9, 200; 2016, 102). What the Concordat of Worms did was to recognize some imperial influence on bishop appointment north of the Alps, not south of the Alps (Morris 1989, 173; Moore 2000, 133). The Hohenstaufen emperors Frederick Barbarossa and Frederick II tried but failed to take back control of northern Italy (Wickham 2015; Wilson 2016; Møller and Doucette 2022, Chapter 6; Grzymala-Busse 2023). Turning to France, the Capetian kings were extremely weak in the eleventh and twelfth centuries; a period where they had little power outside the *Île-de-France* and virtually no power in Languedoc (Cowdrey 1998, 333; Jordan 2001, 52–62; Wickham 2016, 102). While one of the few royal prerogatives left to the early Capetian kings was the right to appoint bishops in large parts of northern France, southern France was completely out of their remit until the 1220s (Jordan 2001, 228–9; Wickham 2016, 103). To illustrate this, we can take the fact that when King Louis VII in 1166 visited Cluny, it was the first time since the mid-tenth century that a French king had set foot in southern Burgundy (Bouchard 1987, 129).

Regarding the former issue, BdM and BdM (2023) fail to recognize that formal agreements were normally not widely known in the period they study. Only with the 1139 Lateran Council and especially the 1179 and 1215 Lateran Councils was a systematic way of communicating papal agreements to a wider audience devised (Southern 1995, 241-2). This can be illustrated by an example from the events leading to the concordats. As related above, the Investiture

⁵ It is hardly confidence-inspiring that—except for Ireland—north Italy and southern France are the very concordat areas where BdM and BdM (2023, Figure 1) consistently find bishops to be church-aligned.

Controversy is conventionally dated to Pope Gregory VII's ban of lay investiture of bishops in 1075. Between March 3 and March 5 that year, he inserted a set of statements—known as *Dictatus Papae* or the dictates of the pope—into his Register that included this ban, and he seemingly promulgated a decree to the same effect at his Lent Synod (Cowdrey 1998, 103–4, 546–53). However, the *Dictatus* never reached a wider audience (Cowdrey 1998, 502–7), and the decree was initially only known to those who had been at the Lent Synod. It took a long time to spread the word about the ban, the very core of the papal position in the Investiture Controversy. Southern (1995, 241–42) marvels at how one of the most famous clerics of this time, St Anselm or Anselm of Bec, was still unaware of Gregory's ban when he became Archbishop of Canterbury almost 20 years later in 1093. “It was only Anselm's personal presence at the Vatican Council of 1099, when Urban II unexpectedly excommunicated all who associated with clergy who had received ecclesiastical offices by lay investiture” (Southern 1995, 242) that rang the bell for Anselm. Here is how Wickham (2016, 141) comments on the episodes:

Anselm ... was no provincial: he was Italian, he had been abbot of a major Norman monastery, and he was an innovative and respected theologian. That someone as connected as Anselm could have been unaware of one of the major elements of the conflict between popes and emperor tells us something about the lack of density in political communication in the years around 1100.

The consequence of this was that “no one in England seems to have been aware of their existence [the papal prohibitions against lay investiture] until Anselm returned in the autumn of 1100” (Gillingham and Griffiths 2000[1984]: 15). These aspects of the historical context—the

fragmentation of state power and low density of communication—are completely ignored by BdM and BdM (2023). Instead, their description of the concordats of 1107 and 1122 mirrors how we would understand modern-day international treaties. They are arguably reading history backwards, projecting a modern image of state power and agreements onto a medieval society that looked very different, just as they are when they introduce a hard-and-fast distinction between lay and religious bureaucracies (as described in the next section).

BdM and BdM thus clearly overstate the judicial role and consequences of the concordats of 1107 and 1122 by essentially treating them as modern international treaties. This is problematic in a context where the parties did not have the ability to systematically comply and where information flows were so slow and erratic that the concordats would often not be known by local actors.

