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On the Emergence of Parliamentary Government: The Role of Private Information

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Many people believe that during the last 15 or 20 years, countries around the world have tended to move toward parliamentary government. Dictatorial governments in various countries of southern Europe, Latin America, and Asia have been replaced, mostly through negotiated change rather than outright revolution, by governments which have at least nascent parliamentary institutions. Why such a widespread change in the form of government should occur throughout the world during a span of time so relatively short is something of a mystery. Here, I consider to what extent the change reflects a shift of the balance of power from the beneficiaries to the victims of dictatorship and to what extent it reflects an adaptation that is to the mutual advantage of both sides.

The commonsense way we are used to thinking about dictatorship and parliamentary government disposes us to emphasize the shifting balance of power. This *balance-of-power theory* posits that a transition from dictatorship to parliamentary government is tantamount to a seizure by the people (or at least by a class of the people) of property that has previously been held by the dictator. In fact, as historian William McNeill (1982) has argued, changes in the technology for either the seizure or the defense of property—particularly changes in military technology—can help explain part of the broad historical pattern of the evolution of political organization.

The balance-of-power theory is only a partial explanation, though. Consider its limited relevance to one coun-try's recent experience that it might superficially seem to explain particularly well. In Argentina, a dictatorial government by military officers was forced from power soon after having suffered a humiliating military defeat (the failure to recapture the Falkland Islands from Britain). One might argue that, when the Argentine armed forces were weakened by this defeat, the civilian population seized the opportunity to overthrow the military government. The problem with that argument is that little real damage had been inflicted on the armed forces. Primarily, the defeat caused a serious but intangible injury to the political prestige of the dictator. Its effect seems to have been to provide clear proof of what many people who had initially supported the dictatorship had already come to suspect: that this set of institutions was so blatantly inefficient that even the sectors of the population favored by the dictatorship would be made better off by a transition to democratic rule.

If the balance-of-power theory is not a complete theory of changes in the form of government, then we have a problem. We would like to think of social, economic, and political institutions as arising from people's attempts (sometimes cooperative and sometimes individually self-regarding) to be well-off in a particular environment. When the nature of a society's environment changes, then, we should expect to see a social response of institutional change, including change in the form of government. We would like to adopt this notion of social response as a general theory of change in the form of government. However,

if we concentrate on the sort of environmental change that is most obvious as a cause for governmental change—that is, tangible change in the technology for the seizure and the defense of property—then we will remain far from being able to explain the events in which we are interested.

Either we must give up the hope of explaining change in governmental form as a consequence of change in the environment or else we must broaden the category of events in terms of which we are willing to explain governmental change. In this paper, I will argue for the second alternative. Specifically, I will argue that environmental changes concerning the distribution of information and the provision of incentives, as well as changes concerning technology in a narrower sense, can explain changes in the form of government.

I will begin by outlining a theory of how a change in the form of government can occur as a response to a change in the information structure of a society's environment. Then I will demonstrate how this *private-information theory* can explain a historical event of great importance, the transition from feudalism to a primitive form of parliamentary government in 13th-century Europe and, specifically, England. I will consider the discussion by J. C. Holt (1992), an eminent historian of medieval England, concerning the provisions of the Magna Carta that deal with taxation of the English barons. Holt argues that, in order to reduce their tax obligations, the barons in 1215 should have required the king to make specific tax cuts, rather than focusing as they did on requiring the king to obtain their consent to new taxes. Consistently with the balance-of-power theory, Holt concludes that the barons made a serious strategic mistake by pursuing their procedural approach. I will show how the private-information theory explains why the barons adopted their approach in 1215 and why their descendants continued steadfastly to pursue this approach later in the 13th century, a continuation which Holt's evaluation suggests must have reflected a perplexing failure to learn from experience.

From Custom to Communication

Political theorists use the term *parliamentary government* very broadly: to mean a form of government which includes a systematic arrangement to obtain the consent of the governed to the actions of the government. Parliamentary government in this broad sense need not be government by elected officials. Rather, parliamentary government is government in which whoever holds power must describe publicly how that power will be used, and the people affected by such use of power must give their per-

mission for it. That is, parliamentary government is government that requires state action to be based on mutually voluntary, two-way communication between the ruler and the subjects. This is the sense in which I will use this term here. I will abstract entirely from the fact that consent to the ruler's action is typically a collective decision by a group of nonunanimous subjects. I make this abstraction in order to study the simplest possible version of the theory.

Suppose, then, that a model has only two agents, a ruler and a subject. I will consider the relationship between these two agents in two environments, one without private information to be communicated and the other with such private information. I will show that an allocation of goods based solely on custom, and implementable without any need for communication between ruler and subject, is efficient in the environment without private information. Such a customary allocation remains feasible in the environment with private information, but is undesirable from the perspectives of both ruler and subject. When private information exists, that is, both agents prefer an arrangement involving communication.

First consider an environment without private information. Suppose that every year the subject grows a crop of a certain fixed size. Suppose that the ruler does not produce anything, but that the ruler is more powerful than the subject and can seize part of the subject's crop—say, half of it—with impunity. The subject can defend half of the crop successfully, but by trying to defend anything more than that, will only suffer injury. In this environment, either of two situations may occur. The subject may underestimate the power of the ruler, so that the ruler will seize half the crop by force and the subject will be injured, or the subject will voluntarily yield half the crop to the ruler. The history of such a simple society as this one will be brief. After an initial period of years in which the subject painfully comes to appreciate the full extent of the ruler's power, the subject will start to yield the crop without protest as the ruler's customary right. Since no new information will be transmitted after this customary equilibrium has been reached, the subject will thereafter bring the tribute to the ruler without the need for any negotiation involving explicit communication.[1]

Now consider a more complicated model which includes a third, less predictable agent than the ruler and the subject: a dragon. In some years, the dragon sleeps at

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[1]This intuitive analysis can be made rigorous in a formal model. Herschel Grossman (1991) analyzes one such model and provides some references to others.

home, but in others, it awakens and invades the realm. This dragon is sufficiently powerful to abscond with the subject's entire crop. However, the ruler has a lance, the brandishing of which is sufficient to deter the dragon's invasion. This lance is heavy, though; the ruler needs to eat two-thirds of the subject's crop in order to have the strength to brandish it. In fact, even to drag the lance from the castle to the subject's field is hard, unpleasant work. The ruler would rather stay at the castle and eat half the crop than drag the lance to the field and eat two-thirds of the crop, but would rather take this latter action than go completely hungry (as would otherwise happen whenever the dragon awakens).[2] Even with the lance, by the way, the ruler cannot seize any more than half of the crop against the will of the subject.

