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Domestic political upheaval has profound consequences, both for the country in which it takes place and for international politics. It is therefore striking that there is no standard cross-national time-series dataset that focuses specifically on the concept of revolution. This article aims to address that gap by introducing a new dataset on revolutionary governments and leaders, 1945–2004. Revolutionary leaders tend to be younger, to have longer tenure in office, and to be more prone to international conflicts than non-revolutionary leaders. This new dataset facilitates quantitative analyses of a variety of questions about both the causes and consequences of revolutionary governments.

KEYWORDS: data; dataset; regime change; revolution; revolution definition; war

1. Introduction

Domestic political upheaval has profound consequences, both for the country in which it takes place and for international politics. The complex causes of revolutions have long interested scholars (Moore, 1966; Gurr, 1970; Tilly, 1978, 1996; Skocpol, 1979; Goldstone, 1993, 1998, 2001; Kuran, 1991; Lohmann, 1994; Foran, 1997, 2005; Kurzman, 2004), as have the different phases of revolutions and their consequences (Pettee, 1938; Brinton, 1965; Wickham-Crowley, 1992; Krain, 2000; Goodwin, 2001). For scholars of international relations, multiple types of political upheaval are believed to be consequential for international conflict, including regime change, democratization, civil wars, and revolution (Walt, 1996; Goldstone, 1997; Maoz, 1996; Enterline, 1998; Mansfield and Snyder, 2005; Gleditsch et al., 2008). The relationship between domestic revolution and international war has elicited special attention from researchers (Walt, 1992, 1996, 1997; Maoz, 1989, 1996; Gurr, 1988; Skocpol, 1988; Goldstone, 1997; Snyder, 1999).

For such an important area of political science, it is striking that there is no standard dataset that focuses specifically on the concept of revolutionary government. As Goldstone points out, the "term 'revolution' is frequently used with little care; as a result, it has become vague and slippery" (Goldstone, 1993: 8). High quality data are vital to social science (Geddes, 1990; King et al., 1994). Much progress has been made to develop datasets in other areas, such as characteristics of leaders (Goemans et al., 2009; Horowitz et al., 2005), government elections (Hyde and Marinov, 2010), colonial patterns (Gerring et al., 2010), and types of

autocratic regimes (Geddes, 2003; Weeks, 2008). Various measures of democracy exist (Marshall et al., 2009; Alvarez et al., 1996; Cheibub et al., 2010; Coppedge and Gerring, 2011). To date, revolutions and revolutionary governments have not yet received anywhere near the same type of attention (though see Goldstone, 1993, 1998).

Much of the research that focuses on revolutions is based on qualitative work, focusing on historical case studies (Walt, 1996; Skocpol, 1988; Snyder, 1999). Among those studies that use quantitative analysis, most measures of revolution or regime change are based on the various Polity datasets. Yet the use of a Polity-based measure is often conceptually inappropriate to the analysis, especially when the object of study is revolution or regime disruption rather than democratization. This leads to significant problems. For instance, pre- and post-revolutionary governments are often equally undemocratic and repressive, so merely measuring changes in the composite Polity score (or equivalently, using the *Durable* variable) is not a reliable indicator of change. Consequently, Polity-based measures record the transition from monarchy to republic in Libya (1969, Qadhafi) or Iraq (1958, Kassem) as the continuation of a single regime: a highly questionable claim.

Moreover, even in studies that explicitly focus on democratization, a non-Polity-based measure of revolution can help isolate the effects of regime disruption from patterns of political openness. For instance, Mansfield and Snyder's (2005) important work on democratization counts the Iranian Revolution of 1979 as an instance of "incomplete democratization" which led to external war. Yet this conflates the impact of the revolution and incomplete democratization, making it difficult to identify which factor(s) led to international conflict.

Even if one accepts the use of Polity as a measure for "regime change", such a measure is not necessarily well-oriented to the more specific concept of domestic revolution. The term revolution typically indicates upheaval and change relative to previously existing institutions and practices. The Polity datasets measure the authority characteristics and openness of the regime to political competition, which is quite different and often orthogonal to what is meant by revolution. This article explicitly defines the term revolution in a way that clarifies its meaning as a variable to be used in empirical analysis.

This article aims to address the gaps and limitations in the existing research on revolution and regime change by introducing a new dataset on revolutionary governments and leaders, 1945–2004. The data reveal some interesting comparative statics: revolutionary leaders tend to be younger, to have longer tenure in office, and to lead more autocratic governments than non-revolutionary leaders. Additionally, the dataset facilitates quantitative analyses of a variety of questions about both the causes and consequences of revolutionary governments. It can be used to alleviate some of the serious research design flaws in the existing literature, particularly those caused by selection bias.

This dataset was designed specifically for studying the link between domestic revolutions and international war, and thus might be most helpful for quantitative analyses of the causes of war. There is a vast literature that focuses on militarized interstate disputes and international crises, almost all of which contains a potential omitted variable bias because the effects of domestic revolutions are not taken

into account. This new dataset provides researchers with an "off-the-shelf" resource which could substantially improve such analyses. However, the uses of the dataset are not limited to such studies. It could also help scholars investigate other consequences of revolutions, domestic and international. And the dataset may prove equally useful in the study of the causes of revolutions, where the new dataset measures the dependent variable.

This article proceeds as follows. Section 2 lays out the rationale for a new dataset on revolutions and revolutionary governments and offers a critique of existing measures. Section 3 describes the coding of the new dataset in detail. Section 4 provides a quantitative description of the new dataset, which includes some interesting results about the age, gender, length of tenure, and regional distribution of revolutionary leaders. The section also provides a quantitative comparison to existing measures of revolution. Section 5 provides a *prima facie* analysis of the impact of revolution on a measure of international conflict, militarized interstate disputes (MIDs), drawn from the Correlates of War dataset. A short final section concludes.

2. Rationale and Existing Approaches

Defining Revolutionary Government

This article defines a revolutionary government as one that transforms the existing social, political, and economic relationships of the state by overthrowing or rejecting the principal existing institutions of society.[1] A revolution, which brings such a government to power, necessarily implies new leadership, which is not always the case with regime change. Revolutions are thus a strict subset of regime changes. Regime change, as the term has been used in the literature, includes a broad set of events such as coups, assassinations, revolts, democratization (complete, partial, or incomplete), political change within authoritarian or semi-authoritarian states, foreign occupations or installations, and domestic revolutions.

The definition of revolutionary government used here is similar to the definitions used by several influential scholars, including Walt and Huntington. Walt (1996: 12) defines a revolution as "the destruction of an existing state by members of its own society, followed by the creation of a new political order". Huntington (1968: 264) states that "a revolution is a rapid, fundamental, and violent domestic change in the dominant values and myths of a society, in its political institutions, social structure, leadership, and government activity and policies". Huntington explicitly distinguishes revolutions from insurrections, rebellions, revolts, coups, and wars of independence. Gurr (1970), Tilly (1978, 1996), and Skocpol (1979) subsequently made a similar distinction between revolutions and other events.

