Warcraft: The legitimacy building of usurpers

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A B S T R A C T
Rulers ascending to the throne differ substantially in their need for legitimization. This paper asks: will a usurper who took power by unlawful means build legitimacy through war? Using warfare data from historical China (750 BCE-1911), we show that usurpers initiated 40.2% more wars than did hereditary rulers against nomadic neighbors. Usurpers waged and won more wars early in their reign and converged to rulers’ average warring frequencies later. To address the endogeneity concern, we use rulers’ birth orders as an instrument for usurper identity. We show that usurpers also outperformed hereditary rulers in other peaceful legitimization strategies such as amnesties and political marriages, which, together with war increased usurpers’ survival odds. However, usurpers were not as proactive in abolishing the vassals, from which many originated.

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"A scepter snatch’d with an unruly hand
Must be as boisterously maintain’d as gain’d.”
—William Shakespeare, King John, Act 3, Scene 4

1. Introduction

Legitimacy — the justification for rulers to rule (Weber, 1958) — is vital in all political organizations (Connolly, 1984), as it facilitates policy implementation (Smismans, 2004), taxation (Cesare, 2009; Dincecco et al., 2011), development (Englebert, 2002), and foreign affairs (Tucker and Hendrickson, 2004). However, new rulers differ substantially in their legitimacy to rule (Wolford, 2007; Kokkonen and Sundell, 2020). George Washington came to power with overwhelming support (Ellis, 2005), while Leonid Brezhnev and Kim Jong-un were met with widespread skepticism when they stepped to the throne (Service, 2009; Frank, 2012). Consequently, leaders who come to power with limited legitimacy need to strengthen their rule. The literature has highlighted, through theoretical work and historical case studies, that the effective use of warfare induces citizenries to recognize royal rule through exhibits of force and victories (Grief, 2008, p.22; Alesina et al., 2017;

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Dube and Harish, 2019), among other legitimization strategies such as religious sanctification (Johnson and Koyama, 2019), tomb-building (Rollason, 2016), and political marriages (Fleming, 1973). However, the investigation of warfare as an effort to legitimize rulers with different needs for legitimacy remains in short supply.

This paper tackles this challenge by examining differences in the decision to go to war between usurpers and hereditary rulers. Usurpers take power through unlawful means such as military coups, thus have a greater need to legitimize themselves than hereditary rulers. Such differences allow us to evaluate how wars are used in various capacities by rulers with different need for legitimation. History often witnesses usurpers winning glory, fame, resources, and enlarged tax bases on the battlefields after taking power. In Russia, after Catherine II overthrew her husband Peter III in 1762, she initiated and triumphed in the wars against the Crimean Khanate, the Ottoman Empire, and along the Black and Azov Seas, which greatly expanded the Russian Empire, earning the title "the Great" (Alexander, 1989). Similarly, after Pepin III usurped the throne of the Franks in CE 751, his first act was to wage war against the Lombard king Aistulf (Brown, 1995). In China, after Li Shimin, Emperor Taizong of Tang, usurped the throne of his father in CE 626, he launched a series of campaigns against the Eastern Turks (629 CE) and Tuyuq (634 CE), making himself the Tenger Khan—the God-like Emperor (Ouyang and Song, 1975). However, wars are risky endeavors: defeats on the battlefield may hinder the usurpation or cause it to fail. In the late Three Kingdom period in China (220–280 CE), the Sima Family planned to justify their usurpation of the Kingdom of Wei by victories on the battlefield. Nevertheless, successive defeats delayed the usurpation by decades (Chen, 1959).

To understand why rulers might use war as a means of building legitimacy, we introduce a theoretical framework in which the ability to rule is associated with higher levels of legitimacy in a concave manner. Wars are characterized as costly and risky investments to build legitimacy: victories convey higher legitimacy and, thus, more effective rule, whereas defeats cast the fitness of leadership into greater doubt. We divide wars into predatory wars and existential wars, where, in the former, the ruler sustains its rule regardless of the outcome of the war; in the latter, a defeat may indicate the end of the reign. We show that a usurper, holding lower initial legitimacy, initiates more predatory wars than a hereditary ruler. However, the comparison of hard-fought, existential wars can be ambiguous because usurpers are more vulnerable upon losses and the associated regime-toppling risks. Guided by this framework and abundant qualitative evidence that imply excess incentives of usurpers in warfare, we proceed to an empirical investigation.

We empirically investigate the warring strategies of rulers using data from China, which enjoys complete records of wars and ruler information. In over two millennia, the Sino-nomad wars constituted the most enduring and largest-scale conflicts of civilizations in human history (Bai and Kung, 2011; Ko et al., 2018): the battlefront ranged over more than 4000 miles from Balkhash Lake in the west to Vladivostok in the east. Written historical records count 2602 wars between the agrarian civilizations and the nomads from 750 BCE to 1911. Meanwhile, the personal and administrative information of the emperors was well kept from dynasty to dynasty, which enables us to distinguish usurpers from hereditary rulers accurately. Our sample includes 411 non-founding emperors between 750 BCE and 1911, among whom 111 were usurpers. Usurpers usually appeared late, if at all, in the line of succession. Therefore, usurpers’ initial legitimacy upon taking the throne was often limited compared to their hereditary counterparts, per Weber’s notion of traditional authority (Weber, 1958). Consequently, our sample of usurpers provides a unique opportunity to examine how rulers of different initial legitimacy levels utilized warfare to strengthen their rule.

Our main result shows that usurpers initiated 40.2% more wars than did their hereditary counterparts. Moreover, this result remains robust after controlling for age, ethnicity, and geographic attributes. This result is consistent with usurpers engaging in higher efforts than their hereditary counterparts to build legitimacy. In addition, usurpers were more likely to triumph on the battlefield, which is consistent with successful usurpers being more likely to have high military ability. Consistent with our theoretical framework, we find that usurpers tended to select opponents who would allow them to garner easier victories, thereby reducing the risk of wars. We also show that the excess warfare usually took place early in the reign of usurpers and converged to regular rulers’ warring frequencies once the usurpers successfully consolidated power. To resolve endogeneity concerns, we use the order of rulers’ births as an instrument for usurper identity: Most dynasties in historical China followed primogeniture in the line of succession—a non-first-born prince had only slim chance of claiming power through regular inheritance. Meanwhile, birth order is highly unlikely to correlate with either prior or current war determinants, thus establishing our instrument’s validity. We show that excessive warfare by usurpers remained robust in the IV analysis.

In addition, we investigate several peaceful legitimization strategies adopted by many societies, such as royal tomb-building, amnesties, and political marriages, as robustness checks. Usurpers continued to outperform hereditary rulers in these categories, which is consistent with our interpretation of their higher proclivity to engage in warfare. Furthermore, within the usurpers, those with lower initial legitimacy—proxied by later birth order—tended to favor more peaceful legitimacy building. Interestingly, usurpers did not outperform hereditary rulers in one specific strategy—abolishing the vassals, or, fief-cuts. This detail suggests a strategic consideration in usurpers’ image building: fiefs were the power bases of many

1 In European and Middle Eastern history, secular rulers partnered with the Church to gain legitimacy, because the Church could sanctify their rule. In return, the Church was granted desirable rights, e.g., control over education. See Rubin (2017) for elaborated discussions. And see Johnson and Koyama (2013) for the dynamics between secular rulers and religious persecution.

2 For an overview of the legitimacy building of Roman emperors and usurpers, see Omisio (2018) and Humphries (2019).

usurpers when they would rise for the cause (Chen, 2019). Thus, a fief-cutting maneuver might raise unnecessary doubts about the usurpers or invite unwanted hostility from remaining vassals.

The paper contributes to three strands of literature. First, it speaks to the wide-ranging literature on conflict, especially on the origins war. The existing literature articulates the use of war to resolve conflicts, to create and maintain social order (North et al., 2013), to build states (Tilly 1985; 1992; Johnson and Koyama, 2013), to extend tax bases, and to acquire resources (Dincecco et al., 2011). Recent literature also illustrates that wars, or violent conflicts in general, can be the consequences of resource redistribution (Dube and Vargas, 2013), signifying group identity (Arbatli et al., 2020), or propaganda (Yanagizawa-Drott, 2014). This paper complements the literature by revealing a novel motivation of warfare for doubted leaders to legitimize their rule, doing so at a level of warfare intensity reflective crucially on leaders' initial popularity.