Now let us add some private information to this model. Suppose that the ruler can see from the castle parapet whether the dragon is asleep or awake, but that the subject cannot climb this parapet. Knowing that the subject is ignorant of whether the dragon is asleep or awake, the ruler will be tempted to play the child-who-cried-wolf. From the height of the parapet, the ruler will call out, "Hark, O Subject! The Dragon has awakened! Please bring me two-thirds of your crop so that I will have the strength to brandish my lance. Be quick, or we shall both be famished!"

You might think that the subject will be at the ruler's mercy when such an alarm is raised. The apparent choice is between relinquishing two-thirds of the crop and running the risk of losing it all. A clever subject can escape from this predicament, though, by replying, "Bring your lance here to my field, O Ruler. You are welcome to help yourself to two-thirds of my crop as soon as you arrive." If the dragon really is awake, then the ruler will hasten to the field, lance in tow. If the dragon is asleep, though, then the ruler will prefer to settle for having half the crop brought to the castle rather than having to work hard in order to obtain two-thirds of the crop. By replying thus to the ruler, then, the subject will induce the ruler to demand two-thirds of the crop only when surrendering such a large amount is in the subject's own interest.

I contend that this imaginary ruler's bringing of the lance to the subject's field captures an important aspect of what occurs when an actual ruler relies on a parliamentary process to ratify action by the state. Consider carefully the several reasons why this metaphor is a good one.

First, the ruler's bringing of the lance to the field is a form of communication. It is not intrinsically an act of defense of the realm, since by assumption the lance can be brandished as effectively from the castle as from the field. Rather, the bringing of the lance is a credible signal that the report that the dragon has awakened is to be taken seriously. When it becomes an established arrangement that the ruler will bring the lance to the field whenever the dragon awakens, and that on those occasions the subject will voluntarily give two-thirds of the crop to the ruler, then the kind of two-way communication is occurring that defines parliamentary government.

Second, the arrangement of having such communication is efficient.[3] That is, no other arrangement would be as good for both the ruler and the subject and strictly better for at least one of them. This notion of *as good for* is an ex ante one that has to do with evaluating the outcomes of the political process both in years when the dragon sleeps and in years when it awakens. Also, the alternative arrangements to which this one is to be compared must be arrangements that would function despite the privacy of the ruler's information. Admittedly, communication is costly, and it could be avoided if the subject were able to observe the dragon directly. Since the subject cannot do that, though, such a comparison is irrelevant.

Third, the communication arrangement can be strictly better for both the ruler and the subject than any outcome that could be achieved without communication. An example of how this can occur is analyzed in detail in the Appendix.

Fourth and finally, the general idea that communication tends to be a necessary feature of an efficient arrangement with private information does not depend on the specific assumption that the private information is held by the ruler. We could have formulated a different model in which the subject has the private information about the dragon and has the ability to defend the realm, although the ruler would still have the ability to seize half the subject's crop. In this alternative model, the ruler would agree to demand

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[2] I am assuming that the ruler can gobble two-thirds of the crop before the dragon arrives, but would not have time to gobble half the crop. If this assumption seems puzzling, it can be replaced with the assumption that the dragon would do some other sort of harm (such as scorching with fiery breath) to the undernourished ruler.

[3] The study of efficient communication arrangements is the subject of the economic theory of mechanism design. The *revelation principle* for Bayesian allocation mechanisms is particularly relevant here. This principle has been derived formally by Roger Myerson (1979) and Milton Harris and Robert Townsend (1981), among others. For simplicity, I follow them in neglecting arrangements that involve repeated communication. Consideration of such arrangements would not alter my main conclusions. Unlike the models in which the revelation principle has been proved, my model involves a costly act of communication. The ruler must actually drag the lance to the field because there is no way to make a binding commitment to brandish the lance in return for receiving two-thirds of the crop. Models of costly signaling were first investigated by A. Michael Spence (1974).

only one-third of the crop whenever the subject brings the lance to the castle. The efficient pattern of communication is somewhat different here than in the other model, but the general principle still holds: some communication must occur in order for an efficient allocation to be achieved in a way consistent with both the ruler's and the subject's incentives.

Theoretical Standards

So far, I have described two claims. One is factual, that during the last two decades many governments around the world have been transformed relatively peacefully from dictatorship toward parliamentary rule. The other claim is theoretical, that this trend can be understood at least in part as a response to changes in the informational environment of the countries involved. The fact that transitions have tended to be relatively peaceful is explained by the fact that movement toward parliamentary rule is advantageous to the sectors of the population that have formerly benefited from dictatorship, as well as to the population at large.

Can the proposed theory actually explain the alleged fact that motivates it? That depends on what we consider *explanation*. I want to begin by discussing this conceptual issue, in order to lay the groundwork for what is to come.

A simple standard by which to judge our theory is that it should let us tell plausible stories about informational changes in several actual countries. We need not be able to precisely identify or measure the informational change in any specific country. Rather, the cumulative evidential weight of all of these stories would be convincing evidence that the explanation of institutional change as a consequence of change in informational aspects of the environment is a good explanation.

According to fairly recent history, the private-information theory seems to meet this simple standard. For example, more than one candidate for the dragon has emerged to threaten various countries since the mid-1970s, dragons about which the rulers might have superior information to the subjects. One candidate, particularly relevant in the 1980s, is the International Monetary Fund (IMF). In many of the countries where transitions of government have occurred, the IMF previously had imposed *conditionality* on its loans. IMF conditionality required governments to lay off public-sector workers, eliminate subsidies to the purchase of food, and so forth. Such unpopular measures were imposed as the outcome of negotiations between governments and IMF representatives. Within a borrowing country, only high government officials were directly ac-

quainted with the facts about how uncompromising the IMF representatives had been and about how strenuously the government had sought to soften the IMF conditions. An efficient arrangement between the government and its subjects might well involve the government having to reveal credibly that the conditions imposed by the IMF were the best that could be negotiated in return for the loan that was received. Such credible revelation would be a role for which a dictatorship would be poorly suited.

