Abstract: International Relations (IR) researchers study the interactions of states in the international system. Excluded from almost all such analyses is consideration of how those states became members of the international system. Their existence is simply assumed. State Making (SM) researchers, in contrast, focus on the formation experiences of states and of other autonomous political entities trying to become states. SM scholars anticipate that an entity’s formation will influence subsequent experiences. We use SM insights to investigate whether IR behaviors of states are influenced by how they came into existence. We argue that a state with a good “birth legacy” should be more successful at state-making, and therefore more likely to participate in and win interstate and civil wars. Statistical analyses of all states in the international system from 1816 to 2002 strongly support our expectations.
INTRODUCTION

The study of international relations (IR) traditionally is the study of what states do, alone or to each other, either in reaction to, or in anticipation of, other’s actions. Taken for granted in IR is the existence of the states themselves. Their existence is almost never investigated as a source of or influence on subsequent behaviors because IR theories are silent about how states came into existence, and thus are also silent about how their comings-into-existence might influence their subsequent behaviors.

In contrast, a State Making (SM) perspective directs attention to how states initially come into existence. This is because state making focuses on the process by which autonomous political entities (APEs) begin existence, struggle to survive, and ultimately succeed and establish themselves as developed, sovereign political entities, or fail and lose their autonomy. The bellicose theory of state formation (e.g. Tilly 1992), places emphasis on the role of warfare and preparation for warfare as a primary force enhancing the state making efforts of APEs. According to this view, war makes the state and the state makes war; intricately meshing the traditional IR subject of warfare with the traditionally-separate topic of state formation.

This failure to link how states come into the world with what they subsequently do imposes a massive ceteris paribus assumption. When making predictions about wars and other conflicts, IR researchers assume that Great Britain and the Democratic Republic of the Congo are directly comparable entities. Given comparable stimuli, Britain’s and the DRC’s conflict behaviors are expected to be very similar. To intelligent non-specialists, this seems terribly naïve. Nevertheless, IR researchers assume away the legacy of the very different ways by which these two states were born. However, if SM
arguments are correct, states’ formation experiences should be important influences on their subsequent behavior. There is thus good reason for merging IR studies of behaviors like war and development with SM topics such as states’ initial formation experiences.

In this article we raise and investigate questions about how the original formation experiences of states (which we call their “birth legacies”) affect their subsequent behavior and performance. Specifically, we hypothesize that if a state had a good birth, that state is subsequently more likely to wage and win conflicts with other states. Similarly, states enjoying auspicious starts will also be more likely to wage and win civil wars, in which domestic rivals are eliminated. We elaborate the linkages between a state making perspective and conflict hypotheses in the next section of the paper. After that we describe the research design motivated by these hypotheses. We offer statistical results based on the data analyzed, and interpret our findings in terms of whether the hypotheses about the influence of birth legacy on conflict are supported. We then close with brief speculation about how traditional IR research and the state making perspective might be unified, to the advantage of both schools of thought.

**Birth Legacies**

The State Making perspective is, at least implicitly, organic and evolutionary. It begins with the initial emergence of states, with their political births. SM arguments then focus attention on states’ efforts to survive and develop. Success in these struggles is indicated by becoming a stable, prosperous, and recognized member of the international system. General measures of failure include instability, economic stagnation, and diplomatic
rejection by other states. The ultimate sign of failure is to be stripped of autonomy, usually violently, and incorporated into some other, more successful, competitor.

The first stage of state making is birth, the initial emergence of a state. The second stage is growth, encompassing efforts by states to secure and retain control of their territory and population, to expand their material assets, and to deepen political control over their territory and people. The growth stage persists as long as the state survives as an autonomous political entity. However, if it is conquered, stagnates to the point of state failure, or voluntarily merges with another state, it dies. Death is the third stage of state making. While often the end for a state, it need not be final. There are historical examples of dead states subsequently regaining autonomy and re-igniting their temporarily-squelched state making efforts (e.g. Poland in 1919).

The stages of state making are argued to be linked. If a state is born via violent secession from another political entity, that birth will likely influence its subsequent growth. Successful secession requires the new state’s leaders to cohere cooperatively in their birth struggle. This coherence can serve as a positive example of good governance, enhancing the legitimacy of the newly-born state’s political leadership. A legitimate political system is more likely to enjoy the cooperation of its citizens, and thus is more likely to grow into a stable and prosperous state (Englebert 2000 offers a state making argument about the advantages of legitimacy).

Similarly, a good birth, such as through successful secession, influences how other states react to the newly-born state. A state that successfully fought for and secured its own independence (Eritrea, for example) is a much less attractive target for aggression and exploitation than is a state that gained autonomy by default as some other entity
fragmented (e.g. Tajikistan). This does not mean that other states will not engage in coercive diplomacy with a state that enjoyed a good birth, only that the costs of doing so are likely higher than are the costs of violence against a poorly-born state.

In contrast, a state that “limped out of the gate,” that was born under circumstances not requiring any coherent internal coordination, is much less likely to enjoy the cooperation arising alongside of political legitimacy, is thus more likely to be plagued by neopatrimonialism, to suffer from its own internal secessionist movements, and ultimately to fail.

This “stages of state making” argument conceptualizes the legacy of a state’s birth as a direct influence on its coherence and legitimacy. This legacy then influences how successfully a state grows, and also influences the likelihood that it will experience political breakdown and suffer state failure. This is not to suggest that birth legacy determines whether a state prospers or fails. Rather, it is more accurate to conceptualize birth legacy as an asset to draw on or a liability to overcome. There are examples of states that have unfavorable birth legacies but nevertheless thrive, thanks to support from international benefactors (for example, South Korea’s survival in the early 1950s).