Yet not all scholars define the term in the same way. Skocpol, for instance, focused on social revolutions, defined as "rapid, basic transformations of society's state and class structures … accompanied and in part carried through by class-based revolts from below" (1979: 4). This definition is narrower than what she calls political revolutions, which "transform state structures but not social structures,

[1] This definition matches the one in Colgan (2010: 666) and Colgan (forthcoming).

and they are not necessarily accomplished through class conflict." The definition used in this article lies in between Skocpol's "social" and "political" revolutions, because while revolutionary governments are not necessarily accompanied by a major class conflict, they do necessarily transform social or economic structures and practices in addition to political structures and practices. Consequently, the universe of cases under Skocpol's definition of "social revolutions" is likely to be smaller than Walt or Huntington's definition, or the one used here.

A crucial distinction must be made between revolutionary government and the "democratic-ness" of a state, as measured by Polity and other datasets. Indeed, these concepts are to some degree orthogonal to each other. Revolution is possible without causing a significant shift in a country's Polity score, such as when Muammar Qadhafi took over from King Idris in Libya or when Fidel Castro threw out Fulgencio Batista in Cuba. In both cases, a highly autocratic government was replaced by another highly autocratic government, but the degree of political change was dramatic. Conversely, major changes in a country's Polity score are possible without revolution, such as Iran's 9-point Polity score increase in 1997 when Mohammad Khatami was elected President on a platform of liberalization (and subsequent 9-point decrease in 2004). Consequently, revolution can and should be conceptualized as a distinct phenomenon from shifts in the type of political competition and authority measured by Polity scores.

The Need for a Quantitative Dataset of Revolutions

Scholars of international relations are especially interested in the consequences of revolution for international war. Among those who have studied the issue, there is a broad consensus that states that have recently undergone a domestic revolution are unusually prone to international disputes and wars (Walt, 1996; Maoz, 1989; Gurr, 1988; Skocpol, 1988; Goldstone, 1997; Snyder, 1999; Enterline, 1998). However, the precise mechanisms linking international conflict and domestic revolutions are debated. A landmark work by Stephen Walt (1992, 1996) argues that the relationship between revolution and war is caused by system-level changes in the balance of threat in the international system. Walt focuses especially on how revolutions (a) alter the offense–defense balance in the international system, (b) increase the perception of hostility between the revolutionary state and its non-revolutionary neighbors, and (c) increase the chance of miscalculation by lowering the quality of information available to state leaders. Other scholars have advanced plausible theoretical explanations linking revolutionary leaders and international conflict. Skocpol (1988), for instance, argues that successful revolutionary leaders are particularly good at organizing and mobilizing their populations for campaigns of mass violence, a skill that was required for them to be successful in the domestic revolutionary struggle. Gurr shares Skocpol's view that revolutionary leaders tend to be aggressive, but for different reasons. He argues that revolutionary leaders who have secured power and maintained their positions through the use of violence domestically are disposed to respond violently to future challenges, even if those challenges arise internationally (Gurr, 1988). Part of the difficulty in resolving these debates lies in the empirical methodology used to investigate the relationship.

One weakness in the design of some of this research is the lack of a clear justification for the selection of cases (Geddes, 1990). This creates at least the possibility of unintentional selection bias in favor of the argument. For instance, Walt selects three primary cases over the course of three centuries, ignoring many other potential cases. This problem can stem from a failure to identify a full universe of cases. Without identifying that universe, it is all too easy for scholars to unintentionally focus too much attention on the cases that support their theories and give inadequate attention to disconfirming cases. It is noteworthy that when quantitative statistical analyses have been conducted, they have sometimes reached different conclusions than those of qualitative analyses.[2]

Existing Approaches and Their Limitations

Selection bias is a serious potential threat to causal analysis, especially if the analysis focuses primarily on cases that are supportive of the theory (King et al., 1994; Geddes, 1990). Avoiding this bias requires a comprehensive domain of cases, subject to a well-specified identification procedure. Yet there is no widely accepted universe of cases of revolutionary governments, and while some scholars focus on a handful of cases, others consider hundreds.[3] The lack of a dataset focused specifically on the concept of revolutionary government that defines the universe of cases has led to an absence of quantitative research on the subject.

A number of scholars have used quantitative approaches to investigate the related concepts of regime change and incomplete democratization. While this research is not squarely focused on revolution, there is considerable conceptual overlap. For instance, Enterline focuses on regime change, but notes that his work "joins a growing body of research, including studies of revolution and war" (1998: 389). Maoz focuses primarily on "political transformation", which necessarily involves a shift in the structure of the political system and its rules of operation. Maoz's interest is thus closely related to the concept of revolution and he tends to use the terms interchangeably. However, he defines the term revolutionary as a qualifying adjective in temporal terms: revolutionary change is abrupt, and evolutionary change is gradual (Maoz, 1996: 5).[4] Mansfield and Snyder (2005) explicitly focus on incomplete democratization, but they draw upon Walt's work on revolutions, and do not clearly distinguish between the two concepts. (The extent of the overlap between the concepts of "democratizing" and "revolutionary" is highlighted by the fact that, of the six post-1945 cases of democratizing countries that

[2] For example, on the issue of aggessiveness of revolutionary states, see Walt (1996) in contrast to Maoz (1989, 1996) and Enterline (1998).

[3] Walt focuses his (1996) research on revolution and war on ten cases of "unambiguous" revolutions, though he suggests in later work that many other cases exist. Skocpol focuses on only the "great" revolutions, which appears to limit the universe of cases to fewer than ten. Robert Snyder (1999) identifies 24 revolutions during the Cold War for his research. Maoz (1996: Table 4.2) identifies 592 instances of revolutionary observations in 1816–1986.

[4] Note that Maoz's earlier work (1989) defines revolutionary as relating to violent change, whereas evolutionary relates to non-violent change.

experienced the outbreak of an external war identified by Mansfield and Snyder, four can be classified as revolutionary.)[5] This article reviews the literature on its own terms, and does not pretend that all scholars are studying precisely the same thing. Nonetheless, each of the works reviewed implicitly uses the concept of a revolutionary government, as defined above, in an important way.