The concordats were no stronger than the parties' ability to press and interests in pressing their rights, which would differ at different times and in different places (Oakley 2012, 38–9). This is of course difficult to model statistically, but as argued above, it is very problematic to include northern Italy in the entire period 1122–1309 and southern France in the period 1107–1220s in the areas under the concordats. In both cases, royal power over investiture was almost completely absent, and the concordat game could not have played out in the way theorized by BdM and BdM (2023) (see Morris 1989, 173; Southern 1995, 314; Cowdrey 1998, 243, 333; Moore 2000, 133; Jordan 2001, 52–62, 228–9; Wickham 2016, 102–3).

In summary, the mechanism that BdM and BdM's game assumes—a legal system that translates an international treaty into decision-making—was not in existence in the period, with England as a partial exception (Jordan 2001; Wickham 2016, 88). While BdM and BdM see the Investiture Controversy and the concordats as solving the competing claims made by the pope

and emperor, it could never do that given the context. The conflict therefore continued for at least two centuries as the two parties continued to wrestle back and forth over the boundaries of papal and royal authority (Oakley 2012, 37; 2015, 4; Grzymala-Busse 2023). Paradoxically, the implicit mechanism that BdM and BdM’s concordat game is based on, i.e., domestic compliance with an international treaty, presupposes that which they are seeking to explain; namely the advent of more advanced levels of state-capacity and political units with territorial integrity.

Coding bishop alignment

BdM and BdM’s (2023) statistical analysis hinges entirely on two things: i) The ability to determine whether bishops had a secular or religious career prior to their appointments; ii) that the former correlates with a pro-royal stance, whereas the latter correlates with a pro-papal stance. In an online appendix, they provide a set of key words for whether bishops-to-be previously had “a religious post” or were “an agent of the lay authorities” (6). They have scanned biographical texts of bishops in their dataset for these terms, using Wikipedia or www.catholic-hierarchy.org/bishop/. For 90 percent of the bishops for whom they were able to find biographical data, an unambiguous coding could be made based on these key words; in the remaining 10 percent of the cases, hand coding was done to decide which way bishops leaned.

Table 9.1: Terms used to code alignment of bishops

| <i>Church-aligned</i> | <i>Lay-aligned</i> |
|--|--|
| Archbishop, Benedictine, monk, Bishop, Bishop-elect, Cantor, deacon, Domscholaster, abbey, abbot, abbot, abott, arch-deacon, archdeacon, canon, cardinal, cathedral, champlain, chaplain, choirmaster, | Governor, academic , ambassador, archchancellor, archduke, architect, artist, scholar , auditor, chancellor, chancery, coadjutor, diplomat, composer, count, diplomacy, doctor , duke, prince, exchequer, |

| | |
|---|--|
| church, clergy, cleric, deacon, dean, elected, friar, | goldsmith, judge, government, keeper, king, kings, |
| hermit, cathedral, missionary, monastery, monk, | secretary, knight, law , writer , vice-chancellor, vice, |
| monk/silversmith, papal, Pope, pope, preacher, | lawyer , treasurer, privy, master , military, |
| prebend, prebendary, precenter, precentor, priest, | military/chancellor, noble, office, poet, politician, |
| priests, prior, proctor, rector , religious, sacrist, sub- | professor , advisor, council, councilor, justice, |
| dean, theologian , vicar, bishoprics, hermit. | notary , official, physician , steward, scholar , |
| | secretary, secular, statesman, teacher , treasurer, |
| | prince-bishop, imperial. |

Note: Terms associated with a school/university career are marked in **bold**.

BdM and BdM describe this coding as one that distinguishes between “bishops with previous appointments in secular versus religious bureaucracies” (10). Several generations of medieval historians have argued that this is a modern distinction that did not make sense in medieval Europe where all administrators were clergy (Morris 1989, 18, 34; Southern 1995, 160; Moore 2000, 168) who were typically paid via income from an ecclesiastical benefice (Southern 1970, 130–1), and where these two administrative spheres were usually indistinguishable (Ullmann 1970[1955]; Southern 1970, 15–16, 22; 1992, 274; Tierney 1982; Berman 1983; Monahan 1987, 130; Morris 1989, 18, 34; Moore 2000, 168; Watts 2009, 49–50; Wickham 2009; 2016; Oakley 2010; 2012; 2015). As Le Goff (1982, 141) puts it in one of the works that BdM and BdM cites “ecclesiastic and civil officials were often indistinguishable”.