Relatedly, the second strand concerns the power consolidation of leaders in political regimes (De Mesquita et al., 2005; Svolik, 2012). Existing studies have examined various approaches for rulers to consolidate their rule, from violent mass killings (Esteban et al., 2015) to more moderate means such as tomb-building (Rollason, 2016), amnesties (Lessa and Payne, 2012; Fu, 2015; Yıldırım and Kuyucu, 2017), and political marriages (Fleming, 1973; Jiang, 2019). This paper mainly investigates and evaluates actively initiated wars (attacking wars) as power consolidation strategies. Compared with other peaceful counterparts, power consolidation through wars can be risky. Recent literature points to the resources that need to be mobilized to successfully prosecute wars and the uncertainties that war generates for rulers (Croco, 2011; Karaman and Pamuk, 2013; Gennaioli and Voth, 2015; Croco and Weeks, 2016; Ko et al., 2018; Koyama et al., 2018). We echo the focus by examining the wars launched by usurpers because of their extra urge to strengthen their rule despite the risks. Moreover, we provide evidence that usurpers strived to reduce the uncertainties of war by strategically selecting geographically closer battlefronts.

Within the second strand, the paper adds specifically to the comparison of legitimation strategies from different ruler identities, such as gender (Gajwani and Zhang, 2008), religion (Berman and Laitin, 2008), and ethnicity (Ichino and Nathan, 2013; Arbatli et al., 2020). The closest paper to ours is Dube and Harish (2019), who investigate the warring differences between queens and kings. Similar to usurpers, queens often had low initial legitimacy. Dube and Harish (2019), show that queens have initiated more wars than kings, which is consistent with our results. However, they argue the division of labor contributes to the aggressive war policies, whereby queens could enlist the help of their husbands. In this paper, however, we highlight the different needs for legitimation as the origin of the divergent patterns of warfare between low and high legitimacy rulers.

Finally, the insights of the paper extend to the leadership literature in modern organizations beyond political regimes, like corporations. The importance of image building for leaders is well established in the management literature ( Yukl and Van Fleet, 1992; Conger and Kanungo, 1998; Teiwes, 2017; Söderhjelm et al., 2018). Therefore, managers in corporations advocate personal achievements to gain trust from their boards or confidence from the market (Hambrick and Mason, 1984; Carpenter et al., 2004; Baur and Palazzo, 2011). Similar to the usurpers in political regimes, the transitional leaders in corporations share the urge for legitimation (Thornton and Ocasio, 1999; Cao et al., 2006; Chung and Luo, 2013). Our results thus predict newly recruited leaders would strive to take more action and behave more aggressively. Existing corporate analysis confirms our prediction: based on a 400-corporation survey by McKinsey (Birshan et al., 2016), externally appointed CEOs are more aggressive in two-thirds of the strategic moves in corporations compared with internally promoted counterparts.

The remainder of the paper is organized as follows. Section 2 introduces the background of usurpers and their needs for legitimation. Section 3 introduces a theoretical framework to analyze the legitimacy building of enthroning rulers. Section 4 describes the data of usurpers and wars in historical China. Section 5 presents the results. We conclude in Section 6.

2. Background: usurpers and hereditary rulers

Usurpers are those who take power through unlawful means, most commonly through military coup d’états. Usurpers tend to share several attributes. First, usurpers were usually low down in the conventional order of succession (if they featured in it at all). Usurpation was one of the few options they had to acquire power. In a society that largely follows primogeniture—such as the Han Chinese—a power-seeking individual faced a narrow path to the throne if he was not the first-born son of the sitting ruler. As mentioned above, Li Shimin of the Tang Dynasty usurped the throne from his father as the second son, killing his elder brother in the palace coup of Xuanwu Gate on July 2, CE 626 (Bingham, 1950). Similarly, Zhu Di of the Ming Dynasty usurped his nephew as the fourth son of the founding emperor in 1402.4 Similarly, in Europe, Richard III of England usurped his brother Edward IV’s eldest son and rightful heir, Edward V, in 1483, when Richard served as the Lord Protector of the realm (Kendall, 1956).5

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4 Emperor Jianwen, who was usurped by Zhu Di, was the second emperor of the Ming Dynasty, reigning from 1399 to 1402. Jianwen’s father, Zhu Biao (1355-1392), was the first-born son and heir of the founding emperor of the Ming, Zhu Yuanzhang. Thus, Zhu Biao was the elder brother of Zhu Di. But Zhu Biao passed away before he could succeed the throne. Based on the primogeniture of the Ming Dynasty, Jianwen became the heir of Zhu Biao, and succeeded the throne in 1399 (Bai and Chen, 1997).

5 Suffering from a lack of legitimacy, Richard III was then overthrown by another usurper Henry VII in 1485 – merely three years after Richard III’s usurpation.
Though usurpers succeeded in their gamble for power, they broke the norms of regular succession and faced constant doubts about, and challenges to, their legitimacy. As a non-Romanov-descendant, Catherine II was challenged by Yemelyan Pugachev, whose armed rebellion against the empress was supported by the serfs in favor of the Romanov Dynasty (Raeff, 1972). Likewise, when Wang Mang usurped the Han Dynasty of the Liu Emperors in CE 9, and when Wu Zetian usurped the Tang Dynasty of the Li Emperors in CE 690, they both faced widespread public pressure for not having the proper family name to rule (Bowman, 2000).

Low initial legitimacy and the pressures that it generated induced usurpers to strengthen their rule. Usurpers adopted a variety of means to clear up the doubts about themselves and establish their might, and they were highly strategic in the process. Historians have suggested that initiating wars—in Gibbon’s (1872, p. 21) words, “the thirst for military glory”—was one of the most popular strategies. For instance, Empress Wu Zetian triumphed over the Tibetan Empire and initiated attacks against the Khitans (Wang, 2016a). Wang Mang attacked the Hun and Korean tribes to establish a reputation, and he implemented a series of radical social reforms (Chen, 1985). In addition to wars, political marriages were commonly adopted: after Henry VII defeated Richard III and claimed the throne, he married Elizabeth of York in 1486 and joined the interests of the previously warring houses (Williams, 1973). Architecture was employed, to wit: giant tombs were built to emphasize the royal bloodline. Zhu Di followed explicitly in his tomb design the style of his forefathers to imprint his and their legacy (Wang, 2016b). Rulers employed many other legitimization strategies, such as amnesties (Zheng, 2014), fief-cuts (Shen and Yin, 2019), rituals (Bokenkamp, 1996; Johnson and Koyama, 2019), and propaganda and the persecution of dissent (Xue, 2020).

From among these possible strategies, success at war often paid off for usurpers, winning for them glory and fame. Catherine II acquired the title the Great. Li Shimin became the God-like Emperor. Nader Shah, who usurped from a tribal warlord to become the Shah, was praised as the “Sword of Persia” after a series of campaign victories (Axworthy, 2010). Muammar Gaddafi always preferred his Colonel rank to remind people of his leadership in the Free Officers of Libya (Vandewalle, 2012). The value of a glorious warlike reputation to a usurper explains the popularity of warfare in legitimization. Moreover, victory in war also often brought booty, tribute, reparations and enlarged tax bases, as the defeated often were compelled to cede lands and other assets to the winners. From modest beginnings in a barren corner of northeastern Asia, Genghis Khan conquered most of Eurasia (Wang, 2019). The spoils of wars also help rulers to consolidate their rules. During Alexander the Great’s conquest, he seized the Persian royal money of 3000 talents of gold in Issus (Shiono, 2017, Ill, p. 272) and 18,000 talents in Susa (p. 342). Alexander proceeded to consolidate his rule by sharing the wealth generously with his soldiers (p. 281).

To summarize, a host of historical case studies and anecdotal evidence suggests that usurpers faced constant doubts and challenges to their right to rule. Facing a low legitimacy threshold on ascending to the throne, usurpers had an incentive to be more aggressive in seeking legitimacy as ruler, especially through wars. In the next section, we provide a simple theoretical framework to illustrate rulers’ key considerations in legitimacy building.

3. Theoretical framework

We consider legitimacy building through warfare as a costly and risky investment. Waging war requires substantial preparation of resources and personnel for an uncertain return: triumphs on the battlefield may prove the might of the ruler, but a defeat may not only lead to casualties and loss of territory but also cast doubt on the leadership. Consequently, a ruler has to contemplate the costs and benefits in deciding whether and how much effort to put into such endeavors. A key consideration in making the investment decision is how much legitimacy is needed to establish and consolidate an effective rule.