Another candidate dragon is the Organization of Petroleum Exporting Countries (OPEC), which began to disrupt the international petroleum market with its embargo in 1974. In many of the countries where transitions of government have recently occurred, state-owned enterprises had been among the largest of OPEC's petroleum consumers. The incumbent governments of these countries, therefore, may have received private information about the prospects for petroleum supply and about contingency plans to maintain supply in the event of serious disruptions. (The sources of this information might have been both multinational petroleum firms and governments of friendly oil-exporting countries.) Various government policies—particularly involving foreign trade and nonmarket intervention in capital-investment decisions—might be either wise or unwise depending on the content of this private information. Again, a dictatorship would be poorly suited to convey credible assurance to its subjects regarding the wisdom of such policies.

A somewhat different way to explain contemporary transitions of government in terms of the private-information theory is to rely on the alternative model mentioned at the end of the last section—that is, to assume that the subjects, rather than the ruler, possess private information. One candidate for this private information would be the mass of information needed to make economic decisions. A major theme of economic theory is that the complexity of such information explodes in the process of economic development. A dictatorial government might thus be able to do a fairly efficient job of running a relatively simple, less-developed economy on a command basis, but might become egregiously inefficient if its economy flourished and became more complex. In Latin America especially, the economies of a number of dictatorships thrived in the 1960s and 1970s but stagnated in the 1980s. This pattern of growth followed by stagnation might be viewed as indirect evidence that the inability of a dictatorial government to elicit its subjects' private information became an increasing problem as growth continued and led to the

dictatorships' downfall, just as the private-information theory predicts.

These stories are all plausible; nevertheless, they are unsatisfactory in three ways. First, they are all conjectural. For none of them do we have direct, documentary evidence that someone had private information that could not credibly be revealed and that would have been efficient to have revealed. Second, these are all stories about private information concerning just one aspect of a complex environment. Even if someone's possession of private information were documentable ex post, then, this information would not obviously be important enough to explain a change in the form of government. Third, in these stories, except that a change of government follows the introduction of private information to the environment within a short span of time, we know of no specific connection between the change in information structure and the change in government. We would be more satisfied if, besides having a general idea that a parliamentary system is superior to a dictatorship as an arrangement for communication when private information is present, we had specific evidence that people's awareness of the private-information problem had directly affected their thinking about how to replace the dictatorship.

All three of these limitations are inherent problems of studying and evaluating historical evidence. Recognizing this fact, I do not want to formulate an impossible standard that a theory about the form of government would have to meet before it could be regarded as providing a good explanation. Rather, I will take the middle ground and formulate a standard more stringent than the weak one above, yet not so strict that it is self-defeating.

My attempt to formulate such a reasonable standard is to confront the theory and the facts with three questions:

1. Can we find at least one instance of a country where there is a strong presumption that private information of critical importance has begun to exist because of an event that can be dated fairly precisely?

2. In this instance, has the event been followed within a fairly short time by a systematic, decisive movement toward parliamentary government?

3. Does an explanation of this instance in terms of private information make the way that the transformation of government occurred seem less puzzling than it would otherwise be?

If all three of these questions are answered in the affirmative, then we should agree that the private-information the-

ory provides a good explanation (although not necessarily a unique or complete explanation) of the change to parliamentary government.

Explaining Medieval England

Now I will examine a historical instance of transition to parliamentary government that seems to fit this more stringent standard well. The instance is the governmental transition that occurred in England in the 13th century.

Enter the Dragon

Since I am using medieval England as a case study, let me begin by summarizing the relevant history (from M. T. Clanchy 1983 and Holt 1992). This history will establish that an event which can be dated fairly precisely changed England from an environment in which political actors lacked significant private information to one in which the ruler had private information that subjects considered to be of paramount interest. This is the first of the three criteria for the private-information theory to meet the standard that I have articulated for the theory to provide a good explanation of the emergence of the English parliament.

The event in question was the capture in 1204 by the French of Normandy, which had been a *fief,* or feudal estate, of the English king. The English effort to recapture Normandy failed decisively in 1214, with defeat in the Battle of Bouvines. The loss of Normandy as a buffer between England and France made England much more exposed to foreign invasion in the 13th century than it had been in the 12th century. I will argue that, without this buffer, the English barons had to rely on the king to warn them whenever the threat of invasion became serious.

In order to compare England before and after the loss of Normandy, let's examine the period from William's conquest of England in 1066 to the end of the reign of Henry III in 1272. This period begins at the point when Norman rule in England had evolved into a set of institutions that historians would consider to be paradigmatically feudal, and it ends at the point when parliament had become a recognized institution with well-defined membership and structure.[4] (For an overview of the period, see the accompanying table.)

King William I had been the Duke of Normandy when he conquered England, and his successors inherited both

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[4]For a period of 20 years, King Edward I (who reigned in 1272–1307) convened parliament at fixed times twice a year whenever he was in England (G. L. Harriss 1981, p. 30). Although this custom lapsed for decades under his successors, parliament became an entrenched political institution in the 14th century, and by the end of that century it had acquired a settled membership and evolved into two houses.

Normandy and England as fiefs.[5] Through the first half of the 12th century, these rulers concentrated on ruling these two lands. In the second half of the 12th century, however, England became drawn into European politics to a considerable extent. King Richard I was the leader of the Third Crusade. In 1194 Richard became a *vassal,* or feudal tenant, of Emperor Henry VI of the Holy Roman Empire, and in 1213 King John became a vassal of Pope Innocent III. This involvement in European military and diplomatic affairs laid the groundwork for a situation in the 13th century in which both the pope and the French king intervened directly and legitimately in English politics.[6]

An abrupt change in the position of English kings came in 1204 when King Philip Augustus of France captured Normandy. King John made a sustained attempt to regain Normandy, but he was defeated decisively at Bouvines in 1214. Thereafter, England was exposed to the threat of invasion from across the English Channel by a powerful European rival. Indeed, such an invasion quickly occurred. Louis VIII of France invaded England in April of 1216. Although he was repelled the next year, for a time he held the southeastern part of England, including the ports of London and Southampton as well as several strategically important castles (Clanchy 1983, p. 199). Although France did not invade England again during the reign of Henry III, the French continued to pose a direct military threat to England, as I will document later.