The large majority of BdM and BdM’s terms are thus associated with activities clergy would perform irrespective of whom they were aligned with. This can be illustrated by a brief discussion in BdM and BdM’s online appendix. They give *law* as the only ambiguous term in their list of key words but then argue that if *canon law* is mentioned, it signals church alignment, and if *Roman law* is mentioned, it signals lay alignment. But no such hard-and-fast distinction

can be meaningfully made. Roman and canon law were studied together—they had famously been combined by Gratian in the later versions of his *Decretum* (Southern 1995, 297–301)—and both were necessary in ecclesiastical careers because both were used in ecclesiastical courts (see Southern 1995, 313–17; Wickham 2016, 157–8; Møller and Doucette 2022, Chapter 3). At least from the late twelfth century, it was very difficult to make a career in the Church hierarchy without being schooled in Roman law.

A more general example will further illustrate the problem. A substantial part of the key words for lay-aligned (11/57⁶) measure whether bishops were educated in the schools/universities (*academic, scholar, doctor, lawyer, law, writer, master, professor, notary, physician, teacher*, see Table 9.1). Initially, only the clergy could go to medieval universities, which began as ecclesiastical institutions sponsored by the pope (Southern 1995, 137, 158–62). A university education was an important part of an ecclesiastical career in the concordat period. Indeed, a major motive for taking a university education (especially in theology or law) was to be able to gain an ecclesiastical benefice (Southern 1995, 141–45), and after the universities became prominent in the twelfth and thirteenth century, such an education was crucial to become appointed to important bishoprics (Bartlett 1993, 289).⁷ Moreover, the universities and the study of Roman and canon law were set in train by the Investiture Controversy, and they date to the period after the concordats (the classic treatment is that of Berman 1983; Southern 1995, 159–61; see Oakley 2012, 68; Møller and Doucette 2022, Chapter 3). Their origin lies in the schools of northern France that developed from 1080 to 1160 (Southern 2001, 3). Identifying the point when they grew into genuine universities is probably spurious, but the University of Paris is

⁶ Confusingly, the terms *scholar* and *secretary* appear twice in BdM and BdM’s list. We only counted them once.

⁷ The motivation that led Otto of Freising, half-brother and close ally of the Holy Roman Emperor, to go to Paris to study around 1125 was that “the highest [church] offices required scholastic training” (Southern (1995, 209).

often dated to the 1120s, Bologna to around 1150, and Oxford to the 1180s, though they were only officially enfranchised around 1200. As the twelfth and thirteenth century bore on, more and more university candidates were produced in these locales (Southern 1995, 163–64).

So, as university education spread, an increasing proportion of bishops would have been university men, especially in the more important and wealthier bishoprics. This tendency would be most pronounced in the areas under the 1107 and 1122 concordats, which is where all early medieval universities—except the one in Salamanca (1218) and the medical university in Salerno—were placed (Bartlett 1993, 288). Thus, the highlighted key words for a university career probably pick up how prominent churchmen were and how qualified they were for a bishop appointment, which almost certainly correlates with more important bishoprics, and this tendency increases over time as university education spread.

In summary, the more general problem is that BdM and BdM impose a modern distinction between lay and religious administrative spheres on a medieval context where these two were very entangled and often indistinguishable. Here, too, they are arguably reading history backwards.

The use of qualitative historical evidence

The lack of appreciation for the context is finally reflected in BdM and BdM's use of secondary sources to substantiate some of their bold statements about the incentives of kings and popes.

BdM and BdM (2023) use “qualitative historical information” (15) to i) illustrate various parts of their argument and ii) explore whether their bold statements about the incentives of kings and popes can be confirmed. This section first probes one of their specific observations and then discusses how they process qualitative evidence more generally.