As an illustration, consider the following framework: legitimacy is measured in a one-dimensional metric denoted by \(l\). Higher values correspond to higher legitimacy. In the context of enthroning leaders, usurpers hold lower initial legitimacy than hereditary rulers, \(l_y < l_y\). The value of legitimacy, meanwhile, is denoted by the value function \(V(l)\). To be precise, the expression of the value function is as follows:

\[
V(l) = \begin{cases} 
  v(l), & l > l_0 \\
  -k, & l \leq l_0 
\end{cases}
\]

where \(k > 0\), and \(v > 0\), \(v' < 0\). That is, to sustain an effective rule, the incumbent ruler has to surpass a lower bound in legitimacy; otherwise, the ruler is overthrown and receives a large and negative payoff \(-k\). On the other hand, when legitimacy is above the threshold, an increased level in legitimacy benefits the ruler in a concave manner, which suggests that

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6 Even rightful emperors took serious measures to shape correct public perception. For instance, Emperor Yongzheng of the Qing Dynasty, who suffered from widespread usurpation rumors, published a book titled, Dayi Juemi Lu (The Records of Resolving Confusion on Ruling Righteousness), in order to legitimize his righteousness to rule (Spence, 2002).

7 In particular, usurpers learned from their own success, and often took extra precautions in legitimization to prevent another coup against themselves. For instance, after Emperor Zhao Kuangying of the Song Dynasty usurped power as his predecessor’s trusted military general, he quickly re-centralized military control to the imperial court (Wang, 1996).

8 Specifically, Xue (2020) links persecution of dissent to the lower initial political legitimacy of the Qing dynasty: the Manchu Qing rulers constantly censored messages circulated amongst Han Chinese that mentioned or implied the Ming dynasty - the immediate predecessor of the Qing dynasty built by Han Chinese rulers.
higher legitimacy helps smooth the rule, whereas well-established rulers gain less from additional image building because rulers usually have other governance objectives to fulfill.

In the theoretical framework, a ruler contemplates whether to wage war to increase its legitimacy further. We characterize a war by a tuple \((a, b, p, c)\):\(^9\) A ruler with initial legitimacy \(l\) may spend a cost of \(c > 0\) to prepare and fight the war, which it wins with probability \(0 < p \leq 1\), and the post-war legitimacy grows to \(l + b\). However, the ruler may lose the war with probability \((1 - p)\), in which case the post-war legitimacy falls to \(l - a\). The characterization of wars is assumed to be independent of legitimacy levels, to keep the framework concise. Unlike a conventional financial investment where the investor may influence either or all factors in the tuple, the ruler only decides whether to wage war upon receiving a specific tuple \((a, b, p, c)\).

As shown in Fig. 1, we divide the rulers into two types: hereditary rulers and usurpers, with \(l < l_U < l_H\), to reflect that usurpers start with lower initial legitimacy. Per previous discussions, we focus on active warring choices, i.e., wars of attack instead of wars of defense in both the theoretical framework and the empirical investigation to highlight the ruler’s initiative to build legitimacy actively.

For most wars of attack in pursuit of glory and fame, the survival of the ruler is secured even upon the occasion of defeat on the battlefield. This corresponds to the warfare where \(l - a > l\). We refer to these wars as predatory wars.\(^{10}\) As illustrated

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\(^9\) We make three simplifying assumptions here. First, we assume that the probability of investment success is ruler-independent. Second, we assume the impact of the investment is independent of initial levels of legitimacy. Third, we assume the gains and losses of the investment are symmetric. While a more comprehensive model can relax the three assumptions, the insights remain qualitatively the same.

\(^{10}\) The examples of predatory wars abound in history. For instance, the expansion of the Rome was through a series of predatory wars over neighboring states and countries, such as Macedonia, Greece, and Gaul. As Trigger (2003, p.240) puts it, a key purpose of Rome’s military actions was to exploit peripheral areas through imposing tribute. Meanwhile, some of the predatory wars may not end in the initiators’ favor: in historical China, both the attacks from Li Shimin of the Tang Dynasty towards the Goguryeo (628-649 as emperor), and the attacks from Zhu Di in the Ming Dynasty (1402-1424 as emperor) towards the Mongols ended in occasional defeats. But neither toppled the stability of the dynasties (Qu, 1995; Yu, 2015). Relatedly, sociologists sometimes refer to such conflicts as “inconclusive wars” (Zhao, 2006). Similar examples also present in the contemporary world, where the Argentinian and the
in Fig. 1(a), for the same predatory war characterized by \((a, b, p, c)\), the higher marginal benefits of warfare in legitimacy building for the usurper—due to its lower initial legitimacy and the concavity of the value function—ensure more incentives for usurpers to initiate the war as compared with hereditary rulers.\(^1\)

**Remark 1.** Usurpers initiate more predatory wars than do hereditary rulers.

Rulers adopt a variety of methods to legitimize themselves. In particular, one may interpret peaceful legitimization efforts, such as tomb-building and amnesties, as special cases of risk-free “wars” where \(p = 1\). An illustration of peaceful legitimization is shown as the red bars in Fig. 1(b), where the ruler no longer needs to consider the downside risk \((-a)\). Then similar analysis applies that higher marginal benefits lead usurpers to invest more in peaceful legitimization alternatives, ceteris paribus.

**Remark 2.** Usurpers invest more in peaceful legitimization than do hereditary rulers.

In addition to easily won predatory wars, rulers may occasionally face decisions about waging a brutal and challenging war, the defeat of which may threaten the survival of the incumbent ruler or the regime as a whole. That is, it is possible for some wars, \(\ell - a > \ell\). We refer to these wars as existential wars.\(^2\) The warring incentives may be reversed when the war is existential for usurpers due to the low status quo legitimacy, but not so for hereditary rulers, who enjoy higher legitimacy. The scenario is illustrated in Fig. 1(d); although the upside gain upon victory remains more attractive for the usurpers, the downside risks may be annihilation. Consequently, it remains unclear whether usurpers or hereditary rulers are more proactive for grand-scaled warfare with regime-changing gains and losses.\(^3\)

**Remark 3.** Usurpers may be more cautious than hereditary rulers in initiating a challenging, potentially existential war.

To summarize, interpreting wars and peaceful legitimization as costly and potentially risky investments, the framework analyzes the excessive incentives for usurpers compared with hereditary rulers in launching easily won predatory wars and peaceful legitimacy building projects, such as amnesty, political marriages, and tomb-building. However, it remains ambiguous whether hereditary rulers or usurpers have higher enthusiasm for initiating challenging existential wars. In the next section, we undertake an empirical investigation of the framework to see if the reality confirms usurpers’ extra urge in proving themselves as legitimate rulers.

4. **Empirical strategies and data**

In this section, we first specify our empirical strategies to investigate the warring decisions of usurpers and then introduce the data we collect for such purposes.

4.1. **Empirical strategies**

To investigate usurpers’ excessive legitimization efforts, we first conduct an OLS analysis. The econometric specification is as follows:

\[
Y_i = \alpha + \beta_1 \text{UsurperIdentity}_i + X'_i + \varepsilon_i
\]

where \(i\) indexes emperors. The outcome variable of interest, \(Y_i\), represents the number of initiated wars. Our main explanatory variable is \(\text{UsurperIdentity}_i\), which equals one when the incumbent emperor is a usurper and equals zero otherwise. \(X'\) includes a set of controls such as climates and ages of enthronement.

Meanwhile, usurpation is undoubtedly a highly risky maneuver for power-seekers. A series of factors may contribute to a usurper’s success, which consequently affect the warring decisions of usurpers after they claim the throne. Besides, previous warfare may influence current warring decisions, as well as domestic power dynamics. Therefore, the endogeneity concern may threaten the consistency of our main results. To address the problem, we employ an instrumental variable approach. We adopt a dummy variable indicating whether the emperor is the third or the fourth son of the predecessor. The instrument takes value one if it is, and zero otherwise. The logic of the instrument is as follows. In terms of power succession, most agrarian regimes in historical China adopted primogeniture to ensure a smooth transition of power

\(^{11}\) To be precise, for any given \((a, b, p, c)\) that \(\ell - a > \ell\), the net benefit from war, \(pv(l + b) + (1 - p)v(l - a) - c\), decreases in \(l\). We omit formal proofs in the theoretical framework because it serves to provide heuristic guidance for our empirical analysis.

