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# Birth Order, Preferences, and Norms on the U.S. Supreme Court

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The members of the U.S. Supreme Court have different ideas about what constitutes good judicial policy as well as how best to achieve that policy. From where do these ideas originate? Evolutionary psychology suggests that an answer may lie in early life experiences in which siblings assume roles that affect an adult's likely acceptance of changes in the established order. According to this view, older siblings take on responsibilities that make them more conservative and rule-bound, while younger ones adopt roles that promote liberalism and greater rebelliousness. Applying this theory to the Court, I show that these childhood roles manifest themselves in later life in the decisions of the justices. Birth order explains not only the justices' policy preferences but also their acceptance of one important norm of judicial decisionmaking, specifically their willingness to exercise judicial review.

he principles of the American legal tradition are thought to place limits on the members of the U.S. Supreme Court. Fidelity to written law, support for the doctrine of stare decisis, and deference to elected majorities are among the standard elements of the judicial canon. It is clear, however, that the justices make decisions with an eye toward achieving their policy goals and that they vary considerably in the extent to which they support judicial norms in their resolution of cases. How do the justices form their ideas about what constitutes good judicial policy and how judges should achieve it?

One plausible explanation, drawn from the field of evolutionary psychology, suggests that a process of socialization determines one's attitudes toward norms, rules, and authority (Buss 1997). This socialization takes place long before assuming adult roles, such as judging. Indeed, it occurs during childhood, governed by an individual's relative position among siblings. Birth order has

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long been a subject of intensive study, and in recent years researchers have given close attention to its linkage to a person's receptivity to change. Specifically, evolutionary psychologists posit that, early in life, individuals engage in adaptive behaviors that are conditioned by the presence of siblings and seek certain niches that maximize parental attention (Sulloway 1996). Older siblings-firstborns in particular-are thought to identify with and emulate their parents and are thereby rewarded for their conscientiousness and respect for authority. As a consequence of these behavioral adaptations, firstborns develop not only ideologically conservative preferences but also a tendency to reject intellectual innovation, owing to their strong inclination to support the status quo. Laterborns, by contrast, must be creative and adaptable as a means of distinguishing themselves from their older siblings. Because of their openness to novel ideas, laterborns acquire more liberal political preferences as well as a predisposition to take risks and to rebel against convention.

Applying the birth order thesis to the U.S. Supreme Court, I argue that the justices' microenvironments during childhood should affect their approach to legal decisionmaking on the bench. First, birth order should explain the justices' ideological orientations; older siblings on the Court should have more conservative preferences; younger siblings, more liberal attitudes. Second, the impact of birth order should also be revealed in the justices' role orientations. Owing to their deference to authority, firstborn justices should support existing regimes, defer to popular decision makers, and exercise restraint. Laterborn justices, by contrast, should evince activism; being less tethered to the status quo, such justices should be more open to questioning the judgments of elected officials. Testing this theory, I find clear support for birth order effects. The evidence reveals that birth order is directly linked to the justices' preferences. Likewise, birth order helps to account for their decisions about how to realize their policy goals; although ideology governs how the justices view the constitutionality of challenged legislation, birth order conditions the justices' willingness to strike down the actions of popular decision makers.

In the following sections, I sketch the psychological theory about the importance of birth order, and I derive hypotheses about its relevance to the justices' policy attitudes and their approaches to judging. I then subject those hypotheses to statistical test.

# Birth Order and the Niche-Seeking Hypothesis

Analyses of judicial behavior and theories of psychology have increasingly important intersections (Klein and Mitchell 2010), and studies of the Supreme Court in particular have recently invoked psychological explanations to account for the choices the justices make (see, e.g., Baum and Devins 2010; Wrightsman 2006). Scholars have often assumed that the members of the Court pursue various goals without exploring why they pursue them; thus, attention to the psychological foundations of judging is especially valuable, because it enables researchers to uncover the forces that underlie judicial decisionmaking (Baum 2010: 9).

