

Putting Parties out to Pasture: Pastoralist Clans and the Development of Party Systems

Timothy Liptrot

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Abstract

What explains the persistence of weak party systems in modern autocracies? The existing literature highlights the institutional benefits of party-based powersharing. This paper proposes that historically, pastoralist societies have stronger kinship-based political organizations (e.g., clans, tribes). Lineage-based clans are substitutes for political parties. For elites, they provide a framework for power sharing and organization. For citizens, clans offer an alternative mechanism for issue aggregation, representation, and the exchange of patronage for support. Consistent with my theory, I show that states whose ancestors practiced more pastoralism have weaker party systems today. I use surface water as an instrument for the extent of pastoralism in the recent past. I also present evidence from case studies in Central Asia, Iraq, and Saudi Arabia.

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1 Introduction

In the first parliamentary elections of Afghanistan after its liberation by NATO, 56 % of winning candidates had no party affiliation, and the average party had 4% of seats despite a majoritarian election system. The lack of domestic opposition parties under the Soviet-backed government or the Taliban could be easily explained by state repression. However, the US-backed regime was in

no position to suppress party formation. Why did the newly free Afghan people prefer nonpartisan candidates?

The current literature struggles to explain the persistence of weak or absent party systems, particularly in autocracies where weak party systems are concentrated. Functionalist explanations highlighting the benefits of parties for regime elites do not satisfactorily explain the persistence of weak-party autocracies. If opposition parties benefit autocrats by facilitating competition [Kavassoglu, 2022, Gandhi, 2010, Bokobza and Nyrup, 2024] and reducing violent opposition [Jernsletten, 2015, Wilson, 2017], what explains the autocrats who do not adopt them. If party institutionalization solves commitment problems over leader transitions [Wilson, 2017], why do some autocracies have weak or absent ruling parties after many transitions?

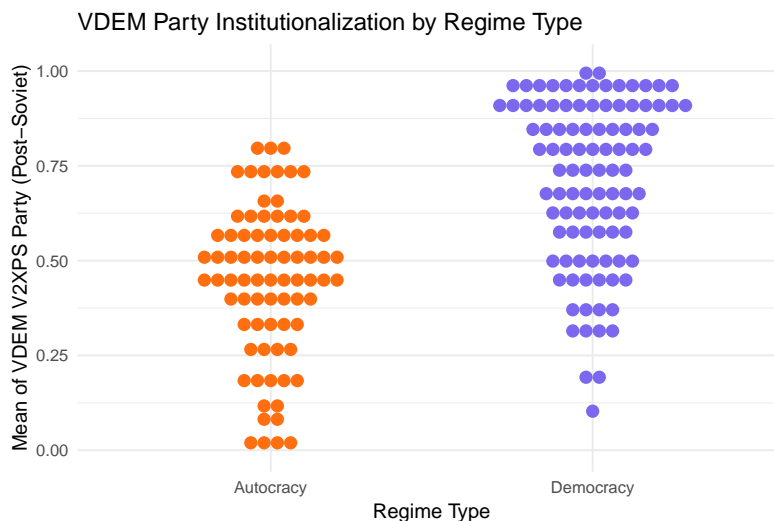


Figure 1: Average VDEM Party Inst. score for countries 1992 to 2020. The red plot uses only observations coded as an autocracy by Boix et al. [2013], and the blue only democracies. Countries with less than 10 observations dropped in each plot. Note the much larger concentration of autocracies at the bottom of the scale. For this reason, I focus primarily on literature describing autocratic institution formation.

This article proposes that pastoralist clans leave an institutional legacy that weakens party systems and limits vote competition. I define a clan as an informal organization of people linked by kinship and fictive kinship ties, extending far beyond the nuclear family (aka tribe or kinship

network)¹. Societies whose ancestors practiced pastoralism tend to have stronger kinship networks (clans for short) due to the need for non-geographic protection and resource-sharing mechanisms [Marx, 1977, Goldschmidt, 1965, 1971].

Strong clans are substitutes for parties. Like a political party, a clan can organize the ruling group, overcoming collective action problems, constraining leaders, and defining special political rights for members (e.g. Saudi Arabia). I refer to clans solving ruling elite coordination as the top-down mechanism. Clans also serve non-elites, which I call the bottom-up mechanism. Clans can advance candidates for the legislature and accrue votes, operate patronage or clientelistic networks, and represent citizens to the state. Societies with strong clans tend to have either no parties, independent majorities in the legislature, or many weak parties, each representing a clan or clan coalition. Those parties that do form tend to have weaker organizational capacity, undifferentiated party platforms, and poor voting cohesion in the legislature. I present evidence consistent with both the top-down and bottom-up mechanisms.

This paper tests the theory that histories of pastoralism lead to weaker modern party systems. Its primary contribution is a rigorous empirical investigation of the relationship between clans and party formation. I present cross-national regressions on party system strength, an instrument for pastoralism, a regional case study of post-soviet central Asia, and a most-similar-systems comparison of Iraq and Saudi Arabia in the 1950s.

To show at the country level that strong clans weaken parties, I exploit that cultures that practiced pastoralism in the pre-modern period formed strong clans that have persisted into modernity. I measure party institutionalization using data from V-Dem on platforms, party offices, voting behavior in parliament, and more. I show that countries that practiced more pastoralism in the pre-modern period have weaker party institutionalization today.

However, pastoralism could be caused by cultural factors, which also affect the development of party systems. I instrument for pastoralism with surface water availability to isolate variation in pre-modern pastoralism. I demonstrate similar and robust results with the instrument and use

¹I prefer the word clan to tribe, although tribe is often used in the literature. Tribe is also used to refer to ethnic or linguistic groups depending on the country and connotes underdevelopment. The word "clan" is derived from the old Irish *clann* meaning "children," "offspring," "progeny," or "descendants,." In English, clan connotes the Scottish clans which were lineage based and not ethnic.

controls to show that the instrument does not violate the exclusion restriction through colonialism, pre-modern development, or natural resources.

I present detailed case studies using the secondary literature on Uzbekistan and Tajikistan. Soviet rule did not disrupt the underlying clan structure of daily politics in their Central Asian territories, and clans took over Soviet institutions by placing their elders and members in positions of authority. Clans became the primary political actors when the USSR collapsed despite 70 years of Soviet rule.

Finally, I present a most similar systems analysis of Iraq and Saudi Arabia in the 1950s. At the time, both were weak states ruled by Bedouin monarchs with little dynastic powersharing and nascent oil income. In Iraq, nationalist and communist parties formed among the non-bedouin population and, by the 1950s, had acquired enough popularity. A party-military coalition first overthrew the monarchy in 1941. In majority-Bedouin Saudi Arabia, the first weak parties only began in the mid-1950s and lacked a mass base.

The theory is important because clan politics is not party politics by another name. While clans can perform similar functions to parties, lineage-based groups are fundamentally different. Individuals can change party identities, but individuals cannot change their lineages. Clans often grow their vote share by creating multi-clan coalitions, but these are alliances made by clan elites, not broad ideological or voter movements. My work points to a research gap in theories of coalition formation in clan vs. party societies.

My findings have implications for the prospects of democracy promotion in post-pastoralist societies. If the bottom-up mechanism is correct, removing existing regimes will not suffice to create Western-style party competition. Democracy promotion efforts are more likely to succeed in non-pastoralist societies. In pastoralist societies, democracy promotion must account for citizens' preferred forms of political organization.

Thirdly, my findings have implications for theories linking natural resource rents to political outcomes. Pastoralist societies have lower population densities and higher per capita natural resource endowments footnoteThe correlation by country between the average natural resource rents portion of GDP as measured by WDI (1970-2020) and pastoralism in the year 1800 is .33.

Pastoralist societies have lower population density which may increase resources per capita. The correlation between pastoralism and average population density in the same period is -.49. I show that the effect of resource endowments on party formation is weaker when pastoralism is included and suggest including further controls for historical political economy effects in future rentier state studies.

The most similar existing study is Victor Menaldo's "The Middle East and North Africa's Resilient Monarchs" [Menaldo, 2012]. Menaldo tests the effect of monarchic rule on economic development and social stability outcomes today. He uses the time of agricultural introduction (a proxy for pastoral tribalism) as an instrument to predict the occurrence of monarchy in the post-WW2 period. This paper extends that finding. I show that the effect of pastoralism on party institutionalization still holds when controlling for the number of years the country was a monarchy 1966-2018, suggesting that the effect is not a monarchy-only phenomenon. This is consistent with case study results from post-soviet Central Asian states where parties form but are primarily a front for underlying tribal interests, resulting in weak scores on programmatic competition and clientelism. Moreover, Menaldo's methods do not control for other possible pathways connecting geographic endowments and current party formation, such as premodern development, natural resource endowments, colonialism, and conflict.

2 Literature Review

The institutional turn in comparative authoritarian regimes has increased focus on ruling and non-ruling parties in autocracies. This literature has viewed autocratic parties and parliaments primarily from a functionalist perspective. It seeks to explain the leader's decision to allow parties, largely implicitly assuming that citizens and elites prefer parties over alternative interest aggregation mechanisms.