\(^{12}\) History also witnesses extensive examples of existential wars. For instance, in the centuries-long conflict between agrarian Chinese and the nomadic Hun during the Han Dynasty, it took preparations of three emperors’ reign, i.e., from Emperor Wen to Emperor Jing, then to Emperor Wu, to finally launch the assaults to the Hun. See Sima (1994) for detailed records. Relatedly, in Europe, the Punic Wars and the fall of Carthage are perhaps the best-known examples of existential wars (Zimmerman, 2011).

\(^{13}\) It is worth noting that the ambiguous warring incentives are not driven by the concavity of the value function \(V(l)\) (thus the risk aversion of rulers), but by the fact that a defeat may decrease the legitimacy below \(l\) so that the ruler receives a sufficiently big drop in payoffs \((-k)\), which indicates the rulers’ own annihilation. We assume a discrete drop for simplicity. A continuous payoff function with sufficiently large drop in payoffs to the left of \(l\) achieves the same result. We thank the referee for suggesting the clarification.
(Bai and Chen, 1997). This means that a prince who was not the first-born son of the sitting emperor had a slim chance to be selected as the heir. Meanwhile, we exclude the second sons since they tend to be more rebellious and risk-taking systematically (Sulloway, 1997), thus adding uncertainties to our causality analysis. We also exclude the later-ranked sons because the probability of succession is too low to risk a potential usurpation.

To be precise, the IV equation takes the form of the OLS equation as represented in Eq. (1) above, except the independent variable of interest is replaced by the birth orders of emperors, as shown in the following specification:

$$Y_i = \alpha + \beta_1 \text{UsurperIdentity}_i + X'_i + \epsilon_i$$

where UsurperIdentity is generated by the first-stage regression in the IV framework:

$$\text{UsurperIdentity}_i = \alpha + \alpha_1 \text{BirthOrder}_i + X''_i + \epsilon_{ii}.$$  

Next, we introduce the data. In particular, our data consists of three major categories: (a) information about emperors and usurpers; (b) data about wars; and (c) other determinants of wars and other legitimization strategies. Our sample includes 411 non-founding emperors between 750 BCE and 1911, among whom 111 are usurpers.\(^{14}\) We record 1061 wars initiated by all emperors. The significant variation of ruler types and numbers of wars allows us to analyze the warring differences between hereditary rulers and usurpers.

4.2. Usurper data

The information about emperors and usurpers comes from the Twenty-Four Histories, also known as the Orthodox Histories, published by the royal courts of each dynasty. The history of the current dynasty is usually written by its immediate successor, and it covers the economy, politics, culture, and technologies of the whole dynasty. The dynastical records also limit the short-term bias and interference compared to inter-emperor evaluations because the authors usually had longer time horizons within which to evaluate the policies and performances of the previous dynasties. In particular, the Histories feature individual chapters, Benji, that record the biographical sketches of emperors, including their personal information, significant events of the reign, and other parcels of information. Therefore, we may distinguish usurpers from hereditary rulers and illicit the information of initiated warfare from the chapters. In Fig. 2, we visualize the distribution of power succession and the frequency of external wars in historical China. As shown, there are sizeable variations between legitimate succession and coups, which information facilitates our empirical analysis. Usurpation was not an uncommon way to acquire power before the 15th century in China, where more than one-third of power changes were associated with violent conflicts. The proportion was broadly comparable to the records in Eisner (2011), who counted 22% of violent deaths among all 1513 monarchs in 45 monarchies across Europe between 600 and 1800 CE. The significant proportion further confirms the importance of understanding the actions of usurpers.\(^{15}\) After the 15th century, usurpation in China became unusual, with

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\(^{14}\) Our sample excludes 65 founding emperors, whose legitimacy building process and war incentives may be fundamentally diverged.

\(^{15}\) Relatedly, Christian and Elbourne (2018) record 31 assassination attempts on 194 Roman emperors and 3 ruling empresses between 27 BCE – 476 CE. On average, around 16% of Roman monarchs experienced an assassination during the reign, which was largely comparable to Eisner’s records, given that assassination was one of the ways of usurpation.
only one instance in four centuries, the abovementioned Emperor Zhu Di from the Ming Dynasty. In addition, the turmoil in power transition is often, although not always, associated with attacks on nomadic neighbors.

To better understand their actions, we examine the differences in personal characteristics between usurpers and hereditary emperors. We report the results in Table 1. As shown, many usurpers were not the direct offspring of the sitting emperors. Even if they were, they tended to be late in the order of succession: due to primogeniture in historical China, the legitimate path of the later-born to the throne was hugely narrowed. In our sample, the average birth order of usurpers was 4.07, while that of hereditary rulers was only 2.53. As suggested by Weber (1958), the disadvantage in traditional authority by inheritance then indicates the need to make up for the legitimacy gap upon usurpation. Moreover, since successful coup乾 often required mature and crafty leadership, the age of ascending to the throne was significantly older for usurpers, by a magnitude of five years. Lastly, the duration of rule under an average usurper was almost five years shorter, suggesting greater threats and uncertainties facing the usurpers (Blaydes and Chaney, 2013), besides the older age at which they ascended to the throne. Our data further support usurpers’ higher survival risks, showing a 14% lower rate of natural death of usurpers compared to hereditary rulers. To summarize, the average profile of a usurper depicts a low legitimacy starter facing high survival risks, which then justifies the urge for legitimization.

### 4.3. War data

For the data of wars, we focus on the external wars initiated by agrarian regimes in the agrarian-nomadic conflicts in China, namely, the Sino-nomadic conflicts. Agrarian civilizations were founded 5000 years ago in East Asia, and the first regime, the Xia Dynasty, was established in 2100 BCE (Xia, 1977). The nomadic tribes in northern China, however, relied on grazing instead of cropping, which depended heavily on climates and precipitation. Without mountains as barriers in the north, the nomads often rode south into inland East Asia for food when there was a drought, which led to constant conflicts with agrarian civilizations (Bai and Kung, 2011). These foraging expeditions are the basis for the most enduring and largest-scaled conflicts of civilizations in human history. The battlefront ranged more than 4000 miles from Balkhash Lake in the west to Vladivostok in the east, and the war lasted for more than two millennia. Written historical records count 2602 wars between the agricultural civilizations and the nomads from 750 BCE (the Spring and Autumn Period) to 1911 (the end of Imperial China). Apart from warring frequencies, the historical records also enable us to track the nature (attacking or defending), the outcomes (victory or defeat), and the wars’ locations. We must distinguish among different types of wars because increased warfare when the usurpers claimed power could be the consequence of nomad invaders’ taking advantage of local power uncertainty, as is shown in Kokkonen and Sundell (2020) for such experiences in Europe. An active attack, in contrast, was a gesture of might. We include detailed definitions of the types and the outcomes of wars in Appendices A and B. We count 1061 wars actively initiated by the agrarian regime. We also include the calculations of war locations and their distances to capitals in Appendix C. Fig. 3 below visualizes the distribution of warring frequencies, the types of wars, and the outcomes in the sample horizon. As shown, the nomads initiated wars more frequently than did the agrarians, but the agrarian rulers claimed more victories than the nomads.

To reiterate, it is essential that we separate wars of attack—wars that are actively initiated by agrarian regimes—from wars of defense since we regard active warfare as legitimacy building endeavors of sitting rulers. The identification of initiators

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16 A potential concern of our war data is that although the orthodox records merit the richness of details, it is possible that due to specific ruling necessities, e.g., propaganda needs, that external victories of agrarians were exaggerated, whereas nomadic invasions were understated. Bai and Kung (2011) adopt the same set of war data as ours. To validate the data credibility, they cross-referenced the data with Perdue (2005), who compiled more than 100 different sources and concluded that there was no significant bias in the orthodox records.
and the outcomes of such warfare in the data further enables us to conduct an in-depth investigation of warring strategies adopted by agrarian rulers, as detailed in the following sections.

4.4. Data on other measures

Climate. The literature of inter-state conflicts has pointed out the importance of climates in inducing and resolving conflicts (Bai and Kung, 2011). We thus control two indices concerning climate: the precipitation and temperature of the warring region. The temperature refers to the difference between the average temperature in the Loess Plateau of the particular year and 1990: a positive difference indicates a warmer climate. The precipitation refers to the droughts and floods in central China, which we index from 1 to 9, where 1 indicates extreme droughts, and 9 indicates severe floods. Both data are retrieved from Wang (1992).