Personality characteristics can offer insights into these motivations, and one important personality trait is openness to experience; some may be driven by a desire to find novel solutions to problems and to defy convention, and others may be motivated to adhere to traditions and to satisfy authority (McCrae and Costa 1987). These differences in openness can be linked not only to political ideology but to variation in cognitive styles, as well: individuals more open to experience consider a wider array of possibilities when making decisions and exhibit more liberal preferences, while those less open to experience seek out simple decision rules and adopt more conservative attitudes (Mondak 2010; Tetlock 1983). For their part, the members of the Supreme Court vary a good deal in their levels of openness (Tetlock, Bernsweig, and Gallant 1985). So, if the justices differ in their opennessand, thus, differ in motivations to satisfy authority or follow convention-what accounts for this variation?

A likely explanation is the socialization that different siblings experience within the childhood environment. Psychologists and sociologists have exhaustively studied birth order and its influence on, among other things, ambition, intelligence, and overall personality.<sup>1</sup> At least since psychologist Alfred Adler (1928) observed the linkage between birth order and a variety of personality attributes, the order of siblings within families has been a topic of intense scholarly interest.<sup>2</sup> Since children within a family are believed to adapt themselves to different roles, birth order is especially relevant when viewed through the lens of evolutionary psychology. Evolutionary psychology posits that, just like biological attributes, the human psyche is the product of historical adaptation to changing circumstance (Buss 1997); regardless

<sup>&</sup>lt;sup>1</sup> The size of the literature is staggering; more than 2,000 articles and books address the subject of birth order (Somit, Peterson, and Arwine 1993). A useful summary of some of the leading findings can be found in Freese, Powell, and Steelman (1999).

<sup>&</sup>lt;sup>2</sup> Among political scientists, the subject has informed at least two distinct areas of research (Somit, Peterson, and Arwine 1993). The first concerns the correlates of political recruitment and whether certain siblings (most often firstborns) are overrepresented among elected and appointed office both in the United States and abroad (see, e.g., Andeweg and Van De Berg 2003; Hudson 1990; Newman and Taylor 1994; Rejai and Phillips 1988; Stewart 1992). The second addresses the influence of birth order on the political preferences of the mass public, assessing its impact on different facets of ideological thinking (Abramowitz and Abramowitz 1971; Broh 1981; Wisdom and Walsh 1975).

of whether the adaptations are biological or psychological, "the causal process of natural selection builds organic machines that are 'designed' to serve only one very specialized end: the propagation into subsequent generations of the inherited design features that comprise the organic machine itself" (Tooby and Cosmides 1995: 53). Thus, how people engage in, say, problem solving, communication, or mate selection is due in large measure to a series of individual adaptations, each of which takes place because it is best suited to a particular environment (Barkow, Cosmides, and Tooby 1995). Rather than take as a given the circumstances under which social behaviors obtain, adherents of this theory first ask what preconditions would produce that context—and why.

The relevance of this theoretical orientation to the question of birth order has been examined most extensively by Frank J. Sulloway (1996). By his accounting, the psychological variations that are so common among siblings are the product of their competition for the scarce resources of parental investment, a competition in which firstborns have historically been heavily favored. "Prior to 1800, roughly half of all children succumbed to diseases of childhood .... Having already survived some of the lethal diseases of childhood, elder children were generally better Darwinian bets for passing on their parents' genes to the next generation" (Sulloway 2007: 298). As privileged family members, firstborns (including only children) are disproportionately rewarded for pleasing their parents, and the combined relative advantages of size, strength, and intelligence, enable firstborns not only to solidify their importance by assuming a variety of parental roles but also to dominate their younger siblings who might otherwise seek to displace them (Sulloway 1996: 68–69). For their part, laterborns realize that they cannot occupy the same position-or niche-as their firstborn siblings. As a result, they are forced to seek different ways of maximizing parental attentions by establishing their own niches through distinctive (and sometimes risky) behaviors (see, e.g., Sulloway and Zweigenhaft 2010). As one might expect, laterborn children face stiff competition for these attentions, and, thus, they have incentives to remain open to all manner of alternatives (Sulloway 1996: 107-117).