Among the scholars who use quantitative approaches, most rely on the Polity dataset to operationalize the concept. Two principal kinds of measures are used. The first kind is based on changes in the composite Polity score (ranging from –10 to +10). Enterline, Maoz, and Mansfield and Snyder use variants of this type. For instance, Enterline codes his regime change variable by:

> identify[ing] four regime types across this 21-point range: (1) coherent democracies ($\geq +7$); (2) incoherent democracies (≥ 1 and ≤ 6); (3) incoherent autocracies (≥ -6 and ≤ 0); and (4) coherent autocracies (≤ -7). Having identified the regime type of each state-year in the data set, I then record when regime changes occur from one category to another.… Regime change is measured with a dichotomous variable, scored 1 for 15-years following, and including, the year a new regime emerges, and 0 otherwise. (Enterline, 1998: 393, 395)

These coding rules therefore specify both the year of the onset of regime change and an indicator of a "new" regime (defined by Enterline as one that is less than 15 years old).

Other scholars use the *Durable* variable to code revolution or regime change (Smith, 2004; Morrison, 2009). The *Durable* variable is a described in the Polity IV codebook as "a running measure of the durability of the regime's authority pattern for a given year, that is, the number of years since the last substantive change in authority characteristics (defined as a 3-point change in the Polity score)" (Marshall and Jaggers, 2009: 13). Consequently, when *Durable* equals zero, a regime change has occurred. However, during prolonged periods of instability, *Durable* can be equal to zero for multiple years in a row. In such cases, it is assumed that the first zero indicates a regime change, though all of the zeros indicate political instability.

There are three limitations to existing approaches that motivate the development of an alternative measure. First, the use of a Polity-based measure is often conceptually inappropriate to the analysis, especially when the object of study is revolution or regime disruption rather than democratization. Several otherwise very admirable studies of revolutions or regime change, such as those by Maoz or

[5] The six cases are France (1947), Turkey (1950), South Korea (1965), Pakistan (1965), Cambodia (1975), and Iran (1980), where the years indicate the outbreak of the war. See Mansfield and Snyder (2005: Appendix, first table). Note that among these cases, it is not entirely clear which variable (democratization or revolutionary) is "doing the work" in terms of causing the outbreak of war. All but the first two are coded as revolutionary governments in the dataset introduced in this article. The two non-revolutionary cases are France's military conflict in Indo-China and Turkey's participation in the Korean War, neither of which occurred on or near the homeland of the democratizing state, making the link between democratization and war less obvious.

Enterline, can be characterized in this way. In these cases, there is a mismatch between the theory developed and the empirical measure used to test the theory. These studies fail to separate the concepts of the "democratic-ness" and the continuity of a regime. Consequently, a Polity-based measure often generates many false-positive and false-negative cases of "regime change". For instance, the *Durable* measure registers a total number of regime changes that is an order-of-magnitude larger than other plausible measures (see Section 4). However, it does not register a regime change when Kassem came to power in Iraq, or Hugo Chavez in Venezuela, or Muammar Qadhafi in Libya, all of whom explicitly rejected the prior ruling regime.

Second, even in studies that explicitly focus on democratization, a non-Polity-based measure of revolution can help isolate the effects of revolution from the effects of changing patterns of authority and political competition. One example is found in Mansfield and Snyder's research, which argues that (incomplete) democratization frequently leads to international conflict and war. Quite reasonably, they use a Polity-based variable to measure democratization. A drawback of this approach, however, is that the measure conflates incomplete democratization with revolution. Thus they count the Iranian Revolution of 1979 as an instance of "incomplete democratization" which led to external war. Yet skeptics could argue that it was the fact that Iran was revolutionary, not that it was an incomplete democratization, which mattered for international conflict. After all, many other revolutionary states (e.g. Cuba, Nicaragua) were conflict-prone without ever experiencing a process of democratization, incomplete or otherwise. Thus a separate dataset to operationalize the concept of revolutionary regime change, distinct from the concept of democratization, could be used to help distinguish which variable is "doing the work" in the causal process that leads to war.

Third, the duration of new or revolutionary governments is currently either unknown or arbitrarily determined. Many scholars, especially those interested in international conflict, are interested in the behavior of governments that come to power after a revolution. Yet the Polity-based coding schemes do not provide a rationale for establishing how many years after a regime change a government can be considered new or revolutionary. Consequently, many others simply pick an arbitrary duration, such as five years (Maoz, 1996), ten years (Walt, 1996), or 15 years (Enterline, 1998). Not only does this approach lack substantive justification, but it also applies rigidly for all cases, ignoring the apparent variation between cases. For instance, the Khmer Rouge's revolutionary regime lasted just four years in Cambodia, whereas Qadhafi's most dramatic political changes did not even start until he had been in power for almost a decade.

For all of these reasons, there are significant limitations to the existing Polity-based measures used to operationalize the concepts of regime change and revolution. Besides these measures, two other quantitative datasets might be used to measure the concept of revolution. One is the Archigos dataset compiled by Hein Goemans, Kristian Gleditsch, and Giacomo Chiozza (2009). It includes a variable *Entry* that records how a leader entered office. *Entry* is equal to 0 for a regular entry, 1 for an irregular entry, and 2 for a leader directly imposed by another state. Irregular entry into office is not defined explicitly, but it appears to indicate that

the previous leader was removed in contravention to explicit rules and established conventions. This measure is a plausible starting point for identifying revolutions. Still, the *Entry* variable is quite broad and appears to include events such as coups, revolts, assassinations, and irregular appointments or selections.

The Arthur S. Banks Cross National Time Series Data Archive is a second relevant dataset.[6] The Banks dataset has a measure called *Revolutions* which is defined as a count of "[a]ny illegal or forced change in the top governmental elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government". This variable measures something fundamentally different than revolutions as defined in this article, for two reasons. First, the measure is broader in the sense that political events count even when they are not accompanied by transformation of the existing social, political, and economic relationships of the state. Second, unsuccessful attempts are included in the measure. This means that a very large number of events are included, such that in many cases there are two, three, or even more "revolutions" in a single year in a given country. For example, the Banks dataset indicates that there were nine revolutions in Mexico in 1995 alone. While the data are no doubt useful for some purposes, they do not reliably measure the concept discussed here.

Revolution as a Dependent Variable

Beyond the question of revolution and international war, a new dataset on revolutions could prove useful to scholars of comparative politics in a variety of ways. One way is to operationalize the concept of revolution as a dependent variable. The complex causes of revolutions have received significant scholarly attention from students of comparative politics, as have the different phases of revolutions and their consequences (Moore, 1966; Gurr, 1970; Tilly, 1978, 1996; Skocpol, 1979; Kuran, 1991; Lohmann, 1994; Foran, 1997, 2005; Kurzman, 2004; Pettee, 1938; Brinton, 1965; Wickham-Crowley, 1992; Krain, 2000; Goodwin, 2001). Most such studies have been qualitative, and it is possible that a new dataset could open up new avenues for researchers using quantitative methods to study the causes of revolutions. Even for qualitative researchers, existing research has been hampered by a lack of a well-established universe of cases (Foran, 2005).