For ruling elites, parties provide helpful coordination and rule-making institutions. Ruling parties provide a stable channel for supporters to receive spoils and lobbying opportunities with reduced uncertainty [Gandhi and Przeworski, 2007, Reuter, 2017]. Ruling parties provide institu-

tional channels for elites to constrain the leaders [Magaloni, 2006, Svoboda, 2012]. Parties coopt and monitor citizens en masse [Lust-Okar, 2005, Dickson, 2016]. However, relatively few autocracies have strong ruling or non-ruling parties. Meng [2021] finds that 63% of autocratic regimes have a ruling party, but that 57% of those parties survive more than a year following the first leader's death or departure from office. Famous institutionalized autocratic parties like the PRI, Chinese Communist Party, and Soviet Communist Party are the exception, not the rule.

For non-ruling parties, institutional autocratists see hidden benefits to an organized and partisan opposition for the autocrat. By enabling citizens to form non-ruling parties, holding elections, and granting policy concessions to successful non-ruling parties, autocrats can make concessions to increase their expected tenure [Gandhi, 2010, Lust, 2009, Little, 2017, Knutsen et al., 2017]. Allowing opposition parties and institutionalizing relations with them allows autocrats to compromise with their subjects more credibly [Gandhi, 2010]. Autocrats may also allow non-ruling parties to form and contest elections in response to international pro-democracy pressure [Miller, 2020, Levitsky and Way, 2010].

My theory criticizes the underlying assumption of both arguments. The ruling party explanation implicitly assumes that alternative ruling institutions available are inferior at stabilizing the distribution of spoils, constraining leaders, and cooptation. The non-ruling parties' arguments assume the citizen's desire to join parties and be represented by them relative to alternative institutions available. These assumptions may be compelling in most countries but seem to hold less in the band of arid, pastoralist, and highly nomadic peoples extending from Central Asia through the Sahara.

While I am the first to test this theory cross-nationally with modern techniques, neither the top-down nor bottom-up theories are novel. Michael Herb's "All in the Family" argues that Middle Eastern monarchies survived because they became "dynastic" using detailed comparative case studies. In dynastic monarchies, power is shared across the ruling family; The family provides members with assurance of privilege in exchange for support and a means of constraining kings. However, Herb argues that premodern Arab kings were not dynastic, and the institution emerged in only in the 20th century. Herb downplays the influence of Bedouin culture, but dynastic monarchy

is very similar to the clan practices of the societies these Arab monarchs ruled over (e.g. Layne [1987]), and emerged mainly in farmer-minority societies [Menaldo, 2012].

The bottom-up theory that citizens see clans and parties as substitutes has also been discussed in regional and national case studies. Collins [2006] argues that clans remained the primary grass-roots social organization in Central Asian states during and after the Soviet Union. She explains post-Soviet trajectories primarily as results of the success or failure of cross-clan coalition governments. In Jordan, parties are legal, but citizens ,a vote for tribal candidates [Gao, 2016, Alazzam, 2008].

3 Theory

3.1 Pastoralist Clans

Pastoralism is a way of life in which families raise domesticated animals for subsistence, trade, and social exchange. Pastoralist societies can survive in areas with much less water and fertility than agriculturalists. In the pre-industrial world pastoralism was practiced across the world but with particular intensity in a belt running from the Eurasian steppes through the Arabian peninsula and into the Sahel of Africa. While some pastoral societies were sedentary, many practiced a nomadic lifestyle, traveling for portions of the year to different pastures. In rain-poor environments, moving to the least productive land during the rainy season allowed pastoralists to reserve the best land and water resources for the end of the dry season when their flocks were in the greatest danger.

Anthropologists hypothesize that pastoralism contributed to the development of tight-knit extended kinship networks known variously as tribes or clans [Marx, 1977, Goldschmidt, 1965, 1971] (henceforth tribes). Pastoralism requires the people to adapt their behavior to the requirements of the animals. Livestock tends to overgraze marginal land, requiring pastoralists to travel seasonally to spread the burden of their animal. Pastoralists must reside distant from one another to minimize overgrazing and can only concentrate briefly or seasonally. They cannot invest heavily in personal goods or in houses and fortifications and must protect and share essential resources such as water and pasture [Goldschmidt, 1965]. Pastoralists' most important property is cattle, which are easily

stolen.

Therefore, Pastoralists have a strong need to defend their resources and flocks and social organization to manage overconsumption [Goldschmidt, 1965]. In the pre-modern period, states were rarely interested in or capable of protecting pastoralist rights to their chattels, water, or pastures in distant and economically marginal places. Because pastoralists lack the clear spatial boundaries of agricultural societies, spatially defined groups cannot serve as the basis for defense and social organization. Risk mitigation via fencing, building, or alliances with neighbors is more difficult for pastoralists. Anthropologists hypothesize that this combination of greater external threat, challenging environment and reduced access to sedentary risk mitigation strategies shapes the culture of pastoralist societies [Goldschmidt, 1971, 1965, Edgerton, 1971, Marx, 1977].

Extended lineage groups form an alternative social basis for organizing military action and resource management, which does not depend on spatial boundaries. Marx [1977] discusses the political practices of pastoral groups across the Middle East and finds that tribal organizations enforce collective decisions in warfare, land regulation, and state-pastoralist relations.

Strong kinship networks are a very common characteristic of pastoralist societies [Barfield, 2020]. Early anthropological work found that kinship networks were more important to pastoralists than agriculturalists in many pre-industrial contexts. Edgerton [1971] surveys four African tribes and finds that pastoralists value having kinsmen relative to friends more highly than agriculturalists, that pastoralists mention the clan more frequently and expressed more positive attitude toward authorities. Kathleen Collins finds that central Asian groups who practiced pastoralism have a stronger tradition of tracking one's genealogy for 7 to 10 generations. Anne Porter writes, "If there is a constant [attribute of pastoral politics], it is that whether fictive or historical, manipulable or rigidly maintained, descent from a common ancestor is a key group identifier" Porter [2020]. Thomas Barfield writes

Sedentary states organized people by residence and assumed all inhabitants could be given a fixed address. Nomads organized themselves based on common kinship, descent or alliance, giving priority to mapping social and political relationships rather than geographical space. Their loyalty was to such groups, not to the territories they

happened to reside in.

[Barfield, 2020, p.22] This is not to argue that kinship groups are irrelevant in farming societies but that pastoralist societies tend to have stronger kin-based political organizations. Le Rossignol and Lowes [2022] argue that the hardships of protection, migration, and scarce water create demand for high levels of cohesiveness and trust. Rossignol et al. theorizes that pastoralism should increase the differential between trust in the in-group and trust in the out-group and that these differences should persist today. Using data from the Integrated Values Survey, they find that individuals from societies that practiced pastoralism indeed have a higher differential between trust for the in-group and out-groups (other religions, foreigners, or new acquaintances). They employ an instrumental variable design similar to the one used below.

While clans originate in pre-modern political economy, they have adapted to modern economic and social life [Collins, 2006]. Clans form informal networks of trust, which reduce transaction costs and uncertainty in loans and business dealings [?]. Clan elites help their members find jobs and receive loans, and elders adjudicate disputes and guarantee transactions. Clan elites, in turn, rely on the support of members for political patronage, votes, and social status [Collins, 2006].

3.2 Hypotheses

This section presents hypotheses for the relationship between pastoralist clans and party formation. I first present my hypotheses in general terms and define party institutionalization. Next, I present separate hypotheses for specific, measurable indicators of party institutionalization.

Hypothesis 1: Pre-modern pastoralism reduces the party institutionalization in the modern period

I expect that a pastoralist history will cause a more weakly institutionalized party system. My definition of party institutionalization comes from ? and Panebianco [1988]. A party is institutionalized if it has attributes that enable temporal stability. Institutionalized parties are valued by political elites, and members and voters are willing to sacrifice their short-term objectives for the party's long-term goals. I operationalize this using the V-Dem party institutionalization

metric; see below [Bizzarro Neto et al., 2017]. A country has an "institutionalized" party system if its major parties conform to Huntington and Panebiancos' ideal type. An institutionalized party has its own offices and a distinct party platform, votes together in the legislature, and appeals to voters based on policy platforms rather than clientelism.

Kinship-based groups can substitute for parties because they can fulfill many of the same essential tasks. Like a ruling party, a clan can solve collective action problems in a ruling elite by defining mutual rules for collective decisions, constraining rules, and managing successions. Monarchy is, by definition, ruled by a lineage-based group. For example, the Gulf monarchies use inherited clan norms as the basis for collective decision-making, succession, and powersharing. Menaldo [2012] finds that monarchy is associated with recent pastoral practice. In a pastoralist society, the monarch can build alliances with other powerful clans to support the regime without needing a party organization.