These niches, it turns out, have consequences for the political orientations of siblings within a family. Because of the different values that siblings must adopt when occupying their respective niches, they are necessarily socialized into different forms of ideological thinking:

Firstborns...show a strong motivation to fulfill parental expectations.... Consequently, firstborns tend to be more amenable to their parents' wishes, values, and standards than their laterborns siblings, as well as...more traditional and conservative, and more likely to endorse conventional morality .... Laterborns tend to identify less with their parents and are often subject to domination or bullying by older siblings, which is hypothesized to make them...more likely to empathize with the downtrodden, to be supportive of egalitarian social change, to question the status quo, [and] to resist authority and pressure to conform....

(Healey and Ellis 2007, 55)

So, being conscientious rule-followers, firstborns "identify more strongly with authority and power" (Sulloway 1996: xiv) and, thus, tend to exhibit conservative political preferences. Laterborns—who are rebellious, apt to challenge the status quo, and naturally sympathetic to underdogs—exhibit more liberal attitudes. Because they themselves have been obliged to innovate to develop a distinctive niche—and thereby secure parental attention—laterborns should be more open to novelty and more willing to promote and accept change.<sup>3</sup>

How might one apply this theory to the U.S. Supreme Court? There are at least two plausible hypotheses. First, birth order should be linked to the political preferences of the members of the Court; if birth order conditions whether a justice is motivated to conform to tradition and respect authority, firstborns should be conservative, and laterborns should exhibit a more liberal ideology. Second, because birth order is linked to acceptance of innovation, variations in childhood family dynamics should serve to differentiate the justices' willingness to use their positions as judges to effect policy change. Firstborn justices—with a propensity to act in ways that demonstrate support for rules and acceptance of the status quo-should adopt a restraintist view of judging, a disposition most commonly characterized by an unwillingness to upend the policies of federal and state officials, a reluctance to alter precedent, and a generally limited view of judicial power (Lindquist and Cross 2009). Laterborns justices, by contrast, should be more activist in their orientation. After all, if laterborns exhibit less attachment to tradition and have fewer qualms about defying the rules, such justices should be inclined to promote change by challenging the authority of elected officials and disregarding the norms of stare decisis.

This analysis does not proceed tabula rasa. Birth order has figured in at least some studies of judicial behavior. Prior to the

<sup>&</sup>lt;sup>3</sup> Some social scientists find support for this linkage (see, e.g., Zweigenhaft and Von Ammon 2000), while others have been skeptical of such a connection (see, e.g., Freese, Powell, and Steelman 1999). Like much research that posits birth order effects, the niche thesis has attracted its share of critics and remains a source of controversy among psychologists and sociologists (see, e.g., Conley 2004; Harris 2009; Townsend 2000).

development of continuous measures of the justices' preferences-such as scores based on newspaper editorials (Segal and Cover 1989)-birth order was one of a number of indicators that were used as proxies for ideology. Firstborn justices, for instance, as well as justices with prosecutorial experience and justices whose fathers had government experience, have been assumed to manifest conservative attitudes (Tate 1981; Tate and Handberg 1991; Ulmer 1986). Among such social background characteristics, however, birth order has not proven to bear a strong relationship to the justices' policy orientations, even in the simplest of empirical models (Tate and Handberg 1991; Ulmer 1986; Weber 1984). One reason may be that the early data collected on the justices' family lives were sometimes coded incorrectly, a common shortcoming in studies examining the impact of birth order on political life (Somit, Peterson, and Arwine 1993)-and perhaps an understandable one, given the difficulty of acquiring such information prior to rapid internet searches of digitized information. More recent data, though, suggest that birth order serves to illuminate the justices' liberalism as well as their support for legal precedent (McGuire 2013; Sulloway 1996: 425).

