Change in Source of Leader Support (CHISOLS) Dataset
User's Manual

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The CHISOLS data and all supporting documentation are available at www.chisols.org.

We ask end users to send information about any possible discrepancies or errors in the data to the
P.I.s at the above email addresses.

Acknowledgements

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1. Underlying Assumptions and Expectations

Explaining and predicting changes in foreign policy is important, but unfortunately, existing international relations theories are much better at explaining consistency in behavior rather than predicting change. The primary reason is that scholars have tended to focus either on the international system as the main source of foreign policy, or on domestic political regime types, both of which change relatively rarely. We believe that we will understand foreign policy change better if we consider systematic effects of changes in domestic political interests and preferences.

We assume that political competition within societies takes place between groups of individuals who share some political interests. These groups may be more or less well defined, and they may be based on different kinds of similarities—for instance, economic, ethnic, regional, religious, or ideological characteristics.

We further assume that political leaders want to stay in office, and to do so, they depend on the support of some subset of societal groups. As Bueno de Mesquita et al. (2003) note, the number of supporters necessary to stay in power depends on the country's political institutions. Yet, in most institutional structures, it is possible to retain power with the support of a subset of the people who have a role in selecting leaders (using the terms popularized by Bueno de Mesquita et al. (2003), these are systems in which the winning coalition is smaller than the selectorate). Given that there are different potential support groups, leadership change can be associated with a change in the interests of the societal groups providing the leader's core support, even with no change in political institutions.

Leaders have an incentive to pursue policies (including foreign policies) that are in the best interest of the particular societal coalition that keeps them in power. When a leader who depends on the support of a different societal group or constellation of groups comes to power, policy change is more likely than it is when a leader shares the support of the same coalition of interests as his or her predecessor. Given that the new leader represents different interests and preferences than his or her predecessor, he or she may choose to pursue different foreign and domestic policies that are more in line with the preferences of his or her constituency. Alternatively, leaders who rely on the same source of support as their predecessors represent the same societal interests and preferences and should find it in their interest to pursue similar policies as their predecessors. Our goal in this project is to identify cases in which leadership change is associated with a *change in source of leader support*, i.e. cases in which the subset of societal groups whose support allows the leader to retain and exercise power differs between the new leader and his or her predecessor.[1]

We suggest that the *Source of Leader Support* (SOLS)—or the set of societal interests whose support allows the leader to gain and maintain power—is a useful unit of analysis for understanding foreign policy. SOLS changes tend to occur more often than regime changes,

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[1] Our conceptualization of "source of leader support" is similar to Bueno de Mesquita et al's (2003) notion of "winning coalition". However, we use different terminology in order to avoid confusion about the goals of the project. Unlike Bueno de Mesquita et al., we are not interested in the *size* of the leader's supporting coalition or in producing an exact list of its members, but instead want to determine when the *nature* of the supporting coalition and thus the interests and preferences that the leader is responsible to changes.

which require broad change in domestic political institutions, but less often than leadership changes, since sometimes consecutive leaders feature the same source of leader support. Thus, this unit of analysis generally falls between leaders and institutions in level of aggregation. The CHISOLS dataset provides information about SOLS changes.

2. Spatial-Temporal Domain

Our temporal domain covers the years 1919-2008, a ninety year period stretching from the end of World War I into the 21st century. Our spatial domain covers all states in the world as determined by the Correlates of War (CoW) Project, with the exception of states with a population less than 500,000.[2] The CoW project recognizes any entity that is a member of the League of Nations or the United Nations, or that has a population greater than 500,000 and receives diplomatic missions from two major powers as a state. There are other possible lists of states (for instance, Gleditsch and Ward 1999), but since so many previous data collection efforts aimed at studying issues of international relations have been based on the CoW list of independent states, data on these states will be easiest to combine with existing datasets.

Version 5.0 extends the data through 2018.

3. Formats of the Data

The CHISOLS data are available in two formats with two different units of analysis.

The state-year dataset includes one observation for each state for each year in which the state was independent. Some state-years include multiple leaders.

The leader-level format aggregates information from the state-year data and produces a single observation for each individual *leader spell*. The same person may have been the effective leader more than once in a country's history and each instance is coded as a separate observation in the leader-level data. Thus, the same leader may produce multiple leader spells. For example, in Norway in 1998, Bondevik returned to office after a three-week medical leave of absence, and we code two separate spells for him.

4. Limitations of CHISOLS

It is important for end users to keep in mind that the CHISOLS dataset identifies changes in sources of leader support that are concurrent with leadership change. We do not code changes in sources of leader support that may occur during the rule of an individual leader. While we can

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[2] We exclude all COW system members that are never coded by POLITY because they are considered too small. This includes a total of thirty-two states: Andorra, Antigua & Barbuda, Bahamas, Barbados, Belize, Brunei, Cape Verde, Dominica, Grenada, Iceland, Kiribati, Liechtenstein, Luxembourg, Maldives, Malta, Marshall Islands, Micronesia, Monaco, Nauru, Palau, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Samoa, San Marino, Sao Tome & Principe, Seychelles, Suriname, Tonga, Tuvalu, Vanuatu, and Zanzibar.

identify some cases in which an individual leader relied heavily on one group to gain power but succeeded in minimizing that group's influence as he developed a new source of support, we do not find this to be common, nor are the changes easy to locate at a specific point in time. Thus, our dataset only codes changes in source of leader support that accompany leadership change.[3] We do include some information about "minor" SOLS changes that can occur outside of leadership change. See section 5.7 below.

Occasionally state borders change, and a change in borders may have an effect on the SOLS of a leader, or on leadership change that brings to power a new SOLS. In order to identify cases in which borders change, we recommend data collected by Tir, Schafer, Diehl, and Goertz (1998).

In addition, while the CHISOLS dataset provides information about when a change occurs in Source of Leader Support, we do not code the direction of that change. Given that cleavages in different societies occur along many different dimensions, we do not feel comfortable attributing change to a single dimension (for instance left-right). Not only is it not possible to identify one dimension that applies to all countries over the entire time period of our data collection, but it is also the case that within the same country at the same time, societal groups may have differing interests across a variety of policy dimensions. It is possible for end users to combine the CHISOLS dataset with other datasets that are more limited in spatial-temporal domain but that include information about the content of policy preferences if they choose to— for instance the Database of Political Institutions (DPI) data (Beck et al. 2001) or the Manifesto Research on Political Representation (MARPOR) project (Volkens, Andrea, Pola Lehmann, Theres Matthieß, Nicolas Merz, Sven Regel & Annika Werner 2015) . In Mattes, Leeds, and Matsumura (2016), we compare the CHISOLS data to DPI, so we encourage end users who wish to combine the two to refer to that discussion to understand the differences. We also include some qualitative information in our case narratives (see Section 8 below) about the nature of the changes we code.

5. Conceptual and Operational Definition of SOLS Change

Our conceptual definition of change in source of leader support, i.e., SOLS change, is thus as follows: a case in which the subset of societal groups whose support allows a leader to retain and exercise power is different from the subset of societal groups whose support allowed the leader's predecessor to retain and exercise power. Operationally, this requires us first to identify who the leader of a state is and when leadership transitions occur, and then to identify the groups necessary for a leader to retain and exercise power.

5.1 Coding Leaders and Leadership Changes

We rely on existing data by Goemans, Gleditsch, and Chiozza (2009) to determine leaders and leadership changes.[4] This database (Archigos v. 4.0) identifies the effective primary ruler and the dates the leader was in power for each independent state, as coded by Gleditsch and Ward

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[3] There are two exceptions—when Austria and the Federal Republic of Germany regain independence in 1955, we code a SOLS change, even though the leadership transition occurred during the period of non-independence.
[4] An exception is that from 1919-1938, Archigos codes the President as the effective leader of Czechoslovakia. We code the Prime Minister. In addition, we occasionally record names differently than Archigos does.

(1999), between 1875 and 2014. We code the leader transition as occurring on the day the new leader assumes power. Thus, if one leader departs office in December and the new leader takes power in January, the leader who left office in December will continue to be listed as the first leader in January until the transition occurs. (For our version 5.0 update, we employed version 4.1 of Archigos, which codes through the end of 2015. We coded leaders for 2016-18 ourselves based on worldstatesmen.org and asked the Archigos team for advice in challenging cases.)