Recall that the second part of BdM and BdM's argument is that in areas under the concordats, lay political leaders had incentives to promote economic growth whereas "the church sought to curtail economic development" (13). On the papal side, their qualitative evidence for this is restricted to the observation that the Lateran Councils (1123, 1139, 1179, and 1215) forbade usury and the spread of machines. They reference old work by De Roover (1948, 1974) and Le Goff (1982) as well as more recent work by Brown (2015). BdM and BdM (2023) take this as evidence that popes tried to stifle economic development (whereas lay rulers tried to facilitate it).

This is a very one-sided account of the medieval Church's role in economic development. It is also one that gets the sequence wrong. At the time of the concordats, the point of departure was one where canon law, based especially on the Old and New Testament, construed private property, trade, and profit-making, including loans bearing interest, as sinful. The ban against usury at the Lateran Council 1179 merely repeated a view that went back to the early Church. However, and this is completely overlooked by BdM and BdM (2023), during the concordat period, these condemnations were not hardened; on the contrary, they were slowly softened.

Here is how Southern (1995, 47–50) describes the development of the view on property and trade in the period that BdM and BdM (2023) claim is governed by the concordat rules. At the start of this period, Christian teachings (anchored in the description of the apostles in the New Testament and going back to the Church fathers) emphasized that both private property and trade were sinful. This view on property was still the one that was represented in Gratian's canon law compilation (the *Decretum*) of 1140. But

at this point the [canon] lawyers got to work on Gratian's texts, and they began to make distinctions. They discovered that common *use* did not exclude private *ownership*; indeed, that common use was not a law of nature, but only a last resort in an emergency; consequently, in ordinary circumstances private ownership, despite its dangers of possessive pride, had the social virtue of ensuring stability and orderly administration...Gathering all these strands together, Thomas Aquinas produced a comprehensive defence of private property. He elaborated its natural necessity and virtues, and drew the boundaries of legitimate appropriation (46–47).

Similarly, canon lawyers of the mid-twelfth century still quoted the Bible to the effect that trade “is not fit occupation for a Christian” and that profit was sinful:

Once again the [canon] lawyers got to work. They moved more slowly here than in the case of property...But even here the lawyers moved in the end. They set about determining the elements of a just price...They examined the motive of profit, and determined the extent to which it was morally justified. They analysed interest, and distinguished sinful usury from risk-bearing investment. They discussed the place of merchants in society, and gave them a grudging, but still distinct, recognition as necessary instruments of social well-being (48–49).

Led by Thomas Aquinas (1225–1274), active during BdM and BdM's concordat period, canon lawyers regularly invoked Aristotle's political writings to reinterpret the passages of the New Testament on which earlier (negative) Christian views of property and trade were based. Here as

elsewhere, twelfth- and thirteenth-century church lawyers were extremely flexible, and their great attempt to rationalize law (based on both canon and Roman law) was very important for the economic dynamism of the High Middle Ages (the classic treatment is that of Berman 1983; but see also Tierney 1968[1955]; 1979; 1982; Oakley 2012).

BdM and BdM (2023) miss this because they do not consider the context and the chronology. This is further reflected in how a closer reading of the sources they cite does not really support their arguments. Their one attempt to say something about the chronology is this: “Brown (2015) argues that it was not until the fourteenth century (notably, after the end of the concordats period) that the church began to soften its views on merchants and usury” (13). They have no page numbers for this claim. We have read Brown carefully several times and found no mentioning that it was only in the fourteenth century that the church began these views. Our best guess is that it might be one of two sections from the conclusions that BdM and BdM have in mind.⁸

But even these sections seem to us to be broadly in line with the process described by Southern, which was in full swing around 1200 and merely continued after the end of the

⁸ (I): “More recent historians would perhaps agree with Jacques Le Goff, who thought that ‘an odour of usury perpetually hovered around the thirteenth-century merchant’ in the eyes of medieval society. One of the most important developments towards capitalism was the growing acceptance of the merchant, who went from being seen as a parasite and a necessary evil, to being considered a pillar of society who could be admired and whose profitable success could, and should, be emulated. In this regard, Nelson emphasised the gradual evolution and division between the usurer and merchant across the thirteenth and fourteenth centuries” (Brown 2015, 305). (II): “The Church evolved with the economic life of medieval Europe, adapting its interpretations of the usury laws to recognise different types of loans, thus allowing the development of international credit while condemning exploitative pawnbrokers, although the full extent of this remains hidden behind the confessional seal. The verdict is yet to be given on whether this shift in economic thought represented a dilution of the moral teachings of the Church by the fourteenth and fifteenth centuries or reflected the vibrancy and relevancy of Christianity in adapting to the changing economic reality and challenges of late medieval Europe.” (Brown 2015, 306).