According to the theory sketched here, a linkage between birth order and ideology would explain, at least in part, what motivates the justices to pursue their policy goals. Furthermore, if the levels of enthusiasm for creative and independent problem-solving differ across birth positions, then birth order might account for the justices' role orientations, even after controlling for their policy preferences. Do the effects of family niche-seeking have such implications for decisionmaking on the Supreme Court?

### **Evidence of Niche-Seeking among the Justices**

To test the application of the niche-seeking hypothesis, I begin by examining data on the birth order of the justices who were appointed to the U.S. Supreme Court from the beginning of the twentieth century to 2010 (N = 55).<sup>4</sup> If the theoretical orientations about niche-seeking apply, then the experiences that firstborn justices undergo as children—aligning themselves with

<sup>&</sup>lt;sup>4</sup> The data on birth order were very generously provided to me by Professor Frank J. Sulloway, who was remarkably thorough in culling relevant data sources. Although Weber (1984) reports data on the birth order of the members of the Court, Sulloway's replication revealed a nontrivial number of errors in Weber's original analysis. Of course, electronic data sources now facilitate the collection of such information. Nevertheless, birth order data are not always reliably recorded in biographical sources, and this problem is exacerbated for justices appointed in the eighteenth and nineteenth centuries, periods for which dependable data may be harder to obtain. All of the data used in this article may be found at https://mcguire.web.unc.edu/data/.



Figure 1. Birth Order of Justices by Appointing President's Party, 1900-2010.

parental authority—should manifest themselves in conservative attitudes later in life. Liberal ideological thinking should be prevalent among laterborn justices, a lingering consequence of their youthful efforts to distinguish themselves by deviating from the "conservative" niches already occupied by their older siblings.

#### **Birth Order and Political Ideology**

A simple way to begin the analysis is to survey the justices' birth orders by the political party of their appointing president. The logic here is simple: if presidents select members of the Court based largely on ideological considerations (Nemacheck 2007; Yalof 1999), then Republican presidents should favor firstborns and only children; Democrats, laterborns. These data are presented in Figure 1, with birth order represented as a three-category variable.<sup>5</sup>

As expected, the decisions of presidents to seek like-minded justices appear to be reflected systematically in the birth order

<sup>&</sup>lt;sup>5</sup> Because of their similarity in parental investment, only children usually exhibit social attitudes similar to firstborns (Sulloway 1996: 23). Depending on the specific research question, researchers will simply compare firstborns to laterborns or treat birth order as an ordinal variable, trichotomizing it into firstborns, middleborns, and lastborns. Occasionally, middleborns are hypothesized to exhibit distinctive effects (see Sulloway 1996: 302), but researchers most often expect the cleavages of differentiation, risk-seeking, and openness to experience to be marked by the comparison of firstborns to laterborns. Given the nicheseeking hypothesis, I employ "effective birth order," which is more common to this research literature, instead of "biological birth order." After all, there are no *genetically-based* firstborn traits; personality is assumed to be a product of family socialization. In light of that assumption, even though Justice Ginsburg was the laterborn of two children, the death of her 6-year-old sister, when she herself was only 1 year old, rendered Ginsburg an effective or of Justice Thomas; though biologically a middleborn, he was raised as a firstborn by his maternal grandfather from the age of seven (Thomas 2007).

of the justices. Almost 60 percent of Republican appointees are firstborns and only children. These numbers include Justice Samuel Alito, Chief Justice William Rehnquist, and Justice Antonin Scalia, each of whose conservative bona fides are well established. At the same time, the most likely liberals are rarely tapped by GOP Presidents; less than 10 percent of these justices are lastborns. The last two Republican-appointed lastborns are especially noteworthy; one was Chief Justice Earl Warren, easily one of the most liberal justices in the Court's history, and the other was Justice John Paul Stevens, who was also highly liberal (albeit largely in the context of the Court's more recent composition).