There are a few instances in which a state is a member of the state system according to the Correlates of War project, but has no effective leader according to Archigos. In most cases, this lasts less than two years and occurs during a time a leader is consolidating power. In these instances, we list the leader, leader position, and affiliation as unknown and treat the periods as we treat interim leaders (described below). These periods do not appear in our leader level data. (This means that not all leader terms necessarily immediately follow one another. Users should refrain from assuming that the start of the next leader's term is also the end of the preceding leader's term in our leader-level data.) Because Archigos lists no effective leader for Somalia from 1992-2011, we do not include Somalia in our dataset during those years.

Newly independent states and states that have undergone a foreign occupation and lost their independence temporarily require particular attention. We do not code a leadership transition upon independence if, according to Archigos, the first leader of a newly independent country was already in office before the country gained independence as determined by the Correlates of War (CoW) state system membership data, version 2008.1. We also do not include any leaders in our dataset who left power before a state gained independence. If, according to Archigos, the first leader of the newly independent country entered office on the exact date of independence or afterwards, we code a leadership change for the date the new leader came to office. If a country lost independence as a result of occupation we code leadership changes that occurred before the state lost independence, but not afterwards. When a country regains independence after occupation, we code all leadership changes that occurred on or after the date the country regained independence. In addition, we code a leadership change in the year the occupation ended and the country regained its independence if the first leader of the new post-occupation government is different than the leader during occupation and if this post-occupation leader came to power in the year that CoW codes the state as re-gaining its independence.[5] In other words, if the post-occupation leader comes to power a few days or weeks before the state officially regains its independence, we still code this leadership transition and any SOLS changes accompanying it.[6] If a state is occupied for more than ten years, we treat it as a new state when it regains independence (for instance, Estonia, Latvia, and Lithuania in 1991.)

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[5] We treat the Federal Republic of Germany as a successor state to Germany (with 1955 representing the end to foreign occupation) and Germany (1990) as a continuation of the FRG. We treat the Democratic Republic of Germany as a newly formed state in 1954 that ceased to exist in 1990 (Dumberry 2007). We treat the Republic of Yemen as a successor state to the Yemen Arab Republic. We treat North and South Korea in 1948/49, and the Czech Republic and the Slovak Republic in 1993 all as newly formed states. We treat the Republic of Vietnam and Vietnam as new states in 1954 with the Republic of Vietnam losing independence in 1975 and Vietnam continuing. We treat Russia in 1990 as a successor state to the Soviet Union, but all other post-Soviet states as new states.

[6] In a few cases, the new leader with a different SOLS came to power well before the state regained independence (e.g., Federal Republic of Germany and Austria in 1955). In these cases, we code a SOLS change on the date the state regains independence even though there is no leadership change.

5.2 Coding Democracies and Nondemocracies

The specific coding rules used to identify cases in which leader transitions are accompanied by changes in the source of leader support depend on the institutional structure of the country. We distinguish broadly between democracies and nondemocracies, and then among types of democracies and nondemocracies.

Operationally, we define a democracy as a country with a POLITY IV composite democracy score of six or higher (Marshall et al. 2012).[7] Observations that POLITY codes as interruptions (-66) or interregna (-77) are considered to be nondemocracies. Transition periods (-88) are handled as follows. If Cheibub, Gandhi, and Vreeland (2010) designate the country-year as democratic or nondemocratic, we follow the Cheibub et al. coding.[8] If the case is missing in Cheibub et al.'s dataset, but the years before and after the transition are nondemocratic years according to POLITY, we code the transition years as nondemocratic as well. If the case is missing in Cheibub et al.'s dataset, and the year prior to and/or following the transition years is democratic, we code the transition years as missing (-88) for the democracy variable. Following POLITY, regime type is coded as of December 31 of the year in question.

5.3 SOLS Changes in Democracies:

In democracies, political parties are the crucial link between societal groups and leaders. The traditional view of parties suggests that they were formed along socio-cultural conflict lines. Lipset and Rokkan (1967) identify four specific cleavages around which contemporary parties appear to have developed: center-periphery, state-church, land-industry, and owner-worker. These social cleavages delineate separate societal groups with distinct and competing interests. Parties emerged to represent the interests of societal groups on different sides of dominant cleavages and to compete over political influence with other groups. For instance, leftist parties emerged to promote the interests of workers relative to employers who tend to be represented by rightist parties. Agrarian parties primarily represent the interests of farmers, and Christian democratic parties typically promote the interests of Catholic and conservative voters. Lipset and Rokkan claim that because cleavages are durable social structures, parties and party systems tend to display a high level of stability over time.

Additional scholarly work has provided further insight into the role of cleavages and changes over time. Some cleavages appear to be more central in determining voter alignment than others. Lijphart (1979), for example, finds religious and ethnic cleavages to be more important than class cleavages. Newer research also suggests there has generally been a decline in class voting over time (e.g. Dalton 1996), while other work shows that class continues to play an important

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[7] We use the POLITY IV data to identify democracies because it is a widely accepted scholarly source for distinguishing regime types and covers a larger portion of our spatial-temporal domain than any other dataset on political institutions. There are two widely used thresholds for considering states democratic: 6 or greater on the 0 to 10 composite democracy scale or 6 or greater on the -10 to 10 scale that considers both democratic and autocratic characteristics. Only 284 country-years are coded democratic by the former criterion and not the latter. After reviewing these cases with our advisory board members, we determined that the threshold based only on the democracy score has greater face validity for our purposes. We used the 2008 version of the polity 4 data.

[8] The correlation between our measure of democracy using the POLITY data and the Cheibub et al. democracy variable is greater than .8.

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role in voting behavior across a large number of countries (e.g. Evans 1999). Although most societies display some level of class voting even today, there is little doubt that new cleavages have become prominent over time (most importantly the materialist vs. post-materialist cleavage (Inglehart 1997)) and that voting has become increasingly motivated by issue-based considerations rather than by socio-economic identities (Franklin et al. 1992).

Whether political parties represent societal groups that are defined based on class, religion, ethnicity or other socio-economic characteristics or societal groups formed along issue preferences regarding the environment, social justice, etc., it is still fair to say that different parties aggregate different societal groups with distinct interests and preferences over issues. Note that the affiliation of societal groups with a particular party maybe change over time, as different interests or preferences may vary in salience, but at any given point in time different parties are likely to aggregate groups of voters with divergent interests and preferences. The differences among parties and their constituencies are evident, for example, in the distinct policy positions parties take in campaign manifestos (e.g. Klingemann et al. 1994). [9]

Given that political parties tend to be supported by societal groups with different interests and preferences and, as a result, parties advocate distinct issue positions, we should expect the likelihood of foreign and domestic policy change to be greatest when a leader comes to power who is affiliated with a different party than his or her predecessor. Thus, in democracies, we identify changes in the source of leader support by looking at party membership of the effective head of government in the country. When a leader comes to power whose party affiliation is different than his or her predecessor's, we code a change in source of leader support.

Scholars typically distinguish three types of democratic systems: presidential, parliamentary, and mixed systems, where mixed systems combine features of parliamentarism and presidentialism. In order to differentiate among these types of democracies we use the Cheibub, Gandhi, and Vreeland (2010) data that cover the period between 1946 and 2008. For country-years prior to 1946, we follow the coding rules of Cheibub, Gandhi, and Vreeland to categorize systems.

In presidential systems, the president is the effective leader of the country and we thus identify changes in the source of leader support by examining the party affiliations of successive presidents. If the new president is a member of a different party than his or her predecessor, we code a change in source of leader support.

Complications arise in presidential systems in which presidents are not affiliated with any particular parties (e.g. the Ukraine 1991-2005). In cases in which a president with a party affiliation follows or is succeeded by a non-party president, we code a SOLS change (although see the rules concerning interim governments in section 5.5 below). In cases in which a non-party president follows another non-party president, we use two coding rules to determine

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[9] Another criticism of the sociological school of party formation, specifically Lipset and Rokkan's (1967) work, is that they do not adequately explain which cleavages become politicized and that they generally understate the role of political elites in mobilizing some cleavages but not others (e.g. Cox 1997, Przeworski and Sprague 1986, Stokes 1999). While political elites (and parties themselves) certainly play a role in shaping their constituencies, it should still be the case that different parties appeal to voters with different interests and preferences and thus embrace different policies.

whether a change in supporting coalition should be coded. First, if based on our reading of country-specific sources we come to the conclusion that the new president is the pre-designated successor of the old president, we code no change in supporting coalition. Pre-designated successors are leaders appointed by the outgoing leader, vice presidents, or close family members (e.g., brother or son). Second, if the same domestic groups that voted for the old leader also voted for the incoming leader, we code no change in supporting coalition. We use country specific historical and/or media sources to make these judgments and provide documentation that explains our coding decisions in our case narratives.