Scholars studying the causes of revolutions have frequently defined revolution in their own unique way, rejecting previous definitions, and thus might resist the notion of a single universe of cases.[7] Yet the development of a dataset does not necessarily mean the end of this practice. Indeed, a dataset can help facilitate this practice by identifying various characteristics of revolutionary governments, by which they can be grouped or differentiated. By taking advantage of a general universe of cases, scholars can tailor their research designs to avoid the problem of unit heterogeneity, while simultaneously avoiding selection bias. Moreover, the

[6] Arthur S. Banks Cross National Time Series Data Archive, available at http://www.databanks.sitehosting.net/Default.htm.

[7] See Skocpol (1979) for a particularly lucid explanation of how her definition of social revolutions differs from multiple alternative definitions used by other scholars.

use of a dataset that defines a comprehensive universe of cases can help the scholar to avoid any unintentional eurocentrism or excessive attention to better-known cases. Thus a dataset devoted to revolutionary governments might encourage the investigation of the causes and consequences of understudied revolutions in Africa, Latin America, and elsewhere.

3. Operationalization of Revolutionary Government

This article introduces a new dataset on revolutions and revolutionary governments.[8] Recall that a revolutionary government is one that transforms the existing social, political, and economic relationships of the state by overthrowing or rejecting the principal existing institutions of society. This dataset does not seek to operationalize the broader concept of regime change, although some useful additional variables are provided in the dataset that could help in that task.

The dataset was created primarily for the purpose of examining the effect of revolutions and revolutionary governments on international politics and the foreign policy of the states. As such, it is important that revolutionary leaders and governments are identified without reference to their foreign policy behavior. Without such a constraint, the effect of revolutionary leaders could become tautological: if "revolutionary" is defined by certain foreign policy actions, then it follows trivially that revolutionary leaders have an impact on foreign policy. Consequently, the coding scheme focuses solely on domestic politics.

The unit of analysis is the individual government/leader of a state in each year. The terms "government" and "leader" are used interchangeably: for the purpose of this dataset, a government is equivalent to the period of time that a leader was continuously in power (e.g. four or eight years for a US President). A leader is defined as the chief executive over the state's foreign policy; in practice, the dataset uses the leader identified by the Archigos dataset (v.2.8.1) (Goemans et al., 2009). The term leader is applied even in cases where it is clear that the individual in question represents a junta or joint leadership. For each state, only one leader/government is coded for each year. If there is a leadership change in a given year, the leader who held the position at the end of the year (31 December) is coded. Note, however, that a leader has the same coding for each year that he is continuously in office. A leader who leaves office and then returns to it later can have a different coding.

Coding Criteria for "Revolutionary" Governments

The dataset operationalizes the variable *Revolutionary Government*. Each observation in the dataset was coded independently at least twice, by different coders.[9]

[8] This section draws and expands upon Colgan (2010) and Colgan (forthcoming).

[9] I am grateful to Summer Lopez, Thomas Scherer, and Lamis Abdel-Aziz for their assistance in this effort. Inter-coder reliability on the key variable, *Revolutionary Government*, was 94%. While each of the main variables was independently coded by two coders, the coding of the seven sub-categories of policy change (which together add up to the second criterion for *Revolutionary Government*) was coded in full detail only by one.

Revolutionary Government is coded dichotomously. It is possible to consider some governments as "more" revolutionary than others, creating the possibility of a continuous variable. However, fine-grained distinctions about the revolutionariness of each government are not easily made. Though the dataset provides information relevant to a continuous conceptualization of the term revolutionary, the ambition for this dataset is more modest: it focuses on distinguishing revolutionary governments from those that are non-revolutionary. Consequently, each state-year is given a dichotomous coding, based on two principal criteria plus two additional exclusions.

The first criterion for the coding is whether the leader came to power through use of armed force, widespread popular demonstrations, or similar uprising (henceforth called an "an irregular transition"). Two questions were used for this coding: "First, has the individual leader used armed force against his own state at any time prior to coming to office as an integral part of his coming to national influence, and ultimately, state leadership? Second, were there mass demonstrations or uprisings, violent or non-violent, which were instrumental in deciding the outcome of the transition? If the answer to either of those questions was yes, the transition was coded as irregular" (Colgan, 2010: 674). This implies that a leader like Adolf Hitler, who led an attempted (but failed) coup to rise to national influence and subsequently came to power through an election, would be coded as having had an irregular transition and thus potentially revolutionary.[10] In addition, the "term 'used armed force' requires leadership in the act; an individual who is a relatively low-level functionary of a revolution or coup is not considered to have led it. It is possible for more than one leader to have 'led' an irregular transition, but the leadership is restricted to its senior leaders" (Colgan, 2010: 674). Thus both Lenin and Stalin are coded as having had an "irregular transition" as leaders of the Russian Revolution, but not Khrushchev, even though the latter fought in the Red Army in 1917.

The second criterion is that the government must have implemented radical domestic changes for the purpose of transforming the organization of society, including its social, economic, and political institutions and practices.[11] Changes in foreign policy are not relevant for the data coding. Seven possible areas of change were identified: "the selection and power of the national executive; the structure of property ownership; the relationship between state and religion; the official political ideology; the official state name; the institutionalized status of ethnicity

[10] This approach allows for the possibility that some leaders who clearly seek to overturn existing institutions (as evidenced by the initial coup attempt) could be coded as revolutionary even if they are only able to accomplish their goal by first winning an election. Such leaders swiftly and explicitly reject the political institutions that had brought them to power.

[11] Strictly speaking, a leader need only have made changes in at least two out of three of those types of institutions (e.g. political, economic, social) to be coded revolutionary. In theory, it is possible that a leader could be coded as revolutionary on purely political grounds (by making changes to the executive, political ideology, and installing a revolutionary committee), but in practice there are no such instances in the dataset.

Table 1. Illustrations of Revolutionary Policy Changes

ID	*Institution or practice*	*Example*
1	Executive power and selection	• Major change of a formal constitution • *De facto* change to leader selection (e.g. abolishment of monarchy)
2	Political ideology	• Adoption (or abandonment) of communism or fascism as official ideology of the state or its single-party leadership
3	Official state name	• Change from USSR to Russian Federation
4	Property ownership	• Major changes in property ownership, such as land reform or nationalization of key industries • Changes in economy type (market vs. collectivized ownership)
5	Gender and ethnic Status	• Implementation or removal of major restrictions on women's dress, employment, inheritance and/or property ownership • Changing the institutionalized status or political rights of major ethnic groups • Granting women the right to vote
6	State–religion relationship	• Constitutional adoption of a single religion as the official state religion, to the detriment of other religions • Adoption of a religion in the official state name (e.g. "Islamic Republic")
7	Leadership of revolutionary council	• Leader creates and chairs a National Revolutionary Council while in power

and gender; and the presence of a governing revolutionary council or committee" (Colgan, 2010: 675). Examples of major changes in these seven categories are illustrated in Table 1.