This emergence of a military threat to England at the start of the 13th century was a situation exactly analogous to the entry of the dragon into the model considered above. England's 13th-century situation has two features that are particularly important in relation to the private-information theory.

One is the serious risk in which this situation put the prosperity and security of the English barons. They would have clearly perceived this risk because of two precedents. Both following William's conquest of England in 1066 and during the struggles which occurred during the reign of Stephen (1135–54) between the king and the supporters of Matilda (daughter of Henry I and Matilda of Scotland) and Henry II, the government of England had operated for some time by expropriation, plunder, ruthless suppression of resistance, and devastation of the countryside (Clanchy 1983, pp. 45–46, 52–54, 119–20). Thus, although the English monarchy had faced military threats throughout much of the 12th century, the dragon that seriously menaced the barons did not emerge until 1214.[7]

The other relevant feature of the 13th-century loss of Normandy is the significant private information that the king of England would have begun to acquire about the imminence of external military threats to England. In the 12th century, an invasion of England from across the English Channel would have been preceded by a conquest of the king's territory on the European continent. Then the English barons would have been required to raise an army for the king, so their information about the military situation would have been as good as the king's. After 1214, though, advance warning about an invasion would have come from diplomatic rather than military sources. The French could sail to England directly from their own territory (as they did in 1216). Henceforth, any advance information would have to come from informants, knowledgeable people who either were members of or dealt with the French court. Because of the growth of the European diplomatic network during the 12th century, King John and his successors were in a position to receive some information of this sort. Rather than giving up their wealth to the king on the basis of an undocumented assertion that this wealth was needed for defense, the barons would naturally want to have credible substantiation of the basis for such a request.[8]

Clearly, King John's military strength was seriously reduced by the irrevocable loss of Normandy in 1214. Thus, the balance-of-power theory would seem to explain why

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[5]At his death in 1087, William left England to one of his three sons and Normandy to another. Normandy changed hands among these heirs several times during the next two decades, but remained united to England almost continuously after 1106 (Clanchy 1983, p. 66). The exception is that King Stephen did not control Normandy during the period 1144–54.

[6]Pope Innocent III instructed the English barons to pay a disputed tax (the *Poitevin scutage*) in 1215 and annulled the Magna Carta in 1216. An ambassador of his successor, Pope Honorius III, gave papal authority to the coronation (of disputed validity) of Henry III and also attached the papal seal to the Magna Carta, thus overriding the earlier annulment. King Louis IX of France accepted an invitation from both sides to mediate a dispute between Henry III and the English barons in 1264, and his ruling, which overwhelmingly favored the king, set the stage for civil war.

[7]I am supposing that the consequences of the loss of Normandy took the barons by surprise. You might think that the 12th-century barons should have recognized that the loss of Normandy would imperil them, so that military threat to Normandy should have constituted a dragon. The response to this argument is that, before the fact, the barons would have thought that Normandy could not be held securely by the French even if it were temporarily captured. Clanchy (1983, pp. 189–90) notes that King John's expedition in 1214 was his second attempt to regain Normandy and says that the Battle of Bouvines "is generally considered one of the few decisive battles in medieval European history." That is, to have lost control of Normandy so completely that it could be used as a staging ground for a large-scale invasion was, indeed, a surprise.

[8]Historian C. Warren Hollister (1986, chap. 15) discusses the diplomatic environment during the reign of Henry I. His work establishes that while some of the barons in the early 12th century had substantial information about continental affairs (and substantial involvement in them), on the whole, the king was much better informed than the barons were. The contrast in quality between the king's and the baron's information most likely would have grown even more pronounced during the following century.

From Feudalism to Parliamentary Government in England

Kings of England		Key Events	
Years of Reign	Name	Years	Event
1066–87	William I (*the Conqueror*)	1066	William, Duke of Normandy, conquered England.
		1069–70, 1085	King William I used devastation of the countryside as a defensive tactic against threatened invasions.
		1086	King William I commissioned the *Domesday Book,* a detailed survey of his English subjects.
1087–1100	William II		
1100–1135	Henry I		
1135–54	Stephen	1139–53	The government of England operated by expropriation, plunder, and ruthless suppression of resistance.
		1144–54	King Stephen lost possession of Normandy to Geoffrey of Anjou; Henry II recaptured it.
1154–89	Henry II		
1189–99	Richard I (*the Lion-Hearted*)	1194	King Richard became a vassal of the Holy Roman Emperor.
1199–1216	John	1204–14	The French captured Normandy from England. King John repeatedly tried and failed to recapture Normandy (the last time, in the *Battle of Bouvines*), financing his attempts with new, severe taxes (notably, the *Thirteenth of 1207* and the *Poitevin scutage*).
		1213	King John became a vassal of Pope Innocent III.
		1215	The English barons seized London and demanded that the king obtain their consent to taxation. King John issued the *Magna Carta.* Pope Innocent III soon annulled it.
		1216–17	The French invaded England, then were repelled.
1216–72	Henry III	1216	Pope Honorius III overrode the annulment of the Magna Carta, but deleted the key parliamentary clauses (12 and 14).
		1216–27	A council of barons ruled England until the king came of age.
		1242–58	New taxes required the English barons' consent, which was withheld on several important occasions.
		1258	In the *Provisions of Oxford*, the English barons proposed a permanent parliament. The king swore to uphold these provisions, but did not.
		1264	King Louis IX of France mediated a dispute between the English king and barons, ruled overwhelmingly in favor of the king, and civil war (the *Barons' War*) began in England. This war ultimately led to a political compromise between England's king and barons.
1272–1307	Edward I	1287–1307	The king of England convened parliament twice a year continuously.

a transition in the form of government occurred shortly afterward. I shall argue later that such an explanation is much less satisfactory than an explanation in terms of private information. What I have established so far is that the loss of Normandy in effect transformed the environment of England from one without private information to one with private information. That is, this event transformed England from a country resembling the first of the two model environments discussed above to a country resembling the second. The fact that this transformation also involved a shift in the balance of power does not conflict with my claim.