Other means for legitimacy building. Due to data availability, we record four types of alternative legitimization efforts: royal tomb-building, amnesties, political marriages, and fief-cuts. Building royal tombs strengthens legitimacy because it
showcases the ruler’s capacity, breeds reverence, and emphasizes the orthodoxy of power succession in the bloodline (Rollason, 2016). Amnesties help build legitimacy as a gesture of generosity and goodwill and as an exhibition of the ruler’s might over the outlaws (Lessa and Payne, 2012; Fu, 2015; Yıldırım and Kuyucu, 2017). Also, political marriages connect multiple power bases and, thus, are widely employed in Sino-nomad relationships (Jiang, 2019) and in European royal families to stabilize the regimes (Fleming, 1972). Lastly, for the fiefs in historical China, the vassals claimed ownership to the domain, received taxable income, and organized military activities, thus posing threats to the imperial rule (Chen, 2019). Fief-cuts strengthen obedience in royal courts by weakening the fiscal and military capacity of local fiefdoms (Shen and Yin, 2019). However, fief-cuts can be risky when they trigger discontent among powerful vassals. The raw data about wars and war determinants, amnesties, fief-cuts, political marriages, and climates are all annual. Since the unit of observation is an individual emperor, we thus sum up the numbers of wars, victories, political marriages, fief-cuts, and amnesties over an emperor’s reign. At the same time, we take the average of the latitudes, longitudes, and distances from the capital for all wars occurring over an emperor’s reign. Moreover, we take the annual average for temperature and precipitation data. For the dummy variables that indicate usurper identity, whether the emperor is the first-born, and whether there are explicit mentions of tomb-building, an affirmative answer takes the value of one, and zero otherwise. Table 2 provides a statistical summary of these descriptions.

5. Results

We present evidence of usurpers’ efforts to gain legitimacy in this section. Our main result shows that usurpers initiated and won significantly more wars than did hereditary rulers, and that this gap remains robust after controlling for a series of individual and geographical traits. We also show that usurpers favored waging easily won wars instead of challenging ones and preferred to do so early in their reign. These results are supported by our IV analysis. We then present evidence that usurpers exerted more efforts in a series of alternate legitimacy building projects, which further confirms the usurper’s excess needs for legitimization.

5.1. Main results

Our main finding is the excess propensity for the initiation of external wars under a usurper’s rule than under a hereditary rule, which we report in Table 3. Column 1 identifies whether the enthroning individual was a usurper. The baseline

---

Table 2
Summary statistics.

<table>
<thead>
<tr>
<th>Source</th>
<th>Observations</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Initiated Wars (ln)</td>
<td>A</td>
<td>411</td>
<td>0.544</td>
<td>0.633</td>
<td>0</td>
</tr>
<tr>
<td>Nomadic Attack (ln)</td>
<td>A</td>
<td>396</td>
<td>1.05</td>
<td>1.073</td>
<td>0</td>
</tr>
<tr>
<td>Avg. Distance of Initiated Wars to Capital (ln)</td>
<td>A</td>
<td>178</td>
<td>2.069</td>
<td>0.04</td>
<td>1.914</td>
</tr>
<tr>
<td>No. of Easy Wars (ln)</td>
<td>A</td>
<td>396</td>
<td>1.61</td>
<td>1.502</td>
<td>0</td>
</tr>
<tr>
<td>No. of Victories (ln)</td>
<td>A</td>
<td>396</td>
<td>1.723</td>
<td>1.315</td>
<td>0</td>
</tr>
<tr>
<td>Early Wars (ln)</td>
<td>A</td>
<td>396</td>
<td>1.801</td>
<td>1.358</td>
<td>0</td>
</tr>
<tr>
<td>Early Easy Wars (ln)</td>
<td>A</td>
<td>396</td>
<td>1.305</td>
<td>1.323</td>
<td>0</td>
</tr>
<tr>
<td>No. of Overall Early Victories (ln)</td>
<td>A</td>
<td>396</td>
<td>1.442</td>
<td>1.162</td>
<td>0</td>
</tr>
<tr>
<td>Usurper Identity</td>
<td>B</td>
<td>411</td>
<td>0.27</td>
<td>0.445</td>
<td>0</td>
</tr>
<tr>
<td>Birth Order</td>
<td>B</td>
<td>127</td>
<td>2.709</td>
<td>2.676</td>
<td>1</td>
</tr>
<tr>
<td>Enthroning Age</td>
<td>B</td>
<td>250</td>
<td>22.988</td>
<td>12.879</td>
<td>1</td>
</tr>
<tr>
<td>Duration of Reign</td>
<td>B</td>
<td>411</td>
<td>16.105</td>
<td>13.274</td>
<td>1</td>
</tr>
<tr>
<td>Han Chinese Emperors</td>
<td>B</td>
<td>411</td>
<td>0.818</td>
<td>0.387</td>
<td>0</td>
</tr>
<tr>
<td>No. of Amnesties (ln)</td>
<td>C</td>
<td>411</td>
<td>0.594</td>
<td>0.817</td>
<td>0</td>
</tr>
<tr>
<td>No. of Tomb-building (ln)</td>
<td>D</td>
<td>171</td>
<td>0.24</td>
<td>0.428</td>
<td>0</td>
</tr>
<tr>
<td>No. of Political Marriage (ln)</td>
<td>E</td>
<td>336</td>
<td>0.256</td>
<td>0.495</td>
<td>0</td>
</tr>
<tr>
<td>No. of Fief-cuts (ln)</td>
<td>F</td>
<td>411</td>
<td>0.022</td>
<td>0.147</td>
<td>0</td>
</tr>
<tr>
<td>Avg. Temperature</td>
<td>G</td>
<td>408</td>
<td>0.09</td>
<td>1.356</td>
<td>−1.5</td>
</tr>
<tr>
<td>Avg. Precipitation</td>
<td>G</td>
<td>291</td>
<td>4.151</td>
<td>2.996</td>
<td>1.1</td>
</tr>
</tbody>
</table>


---

17 A classic example of usurpers building legitimacy through amnesties is Emperor Wuzong of Yuan, Kūlug Khan, who usurped the throne through coups and declared five nation-wide amnesties through his five-year rule (1307-1311; Zheng, 2014).

18 Fiefs were usually assigned in the early period of a newly-founded dynasty, to the “founding fathers” as rewards, or to royal family members for power consolidation purposes. Both motives, however, may induce insurgency. For the first motive, in the early Qing Dynasty, three fiefdoms were granted to three Han Chinese warlords that pledged allegiance to the Manchu rule. The warlords, led by Wu Sangui, then rose up against the Qing central government. The rebellion lasted for eight years (1673-1681) before it was cracked down by Emperor Kangxi. For the latter motive, Zhu Di from the Ming dynasty was the fourth son of the founding emperor Zhu Yuanzhang, and was the Prince of Yan – Yan was Zhu Di’s fief, which covers the area of Beijing and Hubei province in contemporary China – when he usurped the throne of his nephew.

19 For all the logged values in Table 2, we take ln(x + 1) for value x, in order to accommodate the cases where x = 0.
result suggests that the usurpers initiated significantly more wars than hereditary rulers. Starting from Column 2, we control for the dynasty using fixed effects to capture the culture, norms, and traditions specific to a dynasty that could affect usurpers’ warring decisions. The magnitude of the coefficient increases after the controls. Another factor relevant for the decision to make war or peace is the ruler’s age, which we control for in Columns 3–5.\textsuperscript{20} The results show no significant impact of age on warfare. Also, the existing literature has discussed the role of climate in shaping the war and peace between farmers and nomads (Bai and Kung, 2011). Intuitively, the worsening living conditions of nomads may trigger more invasions. To incorporate such influence, we add, in Column 4, several climate indices covering the Loess Plateau and central China, where the farmlands and grasslands intersect. Given the paper’s focus on the Sino-nomadic wars, we further control for the wars initiated by the nomadic regimes in Column 5. The positive usurper effect on wars remains robust after controlling for the above factors: usurpers initiated 40.2% more wars than hereditary rulers.\textsuperscript{21}

In the first five columns, the agrarian ruler sample includes assimilated nomads such as the Mongol Yuan rulers and Manchu Qing rulers, who had nomadic origins but had largely adopted the Han governance systems upon conquering China. To alleviate the concern of unobserved systematic ethnic differences, we exclude the non-Han Chinese emperors and investigate the warring decisions of the Han Chinese emperors alone in Column 6. Our result remains robust, which implies ethnicity was not a key driver of usurpers’ warring decisions. In short, Table 3 shows that usurpers are more likely than hereditary rulers to initiate wars, after we control for dynasties, age, climate, nomadic attacks, and ethnicity.