To be coded as revolutionary, dramatic changes in policy are required in at least three of the seven categories. For example: "the Iranian revolution in 1979 changed the relationship between state and religion (political dominance by clerics), the power and selection of the national executive (replacement of the monarchy by a clerical Supreme Leader), the status of women (inequality in inheritance law and segregation of the sexes), and the official name of the country (changed to the Islamic Republic of Iran), as well as many other changes" (Colgan, 2010: 675). The threshold of major change in three of seven categories is admittedly arbitrary, but the transparency of the coding system means that researchers are free to adjust the threshold up or down (e.g. to four or two) to suit their research objectives. Some of these categories are easier to objectively measure (e.g. changes in the official name of the state), while others are more directly connected to the substantive

changes of interest (e.g. a major change in the nature of the executive), but all of them provide information about the degree to which the state is transformed. For practical reasons, the seven categories were only coded if the first criterion (irregular transition) was met. The dataset contains a variable for each of the seven categories (see below for description of additional variables).

The coding rules are meant to be ideologically neutral. In all cases, change is measured relative to the relevant prior government, rather than some external standard. Thus a government that changes from religious fascism to secular communism is radical; so is one that does the opposite. This is consistent with Tilly's (1996: 8) deceptively simple statement that, "in a revolution, the polity stops behaving as before." Identifying the "prior government" that went before is not always trivial. In most cases, the prior government is simply the one that existed immediately prior to the current leader's ascension to executive office. In cases where more than one individual led a revolution, and each subsequently came to power, the prior government is the one against which both rebelled. For instance, both Lenin and Stalin led the Russian Revolution in 1917; thus, even though Lenin's regime was immediately prior to Stalin's, the "prior government" for both leaders is Czarist Russia. For leaders that led multiple revolutions, the latest in time is most relevant. An intra-party struggle for power (such as Stalin's after Lenin's death) does not change the prior government.

Two types of governments are not coded as revolutionary even though they represent significant changes from the status quo. First, "leaders who are installed by foreign powers after a major international war are not coded as revolutionary. States with foreign-installed leaders do not always have a free hand to control their state's policy, especially in the realm of foreign affairs; indeed, the behavior of such states has been shown to be considerably different from other states [Lo et al., 2008]" (Colgan, 2010: 675). Second, the founding government of a state is not coded as revolutionary, as I focus on changes relative to a "prior government" within the same polity.[12] When the two principal criteria are met, and neither of the exclusions applies, the state-year is coded as being a revolutionary government.

This operationalization does not make violence an essential component of the concept of revolutionary government. Most revolutions are in fact accompanied by violence. Some scholars have even defined revolutions as inherently violent (Gurr, 1970; Johnson, 1982). However, I define a revolution mostly in terms of its outcomes (i.e. the overthrow of existing institutions and their replacement) and am more catholic about the process (violent or non-violent).[13] There are

[12] I focus on what Maoz calls "internal revolutions", i.e. the state itself already exists but the existing social, political, and economic relationships of the state are transformed. Consequently, this operationalization of revolution does not include new governments that might be considered "revolutionary" when the state itself is born. Future research could address this topic. However, this would involve a non-trivial amount of additional work, as it would require additional rules to distinguish "revolutionary" cases from "non-revolutionary" founding governments.

[13] This approach follows Goldstone (2001), Tilly (1996), and Goodwin (2001).

advantages to leaving open the question of violence to empirical investigation. For instance, the violent overthrow of Ceausescu in Romania would seem clearly revolutionary, but if Romania is coded as a revolution, surely the non-violent overthrow of Communists in Poland or Czechoslovakia should also be coded as such. My goal is to ensure that like cases, in terms of their political, economic, and social transformation, are treated alike. This operationalization allows such cases to be included in the dataset. A user of the dataset that wanted to restrict the sample only to violent revolutions could do so.

This operationalization of revolutionary government also provides a useful piece of information about the duration of revolutionary governments. The exact time at which a government ceases to be "revolutionary" is a vexed question, to which there is probably no single answer. Nonetheless, some kind of answer is necessary for many types of analysis. The design of this dataset provides one such answer. Because the dataset focuses on revolutionary leaders as much as revolutionary governments, an individual leader receives the same coding throughout his tenure in office (so long as it is continuous; a leader who leaves and subsequently returns to power can have a different coding). Thus the variable *Revolutionary Government* is coded positively throughout the tenure of the government. This means that the leader/government is coded as revolutionary for as long as the first generation of revolutionary leaders is in power. While this is one useful way of understanding the duration of revolutionary governments, it does not preclude researchers from coding the duration of revolutions in different ways. Indeed, for the sake of analytical robustness, alternative measures of revolutionary duration should be encouraged. For instance, analysts could place a hard limit on the number of years that a government can be considered revolutionary (Colgan, 2010).

Additional Variables in the Dataset

The dataset's primary variable is *Revolutionary Government*. The dataset also contains distinct variables for each of the two main criteria, as well as seven variables for the seven categories of social, political, and economic change. This transparency will allow researchers to independently recode disputed values, and for the dataset to evolve over time. It even allows researchers to use different working definitions of 'revolutionary', such as coding as revolutionary those leaders that met four rather than three of the seven categories of social, political, and economic change.

Three important additional variables are provided along with the dataset. First, the variable *RevStart* indicates the first year of a revolutionary government and is coded zero in all other years. Second, all state-years are coded with a dichotomous variable called *Ambiguous* to indicate borderline cases or cases where information was missing. This variable can be used to test regression models for robustness. For instance, in one specification, all governments coded as *Ambiguous* can be temporarily re-coded as revolutionary governments; in another specification, they can be temporarily re-coded as non-revolutionary governments. One would not

expect the results of a sufficiently robust regression analysis to change under these specifications.

Third, all positive observations of *Revolutionary Government* are also coded with a dichotomous variable called *Democratizing* to indicate whether the new government was significantly more democratic than the prior one. This variable does not influence whether the government is coded as *Revolutionary*. However, it may be used in conjunction with the *Revolutionary Government* variable to test the impact of this specific kind of revolution. Conceptually, a government is democratizing if it implements changes that increase the level of political competition and openness in the state, including free and fair elections, division of powers between branches of government, and civil liberties. Operationally, the variable is coded positively when the Polity score of the state increases by at least 5 points (on the combined scale from –10 to +10) in the first five years of the new government's tenure. To clarify, it is not sufficient for the state to be an existing democracy for this variable to be coded positively. The level of democracy must be significantly *increasing*, such as when a leader leads a democratic revolution at the end of a communist or autocratic period. This variable is coded negatively in all other situations. Additional detail about the precise coding rules is given in the codebook.[14]

4. Characteristics of the New Dataset

The new dataset provides a dichotomous indicator for revolutionary government for 7,553 observations of 169 states over the period 1945–2004. Of these, 1,005 state-years are coded as revolutionary, stemming from 77 individual revolutions (plus 3 revolutions that occurred prior to 1945). Only 28 percent of the governments that used force to come to power are coded as revolutionary, meaning that there is a significant difference between "coups" and "revolutions". There are 94 unique revolutionary leaders, as some revolutionary governments were led by multiple leaders in succession (e.g. both Paz Estenssoro and Siles Zuazo led the MNR in Bolivia in the 1950s), and two revolutionary leaders that were brought back to office after leaving it, bringing the total number to 96. Table 2 provides the descriptive statistics for the dataset.