How to Drag a Lance

Recall my three-part standard by which to test the private-information theory as a good explanation of change in the institutional form of government. That standard requires (1) a historical instance in which a precisely dated change has created an environment with private information, (2) a transition of government such as was contemplated earlier that quickly follows this change, and (3) an understanding of the transition in terms of private information which makes the transition seem less puzzling than it would otherwise be. I have just argued that the loss of Normandy in 1204–14 by King John of England was a historical instance that satisfies the first of these criteria. Now I will argue that this instance was followed by a transition toward parliamentary government, so that the second part of the three-part standard has also been satisfied.

Notice that, between William's invasion from Normandy and consolidation of power toward the end of the 11th century and John's loss of Normandy at the beginning of the 13th century, the government of England closely fit the model of government by custom that I outlined above. This is what would be expected if, as is being argued here, 12th-century England was an environment in which political actors did not have a substantial amount of private information.[9]

Historians' descriptions of the character of the feudal rule that was imposed on England after William's conquest in 1066 emphasize the routine, predefined nature of relationships between ruler and subject. F. M. Stenton (in Clanchy 1983, pp. 83–84), in particular, has argued that services must be exactly defined in order to be feudal and that the "new precision which governed relationships throughout the higher ranks of post-Conquest society is the most obvious illustration of the difference between the Old English social order and the feudalism which replaced it." Another historian, Holt (1992, p. 112), adds that "cus-

tom and law largely consisted of routine procedure which had been hallowed by long usage. Occasionally it was reinforced by assizes or statutes produced by the king and his counsellors, but as late as 1215 there was still little enough substantive regulation to warrant the name of law." That is, political equilibrium involved a set of rigid expectations regarding the exercise of royal power. The role of ongoing communication in government seems not to have been significant.

As Holt's statement makes clear, claiming that 12th-century English government did not involve any consultation with the barons would be too stark a generalization. However, the French seizure of Normandy did clearly increase King John's awareness of his need to consult with the barons in order to obtain their consent to both taxation and military service. For example, he convened councils at Oxford to obtain the barons' assent to taxes that were levied in 1204 and 1207 (Holt 1992, pp. 319–22). The convening of such a council was still a discretionary action by the king, though, rather than a mandatory procedure for the levy of a tax. By the time of the defeat at Bouvines (in 1214), however, the barons were insisting that such a mandatory procedure be adopted. In May of 1215, they seized the city of London to force John to negotiate with them. The outcome of this negotiation was the Magna Carta which John agreed to issue in June of 1215.

Clauses 12 and 14 of this charter are of particular interest here. These clauses (translated in Holt 1992, p. 455) concretely specify the king's duty to obtain the barons' consent to taxation:

> No scutage or aid is to be levied in our realm except by the common counsel of our realm . . . . And to obtain the common counsel of the realm for the assessment of an aid . . . or a scutage, we will have archbishops, bishops, abbots, earls and greater barons summoned by our letters, . . . for a fixed date, with at least forty days' notice, and at a fixed place . . . . [The] business shall go forward on the day arranged according to the counsel of those present, even if not all those summoned have come.

The striking feature of these Magna Carta clauses is that they do not specify what is to be done (that is, how high the tax burden may grow) nor even precisely how that de-

[9]William extended his informational basis for government in 1086 by compiling the *Domesday Book,* which was a detailed census, or survey, of his English subjects. The effect was to greatly diminish the privacy of subjects' information about their ability to pay taxes.

cision is to be reached (that is, how deliberations will be conducted and which criterion, such as majority or unanimity, will be used to ratify an ultimate decision). Rather, clauses 12 and 14 resolve unambiguously and enforceably the specific issue of who is to be included in whatever decision-making process will evolve. By *enforceably,* I mean that the king could not agree in principle to consult with the barons and then call councils on such short notice or with such secrecy or vagueness that some of the barons would be unable to participate, thus allowing the king to rule unilaterally by default.

These clauses specify an explicit and permanent transition of the mode of government from one based on fulfillment of customary duties to one based on continuing communication to determine the relationship between ruler and subjects. That is, they specify a system of parliamentary government. Consider exactly how this system would work in practice. Suppose that, corresponding to the dragon awakening in the model, the king were to receive warning of an imminent invasion. Such a warning might well require immediate action, so the king could not afford to wait 40 days until the barons had met to agree to a tax. Therefore, the king would have to begin raising an army alone and later ask the barons for reimbursement of their share of the expense.[10] This initial response to the emergency would be a costly signal to the barons, corresponding to the action of the ruler dragging the lance to the subject's field. The barons could be counted on to cooperate if the king were acting in good faith on information of a military threat, but otherwise the king's army expenses would be out-of-pocket. Thus, preparations to repel an invasion would be made only when they were appropriate.

This new arrangement was obviously objectionable to the crown, since clauses 12 and 14 were deleted from the Magna Carta on the occasions (beginning in 1216) when it was reissued. Their deletion did not settle the matter, though. The reissue of the Magna Carta was on behalf of King John's successor, Henry III, who was then a boy of nine. During the minority of Henry III, which lasted until 1227, the government of England was in the hands of a council dominated by barons (Michael Prestwich 1990, p. 23). Such a council continued to exist during the personal rule of Henry III, and on occasion during this period the barons exercised their prerogative to refuse to submit to new taxes. As the private-information theory suggests, these refusals occurred when the king was unable to substantiate his claim that England was under military threat. This happened in 1242 when Henry III alleged that France

had violated a truce with England and was about to launch an offensive campaign. In fact, Henry III was acting to provoke truce violations. The barons recognized this, ignored his request for tax revenues, and instructed him to observe the truce strictly (Robert Stacey 1987, pp. 185, 189–90). Again in 1253–54, the barons and knights largely refused to honor Henry III's request for help to defend Gascony against an invasion. They were not persuaded by his claim that a threat existed, and in fact, no invasion occurred, even though the army that Henry III managed to send to Gascony was much smaller than the force he had requested (Prestwich 1990, pp. 98, 115, 118). In both of these incidents, Henry III was forced to depend largely on his own resources to raise a sizable military force (Stacey 1987, p. 199; Prestwich 1990, p. 98).