Importantly, this stages of state making framework does not imply that good births are followed uniformly by peace and prosperity. The bellicose theory of state formation depicts war as an important element of state making. Successful state makers use war and preparation for war to cement their control over domestic resources, to eliminate domestic and foreign rivals, and to expand their territory and resources at the expense of others. Empirical work (Cohen, Brown and Organski 1981; Rasler and Thompson 1989; Kirby and Ward 1991; Jaggers 1992) establishes significant correlations
between conflict experience and state making success (as measured by growth in
government revenues or some variant thereof). In the contemporary research that most
successfully meshes SM and IR approaches, Thies shows that the presence of internal and
external rivals is associated with higher tax revenue in developing countries (2004, 2005,
2007). These findings all support the bellicose theory of state making which emphasizes
a central role for war and preparation for war.¹ And these findings do not contradict the
stages of state making framework generally nor the birth legacy implications specifically.
In fact, Tilly’s bellicose war-makes-states argument fits comfortably within growth stage
expectations of the stages of state making argument.

Thinking in terms of IR data, consider what it takes to wage a conflict that
qualifies as war. At least 1000 soldiers must die (in total for Correlates of War [COW]
interstate wars, and per year for intrastate wars). With rare exception, the occurrence of
conflicts severe enough to generate 1000 battle fatalities requires significant resource
expenditure. Considerable political capacity is needed to engage in a struggle that
satisfies standard coding rules for war. As a result, the more successful a state is at
governing its territory, the more resources it will possess with which to prepare for and
wage wars that then can further augment its state making efforts.

Interstate war, referred to as “war making” by Tilly (1985:181, 1992:97), allows a
state to eliminate or neutralize its external rivals and, often, to increase the population and

¹ One qualified exception to this claim is Thies and Sobek (2010), who test for
endogenous relationships among interstate war fatalities, political development,
and economic development. They conclude that interstate war fatalities have a
negative long-term effect on a state’s relative political capacity. However, Thies and
Sobek caution that this finding “does not mean war has no effect on the
development of the state; rather, the impact is indirect through long-term economic
development” (pg. 284).
territory under its control. Intrastate, or civil, war, described somewhat confusingly as “state making” by Tilly (op cit.), allows a state to eliminate or neutralize its internal rivals, which then grants it greater control over its existing population and territory.

With respect to the link between war- and state-making, a state must win an interstate war in order to eliminate its foreign rivals and gain possession over greater resources. The same expectation exists with respect to civil wars. Namely, a state must win a civil war in order to eliminate its internal rivals and increase its control over domestic resources. Importantly, winning interstate and civil wars provides a state with more resources with which to consolidate its control over population and territory. Winning interstate and civil wars therefore can be key to the successful political development of a state.

Good birth states enter the international system with greater elite coordination and political capacity than do states with neutral or bad births. These advantages should lead a good birth legacy to be associated with state making success. According to the bellicist approach to state making, we should observe four relationships between birth legacy and war. The first two concern interstate war. Good birth states should be more likely to participate in (H1) and win (H2) interstate wars than will states without a good birth legacy. A good birth provides a state with an advantage in the political resources and capacity needed to prepare for, wage, and win interstate wars.

A good birth legacy also implies that a state should be more likely to participate in (H3) and win (H4) civil wars. This expectation might seem counterintuitive. After all, civil war is often thought to be a sign of state weakness (Fearon and Laitin 2003). The bellicist approach to state making takes a different view of civil war. Namely, for a state
to develop successfully it must eliminate its internal rivals for political control of the territory. This is frequently accomplished through civil war. An auspicious birth should make it more likely that a state possesses the capacity and resources needed to fight and defeat its domestic rivals in a civil war.

Consider, in the 1860s and 70s, Japan experienced two civil wars (COW intrastate conflicts 588 and 607) in which the Imperial government eliminated the Shogun and Samurai competitors to national rule. The Emperor’s government then oversaw modernization which produced the fastest rises to great power status of any state in the last few centuries. In contrast, in the 1980s and 90s, civil wars in Somalia (COW intrastate conflicts 848 and 870) destroyed the existing government and replaced it with warring warlord factions who turned Somalia into the world’s worst failed state. Below we explain how we define good and bad births, but for now it is sufficient to suggest that Somalia’s bad birth via irresponsibly rapid decolonization left its leaders ill-prepared to develop capacity and enjoy legitimacy among all members of society, but that in contrast the unquestioned legitimacy of the domestically-established Imperial government helped it successfully prosecute Japan’s two civil wars and then use the heightened capacity developed in those conflicts to advance the state dramatically. Fearon and Laitin’s depiction of civil war as a syndrome of weak states and a source of heightened weakness is an accurate representation of civil wars in the many 20th century badly-born states (echoed by Collier et al.’s 2003 conclusion that “civil war is development in reverse”). But a fuller and longer historical perspective suggests that civil wars can be an important element of a state’s rise to power. This is especially true in well-born states.
Our birth legacy argument lacks micro-foundations; a state’s birth influences what happens subsequently seemingly regardless of the leader’s actions or preferences. However, it would seem reasonable to expect that whether a new state was lead by a George Washington or a Joseph Mobutu would influence its subsequent experiences far more than its manner of birth. In short, the argument is perhaps too simple, and perhaps objectionable because it ignores prominent research about how leaders’ decisions influence the capabilities and relations of states (e.g., Bueno de Mesquita et al. 2003; Chiozza and Goemans 2011). While not denying the potential influence of leader agency, we follow in the steps of other prominent research that shares strong expectations about how the decision-making environment can curtail leader choices and influence outcomes.

For example, Acemoglu and Robinson (2006) introduce a “political replacement effect” to explain why some leaders do not encourage the growth of their states. They argue that while a political elite will benefit from any economic or political innovation that helps their state grow (because tax receipts will increase with growth), if those innovations in any way threaten the elite’s hold on power (perhaps by creating veto players, or promoting transparency) they will prefer the status quo and squelch the innovation. In bad birth states the elite do not enjoy broad legitimacy or public support. They did not need to govern well in order to govern in the first place, and came to power without enhancing capacity or legitimacy. Such elite likely have only a tenuous hold on office, and are unlikely to gamble on bold innovations even though these could make the state prosper. In this way, Acemoglu and Robinson’s political replacement effect can be
re-interpreted to suggest that how a state comes into existence curtails the policy choices leaders can subsequently select.