In parliamentary systems, the prime minister (PM), premier, or chancellor is the person with ultimate responsibility for domestic and foreign policy-making, and we thus examine consecutive leaders' party affiliations to determine whether a leadership change was associated with a change in source of leader support. If the new PM or chancellor has a different party ID than his or her predecessor, we code a change in source of leader support.

Mixed systems are more complicated. When both a president and a PM exist, it is harder to determine which leader has ultimate say over policy. For these systems, we rely on Archigos' coding of the effective ruler and code changes in the source of leader support when the leader Archigos identifies as primary ruler has a different party affiliation than his or her predecessor. If the leader listed is the president, we follow our rules for presidential systems. If the leader listed is the PM, chancellor, or premier, we follow our rules for parliamentary systems.

We also collect data on an alternative specification of changes in the source of leader support for coalition governments in parliamentary democracies and mixed systems in which the PM is the primary ruler. We code a "minor" change in source of leader support when the composition of the coalition government changes even though the party of the PM stays the same. In other words, when a junior coalition partner joins or leaves the coalition we code a minor SOLS change. Dates of coalition changes come from Woldendorp, Keman and Budge (2000), the *European Journal of Political Research* (for cases after 1998), or secondary sources noted in the case narratives; if the day is missing, we code it on the 15th of the month. Minor SOLS changes are never coded on the same date as a SOLS change. We recognize that sometimes when a new PM comes to power, it takes a while to finalize the coalition. If the minor SOLS change occurs within a month of a new PM entering office and it is the PM's first government, we do not code a separate minor SOLS change when the coalition is finalized. For more about minor SOLS changes, see section 5.7 below.

Rotating presidencies/heads of states form a special category of democracies. Leaders in these systems rely on all parties participating in the rotations as their supporting coalition. Thus, even if a new leader with a different party affiliation comes to power, we do not code this as a change in source of leader support. Minor changes occur when one of the parties that participate in the rotation drops out or a new party joins the rotation. A major SOLS change occurs when the rotation ends. Switzerland has rotating heads of state for the entire time period under observation. In some countries, parties negotiated rotation agreements for limited time periods (e.g. Israel 1984; Colombia during the National Front period).[10]

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[10] Note that we only code based on the rotation rules if the agreement was honored by the parties. If a party defected from the agreement almost immediately, we code by our standard rules for parliamentary regimes.

Occasionally, political parties change their names or splinter. If a party is renamed, meaning that the old party ceases to exist and most members of the old party become members of the new party, we do not code a change in SOLS from a leader with the old party name to a leader with the new party name. If a party splinters, however, meaning that the leader is now representing a party with a new name, and the old party continues to exist, we code a minor SOLS change. If a faction of the leader's party forms a new party, but the leader continues to represent the original party with the original name, we do not code any SOLS change. We explain cases involving party splinters and renaming in our case narratives. In addition, we treat some electoral coalitions/blocs as if they were individual parties (e.g., Olive Tree in Italy, Concertacion in Chile). These decisions are also detailed in our case narratives.

Data on the party affiliations of democratic leaders is available from a variety of sources. For parliamentary democracies in the post-1945 era, we rely mainly on Woldendorp, Keman, and Budge (2000), listings provided in the *European Journal of Political Research* (for years since 1998), and government websites. For presidential systems, mixed systems that tend towards presidentialism, as well as parliamentary democracies before 1945, we primarily use data available from www.worldstatesmen.org and sources such as the Europa World Yearbook (various years) and the Political Handbook of the World (various years).[11]

5.4 SOLS Changes in Nondemocracies

In nondemocracies, political parties play an important role in some systems but not in others. Generally, there is a much larger degree of heterogeneity in nondemocratic countries; leaders depend on very different kinds of societal groups for support. Geddes (1999, 2003) provides a categorization scheme for autocracies that is not only widely used but is also particularly well-suited for our project since her criteria for categorization "emphasize control over access to power and influence rather than formal institutional characteristics" (Geddes 1999, 123). Her classification scheme thus allows us to identify the core societal interests that allow leaders to retain and exercise power in different nondemocracies. The most recent version of the dataset is Geddes, Wright, and Frantz (2014). [12] For cases not coded by Geddes et al. (either because the case is before 1946, after the end of the most recently available Geddes et. al. coding, or the country has between 500,000 and 1,000,000 population, we have applied the same coding rules to classify nondemocratic systems. We explain the basis for our coding in our case narratives.

In single-party systems, one party controls all political appointments and determines both domestic and international policy. In these systems, leaders are responsible to the party cadre, which is a group with quite cohesive interests that may be constrained by party ideology. Party ideology has an impact on both general policy orientation and individual policy choices, and any leader in a single-party system has to conduct policy that is broadly consistent with these

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[11] We compared the www.worldstatesmen.org coding of leaders' party affiliations with the Database of Political Institutions (Beck et al. 2001) coding for a sample of cases (all countries in North, Central, and South America) between 1975 and 1995 and found a high level of agreement. Thus we feel confident about the accuracy of information provided by www.worldstatesmen.org.

[12] We code the type of autocratic regime as of December 31 of the given year, in order to make the data more compatible with POLITY and Cheibub et al. In the Geddes, Wright, and Frantz (2014) dataset, regime type is coded as of January 1.

overarching constraints. Because leaders in single-party systems need to maintain the favor of the party cadre, whose membership may change but whose interests and policy preferences should remain largely consistent with party ideology, we code single-party systems as not experiencing changes in the source of a leader's support for the duration of that party's rule. Only a move away from a government involving this single-party amounts to a change in source of leader support.

Military regimes might be somewhat less cohesive than single-party regimes. Military officials often come from different backgrounds and have different ideological orientations. Nevertheless, there is scholarly consensus that military officials have a unifying interest in maintaining and strengthening their organization, and they prioritize this shared corporate interest (Geddes 1999, 126). Any leader who wants to retain power in a military system needs to promote military interests such as protecting the military from civilian meddling, increasing military expenditure, and maintaining structure and discipline in the ranks. Because the military remains the supporting coalition of leaders in military systems and these leaders need to pursue policies that are beneficial to their organization, we code no changes in the source of leader support during any period coded by Geddes et al. as a single military regime, even if specific leaders change periodically. If Geddes et al. code two separate military regimes following one another, however, we do code a minor SOLS change. Separate military regimes are only coded by Geddes et al. if the support base of the officers is substantially different, for instance in ethnic or regional make-up.

Some periods are coded by Geddes et al. as periods of indirect military rule. In these cases, we do not code a SOLS change if a new leader is a predesignated successor of the previous leader. If the new leader is not a predesignated successor, we code a *minor* SOLS change, since the military retains influence over policy. If indirect military rule gives way to a military regime or a hybrid including the military, we code a minor SOLS change. There is a SOLS change if indirect military rule transitions to any system other than one including the military.

By contrast, leadership changes in personalist systems are often accompanied by changes in core supporting coalitions. By definition, personalist systems are those in which the leader's support is organized specifically around one leader and not an overarching set of goals or policies. In most instances, when leaders in personalist systems lose power, a change in source of leader support occurs. An exception occurs, however, when the new leader is a pre-designated successor of the outgoing leader. If the new leader was appointed by the outgoing president, the new leader was formerly the vice president, or the new leader is a close relative (i.e. brother or son) of the old leader, this leader is likely to depend on the same clique of friends and family for support as his predecessor. Thus, in these cases, we code the observation as not experiencing a change in source of leader support.

We chose the predesignated successor rule for two reasons: it possesses face validity and is a rule that can be applied systematically to all countries and years in our data. Our preliminary reading of individual case histories suggested a) that leaders chosen by the predecessor typically came from the predecessor's inner circle and represented the interests of these actors and b) that the lack of endorsement or close ties to the previous leader often signaled that the new leader came from a different background and had the support of different societal groups. The predesignated

successor rule is admittedly not perfect: while the fact that a leader is a predesignated successor is a strong signal that there is no meaningful SOLS change, the fact that a leader is not a predesignated successor is a less strong signal that there is a SOLS change. The previous leader might simply not have had the time to declare who should take over and the old leader's power base then put in office one of their own. Our decision to use the predesignated successor rule was the topic of consultations with our advisory board of regional experts. Essentially we came to the conclusion that this rule, while imperfect in that it might over-code SOLS changes, was the best way to systematically identify shifts in supporting coalitions in personalist regimes and "unspecified" nondemocracies (see the end of this section below).