For Democratic presidents, by comparison, the modal birth order category is lastborns. Better than 40 percent, in fact, have been individuals whom one would expect to be sympathetic to the interests of ideological underdogs. That so many of these individuals are elevated to the Court is significant, because life achievement is strongly tied to being firstborn. Conscientious and keen to secure parental approval, firstborns tend to reach higher levels of academic success (see, e.g., Parker 1998), and they are, therefore, disproportionately represented in positions of leadership and influence (Clark and Rice 1982; Hudson 1990; Simonton 1994; Stewart 1992).<sup>6</sup>

So, all else being equal, one would expect to see few lastborns on the Court. Democratic presidents, however, select able jurists—nominees who are highly successful, their lastborn niche, notwithstanding—whom one would expect to embrace liberal social values. In fact, in their search for liberal nominees, Democratic presidents are five times more likely to name lastborns, such as Justices Abe Fortas, Arthur Goldberg, and Thurgood Marshall, than are Republican presidents.

Based on this evidence, birth order reveals a connection to the likely preferences of the justices. Even with a relatively small sample size of 55, a  $X^2$  test on these data shows that the null hypothesis, which posits no relationship between presidential partisanship and the birth order of a nominee, is easily rejected. To the extent that birth order is an indicator of nominee preferences, presidents choose precisely the people whom one would expect.

Partisanship is only a rough gauge of ideology, but there are continuous measures—such as dynamic ideal points (Martin and Quinn 2002)—that assess ideology with greater precision. To illustrate the variation in ideology across the categories of birth

 $<sup>^{\,6\,}</sup>$  This helps explain the large share of first borns and only children whom Democrats name to the Court.



Figure 2. Ideology of Justices by Birth Order.

*Note*: In each boxplot, the data consist of the mean dynamic ideal point score of each justice (Martin and Quinn 2002), multiplied by -1. Thus, lower scores imply greater conservativism, and higher scores imply more liberal preferences. The N's for each group are 18 (firstborns and only children), 15 (middleborns), and 12 (lastborns).

order, I calculate box plots that depict the distribution of the justices' ideal points in each cohort.<sup>7</sup> Constructed from the justices' voting records from 1937 to 2013, these preference estimates are designed to measure the relative ideological distances between justices both on and across natural Courts. Thus, they are a useful barometer for ideological comparison.

The data in Figure 2 confirm that firstborn justices are the most conservative members of the Court. Not only do they have the lowest median score, as a group they are quite distinctive relative to their laterborn brethren; about half of the firstborns are more conservative than any lastborn justice, and roughly a quarter of lastborns have more liberal orientations than any firstborn justice. Taken as a whole, the distribution of middleborn justices is easily more liberal than the distribution of firstborns, even if their respective medians do not differ dramatically; about 25 percent of this group have ideologies more liberal than even the most liberal firstborn. In general, these data confirm the intuition of Figure 1. The effect of family dynamics among children seems

<sup>&</sup>lt;sup>7</sup> Since the dynamic ideal points, which are derived from a comparison of voting behavior both within and across natural Courts, can vary from one term to the next, I utilize the lifetime mean of each justice. It may well be that the ideal points of the justices change over time, but the theory tested here suggests that firstborns, *on average*, will be more conservative than laterborns. Thus, I rely on each justice's mean value in calculating the box plots. In their original form, higher scores represent greater conservatism, lower scores, greater liberalism. To facilitate comparison with Figure 3, I employ the opposite of each score by multiplying it by -1.



**Figure 3. Ideology and Birth Order on the Supreme Court, 1937–2013.** *Note:* Time-series are 5-year moving averages. Ideology is the Martin-Quinn ideal point of the median justice for each term. Birth order is the mean of the three-category birth order measure, where firstborns are coded as 1, middleborns 2, and lastborns 3. To facilitate comparison, both variables are standardized to a mean of 0 and s.d. of 1.

to have an impact on the political preferences of the justices as adults.