A similar structural phenomenon overrides rebel leaders’ abilities to control the nature of their insurgency. Weinstein (2007) argues that when highly valuable and easily extractable resources are available to support a rebellion, insurgent recruits will be venal and have little respect for or concern about the general populace. The war-lord “greed” type of rebellion results. In contrast, if such material resources are unavailable, rebellion can only subsist with support from committed soldiers and a public providing resources. An ideologically-committed human-rights-respecting “grievance” rebellion results. In Weinstein’s argument the preferences of the rebel leaders do not matter, because the “wrong kind” of soldier will flock to join rebellions funded by lootable resources. Even if rebel leaders hope to foment a just rebellion, their efforts will be swamped out by the greedy.

These works present arguments within which structural factors (the fragility of leadership, the presence of material resources) either pre-determine or otherwise trump leader choices. These arguments are thus similar to the birth legacy argument, and provide a precedent for expecting that leaders’ preferences and choices may be subsumed within the legacy of the birth struggles by which their states came into existence.

A final topic before turning to research design issues is that of differentiating the birth legacy argument from the work of previous scholars investigating birth experiences. A prominent area of research investigates the colonial legacy of states. For example, Young (1994) argues that African states have stagnated because they emerged from a most rapacious form of colonialism. European colonization of Africa was particularly
brutal, but worse for Africans, it created predator states based on the colonial model. Colonization in other regions of the world was either less rapacious or less successful. More recently, Mahoney (2010) argues that the interaction between pre-colonial societal complexity (basically, how densely populated and institutionalized pre-colonial society was) and the type of colonizer (mercantile or liberal) largely determines post-colonial growth practices. For example, in a densely populated and institutionalized pre-colonial society a mercantile colonizer will simply usurp the pre-existing institutions and use them to govern and extract resources. In contrast, if an area is lightly populated and the colonizer liberal, the colonial institutions will lay lightly on the land, and favor innovation and development because such is cost-effective for the colonizer.

Our birth legacy argument differs from these colonial legacy works in placing the source of legacy later in the historical process. While scholars of colonial legacy see the influence on later growth arising from the history of colonization, our birth legacy argument suggests that how that colonial period ended (or how a state emerged even if never colonized) is most important. An advantage of our argument over colonial legacy arguments is that it may be able to differentiate between states that had a common colonizer but diverged subsequently.

Other scholars have also studied states’ births. Roeder (2007) argues that all new states (in the past two centuries) were “segment states” first. That is, they were distinct territories with some autonomy within a larger polity. Independence was simply an administrative upgrade from partial to full autonomy. Roeder’s segment-state argument differs from our birth legacy argument in that he explains which potential states are born, while we focus on how the birth experience influences subsequent activity.
The study closest to ours is Maoz’s (1989) analysis of how revolutionary versus evolutionary state emergence influences conflict patterns. Maoz hypothesizes that a slow or evolutionary emergence (e.g. Canada’s extended consensual liberation from British colonialism over the period from 1867 to 1920) gives other states time to react to the new member of the club of nations, and thus states born via an evolutionary path will be especially peaceful. In contrast, states that emerge all at once, or via what Maoz calls a revolutionary process (e.g. the dissolution of the Soviet Union and the emergence of 15 new states), present existing states with a changed set of conditions and no time to adjust to them. Maoz hypothesizes that the revolutionary process will produce states experiencing a great deal of conflict. Like Maoz, the birth legacy argument anticipates that how a state comes into existence influences its conflict behavior. But the birth legacy argument also offers expectations about civil as well as interstate conflict, about the likely outcome of conflicts, and also about subsequent growth and stability. A final difference is that the birth legacy argument sees the development of capacity and legitimacy during the birth experience, rather than other states’ reactions, as the causal mechanism influencing subsequent conflict.

In future work it might be desirable to develop an argument about both how birth legacy influences subsequent behavior, and about how anticipations about subsequent behavior might influence the decisions of autonomous political entities to assert their independence as states in the first place (thereby merging the birth legacy argument with something like Roeder’s segment-state theory). Additionally, there is potential value to be had by combining Maoz’s argument about the reactions of other states with the birth
legacy emphasis on domestic legitimacy and capacity. It’s likely that a combination of domestic and international influences would outperform either alone.

For now we are content to present and test the birth legacy argument as is. States that came into existence via the promotion of internal capacity and legitimacy are good birth states. Good birth states are expected to fight and win more inter- and intrastate wars than will bad birth states. We test these expectations in the coming pages, but turn first to discussion of some critical research design issues.

**RESEARCH DESIGN**

Given the importance of interstate and intrastate conflict to the SM process (Tilly 1985, 1992), we argue that states experiencing a good birth should be more likely to participate in and win interstate and civil wars than states without a good birth legacy.

Traditional statistical techniques are challenged by causal processes in which the cause occurs just once but is expected to have long-term effects. Dissatisfaction with available statistical techniques has encouraged the “historical turn” in the social sciences (within the state making literature, see Tilly 1984, and Spruyt 1994). While we see great value in such work, we present standard statistical analyses below. If scholars favoring the historical turn are correct in their critiques of standard statistical estimation in cases where causes are big, slow-moving, and unchanging, we should be unlikely to find much statistical support for the birth legacy expectations about war participation and outcome. We therefore likely impose a conservative bias against finding support for our argument by testing it statistically.
There are two ways to address the hypothesized relationships between birth legacy and war. First, we might ask whether a good birth state is more likely to participate in and win an interstate and/or civil war at some point during its political development than is a state without a good birth legacy? Alternatively, we might ask whether a good birth state is more likely to participate in and win an interstate and/or civil war in any given year than is a state without a good birth legacy? The former question implies a cross-sectional, state-level design, while the latter suggests a time-series cross-sectional, state-year design. We therefore test our predictions that good birth is associated with war involvement and victory on both a cross-sectional data set of the members of the COW interstate system (n = 214) and a time-series cross-sectional, state-year data set of those 214 states from 1816 to 2002 (n = 13,000+).