Clans can also substitute for parties for citizens outside the ruling group. A clan can mobilize votes; people can, and frequently do, run candidates for office through their clan [Layne, 1987]. Clans can represent citizens to the state when clan elders serve as mediators; post-pastoralist societies often formalize clan elder mediation in audience rituals (Majales in Saudi Arabia [Herb, 1999], dawaween in Jordan [Layne, 1987])

Post-pastoralist societies tend to have one of three types of party systems, each of which corresponds to low party institutionalization. In extreme cases, the ruling group is clan-based and bans parties, instead sharing power and interacting with citizens through clan-based institutions (e.g., Saudi Arabia [Herb, 1999]). In other cases, independent tribal candidates predominate in legislative politics, but party candidates exist, often serving niche voting bases such as Islamists or communists (the 2020 Kuwaiti parliament). In a third set of cases, clans form political parties to run candidates under, but these parties are fronts for the clan and lack an independent organizational life (e.g. the 2024 Jordanian parliament).

Hypothesis 2: Pre-modern pastoralism reduces the distinctness of policy programs among parties or legislators

Lineage-based political organizations - whether nominally parties or independents - have little

incentive to invest in building a policy program or ideological brand. Programmatic competition benefits a party by attracting votes by appealing to different social groups. It allows parties to dynamically shift their target social groups (workers, farmers, retirees, etc.).

In a society where political identities are primarily determined by lineage, citizens may be able to leave a lineage-based organization but cannot join a new one because descent is fixed. When loyalties are set by lineage, the target group is constant. Clans may form multi-clan coalitions to expand their voter base and overcome minimum electoral thresholds, but these agreements tend to be set by clan elders and do not require mass appeal via programmatic competition.

Also, lineage networks often cut across class, as members of the same lineage will occupy different class and ideological positions. Class-based programs may cut across the clan and endanger group solidarity, making them less appealing.

Hypothesis 3: Pre-modern pastoralism increases the use of clientelistic over programmatic appeals by parties

Clientelistic provision allows the elected to fulfill their socially prescribed role as a clan patron. It increases the social bonds among members and the financial rewards for staying within the clan. An elected candidate who fails to provide clientelistic goods risks being eclipsed by other political entrepreneurs within the tribe.

Clans may also benefit more from clientelistic goods because families have correlated utilities - they benefit from family members receiving benefits [Corstange, 2018]. Jobs in the civil service are usually the most valued form of patronage in developing states, but for a non-kin network, only a minority of members can enter the civil service. Most adult members must be disappointed and may become disillusioned with the patronage strategy. For kin-based networks, rewards to one member of a family spill over onto others. Jobs in the civil service have externalities that spill over across the family. In addition to the salary, having a family member in the civil service helps the family share risk to income shocks through internal transfers [Bates, 2009]. It also helps other family members navigate civil service hiring processes.

Hypothesis 4: Pre-modern pastoralism reduces the number of offices held by parties.

Hypothesis 5: Pre-modern pastoralism reduces the number of regional branches parties hold.

Parties that serve as fronts for clan coalitions can rely on the kinship network's existing organizational capacity. Because the clan already has mechanisms for coordination and meeting places (e.g., the homes of clan elites), there is less reason to create these capacities within the party.

Hypothesis 6: Pre-modern pastoralism reduces the degree of cross-regional party competition.

Clans tend to be geographically concentrated, and cross-regional competition requires clan coalitions or exceptionally large clans. Ideologically motivated parties are better positioned to make appeals across regions. I expect that post-pastoralist societies have fewer parties that compete in multiple regions.

4 Regional Cases

4.1 Post-Soviet Central Asia

In the 19th century, the central Asian nations of Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan, Mongolia, and Afghanistan were characterized by a tribal political economy similar to the Arabian Desert. The most famous nomadic empires of the second millennia (Mongol, Timurid, Mughal) originated in this region. By the year 1800, pastoralism still occupied more than 80% of agricultural land in all states except Tajikistan and Uzbekistan, which were still majority pastoralist (See figure. 2).

As in the Middle East, anthropologists and historians observed that kin networks were central to political life among the region's pastoralists in the 1800s. Addeb Khalid described political identities as follows:

Individuals felt themselves to be Ozbek or Turk or Tajik not through some abstract sense of belonging to a national group but through the concrete fact of being born in a family that was located in a socially ramified structure conceived in kinship terms. Tribal designations were far more significant to individual identity than broader categories such as 'Turk' or 'Tajik' (...) Among the sedentary population without tribal divisions, geographic designations played a similar role

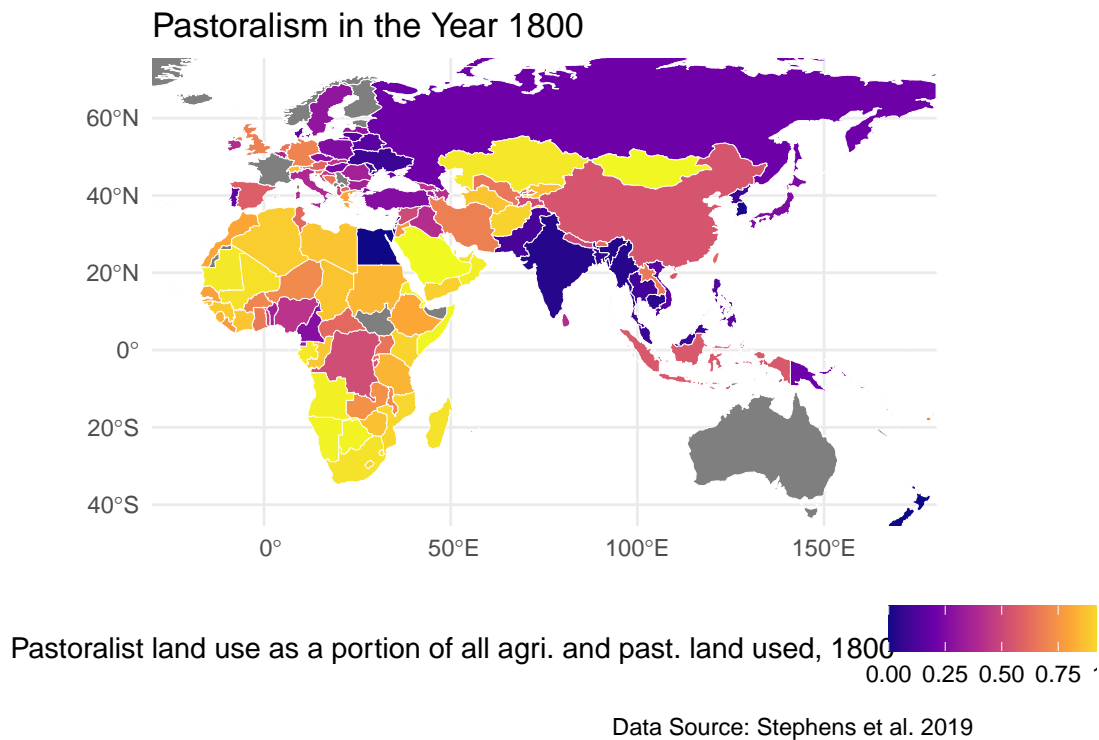


Figure 2: Ratio of land used for pastoralism to land used for agriculture and pastoralism combined in 1800. Data Source: Stephens et al. 2019.

[Khalid, 1999, p. 190]

Clan remained the primary political identity throughout the Tsarist and Soviet periods, particularly in local politics and rural regions. The central Asian states were first colonized by Tsarist Russia in the 1800s and later by the Soviet Union, achieving independence in 1991. Russian conquerers disrupted the most militarily powerful tribes, dividing the Kipchak clan federation, but Tzarist rule was mostly indirect and did not interfere with clan politics heavily [Collins, 2006]. The Soviet Union consciously promoted geographic and non-kin political identities by creating national republics along ethnic lines (hence the names Tajikistan, Uzbekistan, etc.) [Collins, 2006]. It also enforced policies for sedentarization and modernization, reshaping the region's economy.

However, clans survived and were absorbed into the Soviet system[Collins, 2006]. Pastoralists sedentarized into villages by clan, so when collective farm boundaries were drawn among existing

villages the farms often became single-clan enclaves. The Soviet practice of inviting individuals into local CPSU party bodies allowed clan elders to run local party cells, despite being "from the wrong social classes" [Edgar, 2006, p. 107]. These party cells were empowered to manage the new collectivized agriculture and administrative system, effectively placing it under clan control in the countryside [Roy, 2000]. CPSU branches in central Asia became dominated by "clan cadres," which Moscow occasionally purged but more often implicitly tolerated [Collins, 2006].

The decline and collapse of the Soviet Union saw a reemergence of clan politics, operating openly at the highest levels in the Central Asian states. In 1989, leaders of Uzbekistan's clans and regional groups, displeased by a recent purge, met privately to select a new leader [Collins, 2006]. They bypassed Soviet institutions to present their candidate to Moscow as a united front. The primary organizers of the conference were too closely associated with their own clan networks to be consensus candidates, so they selected non-clan technocrat Islam Karimov. Gorbachev acceded out of fear of instability in Uzbekistan. Karimov's domestic clan support allowed his career to outlast the USSR [Fedorov, 2012].