Conflict between the king and the barons came to a head again late in Henry III's reign. In 1258 the king was obliged to swear to a set of proposals known as the *Provisions of Oxford*. These proposals envisioned that a council would meet three times per year on a permanent basis. (The term *parliament* was used to refer to these meetings.) The powers given to this council would have effectively transferred the government of England to an elected committee. Henry III avoided putting the Provisions of Oxford into effect, and the Barons' War ensued. Although the barons were defeated militarily, the outcome of the war was a political compromise between them and the king. The characterization offered by one historian (B. Wilkinson 1948, p. 163) is that "this [compromise] was an unexpressed but probably not unrecognized triumph of the fundamental political concept of government by counsel and consent. The final outcome was a transformation of the key institution of parliament. This concept and this institution were to lie at the heart of the great effort of political reconstruction undertaken by Edward I."

In summary, the establishment of parliament was the outcome of a political process that lasted more than half a century. That process began with the forcible seizure of London by the barons; it involved the negotiation of two agreements (the clauses of the Magna Carta dealing with

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[10]The reliance of Henry III on his own army as the main force of an English army and his use of hired soldiers when a sizable force had to be deployed on a very short notice are documented by Robert Stacey (1987, pp. 186–87) and Michael Prestwich (1990, p. 103). To deploy a large army for any sustained period, though, Henry III had to rely on the voluntary service of his barons and knights as well as on their consent to be taxed. When provision of this voluntary service was denied or delayed, the king's scope for military action was severely limited (Stacey 1987, pp. 190–91; Prestwich 1990, pp. 103–8).

consent to taxation and the Provisions of Oxford) that were quickly repudiated by the crown through diplomatic maneuvers; and before the process ended, a civil war (the Barons' War) had been fought. Nevertheless, especially by comparison with the reigns of William and Stephen, the period spanned by the reigns of John and Henry III cannot be characterized as one of exceptionally bitter adversarial relations between the ruler and the people of England. The emergence of parliament can be fairly described as the outcome of a cooperative process of institutional evolution, albeit of a process that evolved slowly and that was periodically strained. Although this process was long, its beginning can be dated precisely—and this date was immediately after the transformation of England into a private-information environment. That is, the emergence of parliament in the 13th century satisfies both the first and the second parts of my three-part standard.

Illumination

Now for the last part. I must show not only that the transformation of England to a private-information environment coincides with the transition of English government to a parliamentary form, but also that paying attention to this informational transformation makes the nature of the governmental transition more intelligible than it would otherwise be.

As I have mentioned, the loss of Normandy must have shifted the balance of power away from the king as well as created a situation in which the king had relevant private information. Thus, it makes sense to examine the intelligibility of the governmental transformation in terms of a specific question: Does the informational transformation make the barons' demand in clauses 12 and 14 of the Magna Carta and the subsequent 13th-century evolution of the English parliament more intelligible than they would be if they were understood as consequences of a balance-of-power shift alone?

In fact, an eminent historian of the Magna Carta has found those clauses to be seriously puzzling. Holt (1992, pp. 321–22) takes the position that the clauses failed miserably to achieve their intended purpose. He writes that

In general . . . [clause] 12 was one of the least satisfactory or adequate in the whole Charter. It dragged in the novel demand for consent to scutage . . . only to ignore the crucial developments in taxation of the last two reigns. It had nothing to say of the new forms of taxation: of the attempts to assess taxation on land accurately, or of the far more vigorous and successful efforts to tax revenues and chattels. These all

fell within the category of aids. Hence the Thirteenth of 1207 [the tax levied in 1207 which was by far the most severe of John's reign, or of the whole century] would have come within its terms. . . . Yet . . . [this tax] had been conceded 'by common counsel and the assent of our council at Oxford'. It had been lawful; and such taxation remained lawful after 1215. The Charter made no provision to limit the assessment or to distinguish revenues from chattels or to determine methods of assessments or to restrict penalties for evasion.

Here Holt seems implicitly to rely on the balance-of-power theory as an analytical framework. He judges that the English barons in 1215 made a serious strategic error in their negotiation with the king over taxation. In view of subsequent history, this attempt to reconcile the clauses of the Magna Carta regarding counsel in taxation with the balance-of-power theory by positing a strategic mistake is unconvincing. If the barons had made a glaring mistake, then they would have eventually changed their tack to address the root problems that Holt identifies. But they didn't do that. When another constitutional crisis occurred in England almost half a century later, the barons continued along the same course. The Provisions of Oxford (in 1258) specified that a parliament would automatically meet three times a year to deal with questions of taxation (Clanchy 1983, p. 272).

Rather than simply disregarding Holt's judgment, though, let us look more closely at what lies behind it. Holt makes two specific arguments. One is that, on the basis of their experience with taxes in 1207, the barons should have seen clearly that the novel procedural arrangement on which they were insisting in 1215 would be ineffective. Holt's other argument is that the barons could have insisted, but did not insist, on substantive limitations of the king's authority to tax them.

Holt's first argument misses an important difference between the status of the council that King John called at Oxford in 1207 and the status of a council convened on the basis of the Magna Carta. This difference becomes apparent if we contemplate what would happen if the king and the council of barons were not to reach agreement. Under the status quo procedural arrangement, the king would assess the disputed tax and would rely on the authority of a feudal superior to both himself and the barons (like the pope) for its enforcement. That is what happened in the case of the Poitevin scutage in 1214–15 (Holt 1992, pp. 228–31). The feudal superior in this position might attempt to reach a negotiated settlement, but if the parties refused to compromise, then ultimately the legitimacy of

the tax would have to be judged on the basis of the covenants that existed between the king and the barons. The fact that the king had called an ad hoc council of advisers and then had rejected their advice would not impair this legitimacy; the judgment of Pope Innocent III that the barons must render the service required by the Poitevin scutage illustrates this very clearly. In contrast, the Magna Carta was among the covenants that determined the legitimacy of taxation. If the Magna Carta stipulated that for taxation to be legitimate, not only must a council be called, but also its active consent must be obtained, then the king would be unable to count on the pope or on any other feudal superior for enforcement of compliance with a tax from which such consent had been withheld.