The hypothesized relationships between birth legacy and interstate and civil war participation and outcomes are assessed using a series of censored probit estimators. Censored probits are useful for obtaining efficient and unbiased estimates of multi-stage, sequential processes in which the outcome of the second stage is dichotomous.

One of the benefits of the censored probit is that it allows us to estimate jointly war participation and war outcomes within the same model. We expect that good birth states will, usually, be more successful at state-making than states without a good birth legacy. Waging war allows states to increase resource extraction in their existing territory. Winning interstate wars allows states to expand their territory and resources at the expense of foreign rivals while winning civil wars allows states to eliminate or pacify their domestic rivals (Tilly 1985; 1992). The necessary condition for a state to win an interstate or a civil war is to participate in that war. We assess the hypothesized
relationships between birth legacy and war participation by calculating the predicted probabilities of interstate and civil war participation across legacy type using the selection equations of the censored probits. Testing the hypothesized relationships between birth legacy and war outcomes using either a sample of war participants or the probability of winning a war conditional on participation misses the fact that a state must be in a war to win it. We therefore test our war outcome expectations by calculating the joint probability of a state fighting and winning an interstate or a civil war as a function of its birth type.²

The predicted relationships between birth legacy and war imply four dichotomous dependent variables: *Interstate War Participant*, *Interstate War Win*, *Civil War Participant*, and *Civil War Win*. Given the data sets we use to test our hypotheses, we operationalize two versions of each of these four variables. For the cross-sectional data set, *Interstate War Participant* is coded one if a state was an original participant in a COW interstate war, and zero otherwise, at any point between 1816 and 2002. In the time-series cross-sectional data set, *Interstate War Participant* is coded one in year \( t \) if a state is an original participant in a COW interstate war in year \( t \) and zero otherwise.

*Interstate War Win* is coded one if a state won an interstate war at any point between

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² Analysts commonly focus on the statistical significance of the \( \rho \) parameter (the correlation between the error terms of the selection and outcome equations) to determine whether a censored probit is methodologically preferable to a standard probit or logit. This is appropriate if one is interested in unbiased estimates of the conditional probabilities associated with the outcome equation of a censored probit. The significance of \( \rho \) is irrelevant in determining whether a censored probit is appropriate if the quantity of interest is the overall (joint) probability of the outcome occurring, as this cannot be estimated if only the censored sample is analyzed. We therefore use a censored probit because it allows us to estimate the joint probability of a state fighting and winning an interstate or civil war, something not possible with an analysis conducted only on a sample of war participants.
1816 and 2002, and zero otherwise, in the state-level data set. *Interstate War Win* is coded one if a state won an interstate war in year \( t \), and zero otherwise, in the state-year dataset. The dependent variables *Civil War Participant* and *Civil War Win* are coded analogously to their respective interstate counterparts in both the cross-sectional and time-series cross-sectional data sets. Data for our dependent variables are drawn from Sarkees and Wayman (2010).

In coding each COW system member’s birthtype, we consulted Stearns’ (2001) historical compendium, the ICOW Colonial History Data Set (Hensel 2006), and additional historical monographs, to determine the conditions attendant upon the emergence of each COW system member as an autonomous political entity. We code each state as being born in one of seven ways.

The first birth type is designated “indigenous generation.” These are states that have existed in recognizable form for so long that their legitimacy is unquestioned. Examples include states like France, Britain, or pre-WWII Japan, whose struggles for autonomy and territorial coherence occurred so long ago that the vast majority of individuals in these states regard them as legitimate. Their continued existence for so long a time also almost certainly required substantial coherence and political capacity.

A second birth type occurs when a state violently secedes from an existing state, or fights its way out of colonial status to independence. To win such a struggle requires considerable political capacity, and thus such an outcome is expected to be associated with subsequent successes as well. Examples include the United States of America and Eritrea.
Non-violent secession represents a third birth type. In such instances a would-be state makes claims of or demands for independence from another state, and these claims are respected or demands conceded. States born this way have likely impressed the former “host” state that their prospective autonomy is plausible, that they encompass a coherent population and territory, and perhaps even that they will govern it well. Examples include Slovakia’s non-violent secession from Czechoslovakia in 1993, and Norway’s peaceful split from Sweden in 1905.

The fourth and fifth birth types share the characteristic of being “births by agreement.” Many existing members of the COW interstate system reverted to sovereignty after a period in which they were occupied and/or governed by an external state. An example of long-term reversion is Poland. It lost its initial autonomy in the 1790s but was resurrected by agreement among the victorious powers at the Versailles peace conference following World War I. Shorter term reversions to sovereignty are represented by the various European states that lost independence during World War II but regained it by war’s end, or cases like Syria that temporarily ceded its autonomy to the United Arab Republic. Another form of birth by agreement is most commonly represented by the creation of buffer states like Belgium. Also falling into this category are a number of “split” states (e.g. West and East Germany, North and South Vietnam), that were constructed by agreements among other states to create new states that did not have an earlier period of sovereign independence. A fifth birth type included within births by agreement are instances of decolonization that followed a careful, long-term policy of preparing the colony for self-governance. Examples include Australia and
Canada. Such states effectively are born by agreement between themselves and their former colonizer, rather than between two already-existing states.

A sixth type of birth occurs when an existing state or empire fragments due to poor governance or some other cause, and new states emerge by default from the political wreckage. Recent examples are offered by the births of the fifteen states that emerged from the dissolution of the Soviet Union. We consider Russia itself to be indigenously generated. But the other Former Soviet Republics were born by default as the Soviet Union fragmented.