concordat period (1309), as conceptualized by BdM and BdM. Indeed, Brown generally describes the same process as Southern, namely a gradual moderation of the old canon law position: “The Church had gone from Gratian’s universal condemnation of any interest taken on a loan in the twelfth century to the promotion of their own pawnbrokers charging interest by the start of the sixteenth century” (Brown 2015, 304).

This is even more clear in the case of Le Goff’s (1982) old book. This is a collection of articles and as BdM and BdM refer to the book in general when making the usury point, it is difficult to know what more precisely they have in mind. However, the most relevant chapter is “Licit and Illicit Trades in the Medieval West”. This chapter tells exactly the same story as Southern in the quotes above. Le Goff describes a development, from the ninth to the thirteenth centuries (62), spearheaded by scholasticism in the twelfth and thirteenth centuries (62), that lead to the rehabilitation of “previously condemned trades” (62) by the Church. About usury, he writes: “Usury, for instance, which in the middle of the twelfth century was still damned without recourse in the Decretum of Gratian, would be differentiated by imperceptible degrees into a variety of practices, increasing numbers of which gradually gained toleration” (62). About merchants: “Decried for so long, this trade became the object of an increasing number of excuses, justifications and even expressions of respect ... The uncertainties of commercial activity (*ratio incertitudinis*) justified the merchant’s profit, even the interest he obtained from the money involved in certain transactions and thus, to an ever greater extent, ‘usury’, hitherto damned” (65). Le Goff sees economic expansion and urban growth as the key variable behind this development but emphasizes that the judicial reinterpretations took place in academic circles within the Church: “Theologians, canon lawyers and poets were all in agreement” (65). He also

makes clear that this development was well underway by “the early thirteenth century” (65), i.e., during BdM and BdM’s concordat period, and he mentions Thomas Aquinas’s work (65).⁹

This lack of appreciation for chronology means that BdM and BdM’s qualitative evidence is taken out of context, even if we accept their reading of these sources (itself a thorny issue as already argued in the case of Costigan (1966) above and Brown (2015) and Le Goff (1982) in this section). To make a genuine qualitative case for the incentives they assume kings and popes to have, they would need a much more systematic review of what medieval historians have written about these issues, and they would need to describe the developments that took place rather than simply emphasizing specific actions (whether on the papal or the royal side) without any temporal context.

The same is the case with the narrative evidence that is used to support the statistical interpretation of the main model, or more precisely the implication that kings under concordat rules would try to control appointments to wealthy dioceses and that they would often delay approving appointments to receive the income from the dioceses. This evidence rests on the singular example of some of English King Henry II’s (r. 1154–89) bishop appointments, as described in an old text by Warren (1973). This example also suffers from confirmation bias as evidence is enlisted because it illustrates the argument,¹⁰ but no attempt is made to step back and

⁹ BdM and BdM has a direct quote to a later chapter in Le Goff (1983), namely p. 111: “how often the Middle Ages must have witnessed the inner drama of men anxiously wondering whether they were really hastening toward damnation because they were engaging in a trade suspect in the eyes of the Church”. But this very general quote merely reflects the initial condemnations. Upon closer inspection, the chapter again relates the abovementioned story about the developments over time, both concerning merchants (120) and usury (121), and again dates these developments to the early thirteenth century.