Monarchies are another distinct category of nondemocracies. In monarchies, rulers depend on the support of the royal family and other influential nobles. Monarchies only experience changes in supporting coalitions if the new ruler stems from a different dynasty, and thus relies on a different family and group of supporters, than his or her predecessor. We determine which dynasty the rulers belong to using information provided by Morby (2002). Usually a SOLS change occurs when a monarchy ends, but one exception would be if a monarch hand-picked a non-aristocrat for the transition to a non-monarchy. The assumption of power of the hand-picked successor would not constitute a SOLS change. Only a new leader that is not hand-picked by the monarch would count as a SOLS change. In some cases (e.g., Nepal, Bhutan) there are periods in which Archigos codes the prime minister as the effective leader of the country, but the prime minister was selected by and is beholden to the monarch. We do not code SOLS changes when prime ministers change if the country is coded as a monarchy.

Oligarchy exists when competition is public and organized into stable blocs but meaningful participation is limited to a very small part of the population. In these cases, we consider the source of leader support to be the oligarchy as a whole, and as a result, we do not code SOLS changes during a single period of oligarchic rule. A SOLS change occurs when the period of oligarchic rule ends.

We treat periods of warlordism similarly to periods of foreign occupation or interim government (see section 5.5 below). Warlordism indicates that there is no government making effective policy for the state as a whole. As such, we code no SOLS changes when a period of warlordism begins or when leaders change during the period of warlordism. When the period of warlordism ends, we code a SOLS change if the new government has a different source of leader support from the pre-warlordism government.

While Geddes et al. are able to classify most authoritarian regimes as fitting one of these seven categories, some cases are more complicated in that they share characteristics of more than one type of regime. The following four types of hybrids exist in the Geddes et al. data: military-single-party, single-party-personalist, military-personalist, and triple hybrid (i.e. single-party-military-personalist).

Given the constraints imposed by both party ideology and military interests, we code military-single-party hybrids as not experiencing a change in source of leader support for the entire duration of the regime, as specified by Geddes et al., irrespective of whether individual leaders change. New leaders, whether they come from the same party or are military officials, rely on

these two groups to retain power just like their predecessors. Thus, just as we do not code SOLS changes during an individual single party or military regime, we do not code SOLS changes during an individual single party-military hybrid regime. We code a minor change in supporting coalition if the leader of a military-single-party regime is replaced by a leader of a pure military regime or a regime under the exclusive control of the same single-party. Because some elements of the previous supporting coalition have lost power, there is an opportunity for policy change. For instance, when a military regime is replaced by a military-single party hybrid, a well developed civilian organization becomes part of the support coalition and may advance different interests than the prior military regime did. Establishment of a new dominant party or a move away from the military-single-party regime to a new regime that is neither military nor single-party are coded as major changes in supporting coalition.

In the case of military-personalist hybrids we code no change in source of leader support if the new leader is a military officer and/or the new leader is a pre-designated successor of the old leader. In these cases, even if the new leader is not military but is a pre-designated successor or is military but not technically the pre-designated successor (but also not an individual that the old leader's clique vehemently opposes) he still can be seen as relying on both groups for power. A move from a military-personalist regime to a purely military regime or to a regime relying only on the same clique as the new leader's predecessor is coded as a minor change in supporting coalition. A move to a personalist system independent of the previous leader's support group is a major change in supporting coalition., as are transitions to new regime types altogether.

Single-party-personalist regimes are coded as not experiencing a change in source of leader support if a new leader enters office who is either a high-ranking party member and/or the pre-designated successor of the outgoing leader. If the party is able to establish itself as the dominant force in politics or the leader and his clique obtain sole control over the country, this is a minor change in source of leader support. Other transitions are considered major changes in source of leader support.

Triple-hybrid regimes (i.e. regimes that combine single-party, military, and personalist features) are not coded as experiencing a change in source of leader support if the new leader is a high-ranking party member, a military official, and/or a pre-designated successor. The logic guiding our coding decision is that to the extent that the new leader relies on the same groups that also kept the outgoing leader in power, even if he or she is not formally affiliated with all of them, he or she is likely to pursue similar policies as his or her predecessor. If the country transitions from a triple hybrid type of regime to any of the three hybrids discussed above or a more pure type of regime this transition is coded as a minor change. Otherwise, a major change in source of leader support is coded.

There are a few cases that Geddes et al. determined were autocratic systems that did not fit any of her regime type classifications. These regimes are coded *other*=1. These cases are coded using a pre-designated successor rule, with exceptions for interim governments and foreign occupation as described in section 5.5 below. In other words, when a new leader takes power who is not a pre-designated successor of the prior leader (that is, a hand selected successor, a vice president, or a close relative (e.g., brother or son)), we code a change in SOLS.

5.5 Coding SOLS changes with Interim Governments or Foreign Occupation:

In both democracies and nondemocracies, we find periods of time in which the country is ruled by an interim or caretaker government. Interim leaders are put in place to maintain the status quo until a new regular government is established that can then resume active policy-making. Because caretaker governments are not intended to pursue new policy initiatives, we do not code a change from a regular to an interim leader as a change in source of leader support. However, the switch from an interim leader to a new regular leader is coded as being accompanied by a change in supporting coalition if the new government has a different supporting coalition than the old regular (i.e. non-caretaker) government. A possible complication can occur if a leader who is initially considered to be an interim leader later becomes the regular leader. In this case, assuming this leader has a different SOLS than the previous regular leader, we code the initial date that he took power (i.e. the date he became an interim leader) as the date for the SOLS change. This is based on the assumption that it became clear to the "interim" leader that he was likely to continue as a regular leader fairly early on, and thus he would begin to implement policy as if he were a regular leader.

Unfortunately, it is sometimes difficult to identify which leaders are interim leaders, since some governments claim interim status but stay in power for quite some time and pursue their own policy objectives (e.g., military juntas). In order to avoid miscoding governments as interim, we adopted the following rules: (1) two different sources must identify the government as interim/provisional/caretaker; (2) interim governments cannot stay in power longer than 18 months; (3) if a particular kind of autocratic regime (military, single party, etc.) is in place, we code no interim governments. Sometimes a state will spend several years developing and ratifying a constitution. We do not automatically code the entire time period as provisional. Particularly once major institutional decisions have been made and implemented (even if the constitution is not officially ratified yet), leaders need not be coded as provisional if there is evidence that they were governing actively and not simply maintaining order until a new government can be selected. We discuss the coding of interim governments in our case narratives, and the leader level dataset indicates which leaders we judge to serve in a provisional/interim/caretaker capacity.

Another instance in which the government of a country may be in a caretaker state and unable to pursue its own foreign policy occurs if a country is under foreign control. Two scenarios are of interest here: a) countries that become newly independent during our observation period, i.e. sometime between 1919 and 2008, and b) countries that lose and then regain independence as a result of occupation. In the case of newly independent states, we do not code a SOLS change for the transition from the last leader of the colonial government to the first leader of the newly independent country. (Note, though, that this does not automatically mean that there is no SOLS change in the first year of a country's independence. It is possible that a leader transition occurs after independence and that this transition involves a SOLS change.) The rules regarding the loss of independence as a result of occupation are slightly more complicated. We never code a SOLS change at the time a country is occupied. We do code a SOLS change once the country regains independence if and only if the new regular government of the country has a different SOLS than

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the last regular government of the country before the loss of independence.[13] If a country was non-independent for more than ten years, however, we treat it as a newly independent state when it re-emerges (for example, Estonia, Latvia, and Lithuania in 1991.)[14]

5.6 Coding SOLS Changes that Last for a Short Time:

Occasionally new leaders come to power who represent new societal groups, but they stay in power only a very short time—sometimes only a matter of days. An example might be a short-lived military coup. Because ultimately we are interested in the effects of changes in sources of leader support on policy change, we want to isolate those cases in which the new leader (or a set of leaders with the same SOLS) is in power such a short time that it would be difficult to implement new policies. Thus, we have a separate code to document SOLS changes that last less than thirty days.[15] These leader entries are coded as SOLS changes, and we code the dates on which the leaders took power as SOLS change dates, but we include these in a summary variable called *SOLSchange30*, which is a count of all the SOLS changes that last less than 30 days, and not in the *SOLSchange* count. [16] Thus, the sum of *SOLSchange* and *SOLSchange30* should be equivalent to the number of *SOLSchange# = 1*. (The SOLSchange# variables designate which leadership changes in a given year represent SOLS changes; these variables are explained in section 9 below.)