### 5.3. Decomposing warfare

The act of war is risky. Usurpers with low initial legitimacy benefit more from victories on the battlefield but they are also potentially more vulnerable to possible defeats. Therefore, as analyzed in the theoretical framework, we expect that usurpers initiate wars in a highly strategic manner. In particular, we predict that usurpers will initiate more predatory wars that are cost-efficient and perceived to be easy to win to consolidate power more efficiently.\textsuperscript{22} In Table 4, we explore the existence of such strategic warring decisions. First, in Column 1, we find that usurpers tended to wage wars closer to their capital cities, which may be due to logistics and communication costs concerns. Also, usurpers favored initiating wars that would have been perceived as “easier”—specifically wars against enemies that they had previously defeated.\textsuperscript{23} As shown in Column 2, usurpers were 27.7% more likely than hereditary rules to initiate an easy war, in which they more frequently secured victory (Column 3). We decompose the outcomes of warfare into four categories: easy wars that ended in victory, easy wars that ended in defeat, hard-fought wars that ended in victory, and hard-fought wars that ended in defeat. We

### Notes

\textsuperscript{20} The decreased numbers of observations from Column 2 to Columns 3-5 is due to the missing information of the emperors’ ages at enthronement. We compare the key characteristics, such as the numbers of initiated wars and duration of reign between the samples, with age information versus the samples without, and we find no systematic difference between the two samples.

\textsuperscript{21} Due to the count nature of the war data, we also include a Poisson estimation in Appendix D. Our baseline results remain robust. We thank the referee for suggesting the Poisson regression.

\textsuperscript{22} Such initiatives were also confirmed in anecdotal accounts: One year after Pepin III usurped the throne in 751 CE, when he started to pick the next target of expansion and thus power consolidation, he initiated military expedition to an easy target: eastern Septimania, where the weak prefectures and towns (Nîmes, Maguelone, Beziers, and Agde) ended up surrendering even without a fight (Lewis, 2014).

\textsuperscript{23} We define easy or easily won wars (and correspondingly, hard-fought wars) as follows: according to the outcomes of wars, we calculate the winning percentage of all previous wars from the founding of the current dynasty to the current reign. If the winning percentage is greater than 50%, we define the coming war as an easy war. Otherwise, it is a hard-fought war. In addition, since the warring records of the current dynasty are publicly available, the definition also rules out the potential information asymmetry concerns that either the usurper or the hereditary ruler may enjoy information advantages due to their positions or qualifications. We thank the referee for the suggestion of decomposing the nature of wars.
Table 4
Usurpers and wars of different nature: OLS results.

<table>
<thead>
<tr>
<th></th>
<th>Avg. Distance of War to Capital</th>
<th>No. of Easy Wars</th>
<th>No. of Easy Victories</th>
<th>No. of Easy War Victories</th>
<th>No. of Easy War Defeats</th>
<th>No. of Hard-fought War Victories</th>
<th>No. of Hard-fought War Defeats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usurper</td>
<td>−0.019** (0.008)</td>
<td>0.277**</td>
<td>0.193**</td>
<td>0.245**</td>
<td>0.084</td>
<td>−0.109</td>
<td>−0.071</td>
</tr>
<tr>
<td>Enthroning Age</td>
<td>−0.000 (0.000)</td>
<td>−0.016*** (0.005)</td>
<td>−0.009***</td>
<td>−0.012***</td>
<td>−0.008**</td>
<td>−0.000</td>
<td>0.007**</td>
</tr>
<tr>
<td>Temperature</td>
<td>0.012*** (0.004)</td>
<td>−0.072</td>
<td>0.029</td>
<td>−0.033</td>
<td>0.006</td>
<td>0.155**</td>
<td>0.125**</td>
</tr>
<tr>
<td>Precipitation</td>
<td>−0.002 (0.002)</td>
<td>0.031</td>
<td>0.042**</td>
<td>0.038</td>
<td>0.001</td>
<td>0.023</td>
<td>−0.014</td>
</tr>
<tr>
<td>Nomadic Attack</td>
<td>0.000 (0.004)</td>
<td>1.197***</td>
<td>1.070***</td>
<td>1.045***</td>
<td>0.660***</td>
<td>0.262***</td>
<td>0.268***</td>
</tr>
<tr>
<td>Dynastic FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>2.134*** (0.038)</td>
<td>0.348</td>
<td>0.240</td>
<td>0.201</td>
<td>0.189</td>
<td>0.024</td>
<td>−0.111</td>
</tr>
<tr>
<td>N</td>
<td>154</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
</tr>
<tr>
<td>adj. R²</td>
<td>0.379</td>
<td>0.779</td>
<td>0.828</td>
<td>0.789</td>
<td>0.663</td>
<td>0.092</td>
<td>0.187</td>
</tr>
</tbody>
</table>

Notes: ***p < 0.01, **p < 0.05, *p < 0.1.

Table 5
Usurpers and the dynamics of wars: OLS results.

<table>
<thead>
<tr>
<th></th>
<th>Early wars (1)</th>
<th>Early easy wars (2)</th>
<th>No. of overall early V's (3)</th>
<th>No. of early easy V's (4)</th>
<th>Late wars (5)</th>
<th>Late easy wars (6)</th>
<th>No. of overall late V's (7)</th>
<th>No. of late easy V's (8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usurper</td>
<td>0.229* (0.122)</td>
<td>0.305** (0.147)</td>
<td>0.177* (0.105)</td>
<td>0.261** (0.122)</td>
<td>0.080</td>
<td>0.104</td>
<td>0.091</td>
<td>0.103</td>
</tr>
<tr>
<td>Enthroning Age</td>
<td>−0.004 (0.005)</td>
<td>−0.008</td>
<td>−0.005</td>
<td>−0.006</td>
<td>−0.200***</td>
<td>−0.019***</td>
<td>−0.016***</td>
<td>−0.015***</td>
</tr>
<tr>
<td>Temperature</td>
<td>−0.005 (0.073)</td>
<td>−0.125</td>
<td>0.010</td>
<td>−0.082</td>
<td>−0.076</td>
<td>0.058</td>
<td>0.073</td>
<td>0.066</td>
</tr>
<tr>
<td>Precipitation</td>
<td>0.042 (0.033)</td>
<td>0.016</td>
<td>0.038</td>
<td>0.034</td>
<td>0.027</td>
<td>0.017</td>
<td>0.003</td>
<td>−0.005</td>
</tr>
<tr>
<td>Nomadic Attack</td>
<td>0.953*** (0.062)</td>
<td>0.867*** (0.074)</td>
<td>0.851*** (0.053)</td>
<td>0.775*** (0.062)</td>
<td>1.054***</td>
<td>1.030***</td>
<td>0.803***</td>
<td>0.793***</td>
</tr>
<tr>
<td>Dynastic FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>2.134*** (0.379)</td>
<td>0.348</td>
<td>0.240</td>
<td>0.201</td>
<td>0.189</td>
<td>0.024</td>
<td>−0.111</td>
<td>0.308</td>
</tr>
<tr>
<td>N</td>
<td>154</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>227</td>
</tr>
<tr>
<td>adj. R²</td>
<td>0.379</td>
<td>0.611</td>
<td>0.722</td>
<td>0.722</td>
<td>0.613</td>
<td>0.512</td>
<td>0.508</td>
<td>0.481</td>
</tr>
</tbody>
</table>

find, as shown in Column 4 and 5, that usurpers were indeed more likely both to initiate and win easy battles. At the same time, there are no significant differences in the choice of hard-fought wars. The results are consistent with our framework’s predictions.

Meanwhile, if a usurper strives to consolidate its legitimacy upon taking power, excess warfare is expected to be more pervasive in usurpers’ early reign and converge to regular rulers’ warring frequencies once the usurpers successfully consolidate power. To see this, we dichotomize the reign into early periods and late periods and present the warfare outcomes in Table 5. Similar to Table 4, we compare both the number of wars, the outcome of overall wars, and the outcome of easy wars in particular. Table 5 shows the excess warfare is indeed driven by early-reign behaviors. As the rule continues and the usurpers grow into their roles, their urge to legitimacy features no significant difference from hereditary rulers.