¹⁰ The quotation from Warren (1973, 535) may itself be said to suffer from selection bias. This can be seen by continuing the quote from page 535 where BdM and BdM (2023, 3) finishes it (I have underlined the last line they quote): “These were the less wealthy and less important sees: but to the most important of all, that of Canterbury, a

show what historians have said more generally, what recent historical evidence shows, or what evidence points in the opposite direction (see the guidelines in Chapter 6). For instance, there is no mentioning of the fact that prior to the concordats, Norman kings such as William II (r. 1087-1100) had *also* regularly delayed appointing bishops and abbots, “for during vacancies he could help himself to the Church’s revenues” (Gillingham and Griffiths 2000[1984]: 11). William thus kept the most prestigious see of Canterbury vacant for four years 1089-1093 and by 1100, “he enjoyed the revenues of three bishoprics and 12 abbeys” (Gillingham and Griffiths 2000[1984]: 12). According to BdM and BdM’s model, this should not even have been possible before the concordats as the revenue should have stayed with the Church. Moreover, as mentioned in fn. 3 above, the anecdotal evidence about Henry II’s bishop appointments comes from what is clearly an outlier in the areas under the concordats: the Kingdom of England with its much higher level

free election was also made. Finding a successor to Thomas Becket was protracted by a wrangle between the monks of Canterbury and the bishops of the province as to their respective share in making an election, and by the refusal of the first candidate they agreed upon, Roger, abbot of Bec, to accept the honour. At length the choice fell upon Richard of Dover, a monk of the cathedral chapter and prior of its dependent cell at Dover. The king, it seems likely, had made it known that Roger of Dover would be acceptable but he had not tried to force a candidate on the electors and not interfered in the election itself, save to beg the monks not to elect anyone who would be an imitator of Becket and suggesting the name of Henry of Beaumont, bishop of Bayeux. They ignored his suggestion but heeded his warning”. It is thus clear that the quotation stops in a way so that the enlisted quote is most supportive of the argument made by BdM and BdM. Moreover, the historical context is also relevant here. The examples quoted by BdM and BdM hail from 1172 and 1173. The backdrop, as Warren (1973, 528-540) describes, was that a large number of episcopal sees had fallen vacant after 1164 as a result of Henry’s and Archbishop Thomas Becket’s conflict over the Constitutions of Clarendon, which sought to strengthen the king’s control of the English Church. This conflict famously culminated in Becket’s murder in 1170, by some of the king’s men. Henry managed to mend ways with Pope Alexander III (and hence purge himself of complicity in Becket’s murder) in May 1172 (the so-called Compromise of Avranches), according to Warren in parts because the pope saw a need for Henry’s attempt to bring the Irish Church in line with the Roman Church. So, the appointments of 1172 and 1173 occurred at a point where Henry were back in the pope’s good graces and hence had more freedom of maneuver than earlier in his reign.

of royal power than what we find in France and the Holy Roman Empire (Jordan 2001, Chapter 3; Wickham 2016, 88; see also Stasavage 2020, chapter 5).

We can here echo a general objection about basing interpretations on one historical document: “Before concluding that we have found a ‘smoking gun’, we need to see whether a document is part of a pattern” (Larson 2001, 348). The same can be said about examples lifted out of historical narratives. Upon inspection, BdM and BdM’s (2023) use of the work of historians is extremely thin. This is signaled by the very short list of references. But the more general problem is that no attempt is made to discuss patterns in historiography on the subject. The article freely cites historical work that is clearly outdated,¹¹ including work published in 1855, 1880, 1889, 1948, 1966, 1968, 1969, 1972, 1973, and 1974. There are only very few references to recent historical evidence, and as mentioned above, there are hardly any page numbers supplied in the references, so it is often impossible to check what precisely they are enlisting from these works. In general, BdM and BdM (2023) have consulted very few of the narrative historical sources that are conventionally used in social science literature dealing with the Investiture Controversy (see Møller and Doucette 2022; Gryzmala-Busse 2023 for comparison).

In summary, BdM and BdM, in their use of secondary sources, miss that in the very period they analyze, the Church gradually reconciled itself with, e.g., private property, merchants, and interest on loans. They miss this because they do not seem to understand that at the beginning of the period they study, these economic activities were condemned in canon law. Their observations about condemned trades and practices therefore becomes an example of what

¹¹ They cite Stephen’s *Lectures on the History of France* from 1855 (!) for evidence of the relationship between Avignon popes and the French king.