As Table 3 indicates, the characteristics of revolutionary leaders are often significantly different from non-revolutionary leaders. Revolutionary leaders are typically younger when they come into office: their average initial age is 47 years, compared to 54 for non-revolutionary leaders in their first year of office. Revolutionary leaders tend to stay in office more than twice as long as non-revolutionary ones (10.5 years compared to 5.2 years) and lead more autocratic governments while in office (average Polity score is –4.2, compared with +3.5 on a scale ranging from –10 to +10). All revolutionary leaders in this period were male, which is different (though not much) from world leaders as a whole. These basic patterns hold true even if one focuses only on non-OECD states or

[14] To be posted as a web appendix.

Table 2. Descriptive Statistics for New Dataset of Revolutionary Governments

Variable	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*
Revolutionary Government	7553	0.133	0.340	0	1
Irregular Transition	7244	0.319	0.466	0	1
Radical Policy Change	7553	0.143	0.350	0	1
Founding Leader	7509	0.046	0.209	0	1
Foreign Installed Leader	7127	0.167	0.373	0	1
Democratizing Leader	7528	0.021	0.143	0	1
Used Force	7186	0.300	0.458	0	1
Ambiguous Coding	7553	0.100	0.301	0	1
Executive Power (1)	2131	0.791	0.407	0	1
Political Ideology (2)	2123	0.398	0.482	0	1
Name of Country (3)	2114	0.287	0.452	0	1
Property Owernship (4)	2139	0.494	0.489	0	1
Women Ethnic Status (5)	2120	0.249	0.414	0	1
Religion-in-government (6)	2124	0.293	0.444	0	1
Revolutionary Committee (7)	2128	0.430	0.491	0	1
Total Categories Changed	7553	0.829	1.716	0	7
Revolution Started	7553	0.010	0.100	0	1
Revolution Age	7553	1.357	4.802	0	45
Country Code (ccode)	7553	457	246	2	950
Year	7553	1978	16	1945	2004
Gender (1 = female)	7553	0.018	0.132	0	1
Age at Start of Tenure	7547	49.773	11.785	16	86
Age (leader's current)	7547	56.203	11.491	17	92
OECD	7553	0.168	0.374	0	1
Major Power	7553	0.043	0.204	0	1
Region	7282	4.629	2.459	1	8
Tenure (total years in office)	7553	13.130	10.785	0	47
Polity–RegimeChange	7553	0.010	0.102	0	1
Polity–Revolutionary Gov't	7553	0.124	0.329	0	1
Durable–Regime Change	7553	0.053	0.225	0	1
Durable–Revolutionary Gov't	7553	0.532	0.499	0	1

solely on non-democracies (i.e. states with a Polity score of less than or equal to 6).

Revolutionary governments are well dispersed across the globe, but there is considerable regional variation in their frequency. Figure 1 illustrates this variation. Overall, 6.9% of all governments in this period were revolutionary. Not surprisingly, revolutions are rare in North America and Western Europe. On the other hand, revolutionary governments are relatively common in the Middle East and Africa.

Table 3. Characteristics of Revolutionary Leaders

	Initial Age	*Tenure in office*	*Polity score*	*% female*	*N*
All states					
Non-revolutionary	53.8	5.2	3.5	2.5	1255
Revolutionary	46.9**	10.5**	−4.2**	0.0**	96
Non-OECD					
Non-revolutionary	52.5	5.9	1.1	2.7	901
Revolutionary	46.9**	10.3**	−4.1**	0.0**	94
Non-Democratic					
Non-revolutionary	51.5	6.7	−2.4	2.0	608
Revolutionary	46.3**	11.1**	−5.2**	0.0**	87

** Difference between revolutionary and non-revolutionary is significant at $p < 0.01$. Unit of analysis is a "government" under a consistent leader (e.g. Khomeini's government counts as one observation). "Initial age" measures the age of the leader in years when entering national executive office. "Tenure in office" is measured in years. "Polity score" is the state's composite Polity score (–10 to +10).

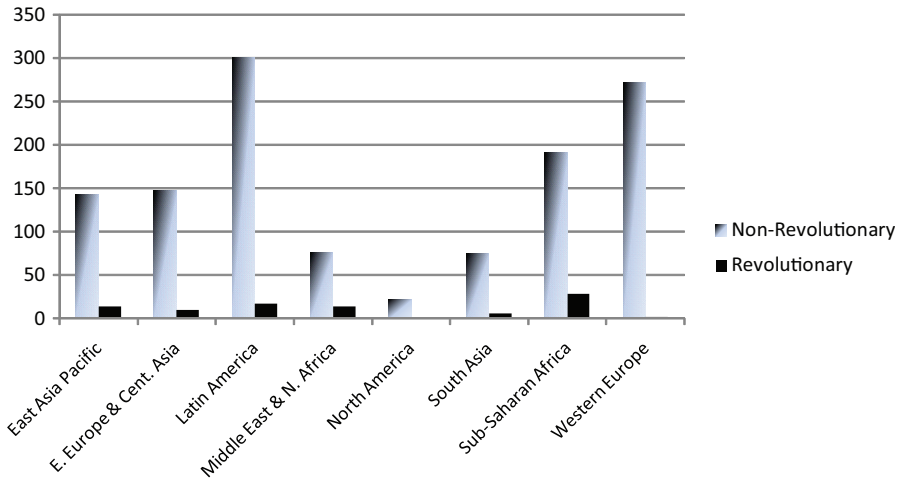

Figure 1. Regional Variation of Revolutionary Governments
Unit of analysis is a "government" under a consistent leader (e.g. Khomeini's government counts as one observation).

Comparison with Existing Measures of Revolution and Regime Change

As indicated in Section 2, various scholars have sought to offer alternative measures of revolution and/or regime change. Most of the research uses one of the Polity datasets (i.e. Polity II or III or IV) as the foundation for their measure. Two principal kinds of measures are most common: the first kind is based on changes

Table 4. Alternative Measures of Regime Changes

	Non-revolutionary	*Revolutionary*	*Total*
No Change in Polity	5,814	805	6,619
Change in Polity	734	200	934
Total	6,548	1,005	7,553
No Change in Durable	3,132	405	3,537
Change in Durable	3,416	600	4,016
Total	6,548	1,005	7,553

in the composite Polity score (ranging from –10 to +10), and the second is based on changes in the *Durable* variable that is included in the Polity datasets.