From 1989 to 1992, each Central Asian state formed a similar inter-clan pact, except in Tajikistan. The primary content of these pacts was an informal division of government jobs, influence, and patronage resources between the most powerful clans in each country. To prevent one clan from dominating the presidency, the leaders were often technocratic or urban, not clan elders. Askar Akaev became Kyrgyzstan's president despite being a physicist who had spent 20 years outside the country. Central Asian transitions were "packed," but unlike the well-known Latin American packed transitions, these pacts divided state power among the country's powerful clans [Collins, 2006].

Only in Tajikistan did a clan coalition fail to form before the Soviet disintegration, leading to a civil war [Gleason, 2011]. The Khodjenti and Kulyabis clans monopolized appointments in the state and communist party to the exclusion of most Tajik clans [Collins, 2006]. The Khodjenti clan monopoly had been sustainable with Soviet economic and military support, but that support was withdrawn in 1992. Excluded clans and Islamists began a civil war, with warlordships and militias primarily following clan lines outside the cities.

Post-soviet electoral politics in Central Asia was characterized by high rates of independent candidates (usually claudicates), poor electoral party performance, and inter-clan competition clientelistic goods. Kyrgyzstan transitioned to a democratic system with multiparty elections held in 1995, which had 76% turnout and were rated free and fair by international observers [Nohlen et al., 2001]. Only 22 % of seats went to candidates who ran as party members [Nohlen et al., 2001]. All candidates for the 1995 presidential election were independents, and 98% of votes went to the two candidates mobilizing clan coalitions, Akaev and Sherimkulov. After Akaev won, his policy agenda was heavily constrained by the tribal elders who got him elected (Abazov, Historical Dictionary of Kyrgyzstan p. 350).

Uzbekistan followed an autocratic path after independence in which President Islam Karimov attempted to construct a party state. Karimov hoped to build a rubber-stamp parliament as in the Soviet Union but struggled to defeat claudicates in a series of national elections. In 1994, 48% of seats were won by independents representing regional notables. Karimov responded by creating four additional parties with targeted appeals to youth, workers, pensioners, and businesspeople. Independents won 51% of the seats in the 1999 elections (Collins, 2006, p. 259).

4.2 Saudi Arabia and Iraq in 1950

Saudi Arabia remains one of the few autocracies to completely ban all political parties at the time of writing in December of 2024. Parties have been banned in Saudi Arabia throughout its modern history, and what few Saudi opposition parties have existed were mainly small movements that were easily forced into exile. Iraq has had a more conventional party history. Nationalist parties played a large role in its independence movements. From 1968 to 2003, the Baath party monopolized power. Since 2003, Iraq has been ruled by a sequence of fractious but partisan coalitions.

Today, the Iraqi and Saudi political systems are too different for a reasonable comparison. Saudi Arabia has much greater oil wealth per capita, a stronger state, and a large and cohesive family that allows Saudi royals to plant members throughout the state apparatus and military. Iraq's recent civil wars and American occupation have both eased party formation.

However, the relative weakness of the Kingdom's political parties predates most of these factors.

Saudi Arabia was an outlier in party development as early as 1950 (see Figure 3).

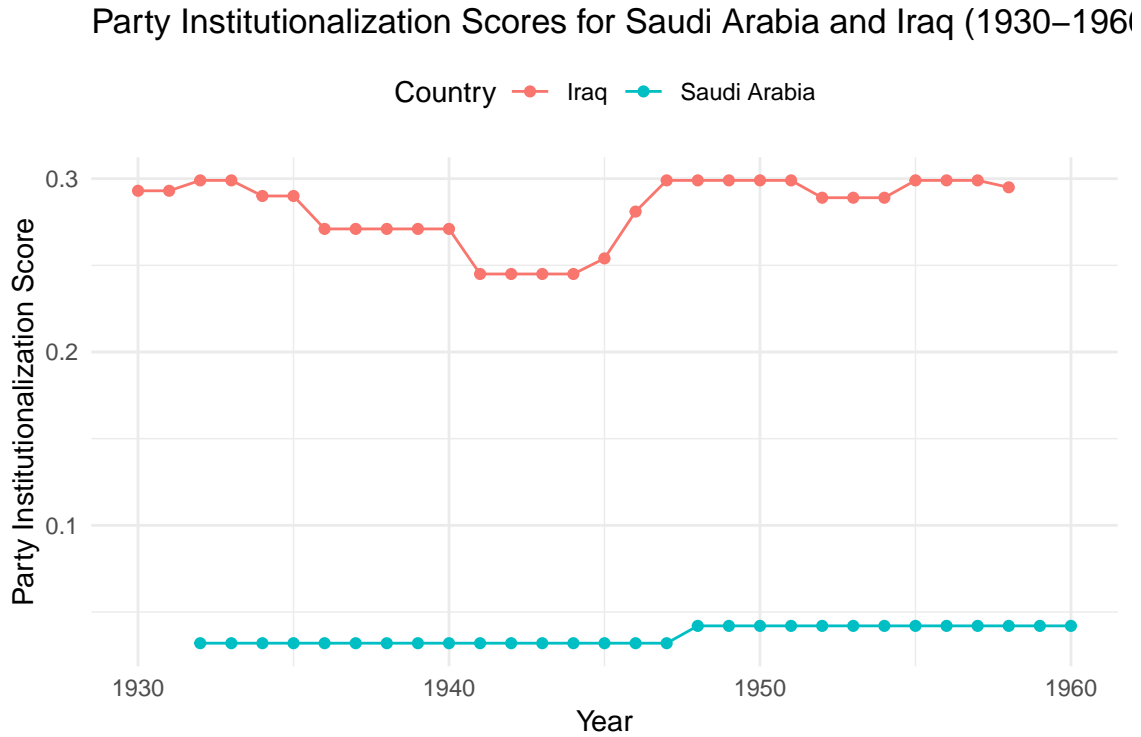


Figure 3: VDEM party institutionalization scores for Iraq and Saudi Arabia from 1930 to 1960

In 1950, the two states were similar in most relevant variables except their Bedouin populations. Both states were Arab majorities, ruled by absolute monarchs from Arabian Bedouin noble lineages, supported by nascent oil wealth, and with some backing from the British and American empires, respectively. From 1921 to 1957, Iraq was ruled by a Hashemite monarch from Hejaz in the Arabian Peninsula. Like Ibn Saud's ancestors, the Hashemites were culturally Bedouin and raised young men as nomads until the mid-1800s.

Both were starting to develop oil wealth. In 1950, Iraq produced 19 million barrels of oil in Saudi Arabia 25.5 million (3.3 and 8 barrels per capita per year, respectively) (Minerals Yearbook 1950, USG), and both quickly expanded production over the decade [Alnasrawi, 1994, p.11]. Both enjoyed support from foreign powers, but neither the UK nor the Americans would intervene to

protect the monarchs from a domestic challenge[Herb, 1999].

The two states were radically different in economic structure. Iraq, nourished by the great Tigris and Euphrates, has a long history of settled agriculture. Pastoralist tribes were present in Iraq as a politically important and militarily organized group but were a minority [Batatu, 1978, Marr, 2018]. In 1950, 47% of Iraqi worked land was used for grazing [Ritchie et al., 2024] . ² In Saudi Arabia, Bedouin pastoralists remained the vast majority of the population, using over 99% of worked land in 1950[Ritchie et al., 2024].

In Iraq, Arab Nationalist parties began forming in the 1920s. Nationalist parties began in urban centers and gained popularity among urban workers through the 1930s and 40s. They borrowed mass mobilization strategies from European par, creating a youth movement modeled after European fascist movements [Marr, 2018, p.45]. In 1936 and 1941, the nationalist parties participated in coups launched by Iraqi officers, receiving cabinet positions in 1936 and the prime ministership in 1941. In the mid-1950's, the nationalist and communist parties formed a united front against the monarchy and took power following the 1958 military coup led by nationalist sympathizers in the officer corp.

The contrast with Saudi Arabia's party development is stark. By 1953, Saudi Arabia still had no parties, legal or underground, 17 years after Iraq's first party forced its way into government [Herb, 1999, Wynbrandt, 2010]. Saudi Arabia's first proto-party political movements were the Free Princes Movement and Arab nationalist groups. The Free Princes were an elite group of princes and intelligentsia that supported a constitution and republican reforms. However, the Free Princes movement never built a mass base or received clan support and was quickly forced into exile[Menoret, 2005]. In 1953, a strike by Aramco workers created a nationalist and republican "Front for National Reforms," but they were pushed into exile in 1956. Neither of these groups ever acquired tribal support or a mass base.