Some examples might be useful here. Fundamentally, there are three different types of scenarios; one might think of them as ABA (i.e., original SOLS, new SOLS, original SOLS), ABB (i.e., original SOLS, new SOLS, same SOLS), and ABC (i.e., three different SOLS). (1) ABA: Senior military officers stage a coup against a personalist dictator. The military officers take power for four days before the dictator suppresses the coup and resumes power. We would code both the coup and the dictator's resumption of power as SOLS changes (*SOLSchange#* =1), but count them under *SOLSchange30*, not *SOLSchange*. Thus *SOLSchange*=0, *SOLSchange30*=2, *SOLSchange1*=1, *SOLSchange2*=1.[17] (2) ABB: Senior military officers

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[13] This creates a very small number of cases in which a SOLS change can occur absent a leader transition. See, for example, the Federal Republic of Germany and Austria in 1955.

[14] In general, we follow the Correlates of War state system membership data in determining independence. There are two cases in which we treat a country not coded as losing independence by CoW as if it were occupied by a foreign power—Kuwait in 1990-1991 and Iraq in 2003-04. Cases in which a domestic leader depends a great deal on foreign assistance and approval to stay in power, but the state is ruled by domestic leaders and not foreigners (e.g., Afghanistan in the 1980's, Lebanon in the 1990's) are not coded as occupied. Instead we follow our regular coding rules for determining whether a leader transition involves a SOLS change. Usually such cases fall under the predesignated successor rule since they have poorly established domestic institutions, and the influence of the foreign power on leadership choices is implicitly accounted for through our rules.

[15] Note that this refers to instances in which the total term of a leader was 30 days or less, not instances in which the leader was in power for 30 days or less in a given year because he or she assumed office in December of that year but then continued on for additional months or years.

[16] There is one exception, described under the "ABA" case in the next paragraph, in which a SOLS change that lasts more than 30 days (but follows a SOLS change lasting less than 30 days) is counted under *SOLSchange* rather than *SOLSchange30*.

[17] We understand that it may seem counterintuitive to code the move from the military back to the dictator as *SOLSchange30* since the dictator holds power for longer than 30 days after he is returned to office. Yet, this is necessary for two reasons. First, we would not want to code a SOLS change for this year since the military did not have enough time to implement a different policy agenda. Second, we want to ensure that the number of *SOLSchange#*s is equal to the sum of *SOLSchange and SOLSchange30*.

stage a coup against a personalist dictator. One military officer immediately assumes power, but after two weeks, that leader is replaced by a different military leader who is willing to be more harsh in dealing with loyalists of the prior administration. The second military leader holds power for three years. In this case, we would code the original coup as a SOLS change (*SOLSchange#* =1), and also count it under *SOLSchange*, not *SOLSchange30*, because although the first military officer held power for less than 30 days, the military held power for much longer than that. Thus *SOLSchange*=1, *SOLSchange30*=0, *SOLSchange1*=1, *SOLSchange2*=0. (3) ABC: Senior military officers stage a coup against a personalist dictator. The military officers hold power for 20 days, before they are overthrown by forces loyal to the exiled Prince who was overthrown by the prior dictator years earlier. The Prince is then returned to power and holds power for ten years. In this case, the military coup would be coded under *SOLSchange30*, and the Prince's assumption of power would be coded as *SOLSchange*. Both the military coup and the Prince's ascension to power would be coded *SOLSchange#* =1. Thus *SOLSchange*=1, *SOLSchange30*=1, *SOLSchange1*=1, *SOLSchange2*=1. (While these examples concern nondemocratic states, the logic applies to democratic states as well.)[18]

5.7 Minor SOLS Changes:

In sections 5.3 and 5.4 above, we describe some instances in which we code minor SOLS changes. These include, for example, cases in which there is a change in junior coalition partners in a parliamentary democracy, cases in which a new party joins the rotation system in a rotational presidency, cases in which a political party splinters and the new leader represents a break-away faction of the former leader's party in a presidential or parliamentary democracy, and leadership transitions in autocratic systems in which the new leader's SOLS contains some of the same elements as that of his or her predecessor's but not others (e.g. if a military leader follows a military-single-party regime or a personalist-single-party leader follows a leader from the same single-party).

We code all minor SOLS changes regardless of length with the same variables; there is not a separate variable for minor SOLS changes that last less than thirty days. SOLS changes, however, subsume minor SOLS changes, so there should never be a minor SOLS change on the same date as a major SOLS change. We also do not code minor SOLS changes for caretaker cabinets (e.g., Churchill's 1945 Conservative cabinet in the United Kingdom). Since minor SOLS changes do not necessarily occur at the same time as leadership transitions, the first minor SOLS change in a given state year is coded solsminch1, regardless of whether it coincides with the first leader transition, the second minor SOLS change is coded solsminch2, etc.

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[18] These scenarios can become even more complicated when one or more interim leaders is added to the sequence of leaders, but we follow the same rules. For example, consider the following permutation of the ABA scenario described here: Senior military officers stage a coup against a personalist dictator who leaves the country. The military officers take power for four days before they are forced to step down in favor of an interim leader who plans to hold elections. Two months later, the dictator returns to the country and resumes power. We would still code both the coup and the dictator's resumption of power as SOLS changes (*SOLSchange#* =1), but count them under *SOLSchange30*, not *SOLSchange*, and the interim leader's assumption of power would not be a solschange. Thus *SOLSchange*=0, *SOLSchange30*=2, *SOLSchange1*=1, *SOLSchange2*=0, *SOLSchange3*=1. Note that when interim leaders are added to the mix, these scenarios can stretch over more than one year.

We provide the coding of minor SOLS changes separately from regular SOLS changes so that end users can determine what they believe is the operationalization of SOLS change that makes the most sense for their work. In our work, we usually choose to include minor SOLS changes in nondemocracies as SOLS changes, but not minor SOLS changes in democracies. This is based on feedback from our advisory board of experts, who believe that the change in interests represented by a shift in a nondemocratic system from (for example) a military regime to a military-single party regime is fairly substantial, when compared to the change in interests that occurs when a new junior partner joins or leaves a parliamentary coalition. We often run robustness checks, however, including minor SOLS changes in democracies and/or removing minor SOLS changes in nondemocracies.

6. A Few Details About the Coding of Other Variables

Section 9 below provides definitions for all the variables in the CHISOLS datasets. In this section, we provide some additional details about the rules we followed in coding some of the variables other than the SOLS change variable.

6.1 The Affiliation Variable:

We include in the dataset a variable describing the leader's affiliation. While the information in this column bears some relation to our coding decisions, our coding is not based solely on information in this column. For example, personalist dictators sometimes create political parties, in which case the affiliation column might contain the party name, but that does not necessarily mean that the party controls the leader rather than the leader controlling the party. Similarly, a single leader might be both a military general and a leader of a political party. Either or both of these affiliations might appear as the leader's affiliation. This does not reflect a considered judgment on our part that one affiliation was more important than the other. Affiliation information is provided only because we think it might be of interest of our end users and should be treated with skepticism. Unless we had good reason to disagree with the affiliation listings at www.worldstatesmen.org, our affiliation information likely matches theirs.

In the state-year data, if more than one leader was in power in the given year, the affiliation variable should include more than one listing separated by commas with the first entry corresponding to the first leader, etc. For parliamentary democracies, we include the full governing coalition in the affiliation column, with the party of the PM listed first; the parties that are members of a coalition government are separated by slashes, e.g. CDU/FDP. Only parties that are formally part of the coalition government are coded. Parties that informally tend to vote with the governing party are not included, but we do include parties that are formally part of the coalition even if they do not place any members in the cabinet. We do not include "non-party" as part of a coalition unless the PM/chancellor has no party affiliation; if one or more cabinet ministers has no party affiliation, this need not be reflected in the affiliation listing. If the same PM/chancellor rules with different coalition governments in a given year, we provide all the coalitions. If more than one leader rules in a year, we include the PM's name in parentheses so we can attribute different affiliations to different leaders even when there are more affiliations than leaders listed for a given year (e.g. Con/Lab/Lib (Churchill), Con (Churchill), Lab for

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United Kingdom 1945, in which Churchill led with two different cabinets before being replaced by Atlee). We use Woldendorp, Keman, and Budge (2000) party acronyms for post-1945 cases. In general, we use www.worldstatesmen.org abbreviations for pre-1945 cases. Full names of parties with their abbreviations should be available in the case narratives.

Leaders in monarchies are listed with their dynasty as their affiliation. We rely on Morby (2002) for information about dynasties.

6.2 The Leader Position Variable

In the state-year dataset, we list the highest position each leader held at the time (thus, a leader who was simultaneously president and general would be listed as president). The information is drawn from www.worldstatesmen.org. In the leader-level dataset, we list all highest positions the leader held during the given leadership spell, separated by commas. In other words, if a leader holds the title of general for two years of the leadership spell and then takes on the title of president, we would code "general, president".