An alternative means of inspecting the relationship between the justices' birth order and their preferences is to examine these two variables longitudinally. Does aggregate birth order on the Court follow the ebb and flow of the Court's ideological orientations? In Figure 3, I graph two time-series that reflect the Court's liberalism; one is the ideology of the Court, as measured by the ideal point of the median justice in each term, and the other is the annual average birth order on the Court, coding firstborns, middleborns, and lastborns as 1, 2, and 3, respectively. (To facilitate visual comparison, I standardize each variable by setting its mean to 0 and its s. d. to 1. I also smooth these two series, using a 5-year moving average.)

For measures derived from such entirely different sources voting behavior on the one hand and birth cohort on the other these two variables show a notable correspondence with one another. Indeed, the two series are correlated with one another and significantly so (r = 0.37, p < 0.05). Both suggest a steady movement toward greater liberalism following the appointment of Chief Justice Warren in 1953. During most of Warren's tenure, the bench was dominated by expectedly liberal laterborns; in fact,

xx : 11	NC 111	N 110		
Variable	Model I	Model 2		
Birth order	0.71* (0.29)	$0.79^*(0.32)$		
Sibship		-0.10(0.11)		
Family economic status	_	-0.14(0.21)		
Constant	-1.47(0.59)	-0.84(0.95)		
$R^2$	0.12	0.15		

Table 1. Impact of Birth Order on Ideology of Supreme Court Justices

\*p < 0.05 or better.

 $\dot{Note}$ : N = 45; dependent variable is the mean dynamic ideal point estimate for each justice serving from 1953 to 2013; birth order is coded as firstborn/only child (1), middleborn (2), lastborn (3).

for almost the entire period of Warren's chief justiceship, there was not a single firstborn justice sitting on the U.S. Supreme Court. It was only after President Nixon began appointing a series of conservative judges that this string was broken, and as the percentage of first-born justices increased beginning in the 1970s, so too did the Court's conservatism. On the conservative Rehnquist and Roberts Courts, middleborn and lastborn justices have constituted only a modest portion of the bench.<sup>8</sup>

In light of these data, it would be difficult to dismiss the relevance of childhood niche-seeking to understanding the ideological dispositions of the justices on the Court. Although one ought not to make causal inferences based strictly on the visual inspection of these data, they certainly conform to expectations; ideology travels with birth order over time.

#### **Causal Linkages**

Birth order can shape a number of different personal values, including support for democratic ideals and the active use of governmental power, as well as a general receptivity to new ideas (Sulloway 1996: 284–305). There are, as I have argued, strong theoretical reasons to expect that birth order is an important factor that explains variation in the justices' political attitudes, and the story to this point suggests a connection between birth order and the attitudes of the members of the Court. Can it provide a systematic explanation of the political ideology of the members of the Court, even after confounding factors are taken into account?

To calibrate the impact of family environment more precisely, I present a simple Ordinary Least Squares model in Table 1, one that tests the impact of birth order on the justices' policy preferences. In Model 1, I regress the justices' mean ideological scores on the three-category ordinal measure of birth order. This

<sup>&</sup>lt;sup>8</sup> On the most recent natural Courts, the birth order of the justices has been as follows: firstborns/only children (Alito, Breyer, Ginsburg, Scalia, Sotomayor, Souter, Thomas), middleborns (Roberts, Kagan, Kennedy), and lastborns (Stevens).

exercise confirms what was implicit from the previous analyses: the justices' policy predilections are significantly related to their relative placement among siblings. To be sure, since much of the variance remains unexplained, birth order can hardly be the sole determinant of preferences, but of course when using a simple ordinal measure to predict dynamic preference estimates derived from voting behavior, one would hardly expect otherwise.