Alliances with military factions advanced party control in Iraq by splitting state power[Marr, 2018]. It is plausible that party entrepreneurs in Iraq were encouraged by opportunities to ally with the military. However, those same opportunities were available to Saudi parties until the reform

²Grazing supports fewer people per area, so this implies a modest pastoralist population. Exact figures for the Bedouin population were not found

of the monarchy in 1964. The Free Princes were led partly by Talal Bin Abdelaziz, the king's half-brother and finance minister[Herb, 1999, Wynbrandt, 2010]. The Saudi monarchy's dynastic institutions were only solidified in 1964 during the removal of King Saud[Herb, 1999]. Also, before major expansion before oil, the Saudi state was too weak to break up party formation across its large and dispersed population.

The most plausible remaining explanation is that both Saudi Arabia and Iraq's Bedouin tribes were disinterested in forming political parties. Because pastoralist Bedouin comprised the overwhelming majority of Saudi society, parties could only develop among a small and politically weak urban middle-class movement.

Consistent with this theory, the Iraqi tribes remained aloof from the early nationalist parties. These parties' social base was consistently an urban, nontribal middle class and workers [Batatu, 1978]. Iraq's nationalist parties perceived Iraq's tribes as political rivals, and in 1924, they introduced an amendment requiring literacy for parliamentary delegates to reduce tribal influence[Marr, 2018].

5 Cross-national Evidence

5.1 Research Design

This section describes my research design for the cross-national hypotheses (1-6). I first provide a series of cross-national regressions of my pastoralism index on party institutionalization variables. I use cross-sectional data because pastoralism causes clan institutions to form over hundreds of years in the pre-modern period before parties formed. There is no usable variation in the treatment over the period where parties exist ³. However, these regressions could be biased by confounders between pastoralism and party development, such as cultural values which cause societies to be pastoralist.

Therefore, my primary method is an instrumental variables specification, which uses surface water flow in a country's current territory to predict the portion of land used by pastoralism in the

³clan institutions may gradually fade away in a modern economy, but I do not measure that process.

year 1800. The portion of land used for pastoralism in the year 1800 is the independent variable, averaged modern party institutionalization scores are the dependent variable, and surface water per land area is the instrument.

5.2 Independent Variable

My primary independent variable is the portion of productive land used for pastoralism in 1800, as measured by Taylor and Rising [2021]. I divide the number of hectares used for pastoralism by the total hectares used for either farming or pastoralism. The year 1800 was selected because of the relatively high-quality data available and because 1800 was sufficiently early in the transportation revolution that land use at that time was a reasonable proxy for land use in the preceding hundreds of years during which clan politics developed.

However, that assumption does not extend to the Americas and Oceania, in which herds other than pigs and llamas were introduced very late. My measure of pastoralism is not a good indicator for historic pastoralist practice in the long term because colonization radically changed land use practices. Spanish settlers and natives who had previously been primarily farmers devoted almost all the land in Cuba and Brazil, for example, to pastoralism due to low population density. Because pastoralism occurred relatively late in these peoples' histories and in the presence of states, it did not create strong clan politics. Latin American societies are culturally a combination of Spanish colonists (previously mostly farmers) and native Americans (predominantly farmers). Also, none of these people were nomadic, unlike in the old world. In my primary specification, I leave out the new world. In Table 9 I also include the new world with an alternative specification using historical subsistence practices adjusted for migration, which better describes new world societies.

Le Rossignol and Lowes [2022] investigates the effect of transhumant pastoralism on in-group trust relative to out-group trust. They construct a measure of pastoralism specific to transhumant (nomadic) pastoralism. However, the Ethno Atlas project recorded practices measured (observation time varies between 1890-1950). For example, Saudi Arabs are recorded as non-nomadic urban dwellers because data was collected very late. Because clan institutions persist for several

generations after the end of pastoral practice, this does not capture our variable of interest well. An adjusted version of the ethno-atlas data is presented in robustness checks (see Table 9).

5.3 Dependent Variable and Control Variables

I measure party system institutionalization at the country level using the recently created Varieties of Democracy (V-Dem) variables [Bizzarro Neto et al., 2017]. They define party institutionalization by similarity to an ideal type party based on ? and Panebianco [1988]. V-Dem construct the metric from 5 attributes of the party system including party organizations, presence of party branches, party cohesion in the legislature, party policy platform differentiation, and programmatic vs. clientelistic appeals. Variables were coded based on testimony from country experts. Table 5.3 lists the components used for the party institutionalization measure and their descriptive statistics.

They cover 166 countries from 1900 to 2021. I construct a country-level aggregate from this metric by taking the average value from 1992 to 2021. For autocracy-only regressions, I drop all non-autocratic country years and run the same aggregation method, so countries that switch receive an aggregate of all autocratic years. I use the same procedure to drop monarchic years in another robustness check. Autocracy is measured using the Boix et al. [2013] binary dataset for its completeness and simplicity. Monarchy is measured using a binary indicator supplied by Bjørnskov and Rode [2020], which was also chosen for extensive coverage.

GDP and population data come from the World Development Indicators dataset, but missing values are filled in using the Penn World Tables to achieve completeness. This reduces potential selective reporting of GDP data by regime type [Ross, 2006]. Pastoralism could be caused by various factors that also produce underdevelopment, like low access to agricultural technology in the African interior in 1800. Underdevelopment may reduce party institutionalization because party activism is a normal good. I also include natural resource rents from WDI, which may be related to the regime’s reliance on society and, therefore, the need for cooptation mechanisms like parties.

As an additional control for early modern development, I include urbanization in each country’s current territory as of 1600 [Ritchie et al., 2024].

Fixed effects for colonizer countries refer to European colonial powers only (Britain, Spain, France, Belgium and Portugal). The length of colonization comes from [Herre et al., 2024]. Arab states are handcoded.⁴

Dot plots of the main independent and the dependent variable are given in plots 10 and 10 for all states and autocracies only, respectively.

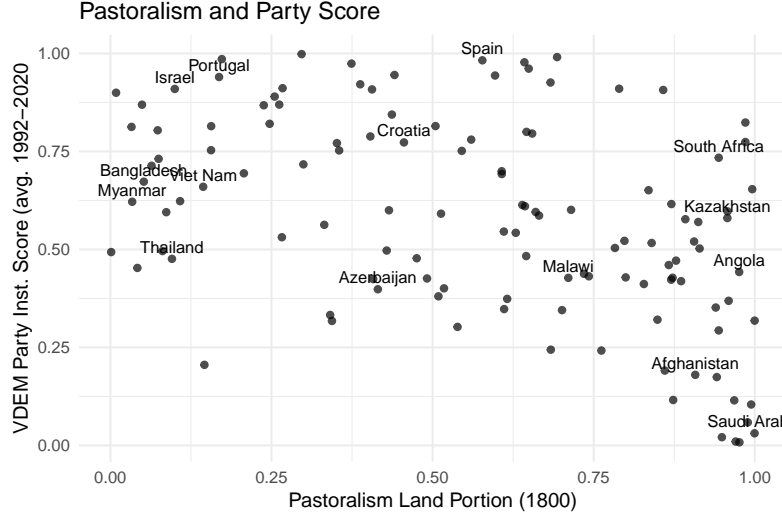


Figure 4: Average VDEM Party Inst. score for countries 1992 to 2020. All old-world countries included.

5.4 Cross-national Results

Table 3 gives results from a regression of pastoralism on aggregate party institutionalization with 5 sets of controls. The effect of pastoralism on party institutionalization is mostly consistent across each control set. The first includes natural resource rents and averaged GDP and population. The second includes the number of years the state was an autocracy from 1970 to 2020. Unsurprisingly, more years spent as an autocracy is associated with weaker parties, although the causal direction is unclear. The fourth specification includes controls for which European states colonized the country (not including the Soviet Union) and, for years, colonized an Arab culture dummy. The 5th model

⁴I coded the following states as Arab: Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Lebanon, Iraq, Syria, Saudi Arabia, Kuwait, the UAE, Oman, Yemen (all Yemens), and Bahrain.

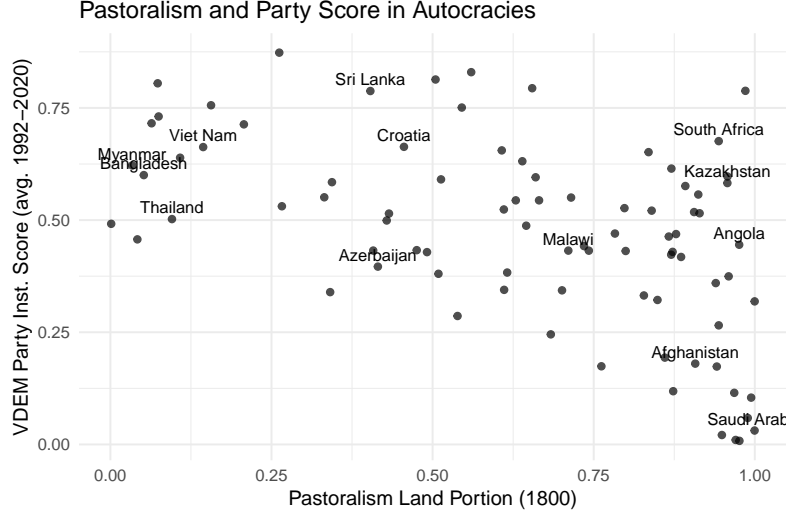


Figure 5: Average VDEM Party Inst. score for countries 1992 to 2020. Uses only observations coded as an autocracy by Boix et al. [2013], and the blue only democracies. The effect is more visible among the autocracy-only sample.

includes all the controls. The 6th model restricts the sample to only countries that were autocratic for 10 years or longer in the sample period and only takes party measurements from autocratic years.