6.3 Regime Type Variables

The CHISOLS state-year dataset includes information about the regime type of the state as of December 31 in each year. These coding decisions are based largely on POLITY (Marshall et al. 2012) and Cheibub, Gandhi, and Vreeland (2010) (See section 5.2 above for more discussion). If a state loses independence during the year, we code the regime type as of the date of the loss of independence. We first include information about whether the state is a democracy or a nondemocracy (see section 5.2 above), and then information about a subregime type within the democratic and nondemocratic categories. In all cases in which democracy is coded as -88 (transition period), we researched the cases and determined autocratic subtype coding was most appropriate.

Democracies are coded as parliamentary, presidential, or mixed systems. This coding comes largely from Cheibub, Gandhi, and Vreeland for the period since 1946. We have followed the rules established by Cheibub, Gandhi, and Vreeland to categorize democratic systems outside their spatial-temporal domain. We include discussion of these coding decisions with references to secondary sources in our case narratives.

Nondemocracies are coded according to the rules developed by Geddes (1999, 2003) and most recently elaborated by Geddes, Wright, and Frantz (2014). We code nondemocratic states as single party, personalist, military, indirect military, monarchy, oligarchy, warlordism, or other. In addition, we allow for hybrids of more than one system. Hybrid systems are coded with more than one of the categories coded 1 and hybrid also coded 1. We follow the Geddes, Wright, and Frantz (2014) coding for all the state-years included in their sample, and we follow their rules to the best of our ability to categorize the remaining state-years. Again, we include discussion of these coding decisions with references to secondary sources in our case narratives.

There are variables in the state-year dataset called *sourcereg*, *sourcedemtype*, and *sourceauttype*, which inform end users which regime type codings come from established datasets and which we coded ourselves.

6.4 Trans and End Variables

We code only one regime type and one subregime type (except in the case of hybrids) for each state-year. Our variables are coded as of December 31 or the last date of independence if the state loses independence during the given year. Thus, if a transition from nondemocracy to democracy occurred on June 1, 1965 in a given country, then for 1964 the country would be coded a nondemocracy, and for 1965 the country would be coded a democracy. For our SOLS change coding, however, we follow the rules for a nondemocracy for any leadership transitions that occur before June 1 and the rules for a democracy for any leadership transitions that occur after June 1. All of these details are available in our case narratives.

In order to help end users flag these cases, we provide *regtrans*, *demtrans*, and *auttrans* variables. Regtrans is coded one if there is any transition between democracy and nondemocracy in the given year. Demtrans is coded one if there is any transition between different democratic subregimes (for instance a transition from parliamentary to presidential government) within the year. Auttrans is coded one if there is any transition between autocratic subregime types (e.g., a transition from military to personalist government) within the year. The one exception is that we do not code auttrans or autend when the autocratic subregime type is other, because this is not a consolidated regime type. Because our dataset codes regime type as of December 31, transition variables will be coded one in the first year coded as the new regime type (in the above example regtrans=1 for 1965).

In addition, we include another dummy variable called *autend*. This is coded one any time a particular autocratic subregime type ends. While many of these cases will also be coded auttrans=1 or regtrans=1 because the autocratic subregime is immediately followed by another kind of autocratic regime or a democratic regime, occasionally this is not the case. The reason is that one personalist regime can follow another different personalist regime, one military regime can follow another different military regime, etc. Because we code regime types as of December 31, autend will be coded in the first year coded as the new regime type.

An example may clarify this. A state is ruled by a military regime from 1983-1986, followed by a personalist regime from 1986-1989, followed by democratization with a presidential system in 1989. We would code dem =0 and mil=1 for 1983, 1984, and 1985; dem =0 and per=1 for 1986, 1987, and 1988; dem=1 and pres=1 in 1989. Autend =1 for 1986 and 1989. Auttrans=1 for 1986. Regtrans=1 for 1989.

Note that regime and subregime type changes do not always occur concurrently with leadership transitions.

6.5 Interim Variable

In the leader dataset, we include a dummy variable indicating whether the leader served in an interim capacity. These leaders might also be referred to as caretakers or provisional leaders, and they generally hold power in a period of transition just until a new regular government is decided upon and inaugurated. Because such leaders are unlikely to pursue their own policy objectives, but rather to maintain government functioning until a new government is determined, we believe end users may want to treat these leaders differently in analysis.

We discuss our rules for identifying interim leaders above in section 5.5, but they are worth repeating here. First, if a leader begins his or her time in office in an interim capacity, but then becomes a regular leader during the same spell, we do not code the leader as interim. Second, we only code a leader as interim if we can identify two different sources that report the leader served in an interim/provisional/caretaker capacity. These sources should be identified in the case narratives. Third, we do not code any leader who stays in power longer than 18 months as interim, regardless of his/her official role; once the period of rule extends more than one and a half years, we judge that the leader is not merely a temporary placeholder. Fourth, if a single military, single party, monarchy, indirect military, or oligarchy is in place, or if the country is in a period of warlordism, we do not code leaders as interim. The reason is that even if the leader him or herself is in place in a provisional capacity, there is no interruption to the set of interests guiding policy. Finally, if a state spends several years developing and ratifying a constitution, we do not automatically code the entire time period as provisional. Particularly once major institutional decisions have been made and implemented (even if the constitution is not officially ratified yet), leaders need not be coded as provisional if there is evidence that they were governing actively and not simply maintaining order until a new government can be selected. Explanations for coding leaders as interim should be included in our case narratives.

7. Reliability and Validity

We took considerable effort to ensure that the coding of the CHISOLS dataset is reliable and valid. In this section, we describe our procedures for ensuring reliability and our evaluations of intercoder reliability as well as our efforts to ensure face validity.

Because we are ultimately interested in understanding how changes in sources of leader support affect policy outcomes, it is crucially important that our coding of changes in core supporting coalitions be conducted with no reference to policies actually enacted when the government was in power. As such, we employed non-expert coders who were trained to follow our coding rules explicitly and to avoid, to the extent possible, allowing knowledge of policy outcomes to influence their coding decisions. Since the information collected and the coding decisions made involve some degree of subjectivity, however, we invested in efforts to evaluate inter-coder reliability.

Every case was coded independently at two different universities. Both at Rice University and at Vanderbilt University, we had a team of undergraduate and/or graduate students collecting basic narrative information about all the political systems and leadership transitions in our sample and

implementing our coding rules to produce a data file indicating which leadership transitions are associated with SOLS changes, and which are not. Once the two independently collected data files were complete (one from Rice and one from Vanderbilt), we reconciled the two files and uncovered any areas of disagreement. A third coder (who did not participate in the original coding of the case) then researched each case for which there was a coding disagreement further. The P.I.s made final decisions on these problematic cases.

We are releasing two case narratives for each case with the final data, one produced at Rice and one at Vanderbilt. The Rice and Vanderbilt narratives were initially produced completely independently. Many individual narratives were actually completed by multiple coders. For instance, one coder may have coded the period from 1919-1944 and another coder may have coded the period from 1945-2008 for the same country. In no cases, however, were the Rice and Vanderbilt narratives shared with the other university until we calculated and judged intercoder reliability. After we calculated intercoder reliability, however, for cases in which there was some original coding disagreement, we used the explanations from the narrative that was found to be correct to modify the one that was incorrect and/or pasted additional information that we obtained during the reconciliation phase in both. As a result, in some cases, our two narratives use the same language in certain parts, despite the fact that they were initially compiled completely independent of one another.

An exception to the independent coding are the test cases that we use to train coders. We selected eight states for the 1945-2008 time period that represent a variety of the kinds of coding issues the coders would face, and had each new coder code these for training purposes. The eight states are Argentina, Ghana, Guinea-Bissau, Indonesia, Ireland, Laos, the Netherlands, and Peru. These cases were carefully reviewed by the P.I.s. They are not included in our intercoder reliability statistics.

For the SOLS change variable, our initial coding was identical in 98% of country years and 91% of years in which some leadership change occurred. For minor SOLS change, our initial coding was identical in 99% of country years and 93% of years in which at least one leadership change occurred. Some of the discrepancies could be quickly attributed to typographical errors (entering data on the wrong line, for example). Many of the discrepancies did, however, turn out to be tough cases that needed further investigation.