Holt's second argument does succeed in showing why the treatment of taxation in the Magna Carta is awkward for the balance-of-power theory to explain. As Holt's argument indicates, Richard I and John had considerably expanded the traditional tax base by reassessing land, by instituting taxation of revenues and chattels as well as of land, by introducing a customs system, and so forth. Rather than relying primarily on a novel procedural remedy to limit their liability to taxation, the barons might have insisted that King John accept substantive restrictions regarding both what could be taxed and how heavily it could be taxed. Such a substantive solution to the problem of excessive tax liability would seem to have two advantages over the procedural solution that was adopted. First, the effect of a substantive limit on taxation would have been more reliable than the effect of a solution relying on the equilibrium performance of a deliberative political institution with incompletely specified rules. Second, by insisting on the abandonment of novel forms of taxation rather than on the institution of novel forms of control over taxation, the barons would have portrayed John as having overstepped the king's traditional authority rather than having been themselves in the position of usurping the king's authority. Recall that Pope Innocent III annulled the Magna Carta as it was issued in 1215 but that his successor Pope Honorius III endorsed the reissue of the charter in 1216 from which clauses 12 and 14 were deleted (along with some other clauses which do not seem consequential). The popes do seem to have viewed the level of taxation in England as a matter about which the king and the barons could appropriately negotiate, but clauses 12 and 14 of the Magna Carta as tending to undermine a foundation of the feudal political order. Therefore, the choice of a procedural means rather than a substantive means to lim-

it the burden of taxation had the strategic cost of alienating the popes' support for the barons.

In short, the balance-of-power theory can explain why the demand for consent to taxation would have been included in the Magna Carta if the barons had lacked any way to define and legitimate substantive limits to their tax liability, but in fact, to include such substantive limits in the charter would have been easy. The balance-of-power theory thus cannot explain adequately why some particular substantive limits on taxation (such as limits on the taxation of chattels or on customs duties) were not incorporated in the Magna Carta, either instead of or in addition to the procedurally oriented clauses 12 and 14. We must look for another theory to account for the strong emphasis that the 13th-century barons placed on the procedural issue of consent. Unlike the balance-of-power theory, the private-information theory does account successfully for that emphasis. The private-information theory thus meets the third part, as well as the first two parts, of the standard for acceptance as an explanation of change in the form of government.

Conclusion

The fact that parliamentary government was repeatedly proposed and ultimately came to be accepted, not just in England but also to some degree in other parts of Europe (Holt 1992, pp. 25–27), suggests that in the course of the 13th century it had come to be recognized as an efficient political arrangement. Why was this arrangement increasingly seen to be efficient in the 13th century, but not in the 12th century? We have seen that this cannot be fully explained by the balance-of-power theory, but that it can be understood by also taking account of the fact that private information acquired a new strategic importance at the start of the 13th century.

The Magna Carta and the Provisions of Oxford both required the ruler to consult regularly with subjects, but neither document spelled out exactly how. The efficient, incentive-compatible arrangements studied by Roger Myerson (1979) and Milton Harris and Robert Townsend (1981), which involve communication between agents in an economy with private information, seem to capture well the rough idea that the authors and negotiators of these 13th-century political documents seem to have had in mind. In short, the private-information theory provides a notably more successful framework within which to understand the 13th-century transformation of government in Europe, and especially in England, than does the balance-

of-power theory alone.[11]

Like the contemporary pattern of transition from dictatorship toward parliamentary government, the 13th-century English transition exemplifies a trend that occurred throughout an international political system (Holt 1992, pp. 25–27). Considerations of private information may not have played as decisive a role elsewhere in 13th-century Europe as they apparently played in England. Nevertheless, based only on the experience of England, we can see that narrow considerations of the military balance of power are not likely to fully explain either the 13th-century or the contemporary patterns of transition toward parliamentary government. Wherever these transitions occur, they should be understood as constituting arrangements to overcome informational and incentive difficulties in attaining efficient allocations of economic and political resources.

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[11]In a recent paper written independently of this one, Yoram Barzel (1993) also notes the inadequacy of the balance-of-power theory to explain the political history of 13th-century England. Barzel suggests that the emergence of parliament can be understood well by analogy with the modern emergence of corporations in which shareholders are voters.

Appendix
How Communication Could Be Better for Everyone

In the preceding paper, I asserted that the allocation of goods resulting from an arrangement with communication could be strictly preferred by both the ruler and the subject to any allocation attainable in an equilibrium without communication. Here I demonstrate this possibility in a numerical example.

Assumptions

Suppose that the subject's entire crop consists of 60 units of produce. The ruler can seize 30 of these units (half of the crop) unilaterally, but needs 40 units (two-thirds of the crop) to be strong enough to deter the dragon. Assume that the ruler is indifferent between consuming 40 units of produce after dragging the lance to the subject's field and consuming 20 units of produce without having to drag the lance; that is, dragging the lance costs the ruler 20 units of utility. Assume for simplicity that, after having consumed 40 units of produce, the ruler can brandish the lance effortlessly (that is, without losing utility). Also assume that, if the ruler attempts to take 40 units of produce and the subject resists, then the ruler will only succeed in taking 30 units, but neither the ruler nor the subject will lose utility in the struggle.

Recall that only the ruler can observe the state of the dragon. After having seen whether the dragon is asleep or awake, the ruler takes one of three actions:

h = Seizes a *high* quantity—at least 40 units—of the subject's crop.

l = Seizes a *low* quantity—30 units—of the crop.

d = *Drags* the lance to the subject's field and requests 40 units of the crop.

A strategy for the ruler specifies both the action x to take if the dragon sleeps and the action y to take if the dragon wakes. (Each of x and y denotes one of the three actions h, l, and d.) Let x/y denote the strategy of taking action x if the dragon is asleep and action y if the dragon is awake. For example, l/d is the strategy of seizing 30 units of the crop if the dragon is asleep and dragging the lance (and requesting 40 units of the crop) if the dragon is awake.