Results are consistently positive and in the expected direction. Only one specification misses conventional standards of significance, with a p-value of .11.

Pastoralism levels have spatial autocorrelation between countries due to clustering in variables such as climate and access to herdable animals (See Fig. 2). This clustering is a potential source of bias in estimates because it implies that observations are not perfectly independent of one another, which may cause an underestimation of error terms.

The correct adjustment depends on the process that generates the spatial autocorrelation [Cook et al., 2020]. I present two models which make different assumptions. In the first two columns of Table 4, I use Conley standard errors to account for spatial autocorrelation [Conley, 1999]. Conley errors remove spatial autocorrelation in the residuals. In the second two columns of Table 4, I use spatial error models (SEM). The SEM explicitly models spatial relationship by estimating a

spatial weights matrix and a spatial autoregressive component of the error term. I construct the spatial matrix using k-nearest neighbors where $k = 5$. Results are substantively similar to previous models.

For theoretical reasons, I do not use models that account for spillovers in the dependent variable. Spillovers from the outcome variable would occur if, for example, states with clan politics or weak party systems act to promote their particular institutions on neighbors. However, autocracies rarely promote diffusing their institutions and ideology (the Leninist states were exceptional) [Weyland, 2017]. Clan politics does not provide a strong reason to promote similar institutions abroad. For example, Tajik clan elders have little reason to decrease the role of parties in Uzbekistan’s politics.

5.5 Instrumental Variable

Despite the controls presented, there is potential for endogeneity between pastoralism and non-clan variables affecting party systems. In the next subsection, I address the potential endogeneity through an instrumental variable design (IV design).

I use surface water availability as an instrument for pastoralism. It accounts for cultural factors that might induce pastoralism, such as an individualistic culture, which also affects party formation. I include controls to close potential alternative pathways between low surface water and modern party formation, such as premodern urbanization and natural resources.

My primary instrument is the amount of surface water flowing through a country divided by the land area. Larger endowments of surface water make farming easier relative to pastoralism. I take the surface water entering the country per land area in thousand cubic meters per year per square kilometer. Then I take the log to produce the variable `log_sw_area`. I show in Table 2 that surface water is a strong instrument for pastoralism. In the simplest possible regression of the DV on the IV with `log_sw_area` as instrument, the F-statistics is 43 and the t value is -4.

Prior studies on the political effects of pastoralism have also employed instruments but implemented them differently. Menaldo [2012] is interested in the effect of monarchy on political stability and property rights. He instruments for monarchy using a proxy for pastoralist tribalism, the year a region transitioned to settled agriculture. This method is only appropriate for the Middle East,

where crop and technology diffusion occurred relatively quickly (the plow did not spread to most of SSA until the 19th century). Le Rossignol and Lowes [2022] and Becker [2024] use soil quality measurements as an instrument. Soil quality does predict pastoralism and transhumant pastoralism. However, soil quality measures do a poor job of predicting land use near major rivers (see Beck and Sieber [2010], figure 2). This is a serious problem in countries like Egypt and Iraq, where the population is concentrated in narrow, farming-suitable strips near rivers, including most of the arid belt’s farming cultures from central Asia to the Sahara. Because soil metrics are bundled treatments (water and soil), controlling for alternative causal pathways is difficult.

For my instrument to be credible, surface water availability must be relevant (strongly predict pastoralism), be unconfounded with the DV, and meet the exclusion restriction (affect the DV only through the IV after controls). The exclusion and unconfoundedness conditions ensure that the covariance between Z_i and u_i goes to zero as N becomes large[Sovey and Green, 2011].

The relevance criterion is satisfied on empirical and theoretical grounds. In pre-modern societies, the choice between different pastoralist or agricultural subsistence strategies was significantly influenced by the availability of water resources. Crops such as grains and vegetables need substantial and regular watering to grow. Without an adequate surface water supply, crop yields would be too low to sustain large populations or economic productivity. Pastoralism is more resilient to arid conditions. Livestock, especially goats, camels, or sheep, have a natural ability to travel long distances to access scattered water sources and can survive on forage types that are more resilient to water scarcity than crops. I show in Table 5 that surface water is an exceptionally strong instrument, with an F-Stat of 41 in a binary regression.

Unconfoundedness could be violated if surface water availability is caused by some variables that also affect party development. In general, the assignment of surface water is driven by climactic conditions. Geographic proximity to other states with clan culture and non-party autocracy is a potential violation of the unconfoundedness restriction. I included Conley standard errors in the OLS treatment but could not combine Conley standard errors with the instrument.

The exclusion restriction is threatened by variables causally downstream of surface water through mechanisms other than the practice of pastoralism. It is common in instrumental vari-

ables papers to make a short theoretical argument that the instrument is exogenous and terminate the discussion [Sovey and Green, 2011]. Some articles also include a regression of the instrument against the dependent variable, but this is not an adequate response due to the original endogeneity concerns.

In this case, it is better to think of the instrument as not ending the fight with endogeneity but shifting the battle to a more advantageous position. There are many alternative causal pathways in the direct regression of pastoralism on party formation. Colliding pathways are particularly onerous, as the choice of land use is downstream of social factors, which may also affect the dependent variable. Because water availability is set long prior to the choice of land use confounding by social factors is not an issue.

There are some potential pathways through which water availability could affect the dependent variable. Fortunately, I need not show that surface water is irrelevant to these other intervening variables but only show that the results hold when they are adequately controlled for because the exclusion condition requires only removing any correlation between the instrument and the error term in the full model including the controls [Sovey and Green, 2011]. Normally, adding controls in an IV is difficult because it reduces the relevance of the instrument, but the F statistic is high enough in this case to bear the inclusion of multiple simultaneous controls. This section attempts to enumerate an exhaustive set of alternative pathways and control for them

The effect of surface water irrigation on political culture and institutions was one of the first modern comparative politics theories proposed by [Wittfogel, 1957]. It is possible that greater surface water made societies richer, which affected their culture into modernity. As a proxy for the wealth of pre-modern society I include the urbanization rate in the year 1600 [Ritchie et al., 2024].

Low levels of surface water could increase dependence on natural resources. Low demand for agricultural labor and capital could channel resources into extractives, leading to greater oil and mineral extraction. Also, surface water is positively correlated with population density, leading to more mineral deposits per capita. I control for population density and natural resource rents.

The European colonial powers differed in the profile of the colonies they targeted [Lange et al., 2006]. Densely populated and wealthy precolonial states were more likely to be colonized by Spain

relative to Britain. Colonial powers bequeathed different institutional legacies to successor states, so I include controls for colonizer fixed effects and the number of years colonized.

Past literature does not suggest that the effect of surface water on autocracy would violate the exclusion restriction. A working paper by Haber [2012] proposes that low levels of rainfall reduce democracy, which can influence party development through bans on party competition and lower incentives to gather votes. However, Haber argues the effect is entirely mediated by "the ability to grow rain-fed cereals", so the paper does not propose an alternative pathway for low rainfall.

5.6 Mediation

Alternative mediators between pastoralism and party development is a second major problem for both the direct and instrumented specification. For example, pastoralism could affect parties not through tribes but by increasing natural resource extraction, allowing autocrats to inhibit party development. Mediation is a harder problem because there is potential for endogeneity from both, including or excluding a possible mediator. If natural resources are excluded from the specification, then the effect is biased by the product of the effect of pastoralism on resources and the impact of resources on parties. If natural resources are included, there is potential for posttreatment bias.

Statistical solutions for mediation and posttreatment bias require panel data [Aklin and Bayer, 2017]. That is not possible in this case because clan culture formed prior to the introduction or measurement of parties. I instead include specifications in the above table where potential alternative mediators are included or not. Given the substantively large and consistent effect sizes, it requires strong coincidences for both the omitted variable bias and posttreatment bias to give such similar results.

One important causal pathway travels through monarchy. Monarchies emerge more frequently and survive longer in post-pastoralist societies. Monarchs have good reason to fear and disrupt political parties, because as a non-lineage political identity they can construct a broad enough coalition to threaten the dynasties power. Party regimes can coopt or control the party system, and military regimes need fear parties less because they can return to the barracks. While some monarchs tolerate vibrant party systems (Thailand, Morocco) most modern monarchies have restricted

or banned parties (Saudi Arabia, UAE, etc.).^{9 0} In Table 8 I try two methods for controlling for the effect of monarchies. In column one, I add a control "Monarchy Years" which is the number of years the country was classified as a monarchy from 1970 to 2021, computed from Bjørnskov and Rode [2020]. In the second column, I drop all monarchy years from the sample. For countries that were monarchy for party of the sample period, only observations post-monarchy are included in the average. Countries that were monarchies the entire period are dropped. Findings are similar to the main results.