A set of variables were generated in order to facilitate comparisons between existing approaches and the new dataset introduced in this article. First, Enterline's coding rules were applied to the Polity IV dataset to generate two variables: *PolRegimeChange* (which dichotomously indicates the year of a regime change) and *PolRevolRegime* (which dichotomously indicates the year of a regime change and each of the 14 years after the change).[15] Enterline's approach was chosen because, to his credit, he is quite transparent about his method, which is not always the case. Second, two additional variables were created using the *Durable* variable: *DurRegimeChange* (which dichotomously indicates an observation in which *Durable* is equal to zero, so long as *Durable* was not also zero in the previous year) and *DurRevolRegime* (which dichotomously indicates the year of a regime change and each of the 14 years after the change). The duration of the "new regime" is set to 15 years, following Enterline, but as indicated earlier, this is an arbitrary duration.

Table 4 compares the *Revolutionary* variable against these two alternative measures of regime change based on the Polity dataset (i.e. *PolRevolRegime* and *DurRevolRegime*). As Table 4 indicates, there are very large differences between the measures. *Revolutionary Government* and the Polity-change measure, *PolRevolRegime*, yield about the same number of state-years in which a "new" or "revolutionary" regime is in place (1005 vs. 934), based on roughly the same number of major regime overhauls (77 vs. 79). As the table shows, however, there is very little overlap between the two measures. Many governments that are coded as *Revolutionary* are not coded as major changes in Polity regime type, and vice versa. Only in 200 state-years are both variables coded positively (20% of positive cases).

[15] Enterline uses Polity III data in his 1998 article, which does not have as much data coverage as Polity IV. Polity IV thus improves the comparability to the new dataset being introduced in this article.

Table 5 illustrates, on a case-by-case basis, differences in the three measures. The table shows all 77 incidents resulting in *Revolutionary Governments* according to the dataset developed in this article. The table shows which of these incidents are similarly coded by the two alternative measures. As quickly becomes apparent, there are large discrepancies, particularly with respect to the Polity-based measure: in only nine cases is a government change classified as such by both variables. Major revolutions such as those led by Castro in Cuba, Paz Estenssoro in Bolivia, Mao Tse-Tung in China, and Nasser in Egypt are not coded as regime changes under the Polity-based coding because the composite Polity score is similar before and after the event. Yet it is difficult to argue that nothing significant has changed in these cases.

Turning to the *Durable*-based measure, Table 5 indicates that more of the major government changes coded as *Revolutionary* are captured positively by the *Durable* variable. Still, even here there are significant differences. The rise to power of Qadhafi in Libya, Kassem in Iraq, and Chavez in Venezuela are coded as *Revolutionary* but not as major changes based on the *Durable* variable. The collapse of the Soviet Union is coded somewhat curiously: the *Durable* variable is equal to zero for the entire period 1988–93 (and again 2000–01). Following the coding rules laid out above, this would indicate a regime change in Russia in 1988, right in the middle of Gorbachev's tenure, but no change when Yeltsin came to power.[16]

Perhaps even more significantly, the *Durable*-based measure results in a very broad operationalization of regime change. There are 810 state-years in which *Durable* is coded 0, or 404 state-years if only non-consecutive zero-observations are used. This is an order of magnitude larger than the number of government changes indicated by either the *Revolutionary* variable (77) or the Polity-based variable (79). If one adopts Enterline's rule to code as "new governments" all those that have had a regime change within the past 15 years, the *Durable* measure generates 4,016 state-years of "new regimes"—more than 50% of the total (see Table 4). Thus the *Durable*-based indicator is much broader than the alternatives, potentially limiting its utility for research applications.

In sum, the new measure offers a sharply different perspective than the Polity-based measures. The new dataset was also compared to the *Entry* variable in the Archigos dataset. Again, there were significant differences between the measures. While there are 1,005 state-years coded as *Revolutionary Government,* the variable *Entry* codes 1,722 state-years in which the leader is associated with an "irregular" transition and an additional 139 state-years in which the leader was directly imposed by a foreign government. Of the 1,722 state-years coded as "irregular", just 716 or 42% were coded as *Revolutionary*. Finally, the new dataset can also be compared with the list of events, rebellions, and revolutions identified by

[16] Another approach, used by Smith (2004) and Morrison (2009), is to include all years in which the *Durable* variable is equal to zero to indicate political instability. Yet instability is not the same as regime change; it would be very odd to have a coding scheme that indicates six consecutive regime changes in Russia in the years 1988–93. Some sort of coding rule is needed to decide when regime change occurs.

Table 5. Coding of Revolutionary Governments

Country	*Leader*	*Year*	*Change in Polity*	*Change in Durable*
Afghanistan	Taraki	1978	No	Yes
Afghanistan	B. Rabbani	1992	No	Yes
Afghanistan	Mullah Omar	1996	No	No*
Albania	Berisha	1992	No	No*
Algeria	Boumedienne	1965	No	No
Argentina	Peron	1946	No	Yes
Bangladesh	Ziaur Rahman	1977	No	No
Benin	Kerekou	1972	No	Yes
Bolivia	Paz Estenssoro	1952	No	Yes
Bolivia	Torres	1970	No	Yes
Brazil	Costa de Silva	1967	No	No
Bulgaria	Mladenov (Popov)	1989	No	No
Burkina Faso	Sankara	1983	No	No
Burkina Faso	Campaore	1987	No	No
Burundi	Micombero	1966	No	No*
Burundi	Bagaza	1976	No	No
Burundi	Buyoya	1987	No	No
Cambodia	Pol Pot	1975	Yes	Yes
Chile	Pinochet	1973	No	Yes
China	Chiang Kai-shek	1946	No	No*
China	Mao Tse-Tung	1949	No	Yes
Comoros	Soilih	1975	No	Yes
Comoros	Abdallah	1978	No	No
Congo	Ngouabi	1969	No	No
Costa Rica	Leon Herrera	1948	No	No
Costa Rica	Figueres Ferrer	1953	No	No
Cuba	Castro	1959	No	Yes
Czechoslovakia	Gottwald	1948	No	No
Czechoslovakia	Calfa (Havel)	1989	No	Yes
DR Congo	Mobutu	1965	No	No*
Egypt	Naguib (Nasser)	1952	No	Yes
El Salvador	Majano Ramos	1979	Yes	Yes
Ethiopia	Banti	1974	No	Yes
Ethiopia	Meles Zenawi	1991	Yes	Yes
Fiji	Rabuka	1987	No	Yes
Ghana	Rawlings	1981	No	Yes
Greece	Papadopoulos	1967	No	Yes
Guatemala	Castillo Armas	1954	No	Yes
Guinea	Conte	1984	No	No