Fischer (1970: 45) calls “the fallacy of the irrelevant proof”: That usury was condemned at the Lateran Councils does not prove their argument that after the concordats, popes tried to stifle economic growth. This reflects two more general problems with the qualitative evidence: Selection bias and a failure to grasp the chronology. Both are probably unintentional as they follow from the lack of appreciation of the historical context and the patterns in historiography; and perhaps a general lack of enthusiasm for delving deep into narrative history.

Discussion

While the argument presented in BdM and BdM’s (2023) article is interesting, and while a lot of new data has been gathered, the lack of appreciation of the historical context means that it is very difficult to know how their statistical results should be interpreted. The example highlights some of the pitfalls of the quantitative historical research that is proliferating in these years.

If the criticism developed in this chapter is accepted, there is a more general lesson for social scientists doing historical analysis. In the preface to *The Invention of Power*, Bruce Bueno de Mesquita disarmingly notes that “I am not a historian, let alone a medievalist or a specialist on the Concordat of Worms. Undoubtedly, readers will find here and there a wrong date or an error in some other detail of the story”. But he then adds, more assertively: “the big story being told here is what matters, and the big story does not depend on anecdotes or on any individual fact. Rather, it depends primarily on quantitative evidence ... [The approach I take] is grounded in game theoretic reasoning and the analysis of a broad body of evidence”. In earlier work, Bueno de Mesquita (1996, 64) has emphasized how “[t]he use of game theory almost assures that a thick analysis cannot be undertaken”.

The attempt to get at broad historical developments with game theory and quantitative data is certainly impressive and stimulating. However, as several recent contributions by more qualitative inclined researchers have reminded us, it is problematic to assume that historical findings can validly be based on quantitative data that is not nested in a solid qualitative understanding of the historical context (Kreuzer 2010; Kocher and Monteiro 2016; Kalyvas and Fedorowycz 2022). A case in point is Kocher and Monteiro (2016) who demonstrate how “the credibility of causal inferences based on natural experiments presupposes epistemic trust in the ability of historical research to establish causation— specifically, to establish that the relevant historical chains of events caused the data in such a way as to configure a natural experiment (953)”. Hence, “there is no substitute for reconstructing the data-generating process through careful historical research” (971).

This is only one instance where qualitative historical knowledge is necessary to support the assumptions that power the main inference in quantitative historical research. It is readily acknowledged that no quantitative finding is better than the data it is based on (Kalyvas and Fedorowycz 2022, 126). But the more general point is that lack of understanding of the historical context can undermine the validity of causal inference in quantitative historical analysis (Kreuzer 2010, 369; Kalyvas and Fedorowycz 2022, 132).

It follows that Bruce Bueno de Mesquita’s (2022) – and BdM and BdM’s (2023) – resort to quantitative data is only convincing if it is based on a solid historical knowledge about the context and if it avoids reading history backward by projecting assumptions about modern states or human behavior back in time without considering their fit with the historical context (see also Kalyvas and Fedorowycz 2022, 128).

Kocher and Monteiro (2016, 971) note that it is a problem that journal reviewers are typically experts in the theory and methods used, “not the historical or sociological context in which a natural experiment is embedded”. In a twitter thread that accompanied the publication of BdM and BdM (2023), Ethan Bueno de Mesquita describes a lengthy review process which pushed them to code much more quantitative data (see <https://journalsuchicago.altmetric.com/details/141904035/twitter>). This underscores just how much work has gone into BdM and BdM’s impressive paper. However, it is important to emphasize that coding more quantitative data is not a remedy if the understanding of the historical context is flawed – and that an adequate vetting of a historical analysis should also be attentive to the validity of the description of the historical context (see Møller 2020).

Perhaps Kalyvas and Fedorowycz (2022, 128) go too far when they write that to power their main quantitative inferences, “social scientists must effectively become historians”. But Kocher and Monteiro’s (2016, 953) are clearly correct when they argue that in historical research by social scientists, qualitative context is needed to sustain quantitative empirical interpretations.

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