While reliability is one important concern, another concern is validity—is our measure capturing what we want it to capture? This is an area in which the advice of experts is crucially important. Thus, we established an advisory board made up of area experts. These area experts are all knowledgeable about a particular set of cases, but they are also comfortable with and familiar with large N data collection efforts. The scholars who served on our advisory board and the regions they advised us on are (in alphabetical order): Jesse Driscoll (post Soviet states), Barbara Geddes (at large expert on authoritarian regimes), Erik Herron (post Soviet states and Eastern Europe), Allen Hicken (Asia), Mark Jones (Latin America), Staffan Lindberg (Africa), Ellen Lust (Middle East), and Lanny Martin (Western Europe and Advanced Industrial Democracies). The responsibilities of the advisory board members were: (1) to read the coding rules and make suggestions for improvement; (2) to answer questions about particularly difficult cases in their regions of expertise; (3) to review our coding for face validity. While certainly we

accept full responsibility for the final dataset, our impression is that our advisory board members generally felt comfortable that our rules produced data with strong face validity given the constraints of working with systematic rules appropriate to a large spatial-temporal domain.

A note on the version 5.0 update: For cases from 2009-2018, each case was coded independently by two coders, both at Rice University, and the results were compared. In any case in which the coders disagreed in their initial coding, or in cases in which either coder felt the case was challenging, the P.I.s made final decisions. We contacted area experts for advice in particularly difficult cases.

8. Case Narratives

We are releasing two case narratives for each country included in our dataset. Each case narrative is a .pdf file, and the name of the file includes the country name, the initial R or V (which indicates whether the narrative was first created at Rice or Vanderbilt) and the date the narrative was last revised in yyyymmdd format (For example, Afghanistan_R_20140522). There are four exceptions. There is only one narrative for Ghana, Guinea-Bissau, Indonesia, Laos, since these were test cases that we used to train coders. Within the narrative, coders describe the leadership transitions within the country and explain their coding decisions. In cases in which it was necessary to code subregime types, those coding decisions are also explained. We provide a list of sources referenced in the narrative at the end, and those sources are all also included in the CHISOLS master bibliography available with the dataset. Finally, at the end of the narrative, there is a list of the people who worked on the narrative and the date on which each person last revised the narrative.

End users should be aware that we did not carefully edit these narratives. We provide them for explanation of our coding, but not as sources for the political history of these countries. When we noticed things that were incorrect, we did change them, but in any case in which the country narratives and the dataset disagree, we recommend relying on the dataset. We would appreciate it if you would contact us to make us aware of any discrepancies you notice.

A note on the version 5.0 update: We have updated the narratives for version 5.0 in any case in which difficult decisions had to be made about SOLS changes or the categorization of democratic or autocratic systems. In all cases, the update is the same in both the R and V narratives. We did not provide a narrative update for cases in which our rules for coding SOLS changes make the coding of the 2009-2018 leadership transitions and regime type self-explanatory (e.g., the United States).

9. Variable Descriptions

9.1 State-Year Dataset

statename: Correlates of War Country Name.

ccode: Correlates of War Country Code.

year: Four digit year of observation.

leader: The name of the country's leader in a given year. If there were multiple leaders, their names are separated by commas.

leaderpos: The official title of the leader in the given year.

affiliation: See section 6.1 above.

totalldrtrans: A count of the leader transitions in the given year.

leadertrans: Coded 1 if there is at least one leadership transition in a given year and 0 otherwise.

solschange: This variable is equal to the count of SOLS changes during the country-year in which the new SOLS was in power for more than 30 days in a row. Coded 0 if there are no SOLS changes in the year that last more than 30 days total. This count variable does not include minor SOLS changes nor SOLS changes that last less than 30 days.

solschdum: Coded 1 if there is at least one SOLS change that lasts longer than 30 days in the year, and 0 otherwise. This variable does not take into account minor SOLS changes, nor SOLS changes that last less than 30 days.

solschange30: This variable is equal to the count of SOLS changes during the country-year in which the new SOLS was in power for less than 30 days total. Coded 0 if there are no SOLS changes in the year that lasted less than 30 days. Please see section 5.6 above for important details.

solsch30dum: This variable is coded 1 if there is at least one SOLS change that lasts less than 30 days, and 0 otherwise. Please see section 5.6 above for important details.

solsminchange: This variable is equal the count of minor SOLS changes during the country-year. Coded 0 if there are no minor SOLS changes in the country-year.

solsminchdum: This variable is coded 1 if there is at least one minor SOLS change during the country-year and 0 otherwise.

leaderchyr1: Year of when the first leadership change occurred in a given year. (Note: should be the same as year.) Coded missing (".") if there is no leadership change that year.

leaderchmo1: Month of when the first leadership change occurred in a given year. Coded missing (".") if there is no leadership change that year.

leaderchday1: Day of when the first leadership change occurred in a given year. Coded missing (".") if there is no leadership change that year.

…

leaderchyr7: Year of when the seventh leadership change occurred in a given year. (Note: should be the same as year.) Coded missing (".") if there is no leadership change that year.

leaderchmo7: Month of when the seventh leadership change occurred in a given year. Coded missing (".") if there is no leadership change that year.

leaderchday7: Day of when the seventh leadership change occurred in a given year. Coded missing (".") if there is no leadership change that year.

solschange1: Coded 1 if the first leader transition in a given year is associated with a SOLS change and 0 otherwise.
solschyr1: Year of when the first SOLS change occurred in a given year. (Note: should be the same as year and the same as *leaderchyr1*) Coded missing (".") if *solschange1=.* or *solschange1=0*.

solschmo1: Month of when the first SOLS change occurred in a given year. (Note: should be the same as *leaderchmo1*) Coded missing (".") if *solschange1=.* or *solschange1=0*.

solschday1: Day of when the first SOLS change occurred in a given year. (Note: should be the same as *leaderchday1*) Coded missing (".") if *solschange1=.* or *solschange1=0*.

…

solschange7: Coded 1 if the seventh leader transition in a given year is associated with a SOLS change and 0 otherwise
solschyr7: Year of when the seventh leadership change occurred in a given year if that leadership change was associated with a SOLS change. (Note: should be the same as year and the same as *leaderchyr7*) Coded missing (".") if *solschange7=.* or *solschange7=0*.

solschmo7: Month of when the seventh leadership change occurred in a given year if that leadership change was associated with a SOLS change. (Note: should be the same as *leaderchmo7*) Coded missing (".") if *solschange7=.* or *solschange7=0*.

solschday7: Day of when the seventh leadership change occurred in a given year if that leadership change was associated with a SOLS change. (Note: should be the same as *leaderchday7*) Coded missing (".") if *solschange7=.* or *solschange7=0*.

solsminch1: Coded 1 if there is a minor SOLS change in a given year and 0 otherwise.
solsminchyr1: Year of when the first minor SOLS change occurred in a given year. (Note: should be the same as year) Coded missing (".") if *solsminch1=*.

solsminchmo1: Month of when the first minor SOLS change occurred in a given year. Coded missing (".") if *solsminch1=*.

solsminchday1: Day of when the first minor SOLS change occurred in a given year. Coded missing (".") if *solsminch1=.

…

solsminch7: Coded 1 if there is a seventh minor SOLS change in a given year and 0 otherwise. *solsminchyr7*: Year of when the seventh minor SOLS change occurred in a given year. (Note: should be the same as year) Coded missing (".") if *solsminch7=.

solsminchmo7: Month of when the seventh minor SOLS change occurred in a given year. Coded missing (".") if *solsminch7=.

solsminchday7: Day of when the seventh minor SOLS change occurred in a given year. Coded missing (".") if *solsminch7=.

nonindep: Dummy variable that is coded 1 if the country was not independent at any point during the year according to the Correlates of War state system membership data and 0 otherwise.

dem: Coded 1 if the country is democratic, 0 if it is nondemocratic, and -88 for transition years (i.e. years that Polity codes as transition years and that we have not been able to categorize as democratic or nondemocratic according to our coding rules specified in section 5.2 above).

pres: Coded 1 if a democratic country-year is characterized by a presidential system, 0 if it is not presidential, and -9 for not applicable if the country-year is not democratic.

parl: Coded 1 if a democratic country-year is characterized by a parliamentary system, 0 if it is not parliamentary, and -9 for not applicable if the country-year is not democratic.

mixed: Coded 1 if a democratic country-year is characterized by a mixed presidential-parliamentary system, 0 if it is not mixed, and -9 for not applicable if the country-year is not democratic.

mil: Coded 1 if a nondemocratic country-year is characterized by a military, military-single-party, military-personalist, or military-personalist-single-party system, 0 if it is not pure military or a military hybrid, and -9 for not applicable if the country-year is democratic.