5.4. IV results

The IV results are presented in Table 6, where Columns 1–2 show the first-stage regression results, without and with controls, on the correlation between our IV and usurper identity. Moreover, there is no obvious evidence that birth orders are correlated with prior or current war determinants. Therefore, it provides the valid exogenous variation required for the analysis. Columns 3–7 show the 2SLS results with different controls. As shown, excess warfare remains significant for

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24 The first-stage results suggest that the instrument is significantly positively correlated with usurpation to power, with the F-statistic = 10.2 in Column 1. Table 6, According to Lee et al. (2020), there are concerns of weak IV in our analysis that leads the 2SLS results to bias towards the OLS estimates (Bound et al., 1995; Staiger and Stock, 1997). In the first stage analysis, the F-statistic with the controls (10.2) is greater than that with the controls (5.3), but the second stage estimates are reasonably close (2.050 in Column 4, and 2.089 in Column 7, both in Table 6). We thank the referee for pointing out the issue.
usurpers. The 2SLS results without controls are included in Columns 2–3. Similar to the OLS results, the positive effect remains robust after controlling for dynasty fixed effects, enthronement ages, climates, and nomadic attacks; the changes in magnitude remain limited.25 The point estimate in Table 6 is significantly larger than the OLS results in Table 3. We believe this difference is in part because our instrument is a dummy variable.26

5.5. Alternative legitimization strategies

Usurpers are often endowed with multiple legitimization strategies in addition to warfare. Our theoretical framework suggests that usurpers also outperform hereditary rulers in less-risky, peaceful legitimization maneuvers. In this section, we empirically compare ruler efforts in royal tomb-building, amnesty, fief-cuts, and political marriage. We report the results of alternative legitimization efforts in Table 7. As the table shows, usurpers significantly increased the frequency of amnesties by 28.5%, compared to a hereditary emperor. Usurpers also built royal tombs more intensively and offered more political marriages. Interestingly, there is no evidence of excessive fief-cuts. One possible reason is that many usurpers rose from such fiefs. In our data, the only usurper in Ming Dynasty—Zhu Di, Emperor Yongle—rose to the cause precisely because of the fief-cutting initiatives of his predecessor, Emperor Jianwen. Therefore, targeting vassals may backfire in the power consolidation of usurpers and raise more questions of leadership and the right to rule, which showcases again the highly strategic nature of usurpers’ legitimacy building process.

Furthermore, given the availability of alternative legitimization strategies, a ruler may need to balance different approaches. Our theoretical framework reveals that usurpers with lower initial legitimacy may favor peaceful methods more than risky warfare to avoid the unbearable costs of potential defeat on battlefields. To test this in the data, we employ a usurper-only sub-sample to examine the impact of birth order on peaceful legitimacy building. The first three columns in Table 7 confirm our framework. Furthermore, within the usurper groups, later-born sons usually had lower initial legitimacy if they managed to take the throne. Consequently, we expect even more frequent use of peaceful legitimization approaches for lower legitimacy-holding usurpers, proxied by later birth orders. This is confirmed by the results in Column 5 of Table 7.

Lastly, we address the efficacy of the abovementioned legitimization strategies, namely, whether such strategies turn out to consolidate the rule. To answer this question, we use the length of rule (duration) as a proxy of legitimacy. In Table 8, we

25 We also tried to use the identity of the second son and the identity of later-born sons (birth order > 4) as alternative IVs. The results are shown in Appendix Tables 2 and 3 in Appendix D. We find the results are consistent (significantly positive) using the identity of later-born sons, but we find no significant results using the identity of the second son. We believe that the insignificant result comes from the fact that the second son—as suggested by Sulloway (1997)—is systematically more rebellious and, thus, violates the exclusion restriction.

26 The considerable differences between IV and OLS estimates are not uncommon in the literature. For instance, Angrist et al. (2010) estimate the effects of the number of siblings on the timing of individual marriage. In the study, the authors use two dummies as instruments: (a) whether the first two siblings are of the same sex and (b) whether the second-carryage includes multiple births. Their IV estimates are 4-5 times larger than their OLS estimates.
find that legitimization efforts through both warfare and peaceful approaches significantly increase the length of the rule for all non-founding emperors. Thus, the efforts pay off in terms of ruler survival.\(^{27}\)

Naturally, weak new rulers across the world may adopt other, sometimes culture-specific legitimization building strategies to consolidate their rule. Though many of the strategies we discuss in this paper—such as warfare and political marriages—are universal; some are idiosyncratic—the Egyptians built giant pyramids and Sphinx-like statues to exhibit divine power—just as the Chinese emperors did in royal tomb-building. Some argue that a significant departure of the Chinese civilization from Western ones was the non-existence of strong religious beliefs for the former. Religion was a key factor in legitimating political authority in Europe and in the Middle East (Johnson and Koyama, 2019). For instance, when Pepin usurped the throne, the defining confirmation of his power came with the coronation by Pope Zachary in CE 951. However, despite the non-religious tradition in historical China, many ceremonies were required to establish the legitimacy of royal rulers, of which many featured stark resemblances to religious rituals. For instance, among the ceremonies, Feng Shan was a rite held in Mount Tai for the emperor to pay homage to him as the son of Heaven, who had received the authority to rule earthly beings (Bokenkamp, 1996).\(^{28}\) The core idea for the event was consistent with that of the Pope’s coronation.

\(^{27}\) We thank the referee for suggesting an empirical discussion of the efficacy of legitimization building efforts.

\(^{28}\) Rulers might also adopt rituals from different religions to appeal to different audiences. For instance, the Manchu Qing rulers used Buddhist rituals and practiced ancestor worship as in Chinese folk religion to appeal to Han Chinese (Jin, 2009). Meanwhile, they also conducted shamanist rituals to appeal to Manchu audiences (Elliott, 2001).
6. Concluding remark

While many new rulers strive to strengthen their rule, some are more eager than the others. Usurpers who come to power through coups tend to show a greater desire than hereditary rulers to build legitimacy, and they often do so through wars. According to data from historical China over two millennia, usurpers initiated 40.2% more wars than did hereditary rulers and claimed victories more frequently. The variable of excess warfare remains robust in an instrumental variable approach, where we use rulers’ birth orders as an instrument. We also show that usurpers tended to favor easily won conflicts and initiated more wars early in their reign to consolidate their power. Usurpers also showed higher interest in peaceful forms of legitimacy building, including tomb-building, amnesties, and political marriages, which further polished their public image. However, usurpers did not outperform hereditary rulers in abolishing vassals, from which many of them originated. In terms of efficacy, usurpers who built legitimacy more intensively ruled for longer periods than less driven usurpers.

From a broader perspective, the paper reveals there are excess incentives for new leaders with limited legitimacy to take aggressive actions in consolidating their leadership. Though the empirical investigation utilizes the comparison between usurpers and hereditary rulers, the insights apply similarly to leaders in other organizations, such as externally recruited CEOs in listed companies, professional managers in family businesses, appointed officials among local bureaucrats, and recently transferred star athletes to new sports teams.

Declaration of Competing Interest

The authors, Shuo Chen and Xinyu Fan, declare that they have no relevant or material financial interests that relate to the research described in this paper, Warcraft: Legitimacy Building of Usurpers.

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Appendix A. Definitions of initiated external wars

The main dependent variable in our empirical analysis is the wars initiated by agrarian regimes against nomadic regimes. To identify such wars from historical records, we first classify the two types of regimes. We define agrarian (nomadic) regimes as those who located their capitals north (south) of the Great Wall. We believe such classification is objective, as the Great Wall was a natural division of agrarian and nomadic civilizations. There were cases where the nomadic tribes established their capitals initially north of the Wall but moved to the south later. We classify those regimes as agrarian because they usually adopted the ideology and institutions of typical agrarian regimes. In the case of the potential systematic ethnic differences, we further conduct a robustness check, including only the Han Chinese regimes in Appendix D. The results remain robust. Fig. A1

Based on the criteria, there had been 36 nomadic regimes and 141 agrarian regimes in the past two millennia. Fig. 1 displays the geographic locations of the capitals of agrarian and nomadic regimes. After we classify the regimes, we collect the data of wars, which is introduced in Appendix B.