A final form of birth occurs when a state that is not failing abandons territory with little or no consideration given to what will emerge subsequently. These are instances of “derelict decolonization.” Many sub-Saharan African states, like the Democratic Republic of the Congo/Zaire/Congo-Kinshasa, and Somalia, were born this way.

We operationalize a state’s birth legacy in the analyses presented below as the dichotomous variable Good Birth. Good Birth is coded one if a state had an indigenous generation or entered the interstate system following a successful, violent secession, and zero otherwise. There are a number of other ways one might operationalize a state’s birth legacy using the birth legacy raw data. To ensure that the results presented in the text were not simply an artifact of our coding decision, we re-estimated all of the models using two other indicators of a state’s birth legacy. The first was a seven-point scalar index that ranges from zero (derelict decolonization) to six (indigenous generation). The second was a trichotomous indicator coded two if a state had a good birth legacy (indigenous generation or violent secession), one if a state had a neutral birth legacy (peaceful secession or births by agreement), and zero if a state had a bad birth legacy.
(fragmentation or derelict decolonization). Importantly, the models estimated with these alternate measures of a state’s birth legacy produce the same substantive conclusions yielded by the models presented below in the main text.

It is possible that the effect of a state’s birth legacy on war participation and outcomes diminishes over time. This could occur if, as our argument implies, states without a good birth legacy are more likely to fail at state-making and, ultimately, die. This would result in a non-random, truncated international system made up of states that, regardless of how they entered, were successful enough at the state-making process to avoid failing. In this scenario, a good birth legacy would be correlated with fighting and winning wars early in states’ lives but not later. We investigate this possibility within the time-series cross-sectional framework by estimating models that include the logged number of years since a state’s birth and its interaction with Good Birth.

Time-series cross-sectional analyses that utilize dichotomous dependent variables are analogous to grouped duration data and often exhibit significant duration dependence (Beck, Katz, and Tucker 1998). Failure to account for duration dependence given its presence can lead to inefficient estimates and faulty statistical inferences. Following the advice of Carter and Signorino (2010), we model duration dependence in our time-series cross-sectional models using the cubic polynomial of the number of years since a state’s last involvement in either an interstate or a civil war, depending on the model being estimated.³

³There are, of course, other ways to model duration dependence in grouped duration data. Carter and Signorino (2010) demonstrate that the cubic polynomial approach performs just as well or better than time dummies, b-splines, or auto-splines in most scenarios. Given their results and the relative ease of implementation and interpretation, we model duration dependence using the cubic polynomial of time.
We control for the potentially confounding effects of a state’s regional location. Specifically, our analyses include a set of dummy variables that identify whether a state is located in Africa, the Americas, Asia, or the Middle East, leaving European and Oceanic states as the baseline for analysis. We do this because we assume birth legacies are not randomly distributed across the interstate system. Indeed, diagnostic regressions reveal that each of the regional dummies negatively and significantly predict our measures of birth legacy; indicating that, on average, European and Oceanic states have better birth legacies. A state’s regional location was determined long before its subsequent entrance into the interstate system. Therefore, if a state’s regional location predicts war participation or outcomes and is omitted from a model, the correlations between the regional dummies and our measures of birth legacy could lead us to incorrectly infer support for our hypotheses when regional characteristics are actually driving the statistical results. The regional indicators are included in the selection equations of our analyses of interstate and civil war outcomes. The regional indicators therefore serve both as exclusion restrictions, helping statistically identify the censored probit estimators, and as a way to account for non-random variation in birth legacies.

Following the reminders of King, Keohane, and Verba (1994), Ray (2003), and others, our models do not include potentially intervening variables between a state’s birth legacy and war participation and outcomes. Drawing on the language of Ray (2003, pg. 5), intervening variables are factors that are (1) a consequence of a state’s birth legacy, 

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4 From Ray (2003, pg. 4), a confounding variable is “an antecedent third factor that brings about a statistical association or correlation between two other variables. In order to do that, it must be correlated with both of those two other variables.”

5 Identifying Oceanic states with a regional dummy or using them as the baseline category resulted in non-credible standard error estimates. This is due to the general lack of interstate or civil war among and within Oceanic states.
and (2) have a subsequent impact on our dependent variables. This decision rule eliminates several control variables typically used in quantitative studies of war participation and outcome. For example, diagnostics reveal that good birth is a statistically significant predictor of material capabilities (as measured by a state’s CINC score, Singer, Bremer, and Stuckey 1972), GDP and GDP per capita (Gleditsch 2002), major power status (COW), and polity score (Marshall and Jaggers 2005). As a state’s birth legacy is temporally antecedent to each of these factors, including these potentially intervening variables in our analyses would be methodologically inappropriate.

RESULTS

Interstate War Participation and Outcomes

Table 1 presents our analyses of the relationship between birth legacy and interstate war participation and outcomes. The bottom portion of Table 1 reports the results of the selection equation (whether a state participated in an interstate war) while the top portion reports the results of the outcome equation (conditional on participation, did a state win or lose the war). As discussed above, the effect of birth legacy on war participation and outcomes can be considered from both the cross-sectional and time-series cross-sectional perspectives. A cross-sectional framework allows us to examine whether a good birth legacy increases the probability that, at some point during its existence, a state is more likely to participate in and win an interstate war. Model 1 in Table 1 addresses these questions by jointly estimating interstate war participation and interstate war outcomes during the period from 1816 to 2002. Focusing first on participation, the positive and statistically significant coefficient on Good Birth in the
selection equation indicates that, on average, good birth states are more likely to participate in an interstate war than are other states. Unfortunately, the compound nature of the censored probit precludes us from determining whether a state with a good birth legacy is more likely to fight and win an interstate war compared to other states using a standard results table. In order to test this prediction and provide greater context to the relationship between birth legacy and interstate war participation, we calculated a set of predicted probabilities using post-estimation simulations of Model 1. Namely, we calculated 1) the predicted probability of a state participating in an interstate war with and without a good birth legacy; 2) the unit effect of birth legacy on the probability of interstate war participation; 3) the joint probability of a state participating in and winning an interstate war with and without a good birth legacy; and 4) the unit effect of birth legacy on the joint probability of interstate war participation and victory. These probabilities are presented graphically in the first column of Figure 1.