indmil: Coded 1 if a nondemocratic country-year is characterized by indirect military rule, 0 if it is not characterized by indirect military rule, and -9 for not applicable if the country-year is democratic.

sp: Coded 1 if a nondemocratic country-year is characterized by a single-party, military-single-party, single-party-personalist, or military-personalist-single-party system, 0 if it is not pure single-party or a single-party hybrid, and -9 for not applicable if the country-year is democratic.

per: Coded 1 if a nondemocratic country-year is characterized by a personalist, military-personalist, single-party-personalist, or military-personalist-single-party system, 0 if it is not pure personalist or a personalist hybrid, and -9 for not applicable if the country-year is democratic.

mon: Coded 1 if a nondemocratic country-year is characterized by a monarchy, 0 if it is not monarchical, and -9 for not applicable if the country-year is democratic.

warlord: Coded 1 if a nondemocratic country-year is characterized by warlordism, 0 if it is not characterized by warlordism, and -9 for not applicable if the country-year is democratic.

olig: Coded 1 if a nondemocratic country-year is characterized by oligarchy, 0 if it is not characterized by oligarchy, and -9 for not applicable if the country-year is democratic.

hybrid: Coded 1 if a nondemocratic country-year is characterized by an autocratic hybrid regime (military-personalist, military-single-party, personalist-single-party, or military-personalist-single-party), 0 if it is a pure autocratic system, and -9 for not applicable if the country-year is democratic.

other: Coded 1 if the nondemocratic country-year does not meet the criteria for any of the autocratic subregime type categories, 0 if it is another type of autocratic regime, and -9 for not applicable if the country-year is democratic.

regtrans: Coded 1 when there is a regime transition from democracy to autocracy or a regime transition from autocracy to democracy and 0 otherwise. (See section 6.4 above for more details.)

demtrans: Coded 1 when there is a transition from one democratic subregime to another (e.g. a change from parliamentary to presidential) in a democratic country-year, 0 when there is no transition among democratic subregimes in a democratic country-year, and -9 for not applicable if the country-year is nondemocratic. (See section 6.4 above for more details.)

auttrans: Coded 1 when there is a transition from one autocratic subregime to another (e.g. a change from military to personalist or military-single-party to military) in a nondemocratic country-year, 0 if there is no transition among autocratic subregimes in a nondemocratic country-year, and -9 for not applicable if the country-year is democratic. (See section 6.4 above for more details.)

autend: Coded 1 when a particular autocratic subregime ends either in a nondemocratic country-year (auttrans coded 1) or in the first democratic year following an autocratic subregime (regtrans coded 1), 0 if no autocratic subregime ends during a nondemocratic country-year, and -9 for not applicable for all democratic country years except for the first democratic year following an autocratic subregime. (See section 6.4 above for more details.)

sourcereg: Provides the source of information for determining whether a country is democratic or not (i.e. the *dem* variable). It is coded 1 when Polity IV is the source, 2 when Cheibub et al. is the source, and 5 when other sources were used (which should be explained in the case narratives).

sourcedemtype: Provides the source of information for determining the type of democracy (i.e. parl, pres, mixed) in a given year. This variable is coded 2 when Cheibub et al. is the source, 5 when other sources were used (which should be explained in the case narratives), and -9 for not applicable when the country-year is nondemocratic.

sourceauttype: Provides the source of information for determining the type of autocracy (i.e. per, mil, sp, mon, indmil, olig, warlord, other, hybrid) in a given year. This variable is coded 4 when Geddes et al. (2014) is the source, 5 when other sources were used (which should be explained in the case narratives), and -9 for not applicable when the country-year is democratic.

version: The version number of the dataset.

9.2 Leader Dataset

statename: The name of the country the leader led.

ccode: The COW identifier of the country the leader led.

leader: The name of the leader. This name is the same as the one used in the state-year format.

begyr: The year the leader assumed office for that particular spell. This variable is coded as missing if the leader assumed office a) before the country was independent or b) before 1919.

begmo: The month the leader assumed office for that particular spell. This variable is coded as missing if the leader assumed office a) before the country was independent or b) before 1919.

begday: The day the leader assumed office for that particular spell. This variable is coded as missing if the leader assumed office a) before the country was independent or b) before 1919.

leaderpos: Lists the highest official title(s) of the leader during the spell. If a leader changed her title during the spell a list of relevant titles is provided with individual entries separated by commas. The leader's title is coded based on worldstatesmen.org. This listing is likely incomplete for leaders who assumed office a) before the country was independent or b) before 1919.

affiliation: Lists the affiliation for each leader. If the leader's affiliation changed during the leader spell, multiple affiliations are listed separated by commas. See section 6.1 for more information.

solschange: A dummy variable that indicates whether the leader's entry into office coincided with a change in the leader's SOLS compared to her predecessor's. This variable is coded as missing if the leader assumed office a) before the country was independent or b) before 1919.

solsminchinit: A dummy variable that indicates whether the leader's entry into office represented a minor SOLS change compared to her predecessor's SOLS. The concept and operationalization

of minor SOLS changes is explained in more detail in section 5.7. We code a minor SOLS change at the beginning of the leader's entry into office if there was a minor SOLS change *within one month* of the leader entering into office. If there is more than one minor SOLS change within a month of the leaders entry into office, the very first is coded as *solsminchinit* and the remainder are counted as *solsminchdur.* This variable is coded as missing if the leader assumed office a) before the country was independent or b) before 1919.

solsminchdur: A count variable that indicates the number of minor SOLS changes during the leader's tenure. Minor SOLS changes during the leader's tenure are coded if these events took place *after the first month* of the leader tenure or there was more than one minor SOLS change in the first month the leader took office. For more information about minor SOLS changes, please see section 5.7. The coding for this variable may be incomplete if the leader assumed office a) before the country was independent or b) before 1919; our coding will reflect minor SOLS changes only during the period we code.

interim: A dummy variable that identifies whether a leader was in charge of the country in an interim/caretaker/provisional capacity during the spell. The identification of interim leaders is discussed in detail in section 6.5.

archigosobsid: The "obsid" variable from Archigos version 4.0. This is provided to facilitate merging CHISOLS data with Archigos data.

version: Version number of the dataset.

10. History of Version Numbers

CHISOLS v. 1: early version used in Leeds, Mattes, and Vogel (2009).

CHISOLS v. 2: post-1944 data used in Mattes, Leeds, and Carroll (2015).

CHISOLS v. 3: completed data collection 1919-2008.

CHISOLS v. 3.1: corrects some entry into office dates based on Archigos 2.9.

CHISOLS v. 3.2: corrects some entry into office dates based on Archigos 4.0.

CHISOLS v. 4.0: public release of completed data collection 1919-2008 (December 2015).

CHISOLS v. 5.0: public release of completed data collection 1919-2018 (March 2021)

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Appendix A: Changes from version 4.0 to version 5.0

The main change from our first publicly released version (4.0) to version 5.0 is the extension of the data to cover 2009-2018. Our dataset now includes a full century from 1919-2018.

We corrected a few typographical errors, and we adjusted some leader names, affiliation names, and titles from the later years of the version 4.0 data to match the 2009-18 coding so that differences in how leader names, affiliations, and titles are presented do not suggest changes when no change occurred. None of these create any substantive differences from version 4.0.

We made a very small number of substantive corrections to the version 4.0 data. All substantive changes are listed below:

SOLS changes:

France 1930 This is now coded with 1 SOLS change and 2 SOLS changes that lasted less than 30 days, based on the "ABA" rule explained in section 5.6
France 1948 This is now coded with 1 SOLS change and 2 SOLS changes that lasted less than 30 days, based on the "ABA" rule explained in section 5.6

Minor SOLS changes:

Malaysia 2008 Added a minor SOLS change on September 18, 2008 due to a junior partner leaving the governing coalition.

Regime Type coding:

Mozambique 1993-2008 Because the POLITY project changed the democracy score of these years from 6 to 5, we now code these years as nondemocratic (single party) rather than democratic. This does not affect our SOLS change coding.

Leader Transition dates:

Paraguay 1925 There is no leader transition this year, but in version 4.0 leader change months and days were incorrectly included. These have been removed.
Paraguay 1926 There is no leader transition this year, but in version 4.0 leader change months and days were incorrectly included. These have been removed.
Syria 1961 leaderchday1 and solschday1 corrected from 1 to 14.

SOLSminch#:

Thailand 1957 The first minor SOLS change of the year is listed as solsminch1 and the dates are associated with solsminch1. This minor SOLS change was mistakenly coded as solsminch2 in version 4.0.