After having seen the ruler's action, the subject decides whether or not to acquiesce if the ruler wants more than 30 units of the crop. A strategy for the subject is thus a set of ruler's actions that the subject will not resist. The subject has four possible strategies: $\{l\}$, $\{l,h\}$, $\{l,d\}$, and $\{l,h,d\}$. Note that l is

an element of all of the subject's strategies since the subject cannot prevent the ruler from seizing 30 units of the crop.

Assume that the payoffs to the ruler and the subject are simply the amounts of the crop they consume, less 20 units for the ruler when action d is taken. Whether the dragon is asleep or awake may influence what actions the ruler and the subject take, as well as the outcome of these actions (because the dragon will devour the entire crop if the ruler has not consumed 40 units.) Assume that the preferences of the ruler and the subject are determined by expected utility. That is, the overall payoffs to each of the agents are determined by weighting the payoffs when the dragon is asleep and when the dragon is awake by the probabilities of those events. Assume that the dragon is asleep with probability 0.9 and awake with probability 0.1.

Outcomes

The accompanying table presents these overall payoffs. Down the left side of the table are the ruler's possible strategies and across the top are the subject's. Each of the cells determined by a pair of strategies contains two numbers. The number in the lower left corner of a cell is the ruler's utility payoff, and the number in the upper right corner is the subject's.

To see how these numbers are calculated, consider, for example, the cell determined by the ruler's strategy d/h and the subject's strategy $\{l,h\}$. The strategy d/h specifies that the ruler will drag the lance if the dragon is observed to be asleep and will seize the high amount of 40 units of the crop if the dragon is observed to be awake. If the ruler observes that the dragon is sleeping, but drags the lance anyway, the request for 40 units of the crop will not be honored because $d \notin \{l,h\}$. Therefore, the ruler and the subject will each consume 30 units of the crop. However, the ruler will enjoy only 10 units of utility because 20 units of lance-dragging disutility must be subtracted from 30 units of consumption. The subject will enjoy 30 units of utility corresponding to 30 units of consumption. If the ruler sees that the dragon is awake and so seizes 40 units of the crop, the subject will not resist this seizure because $h \in \{l,h\}$. Thus, the ruler will have sufficient strength to protect the crop and will succeed in consuming 40 units of it, leaving the subject 20 units to consume. These consumption levels coincide with the ruler's and subject's respective utility levels. Finally, the ruler's overall utility level is the expectation $(0.9 \times 10) + (0.1 \times 40) = 13$, and the subject's is the expectation $(0.9 \times 30) + (0.1 \times 20) = 29$.

This table defines a *game in normal form* between the ruler

Possible Outcomes in a Two-Player Game With Private Information

Utility Payoffs From Alternative Strategies
When the Subject Has a Fixed-Size Crop
and the Ruler Has a Lance and Private Information
About the State of a Dragon*

Possible actions:

h = The ruler takes a *high* level of the crop (40 units).

l = The ruler takes a *low* level of the crop (30 units).

d = The ruler *drags* the lance to the subject's field and requests
40 units; dragging costs the ruler 20 units of utility.

▢ = Nash Equilibria

The Ruler's Strategy	The Overall Payoff to Each Player** Given the Subject's Strategy			
(Actions of the Ruler If the Dragon Is Asleep/Awake)	(Actions of the Ruler That the Subject Won't Resist)			
	$\{l\}$	$\{l,h\}$	$\{l,d\}$	$\{l,h,d\}$
h/h	27 / 27	20 / 40	27 / 27	20 / 40
h/l	27 / 27	18 / 36	27 / 27	18 / 36
h/d	27 / 25	18 / 34	29 / 29	20 / 38
l/h	27 / 27	29 / 31	27 / 27	29 / 31
l/l	27 / 27	27 / 27	27 / 27	27 / 27
l/d	27 / 25	27 / 25	29 / 29	29 / 29
d/h	27 / 9	29 / 13	18 / 18	20 / 22
d/l	27 / 9	27 / 9	18 / 18	18 / 18
d/d	27 / 7	27 / 7	20 / 20	20 / 20

*Assumptions: The subject's crop = 60 units; the ruler can seize either 30 or 40 units of the crop and needs 40 units to deter the dragon; resistance from the subject leads the ruler to seize 30 instead of 40 units of the crop. The probability that the dragon is *asleep* = 0.9; *awake* = 0.1.

**In each cell, the number in the lower left is the ruler's payoff; the number in the upper right, the subject's.

and the subject.* A *Nash equilibrium* of the game is a profile consisting of a strategy for each player which has this property: Each player takes the strategy of the opponent as given and chooses a strategy that maximizes the player's own utility when played against the opposing strategy. In the table, that is, for an outcome to be a Nash equilibrium, the ruler's utility level must be the highest one in its column and the subject's utility level must be the highest one in its row. [The sample strategy profile $(d/h, \{l,h\})$ just discussed satisfies this condition for the subject, but not for the ruler, who should adopt strategy h/h.]

The game displayed in the table has five Nash equilibria. These are $(h/h, \{l\})$, $(l/l, \{l\})$, $(h/l, \{l\})$, $(h/d, \{l,d\})$, and $(l/d, \{l,d\})$. The first three of these equilibria share the same payoffs, 27 for both the ruler and the subject. None of these three equilibria involves the ruler communicating by means of action d. In them, the ruler's attempts to consume 40 units of the crop (by taking action h) are always resisted by the subject, even though in the first equilibrium the ruler sometimes wants the high level of consumption in order to defend the crop from the dragon. In the last two Nash equilibria, the ruler does obtain 40 units of the crop if the dragon awakens by credibly communicating the news of this event to the subject (that is, by taking action d). In both of these equilibria, both the ruler and the subject enjoy the utility level 29, which is higher than the utility level 27 that they each receive in any noncommunication equilibrium. That is, both the ruler and the subject strictly prefer an equilibrium with communication to any equilibrium without it.

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*The appendix of Jean Tirole 1988 provides a good introduction to game theory. The normal-form game presented in my table is derived from an underlying game of incomplete information. In the underlying game, there are two *types* of ruler, depending on whether the dragon is asleep or awake. Nash equilibrium of the normal-form game is equivalent to Bayesian equilibrium of the incomplete-information game.