A common complication in birth order models is a failure to take account of family socioeconomic status and the number of siblings in the family, or sibship (Sulloway 1996: 48). The less affluent tend to have larger families, thereby increasing the likelihood of someone raised in such circumstances being a middleborn or lastborn. In the absence of such controls, birth order by itself may be a proxy for socioeconomic circumstance, which is often related to political ideology. To account for this, Model 2 adds measures of sibship and childhood socioeconomic circumstance. Sibship is measured by the number of children in a justice's family, and family economic status is measured as lower, lower-middle, middle, upper-middle, and upper, coded, respectively, from 1 to 5.<sup>9</sup>

Although birth order effects often evaporate when these controls are introduced, that is not the case here. In Model 2, neither of these control variables is significant, and they leave the impact of birth order unaffected. Birth order is a significant predictor of the justices' political ideology, even after the most likely confounding forces are taken into account. Thus, the models in Table 1 provide plausible evidence that niche-seeking in different family environments leaves a lasting ideological imprint.<sup>10</sup>

Taken by itself, this finding is noteworthy. It suggests that the justices' policy orientations may be governed, to a degree, by the microenvironmental influences of childhood. Still, birth order measures a more general openness to alternatives and a readiness to defy the status quo, quite apart from political ideology (Sulloway 1996). Obviously, tolerance of diverse and competing ideas is a part of political liberalism, but it may be only one manifestation of a broader willingness to entertain and accept nontraditional ideas. If birth order serves as a proxy for how one views novel approaches to problems in various fields of human endeavor, it should reflect itself in how judges approach the specific task of

<sup>&</sup>lt;sup>9</sup> Data on family socioeconomic circumstance are taken from the Epstein et al. 2007b. U.S. Supreme Court Justice Database.

<sup>&</sup>lt;sup>10</sup> One can likewise regress the mean dynamic ideal points on whether a justice was a laterborn (1 if yes, 0 otherwise), and this exercise yields the same inferences; being a laterborn (i.e., middleborn or lastborn) is a significant predictor of preferences, a relationship also unaffected by sibship and economic circumstance.

legal decisionmaking. All that is required is the development of theoretical expectations and a relevant context in which to examine birth order's impact.

#### Acceptance of Legal Norms

Psychologist Alfred Adler was among the first to note a specific connection between birth order and personality development. As he explained, "When [a firstborn] grows up, he likes to take part in the exercise of authority and exaggerates the importance of rules and laws. Everything should be done by rule, and no rule should ever be changed" (1928: 379, emphasis added). By his reckoning, the oldest child in a family—a child characteristically rewarded for fulfilling parental expectations-places great emphasis on authority and abiding by the status quo; thus, for example, the eldest might display the packet of attitudes typically associated with political authoritarianism, such as respect for elders, obedience, and being generally well-behaved (Hetherington and Weiler 2009: 48). Support for rules, however, ebbs among laterborn siblings: as elder siblings settle into the niche of fulfilling existing expectations, each subsequent child recognizes that she cannot occupy the same role as her older siblings and, thus, must be open to a wider range of life's possibilities, including niches of nonconformity. In conceptual parallel to Hetherington and Weiler's (2009) work on authoritarianism, these children should display higher levels of independence and curiosity. The adoption of nonconventional roles manifests itself in attitudes that are less absolutist and more iconoclastic (see also Healey and Ellis 2007; Simonton 1994; Sulloway 1996). Again, the theory underlying these findings assumes that, while children are motivated by a basic need for parental attention and investment, the incentives for securing that investment vary in consistent ways among siblings. Indeed, individuals who occupy the same ordinal positions between families often display more comparable personality characteristics than siblings within families (Sulloway 1996).