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29 For the political and geographic significance of the Great Wall, see Lattimore (1937).
30 The most typical examples are the Yuan (1271-1368) and the Qing Dynasty (1636-1911). The Mongols founded the Yuan Dynasty, and the founding emperor, Kublai Khan, moved the capital to Beijing in 1272 and began to take on agrarian institutions such as formalized bureaucracy and land-tax based fiscal system (Bai and Chen, 1997). Similarly, founded by the Manchus, a semi-nomadic tribe in Northern China, the Qing ruler moved the capital from Shenyang (in today’s Northeastern province of China) outside the Great Wall to Beijing in 1644, whose ruler began a systematic process of adopting Confucianism as the orthodox ruling ideology, and implementing nationwide Civil Service Exam system, incorporating the Han Chinese into the formal bureaucratic system, in order to build legitimacy and exercise effective governance (Meng, 1981; Xue, 2020; Chen et al., 2021).
Appendix B. Coding initiated external wars

The data of warfare are mainly collected from the two-volume work compiled by China’s Military History Committee, which is primarily based on the records of incidences of warfare from the Orthodox Histories (Twenty-Four Histories), with some additional sources. For each war, a brief narrative is provided containing the key information. We include an example in the following Fig. A2.

Fig. A2. An example of coding wars. *Sketched translation: Li Shimin, Emperor Taizong of Tang sent generals to Jingbian, Shaanxi, to attack the Turks in 628 CE. The Tang army prevailed, and the enemy surrendered.*
In the red boxes, we highlighted the information of interest: the time of the war, the attacking side, the defending side, the location of the war, and the war’s outcome. If the attacking side belonged to an agrarian regime, and the defending side belonged to a nomadic regime, per our definition in Appendix A, then the nature of the war was classified as an initiated external war. In the above example, the attacking side was Li Shimin of Tang. The defending side was the Turks. Therefore it counted as an initiated external war. Furthermore, the time of war was CE 628, and the locale of the war was Jingbian, Shaanxi. The outcome of the war was the triumph of the Tang army.

Appendix C. Distance of war locations towards the capital

From Appendix B, we can track the locations of wars, translate the locations into longitudes and latitudes using geographic information systems (GIS), and plot the geographic distribution of agrarian-nomadic warfare in Fig. A3, A4(a), and A4(b).

With the latitudes and longitudes information, we can calculate the spherical distance from the war location to the capital. For instance, suppose we take Beijing (116°20’ E, 39°56’ N) as the capital, and assume the battlefront is in A (α, β), where α is the longitude, and β is the latitude. Then the (spherical) distance from A to Beijing is calculated as follows:

\[ s = R \cdot \arccos \left[ \sin 39^\circ 56' \cdot \sin \beta \cdot \cos (116^\circ 20' - \alpha) + \cos 39^\circ 56' \cdot \sin \beta \right] \]

In particular, we denote \( s \) as the spherical distance, \( R \) as the Earth radius, which we approximate with 6371 km in the calculation.
Fig. A4. (a). Longitudes of wars.
Fig. A4. (b). Latitudes of wars.
Appendix D. Supplementary results

Tables A1, A2 and A3

Table A1
Usurpers and wars: poisson results.

<table>
<thead>
<tr>
<th></th>
<th>Initiated Wars</th>
<th>Initiated Wars</th>
<th>Initiated Wars</th>
<th>Initiated Wars</th>
<th>Initiated Wars</th>
</tr>
</thead>
<tbody>
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<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
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<tr>
<td>Usurper</td>
<td>0.397***</td>
<td>0.552***</td>
<td>0.502**</td>
<td>0.532**</td>
<td>0.647***</td>
</tr>
<tr>
<td></td>
<td>(0.140)</td>
<td>(0.167)</td>
<td>(0.199)</td>
<td>(0.208)</td>
<td>(0.213)</td>
</tr>
<tr>
<td>Enthroning Age</td>
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<td>0.005</td>
<td>0.007</td>
<td>0.004</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
<td>(0.007)</td>
<td>(0.008)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Temperature</td>
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<td>−0.006</td>
<td>0.119</td>
<td>0.134</td>
<td>0.155</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.119)</td>
<td>(0.119)</td>
<td>(0.134)</td>
<td>(0.155)</td>
</tr>
<tr>
<td>Precipitation</td>
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<td>0.038</td>
<td>0.049</td>
<td>0.051</td>
<td>0.056</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.049)</td>
<td>(0.049)</td>
<td>(0.051)</td>
<td>(0.056)</td>
</tr>
<tr>
<td>Nomadic Attack</td>
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<td>0.552***</td>
<td>0.574***</td>
<td>0.552***</td>
<td>0.574***</td>
</tr>
<tr>
<td></td>
<td>(0.108)</td>
<td>(0.129)</td>
<td>(0.108)</td>
<td>(0.129)</td>
<td>(0.108)</td>
</tr>
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<td>Dynasty FE</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.732***</td>
<td>−1.422***</td>
<td>−2.618***</td>
<td>−2.182*</td>
<td>−2.306*</td>
</tr>
<tr>
<td></td>
<td>(0.083)</td>
<td>(0.346)</td>
<td>(0.870)</td>
<td>(1.225)</td>
<td>(1.226)</td>
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<tr>
<td>Obs.</td>
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<td>411</td>
<td>250</td>
<td>235</td>
<td>227</td>
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<tr>
<td>Pseudo R²</td>
<td>0.0102</td>
<td>0.149</td>
<td>0.135</td>
<td>0.125</td>
<td>0.190</td>
</tr>
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Notes: ***p < 0.01, **p < 0.05, *p < 0.1.

Table A2
Usurpers and wars: IV results (second son).

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<th>1SLS</th>
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</thead>
<tbody>
<tr>
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<td>(2)</td>
</tr>
<tr>
<td>Usurper</td>
<td>1.018</td>
<td>1.092</td>
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<tr>
<td></td>
<td>(1.657)</td>
<td>(1.577)</td>
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<tr>
<td>2nd son</td>
<td>−0.094</td>
<td>−0.007</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Enthroning Age</td>
<td>0.003</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Temperature</td>
<td>−0.088</td>
<td>0.107</td>
</tr>
<tr>
<td></td>
<td>(0.107)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>Precipitation</td>
<td>0.039</td>
<td>0.038</td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>Nomadic Attack</td>
<td>0.366***</td>
<td>0.366***</td>
</tr>
<tr>
<td></td>
<td>(0.091)</td>
<td>(0.091)</td>
</tr>
<tr>
<td>Dynasty FE</td>
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<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
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</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Obs.</td>
<td>127</td>
<td>127</td>
</tr>
<tr>
<td>R²</td>
<td>0.013</td>
<td>0.013</td>
</tr>
</tbody>
</table>

Notes: ***p < 0.01, **p < 0.05, *p < 0.1. The data exclude the founding emperors and the non-direct offspring. We also exclude the samples from the Yuan and the Qing dynasties because neither the Mongols (rulers of Yuan) nor the Manchus (rulers of Qing) followed primogeniture.
### Table A3

Usurpers and wars: IV results (all lower birth order sons).

<table>
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<tr>
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<td>Initiated Wars</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Usurper</td>
<td>2.143**</td>
<td>1.545**</td>
</tr>
<tr>
<td>(1.057)</td>
<td>(0.774)</td>
<td>(0.803)</td>
</tr>
<tr>
<td>Non-1st son</td>
<td>0.154***</td>
<td></td>
</tr>
<tr>
<td>(0.057)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enthroning Age</td>
<td>0.004</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Temperature</td>
<td>–0.096</td>
<td>0.131</td>
</tr>
<tr>
<td></td>
<td>(0.111)</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Precipitation</td>
<td>0.054</td>
<td>0.052</td>
</tr>
<tr>
<td></td>
<td>(0.056)</td>
<td>(0.045)</td>
</tr>
<tr>
<td>Nomadic Attack</td>
<td>0.438**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.095)</td>
<td></td>
</tr>
<tr>
<td>Dynasty FE</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Constant</td>
<td>0.053***</td>
<td>0.424***</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.148)</td>
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<tr>
<td>Obs.</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>R²</td>
<td>0.056</td>
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**Notes:** **p < 0.01, *p < 0.05, *p < 0.1. The data exclude the founding emperors and the non-direct offspring. We also exclude the samples from the Yuan and the Qing dynasties because neither the Mongols (rulers of Yuan) nor the Manchus (rulers of Qing) followed primogeniture.

### References