5.7 Migration and Nomadic Pastoralism

I also run the models with an alternative specification using the historic practice of nomadic pastoralism by the ethnic groups in each state, following [Le Rossignol and Lowes, 2022]. Nomadic pastoralism may have a larger effect on clan formation because nomads can less rely on geographically specific defense strategies and have greater challenges defending their herds and water access [Le Rossignol and Lowes, 2022].

In this specification I use historical subsistence practices of ethnic groups measured by anthropologists from 1880-1950 to measure nomadic pastoralism. Using anthropological data at the ethnic group level allows more specific definition of pastoralist practices than the land use data in the main specification, such as restricting the types of animals herded. It also allows me to adjust for migration of peoples across territories. The migration of Europeans to sparsely populated areas such as South Africa and Australia is a potential problem for inference because Europeans carried non-clan culture and targeted areas suitable for pastoralism.

I construct Nomadic Pastoralism (Ethno Atlas) using data from the Ethnic Atlas expanded and collected by Nunn et al. [2018]. The pastoralism score is constructed by multiplying dependence on animal husbandry (0 to 1) by 1 if the group had herdable animals, defined as any of sheep, goats, equine animals, reindeer, camel, alpacas, llamas or bovine animals [Le Rossignol and Lowes, 2022]. To find nomadic pastoralism, I multiplied the pastoralism score by 1 if the ethnic group was described as any value between "Fully migratory or nomadic bands" and "Compact but imper-

manent settlements, i.e., villages whose location is shifted every few years. ”⁵ I take the average nomadic pastoralism score across all ethnic groups in a country, weighted by their population share in the EA (observed from 1880-1950).

Table 9 reruns my primary model with nomadic pastoralism from the ethnographic atlas. Results are similar in direction and significance. The primary specification used land use, while this specification uses ”dependence” on subsistence activities as calculated by [Murdock, 1967]. The original text does not precisely define dependence but may refer to the ratio of calories or value produced by activities. The difference between land use distribution and value produced may explain the smaller magnitudes in the ethnographic atlas specification. All specifications include Conley-style adjustment for geographic autocorrelation.

In my primary specification, I leave out the new world. In the Americas and Oceania, herdable other than pigs and lamas were introduced by Western colonialism starting in the 1500s. The colonial project created a very different and shorter history of pastoralism compared to the Eurasian Steppe or the Sahara desert. Both Spanish settlers and natives come from predominantly farmer or hunter-gatherer societies. Because pastoralism occurred relatively late in these peoples’ histories and in the presence of states, it did not create strong clan politics. Latin American societies a synthesis primarily of Spanish colonists (previously mostly farmers) and native Americans (who had almost no ruminants). Also, nomadism was rare, unlike in the old world. The third column of Table 9 includes the new world, with substantively similar results, significant at the .1 level.

6 Disaggregated Party System Variables

The previous sections dealt with party system institutionalization using an aggregate measure created by Bizzarro Neto et al. [2017]. In this section, I look at components of the measure and other party attributes individually, to investigate hypotheses 2 - 6.

⁵Earlier works such as [Le Rossignol and Lowes, 2022] and [] in my definition of nomadism. They include people living in ”Neighborhoods of Dispersed Homesteads.” I see no reason to equate the dispersal of homesteads with nomadism. Secondly, settlement size is a proxy for economic development in pre-modern societies so including small community size as ”nomadism” risks contaminating the measure with low economic development, which could affect party formation in other ways.

The dependent variables come from the V-Dem project and are described in Table 5.3 except regional competition which is not a component of the party system institutionalization index. The regional competition variable is an expert coded value taking 0 if most major parties compete in only 1 or 2 regions, 1 if major parties are competitive in some regions, and 2 if most major parties compete in most of the country. A country with no political parties in the legislature is coded based on behavior of non-party legislators (see page 7).

Results are consistent with hypotheses 3 and 4 but not supportive of 2, 5 and 6. I find a negative effect of pastoralism on the differentiation of programmatic platforms and the extent to which parties have staff and permanent organizations. I find null results for clientelistic appeals, local branches, and inter-regional competition, although the point estimates are in the expected direction.

7 Conclusion

This article presents a historical political economy theory to explain why some autocracies have weak party systems. Pre-modern pastoralists faced unusual security and environmental challenges and could not rely on geographic organizations like states. They adapted by developing large and cohesive clans with distinct internal rules for selecting and following leaders. These clan institutions persisted in modernity and became a substitute for political parties. As a result, modern states with pastoralist histories tend to have weaker party systems.

I present empirical evidence for these claims. Societies that practiced more pastoralism in the 1800s have weaker party systems today, even after controlling for possible confounders and using surface water as an instrument. I present case study evidence from Soviet Central Asia and a case of most similar systems comparing Iraq and Saudi Arabia in the 1950s.

This paper has important implications for studies on the effects of authoritarian political institutions. The presence or absence of a particular institution, like parties or parliaments, is causally downstream of the substitute institutions available. The absence of an institution may be a consequence of unusually strong alternatives being present. Such studies must carefully consider the

origin of institutions and not assume the alternative is total leader control or anarchy.

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Table 1: Variables Included in the Index

			Mean	Std. Dev.	Min.	Max.	N
Party organizations (v2psorgs)	How many political parties for national-level office have permanent organizations? 0: No parties. 1: Fewer than half. 2: About half. 3: More than half. 4: All parties.		0.02	1.61	-3.25	3.31	16648
Party branches (v2psprbrch)	How many parties have permanent local party branches? 0: No parties. 1: Fewer than half. 2: About half. 3: More than half. 4: All parties.		-0.03	1.61	-3.17	3.56	16640
Distinct party platforms (v2psplats)	How many political parties with representation in the national legislature or presidency have publicly available party platforms (manifestos) that are publicized and relatively distinct from one another? 0: No parties. 1: Fewer than half. 2: About half. 3: More than half. 4: All parties.		-0.04	1.66	-3.02	3.52	16547
Legislative party cohesion (v2pscohesv)	Is it normal for members of the legislature to vote with other members of their party on important bills? 0: Not really. Many members are elected as independents and party discipline is very weak. 1: More often than not. Members are more likely to vote with their parties than against them, but defections are common. 2: Mostly. Members vote with their parties most of the time. 3: Yes, absolutely. Members vote with their parties almost all the time.		0.27	1.16	-3.90	2.50	16462
Party linkages (v2psprlnks)	Among the major parties, what is the main or most common form of linkage to their constituents? 0: Clientelistic. Constituents are rewarded with goods, cash, and/or jobs. 1: Mixed clientelistic and local collective. 2: Local collective. Constituents are rewarded with local collective goods, e.g., wells, toilets, markets, roads, bridges, and local development. 3: Mixed local collective and policy/programmatic. 4: Policy/programmatic. Constituents respond to a party's positions on national policies, general party programs, and visions for society.		0.05	1.44	-3.13	3.26	16515

Table 2: *

Source: Labels from Coppedge et al. (2016a), descriptive statistics from Bizzarro Neto et al. [2017]

Table 3: Regression Results: Party Strength in Autocracies

	<i>Dependent variable:</i>					
	Mean Party Inst. 1992-2020				Autocracies only	
	(1)	(2)	(3)	(4)	(5)	(6)
Pastoralism 1800	-0.385*** (0.067)	-0.090 (0.057)	-0.155*** (0.058)	-0.249*** (0.058)	-0.122** (0.054)	-0.195*** (0.071)
Log GDP per capita		0.073*** (0.010)	0.038*** (0.012)	0.082*** (0.013)	0.071*** (0.013)	0.035 (0.021)
Log Population		0.024** (0.011)	0.026** (0.011)	0.022* (0.012)	0.025** (0.010)	0.037** (0.015)
Natural Resource Rents		-0.012*** (0.001)			-0.007*** (0.002)	-0.005** (0.002)
Autocracy Years			-0.006*** (0.001)		-0.002** (0.001)	-0.002 (0.002)
Years Colonized				0.0003 (0.0003)	0.0001 (0.0003)	0.0003 (0.0003)
Arab Culture				-0.307*** (0.058)	-0.178*** (0.055)	-0.126* (0.064)
Colonizer Controls					Yes	Yes
Observations	122	118	119	119	118	81
R ²	0.217	0.619	0.560	0.597	0.704	0.512
Adjusted R ²	0.211	0.606	0.544	0.560	0.670	0.426

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 4: Regression with Geographic Autocorrelation Adjustment