The predicted probabilities strongly support the argument that good birth states are more likely to participate in and win interstate wars than states without a good birth legacy. Starting with war participation (Figure 1, Row 1, Column 1), the probability a state without a good birth legacy participated in an interstate war is 0.18. In contrast, there is a 0.48 probability that a good birth state participated in an interstate war. The estimated unit effect of Good Birth on the probability of interstate war participation is presented in the second row of the first column of Figure 1. As the 90% confidence

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6 All post-estimation quantities were calculated via 1,000 post-estimation simulations of the coefficient and variance-covariance matrices from the models on which they are based. The dichotomous regional indicators were set to zero. All other explanatory variables were set to their median values. Ninety-percent confidence intervals are used because of the directional nature of our predictions.
interval associated with the 0.31 unit effect is completely above the zero line, our results indicate that states with good birth legacies are more likely to participate in an interstate war than are states without a good birth legacy. Turning to the probabilistic outcome of interstate wars (Figure 1, Row 3, Column 1), Model 1 estimates that, on average, the joint probability a state with a good birth legacy will participate in and win an interstate war is 0.36. In contrast, the estimated joint probability that a state without a good birth legacy will participate in and win an interstate war is 0.10. The estimated unit effect of a state’s birth legacy on the joint probability of fighting and winning an interstate war is presented in the fourth row of the first column. The confidence interval about the 0.25 unit effect of Good Birth lies completely above the zero-line, indicating that good birth states are significantly more likely to win an interstate war than are states that experienced a less auspicious birth. It is instructive to consider the relative nature of these results.

Compared to a state without a good birth legacy, Model 1 estimates a good birth state is approximately 175% more likely fight in an interstate war and 250% more likely to fight and win an interstate war.

Where cross-sectional analyses allow us to examine whether birth legacy affects war participation and outcomes throughout a state’s existence, the time-series cross-sectional framework allows us to consider whether a good birth state is more likely to fight and win a war in a given year than is a state without a good birth legacy. With a state-year dataset, we can also address whether the relationship between birth legacy and war changes over time. In order to address the first question, Model 2 in Table 1 estimates the relationship between birth legacy and interstate war participation and outcomes annually. The positive and statistically significant coefficient on Good Birth in
the selection equation suggests that, on average, a state with a good birth legacy is more likely to be involved in an interstate war in a given year than is a state without a good birth legacy. We calculated a set of predicted probabilities as the number of years since a state’s last interstate war varies from zero to one hundred and fifty to provide greater context to this result and analyze the relationship between birth legacy and interstate war outcomes. These probabilities are presented in the second column of Figure 1. The predicted probabilities of interstate war participation (Row 1, Column 2) reveal two empirical patterns. First, good birth states are always more likely to be originators of an interstate war in a given year than are other states. For example, given that it has been twenty-two years since a state’s last interstate war (the median value in the data set), good birth states have a 0.02 probability of participating in an interstate war while states without a good birth legacy have only a 0.008 probability of war involvement. Second, the probability of war involvement is decreasing in the number of years that a state has been at peace. That is, negative duration dependence exists among the data and controlling for it with the cubic polynomial of time is methodologically appropriate. The unit effect of birth legacy on the probability of interstate war participation is presented in the second row of column two in Figure 1. As the confidence interval about the unit effect lies completely above the zero-line, our results indicate that, on average, good birth states are significantly more likely to be involved in a war in a given year than are other states. The predicted joint probability of a state fighting in and winning an interstate war as the number of years it has been at interstate peace varies is presented in the third row of the second column of Figure 1. The joint probability of winning an interstate war is always greater for a good birth state. Given that it has been twenty-two years since a
state’s last interstate war (the median observation in the data set), a good birth state is approximately 195% more likely to win an interstate war than a state without a good birth legacy (joint probabilities of 0.01 and 0.003, respectively). Turning to the unit effect of birth legacy on war outcomes (Row 4, Column 2), the 90% confidence interval about the unit effect of Good Birth is above the zero-line throughout the range of the graph, demonstrating that the joint probability of winning an interstate war is statistically greater for a good birth state than for a state without a good birth regardless of how long it has been since a state’s last war.

The results from Model 2 indicate that good birth states on average are more likely to participate in and win an interstate war in a given year than are other states. This approach assumes that the effect of a state’s birth legacy on interstate war involvement and outcomes is constant over time. It is possible, though, that this relationship varies as a function of a state’s age. Model 3 in Table 1 addresses this potential issue by estimating interstate war involvement and outcomes as a function of a state’s birth legacy, the log of its age in years, and the interaction of these two variables. 7
The standard errors reported in traditional results tables do not account for the covariance among the constituent and interaction terms, preventing us from drawing accurate inferences from Table 1 (Brambor, Clark, and Golder 2006). We therefore rely on the third column of Figure 1 to assess whether and how the effect of birth legacy on interstate war participation and outcomes varies with a state’s age.

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7 In addition to the results reported here, we estimated a model in which we interacted a state’s logged age with Good Birth in the outcome equation. This model indicated that 1) a good birth state has a higher joint probability of winning an interstate war in a given year than a state without a good birth legacy; and 2) there is no significant interaction between a state’s birth legacy and age in the outcome equation.
Beginning with war participation (Row 1, Column 3, Figure 1), compared to a state without a good birth legacy, a good birth state appears to be less likely to participate in an interstate war for the first five years of its life. However, after five years it becomes more likely to participate in an interstate war. Analyzing the unit effect of Good Birth on war involvement over a state’s life (Row 2, Column 3, Figure 1), we see that there is no statistical difference in the probability of interstate war participation for the first eleven years after a state enters the international system (i.e., the confidence interval contains the zero line). After that point, though, good birth states are significantly more likely to fight interstate wars than states without a good birth legacy. Given the distribution of state ages in our data set, this result means good birth states are statistically more likely to participate in interstate wars across approximately 82% of our observations.