(continued)

Table 5. (Continued)

Country	*Leader*	*Year*	*Change in Polity*	*Change in Durable*
Guinea-Bissau	Vieira	1980	No	No
Hungary	Szuros (Antall)	1989	Yes	No*
Iran	Khomeini	1979	Yes	Yes
Iraq	Karrim Kassem	1958	No	No
Iraq	Salem Aref	1963	No	No
Iraq	Al-Bakr (Hussein)	1968	No	No
Laos	Phomivan	1975	No	No*
Liberia	Doe	1980	No	No
Libya	Qaddafi	1969	No	No
Madagascar	Ratsiraka	1975	No	No*
Madagascar	Zafy	1993	No	No
Mali	Traore	1968	No	No
Mauritania	Ould Haidalla	1980	No	No
Myanmar	Ne Win	1962	No	Yes
Myanmar	Saw Maung	1988	No	No
Nicaragua	Daniel Ortega	1979	Yes	Yes
Pakistan	Ayub Khan	1958	No	Yes
Pakistan	Zia	1977	No	Yes
Panama	Torrijos Herrera	1968	No	Yes
Peru	Velasco Alvarado	1968	No	Yes
Poland	Walesa	1990	No	No*
Romania	Roman (Ion Iliescu)	1989	Yes	Yes
Russia	Yeltsin	1991	No	No*
Somalia	Siad Barre	1969	No	Yes
South Korea	Hee Park	1961	No	No*
Sudan	Nimeiri	1969	Yes	Yes
Sudan	Al-Bashir	1989	No	Yes
Syria/UAR	Nasser	1958	Yes	Yes
Syria	Al-Hafiz	1963	No	Yes
Thailand	Pibulsongkram	1946	No	No
Thailand	Sarit	1958	No	Yes
Uganda	Amin	1971	No	No
Uganda	Museveni	1986	No	No*
Venezuela	Hugo Chavez	1999	No	No
Yemen AR	Al-Sallal	1962	No	Yes
Yemen PR	Ali Rubayyi	1969	No	No
Yugoslavia	Milosevic	1989	No	Yes
Zimbabwe	Mugabe	1980	No	Yes

* Durable variable = 0 in consecutive years, so "regime change" is recorded in a previous year.

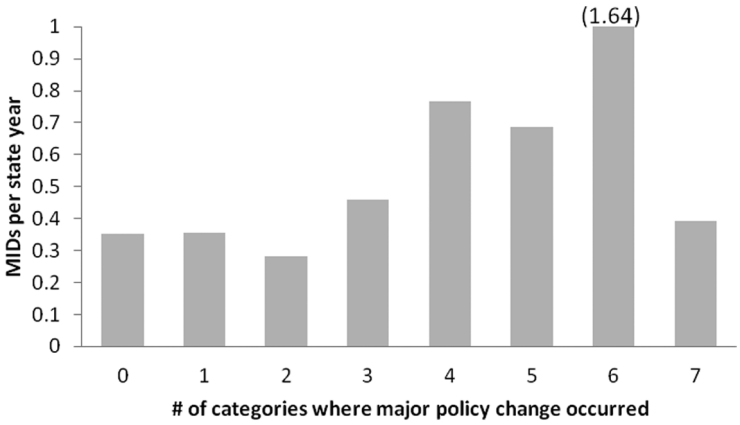

Figure 2. Propensity of MIDS by Government Type
The x-axis shows the number of categories where major policy occurred. The first column (zero major changes) includes all of the states where the government came to power by way of a regular transition. "MIDs per state-year" measures the average number of MID onsets in a state-year. Major power states are excluded.

Goldstone (1998). Interestingly, there is considerable consistency between the two sources in some areas of the world, but major discrepancies in other parts. Specifically, 80% of the revolutionary leaders in Europe and the Islamic world identified in my dataset are also identified by Goldstone; but only a quarter of the revolutionary leaders I identified in Africa, Latin America, and East Asia are similarly identified in Goldstone's 1998 work.

5. Revolution, Regime Change, and International Conflict

This new dataset could have a wide variety of uses, but one of the central reasons it was created was to study the impact of revolution and regime change on militarized international conflict. A full analysis of that topic lies outside of the scope of this article, and is a topic of ongoing research (Colgan, n.d.; Carter et al., forthcoming). Still, a simple analysis of the data provides suggestive results.

Figure 2 shows the propensity for international conflicts for states at various levels of "revolutionary activity". Along the x-axis, each column is based on the number of categories in which major policy changes occurred. (The "base" category, labeled zero, includes all state-years in which the government had a regular transition to power, and thus has 75% of all observations.) The height of the columns is set according to the average rate of onset of Militarized Interstate Disputes (MIDs), drawing on the Correlates of War dataset v3.02 (Ghosn et al., 2004). MIDs are a class of international events in which a state threatens, displays, or uses force against another state(s). While there is heterogeneity in these events, from full-fledged wars to relatively minor disputes, they provide considerable information about a state's interstate conflicts. Consequently, these data are widely used by scholars for studying international peace and conflict.

As Figure 2 indicates, governments that have come to power by an irregular transition and have conducted multiple major policy changes have a far higher propensity for MIDs than those that did not. Furthermore, the propensity for MIDs generally grows stronger as the government becomes 'more revolutionary' in the sense that more major policy changes were made. Figure 2 includes all states except major powers, but the general pattern holds true even if one focuses only on the non-OECD states or only on the non-democracies, or if one focuses only on fatal MIDs (MIDs in which force was used rather than threatened or displayed).

6. Conclusion

This article introduces a new dataset on revolutionary governments and leaders. The dataset represents an important alternative to Polity-based measures of regime change. As an alternative, it offers three primary advantages. First, this measure is likely to be more conceptually appropriate for analyses that focus on revolution or regime transformation rather than democratization. Second, even for studies that explicitly focus on democratization, this new measure can help isolate the effects of revolution from the effects of changing patterns of authority and political competition. And third, this dataset offers an alternative approach to measuring the duration of "new" or "revolutionary" governments.

The dataset thus opens the doors to a wide variety of new research avenues in international relations and comparative politics. One especially important example is the opportunity to include a measure of revolutionary governments in the research on the causes of war and international conflict. As suggested in Section 5, revolutionary governments appear to be more prone to conflict than other kinds of governments. Significant research remains to be done to incorporate this variable into robust statistical regressions and dyadic models of international conflict. Further research might also investigate the extent to which revolutionary governments are targeted for economic sanctions; change their patterns of international trade, investment, and alliances; and have an effect on the duration or outcome of domestic or international military conflicts.

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