	<i>Dependent variable:</i>			
	All Spatial Durbin	Autocracies	All Spatial Error	Autocracies
	(1)	(2)	(3)	(4)
Pastoralism 1800	-0.129** (0.055)	-0.198*** (0.069)	-0.110** (0.056)	-0.177** (0.072)
Log GDP per capita	0.065*** (0.021)	0.032 (0.030)	0.069*** (0.014)	0.043** (0.021)
Log Population	0.019** (0.008)	0.033*** (0.012)	0.021** (0.009)	0.033** (0.014)
Natural Resource Rents	-0.007** (0.003)	-0.005 (0.003)	-0.003** (0.002)	-0.003 (0.002)
Autocracy Years	-0.002 (0.002)	-0.002 (0.002)	-0.002** (0.001)	-0.002 (0.002)
Years Colonized	0.0002 (0.0002)	0.0003 (0.0002)	0.0002 (0.0002)	0.0002 (0.0003)
Arab Culture	-0.174*** (0.063)	-0.138** (0.064)	-0.146*** (0.055)	-0.140** (0.064)
Urbanization 1600	0.005** (0.002)	0.014 (0.012)	0.002 (0.003)	0.010 (0.018)
Colonizer Controls	Yes	Yes	Yes	Yes
Distance Cutoff	2000km	2000km	5 Nearest	5 Nearest
Observations			118	81
Log Likelihood			72.059	43.661
σ^2			0.016	0.019
Akaike Inf. Crit.			-112.118	-55.322
Wald Test (df = 1)			26.717***	5.922**
LR Test (df = 1)			9.585***	1.488

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 5: First-Stage Regression Results

	<i>Dependent variable:</i>	
	Pastoralism 1800 (First Stage)	
	(1)	(2)
Log Surface Water Area	-0.090*** (0.014)	-0.061*** (0.015)
Log GDP per capita		-0.049* (0.027)
Log Population		-0.094*** (0.025)
Log Land Area		0.062*** (0.023)
Nat. Resource Rents		0.004* (0.002)
Africa		0.102 (0.103)
Asia		-0.006 (0.085)
Observations	94	91
R ²	0.310	0.577
Adjusted R ²	0.303	0.542
F Statistic	41.341*** (df = 1; 92)	16.186*** (df = 7; 83)
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01

Table 6: Instrumental Variable Regression Results: Party Strength All States

	<i>Dependent variable:</i>					
	Mean Party Strength All States in Europe, Asia, Africa					
	(1)	(2)	(3)	(4)	(5)	(6)
Pastoralism 1800	-0.616*** (0.128)	-0.630*** (0.131)	-0.824*** (0.265)	-0.604*** (0.122)	-0.381*** (0.108)	-0.769** (0.310)
Log GDP per capita		0.011 (0.019)	0.040 (0.025)	0.005 (0.018)	0.027 (0.019)	0.038 (0.028)
Log Population		0.004 (0.019)	-0.074* (0.041)	-0.012 (0.019)	-0.050* (0.028)	-0.087** (0.040)
Log Land Area			0.088** (0.034)			0.073* (0.042)
Nat. Resource Rents			-0.006** (0.003)			-0.004 (0.003)
Years Colonized				0.001** (0.0004)		0.001* (0.0004)
Arab					-0.208*** (0.059)	-0.105 (0.081)
Log Pop 1400					0.067** (0.027)	0.008 (0.052)
Urbanization 1600					0.019** (0.009)	0.021* (0.012)
Constant	0.883*** (0.080)	0.743* (0.422)	0.892* (0.506)	1.093*** (0.414)	0.477 (0.363)	1.092* (0.640)
Colony Controls	No	No	No	Yes	No	Yes
Continent Controls	No	No	Yes	No	No	Yes
Observations	94	91	91	91	91	91
R ²	0.153	0.117	0.147	0.317	0.473	0.431
Adjusted R ²	0.144	0.087	0.075	0.241	0.435	0.308

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7: Instrumental Variable Regression Results: Party Strength All States

	<i>Dependent variable:</i>					
	Mean Party Strength All States in Europe, Asia, Africa					
	(1)	(2)	(3)	(4)	(5)	(6)
Pastoralism 1800	-0.616*** (0.128)	-0.630*** (0.131)	-0.824*** (0.265)	-0.604*** (0.122)	-0.381*** (0.108)	-0.769** (0.310)
Log GDP per capita		0.011 (0.019)	0.040 (0.025)	0.005 (0.018)	0.027 (0.019)	0.038 (0.028)
Log Population		0.004 (0.019)	-0.074* (0.041)	-0.012 (0.019)	-0.050* (0.028)	-0.087** (0.040)
Log Land Area			0.088** (0.034)			0.073* (0.042)
Nat. Resource Rents			-0.006** (0.003)			-0.004 (0.003)
Years Colonized				0.001** (0.0004)		0.001* (0.0004)
Arab					-0.208*** (0.059)	-0.105 (0.081)
Log Pop 1400					0.067** (0.027)	0.008 (0.052)
Urbanization 1600					0.019** (0.009)	0.021* (0.012)
Constant	0.883*** (0.080)	0.743* (0.422)	0.892* (0.506)	1.093*** (0.414)	0.477 (0.363)	1.092* (0.640)
Colony Controls	No	No	No	Yes	No	Yes
Continent Controls	No	No	Yes	No	No	Yes
Observations	94	91	91	91	91	91
R ²	0.153	0.117	0.147	0.317	0.473	0.431
Adjusted R ²	0.144	0.087	0.075	0.241	0.435	0.308

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 8: Monarchy Controls

	<i>Dependent variable:</i>	
	mean_party_aut_post_sov Monarchy Controls	mean_party_aut_nomon Monarchy Years Dropped
	(1)	(2)
Pastoralism 1800	-0.191*** (0.071)	-0.120* (0.072)
Monarchy Years	-0.131** (0.059)	-0.312 (0.265)
Log GDP per capita	0.031 (0.021)	0.084*** (0.022)
Log Population	0.026 (0.016)	0.033** (0.016)
Natural Resource Rents	-0.006*** (0.002)	-0.004* (0.002)
Autocracy Years	-0.001 (0.002)	-0.001 (0.002)
Years Colonized	0.0005 (0.0003)	0.0002 (0.0003)
Urbanization 1600	-0.005 (0.020)	-0.024 (0.020)
Colonizer Controls	Yes	Yes
Observations	81	67
R ²	0.520	0.516
Adjusted R ²	0.427	0.397
F Statistic	5.580*** (df = 13; 67)	4.347*** (df = 13; 53)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 9: Regression with Geographic Autocorrelation Adjustment

	<i>Dependent variable:</i>		
	All States (1)	Autocracies (2)	New World Included (3)
strict_transhumant_pastoralism	-0.148* (0.078)	-0.171** (0.065)	-0.145* (0.081)
lngdppc_WDI_PW	0.060*** (0.020)	0.036 (0.027)	0.064*** (0.019)
lnpop_WDI_PW	0.029*** (0.007)	0.049*** (0.008)	0.024*** (0.007)
natresource_rents_WDI	-0.007*** (0.002)	-0.006** (0.003)	-0.007*** (0.002)
autocracy_years	-0.003 (0.002)	-0.003 (0.002)	-0.002 (0.002)
years_colonized	0.0001 (0.0001)	0.0002 (0.0002)	0.0003* (0.0002)
arab_culture	-0.146** (0.059)	-0.115* (0.059)	-0.134** (0.058)
urbanization_1600	0.004* (0.002)	0.009 (0.012)	0.004** (0.002)
Colonizer Controls	Yes	Yes	Yes
Distance Cutoff	2000km	2000km	2000km

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 10: Other Party System Variables

	<i>Dependent variable:</i>				
	Clientelism	Programmatic Platforms	Party Org.	Local Branches	Regional Com
	(1)	(2)	(3)	(4)	(5)
Pastoralism 1800	-0.350 (0.339)	-0.913** (0.392)	-0.870** (0.416)	-0.369 (0.257)	-0.201 (0.361)
Log GDP per capita	0.268* (0.148)	0.055 (0.192)	-0.158 (0.178)	0.037 (0.112)	0.108 (0.133)
Log Population	0.173** (0.084)	0.038 (0.084)	0.111 (0.083)	0.111** (0.045)	0.022 (0.065)
Natural Resource Rents	-0.029*** (0.009)	-0.046*** (0.011)	-0.014 (0.020)	-0.009 (0.012)	0.002 (0.013)
Autocracy Years	0.002 (0.006)	-0.006 (0.012)	-0.016 (0.014)	-0.012 (0.008)	-0.018** (0.009)
Years Colonized	-0.001 (0.001)	0.003** (0.001)	0.002 (0.002)	0.001 (0.001)	0.001 (0.001)
Arab Culture	-0.794** (0.369)	-0.162 (0.435)	-0.342 (0.472)	-0.355 (0.229)	-0.706* (0.415)
Urbanization 1600	0.015 (0.074)	-0.019 (0.217)	0.213*** (0.075)	0.105** (0.048)	0.049 (0.085)
Colonizer Controls	Yes	Yes	Yes	Yes	Yes
Distance Cutoff	2000km	2000km	2000km	2000km	2000km

Note:

*p<0.1; **p<0.05; ***p<