Turning to war outcomes, the third row in the third column of Figure 1 presents the predicted joint probability of a state fighting in and winning an interstate war over the first one hundred fifty years of a state’s life, with and without a good birth legacy. The joint probability of fighting and winning an interstate war is higher for a good birth state than for a state without a good birth legacy after year three. Analyzing the unit effect of Good Birth, the results reported in Row 4, Column 3, Figure 1 indicate that the differences in the joint probabilities of winning an interstate war are statistically significant after a state has been in the interstate system for eight years. Given the distribution of observed state ages, this means that a good birth state is significantly more likely to fight in and win an interstate war than is a state without a good birth legacy across approximately 86% of the observations in our data set. In sum, our analyses yield consistent support for our argument that good birth states are more likely to participate in
and win interstate wars. We now turn to our analysis of the relationship between birth legacy and civil war participation and outcomes.

*Civil War Participation and Outcomes*

As fighting and winning civil wars allow a government to eliminate domestic rivals (Tilly 1985, 1992), good birth states should be more likely to participate in and win civil wars. Table 2 presents the results of our analyses of the relationship between birth legacy and civil war participation and outcomes. The bottom and top portions of Table 2 respectively report the results of the selection equations (did a state participate in a civil war?) and outcome equations (conditional on participation, did a state win a civil war?) of our censored probit models. Using the cross-sectional framework, Model 1 in Table 2 estimates whether, on average, good birth states were more likely to participate in and win a civil war during the period from 1816 to 2002 than were other states. The positive and significant coefficient on *Good Birth* in the selection equation is consistent with our expectation that good birth is positively associated with civil war involvement. To provide greater context to this result and analyze the cross-sectional relationship between birth legacy and civil war outcomes, the first column of Figure 2 reports a set of predicted probabilities derived from Model 1.

The first row in the first column of Figure 2 presents the predicted probability of civil war participation for a good birth state and for a state that did not have a good birth. According to Model 1, a good birth state will fight a civil war during its existence with a probability of 0.52. The corresponding probability for a state without a good birth legacy is 0.16. The difference between the predicted probabilities of civil war participation is
presented in the second row of column one in Figure 2. As the confidence interval lies completely above the zero-line, we can conclude that the 0.36 unit effect of Good Birth on civil war involvement is statistically significant.

Turning to civil war outcomes, the joint probabilities of a state with and without a good birth legacy fighting and winning a civil war are presented in the third row of the first column of Figure 2. The probability that a good birth state will fight and win a civil war during its existence is approximately 0.43. In contrast, the probability that a state without a good birth legacy will participate in and win a civil war is 0.11. The confidence interval associated with the 0.32 unit effect of Good Birth does not contain the zero-line (Row 4, Column 1, Figure 2), indicating good birth states are statistically significantly more likely to fight and win a civil war than those states without a good birth legacy. Before moving on, placing these results in a comparative context is instructive. Model 1 indicates that, compared to a state without a good birth legacy, good birth states are approximately 225% more likely to fight a civil war and 285% more likely to fight and win a civil war during their existence.

Our time-series cross-sectional analysis of civil war participation and outcomes leads to the same substantive conclusion. Model 2 in Table 2 reports our analysis of the relationship between birth legacy and whether a state participated in and won a civil war in a given year. The positive and statistically significant coefficient on Good Birth in the selection equation suggests that, on average, a good birth state is more likely to be involved in a civil war in a given year than other states. We again use a set of predicted probabilities to expand upon this result and test the relationship between birth legacy and the joint probability of fighting and winning a civil war. The predicted probability of
civil war participation for a good birth state and a state without a good birth legacy as the number of years of civil peace varies from zero to one hundred fifty is presented in the first row of the second column in Figure 2. Two patterns are clear from the predicted probabilities of civil war participation. First, in general, the probability a state will be involved in a civil war is decreasing in the number of years since its last civil war. Second, a good birth legacy is consistently associated with a higher probability of civil war involvement. Given that it has been twenty-one years since a state’s last civil war (the median observation in the data set), a good birth state is approximately 120% more likely to be involved in a civil war than is a state without a good birth legacy (0.01 vs. 0.006, respectively). From the graph in the second row of the second column in Figure 2, we see that the confidence interval associated with the unit effect of Good Birth lies completely above the zero-line throughout the range of the figure, indicating that the probability of civil war participation in a given year is statistically higher in a good birth state for at least the first one hundred fifty years after a state’s previous civil war.

The third row of the second column in Figure 2 presents the joint probabilities of fighting and winning a civil war as a function of a state’s birth legacy. A good birth state is consistently more likely to participate in and win a civil war in a given year. Assuming that it has been twenty-one years since a state’s last civil war (data set median), a good birth state is approximately 185% more likely to win a war against its domestic rivals than is a state without a good birth legacy (joint probabilities of 0.01 and 0.003, respectively). Also, the confidence interval around the difference in the joint probabilities is always above zero (Row 4, Column 2, Figure 2), indicating that the unit
effect of Good Birth on the joint probability of fighting and winning a civil war is statistically significant.

We analyze the possibility that the relationships between birth legacy and civil war participation and outcomes described above are conditional on a state’s age using Model 3 in Table 2. The inclusion of the multiplicative interaction term between Good Birth and Age limits the usefulness of Table 2 for hypothesis testing (Brambor, Clark, and Golder 2006). We therefore use predicted probabilities to assess the relationship between a state’s birth legacy, its age, and civil war involvement and outcomes. The first row of the third column in Figure 2 suggests that a good birth state is consistently more likely to participate in a civil war than is a state without a good birth legacy. Analyzing the unit effect of Good Birth on civil war participation (Row 2, Column 3, Figure 2), we see that the confidence interval lies above the zero-line for the first one hundred eleven years after a state’s birth. Model 3 therefore indicates that compared to a state without a good birth legacy a good birth state is statistically more likely to participate in a civil war across approximately 86% of the observations in our data set.

The joint probability of a state fighting and winning a civil war during its first one hundred fifty years, with and without a good birth legacy, is presented in the third row of the third column in Figure 2. It suggests that a good birth state is more likely to participate in and win a civil war throughout its life than other states. Turning to the unit

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As with our analysis of interstate war outcomes, we also estimated a model that included an interaction between a state’s birth legacy and its logged age in the outcome equation of the censored probit. The results of this model indicated that 1) there is no significant interaction between a state’s birth legacy and age in the outcome equation, leading to the same substantive conclusions as the analysis presented here; and 2) a good birth state has a higher joint probability of winning a civil war in a given year than a state without a good birth legacy.
effect of *Good Birth* on the probability of civil war victory (Row 4, Column 3, Figure 2), we find that, compared to a state without a good birth, a good birth state is statistically more likely to fight and win a civil war in a given year for its first one hundred and thirty eight years in the international system. A good birth legacy, then, is associated with a state being more likely to fight and win a civil war across approximately 93% of the observations in our data set.

**Discussion and Conclusion**

In the pages above we have argued that how a state emerges influences whether it fights and wins wars. Since war fighting is an important component of state making, we expected that good birth states would be better able to pick their fights such that they are both more willing to wage war and more likely to win those wars they fight. We find strong empirical support for these expectations both when considering interstate and civil wars.

Our findings about birth legacy and interstate wars are uncontroversial. But from the perspective of orthodox civil war research, our demonstration that good birth states are more likely to experience civil war is perhaps counter-intuitive. The prevailing view is that civil war is a symptom of, and often contributor to, underdevelopment, instability, and lack of institutional capacity. “Civil war is development in reverse” is the main point of one prominent book on civil wars (Collier et al., 2003). That, however, is an IR perspective on civil wars. A SM perspective focuses on civil war as a technique by which domestic competitors for power are eliminated. Via civil war a state can remove a counter-elite who might wish to take over governance of the state, or alternatively
eliminate a regional elite desirous of seceding from the state and thereby depriving it of territory, people, and resources. From this SM perspective, civil war is something a capable, coherent, successful state might actively pursue. Instead of development in reverse, such civil wars might be important positive steps in national development.

The latest compilation of COW wars (utilized in all of our statistical analyses above) offers short descriptions of each conflict in the dataset (Sarkees and Wayman 2010). While these brief summaries are not full histories of the conflicts, they do provide enough information to provide some context about the civil wars and thus help adjudicate between IR and SM perspectives about them. We read the descriptions of the 93 civil wars waged by the very best birth legacy states (“Indigenous Generation”) and the 52 waged by the very worst birth legacy states (“Derelict Decolonization”). They appear to be very different sorts of conflicts.

Among the best born states, civil wars are overwhelmingly (76.3 percent) conflicts in which the government successfully suppresses rebels or secessionists, and which often are intra-elite struggles over who will rule the state. In contrast, civil wars in the worst born states frequently devolve into stalemates or agreements wherein substantial concessions are made to the rebels (38.5 percent, in contrast, zero percent of best born state civil wars are stalemates). In only 21.2 percent of worst born state civil wars does the government succeed in defeating the rebels without relying upon (often massive) external intervention.

It is not a stretch to see civil wars in good birth states as “state making wars” and civil wars in bad birth states as “state breaking wars.” Perhaps the orthodox perspective describing civil war as “development in reverse” is driven by the fact that there are so
many poorly born states in the latter half of the 20th century combined with the tendency of so many civil war researchers to restrict their analysis to the post-World War II period. Good birth states have made up a smaller percentage of new states after 1945 than they did before then. It could well be that the interpretation of civil wars as state-breaking conflicts is a time bound artifact of post-WWII decolonization.

Recognition of possibilities like this suggests the kinds of benefits to be had by combining SM and IR perspectives. We have shown here that birth legacy influences both war participation and outcomes. If our argument is correct, a corollary expectation is that war outcomes should be associated with subsequent prosperity and political stability. There are hints within past work of such relationships (for example, linking decisive outcomes to longer spells of post-war peace – Licklider 1995; Fortna 2004). More compelling would be a demonstration that birth legacy not only influenced war outcomes, but also post-war experiences. We hope to undertake such work in the near future.

For now we have shown the implicit assumption that how states enter the international system is irrelevant to be inaccurate and untenable. If birth type influences war participation and outcome, and if birth type influences existing correlates of war such as power and development, then it is possible that relationships often asserted (such as that wealthier states are immune from civil wars) are spurious. Ignoring the context of how the actors in our datasets got there in the first place can cause us to draw inaccurate conclusions about wars. That the births of new states are often influenced by existing states (Coggins 2011) reminds us that existing states not only wage wars, but they also
influence when new states will join the system. A SM perspective has the potential to correct and expand IR research in fascinating and as yet almost entirely unexplored ways.

**BIBLIOGRAPHY**


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Y1: War Participation; Y2: War Win.
Two-tailed significance levels: † significant at p > .1; * significant at p > .05; ** significant at p > .01.
Figure 1: Birth Legacy and Interstate War Participation and Outcomes
Table 2: Birth Legacy and Civil War Participation and Outcomes

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Unit-of-Analysis: Model 1 - State; Models 2 and 3: State-Year.

Y1: Civil War Participation; Y2: Civil War Win.

Two-tailed significance levels: † significant at p > .1; * significant at p > .05; ** significant at p > .01.
Figure 2: Birth Legacy and Civil War Participation and Outcomes