Reliance on various rules of jurisprudence and institutional norms is central to the business of judging. Thus, among the members of the Supreme Court, justices within the same birth order cohort should exhibit similar levels of acceptance of those standards of legal interpretation. Cases arrive at the Supreme Court with a good deal of legal ambiguity. In resolving this ambiguity, some justices will fall back on various traditions of legal analysis; others will challenge them. The theoretical orientations regarding birth order offer clues about the path a justice will choose to follow. Since older siblings demonstrate a propensity to follow tradition, firstborn justices should be expected to exercise restraint and to emphasize such norms as deference to the authority of precedent. As firstborn Oliver Wendell Holmes, Jr. explained:

I sometimes tell students that the law schools pursue an inspirational combined with a logical method, that is, the postulates are taken for granted upon authority without inquiry into their worth, and then logic is used as the only tool to develop the results.... I do not expect or think it desirable that the judges should undertake to renovate the law. That is not their province..., and because I believe that the claim of our especial code to respect is simply that it exists...and not that it represents an eternal principle, I am slow to consent to overruling a precedent.

(1899, 460)

By contrast, laterborn justices should evince greater skepticism about following these traditions and should perforce be willing to take the road less travelled when deciding cases on the merits. Being less constrained by existing norms, they should adopt positions of activism and more readily support challenges to established democratic and legal processes. One laterborn justice, William O. Douglas, illustrates this view:

It is easy...to overemphasize stare decisis as a principle in the lives of men.... The place of stare decisis in constitutional law is even more tenuous. A judge looking at a constitutional decision may have compulsions to revere past history and accept what was once written. But he remembers above all else that it is the Constitution which he swore to support and defend, not the gloss which his predecessors may have put on it. So he comes to formulate his own views, rejecting some earlier ones as false and embracing others. He cannot do otherwise unless he lets men long dead and unaware of the problems of the age in which he lives do his thinking for him.

(1949, 736)

Disagreement among the justices is of course the norm on the Court, and as Holmes and Douglas illustrate, much of that disagreement is over whether the Court should take a proactive role in solving the societal conflicts brought before the Court or defer to existing rules put in place by either elected officials or previous judicial decisions. This debate over judicial role orientations is commonly encapsulated by the choice between restraint and activism. "Role orientation is essentially a summary variable which defines for the [judge] the range of appropriate behavioral alternatives in any given situation" (Gibson 1978: 917); by this accounting, judges whose decisions confine themselves to a narrow range of possibilities are regarded as restraintist, and those who consider a wider range of alternatives are defined as activist. Social characteristics have been thought to affect these role conceptions (Murphy and Tanenhaus 1972; Tate 1981), and birth order is especially relevant in this context; the theory posits a firstborn reluctance (or a laterborn willingness) to entertain diverse alternatives. Seen in this way, role perceptions can be understood as preferences over whether to limit one's choices in resolving the problems the Court confronts by deferring to existing law and lawmaking majorities, on the one hand, or to challenge the status quo and to bring new ideas to bear, on the other. In the following section, I construct an empirical test of the extent to which birth order affects the adherence to these competing notions of the judicial role.

# Testing the Impact of Niche-Seeking

By now, the expectations regarding birth order's influence on the Court should be obvious. If firstborns have incentives to respect authority and adhere to established rules, firstborn justices should exhibit a resistance to deviating from those rules. If laterborns must select less traditional roles and, thus, be more open to challenging the status quo, laterborns justices should question that authority. Of course, defining what constitutes judicial activism and restraint has long been a matter of scholarly debate. Indeed, political scientists and legal scholars have offered a variety of species of this behavior. Notwithstanding such debate, "majoritarianism and deference to elected branches" are certainly among the attributes most commonly associated with that concept (Lindquist and Cross 2009: 32). Indeed, "if judicial restraint means anything... it must mean a relative unwillingness to declare constitutional limitations on government," (Keck 2002: 122). Judicial activism, perforce, implies the opposite. By these lights, activism is reflected by a readiness to strike down legislation, and restraint means reluctance to employ judicial review. Are the personality traits that are characteristic of birth order reflected in the justices' willingness to support (or oppose) popular decision makers?

To test for these effects, I examine the impact of birth order in the context of support for the exercise of judicial review. My initial analytic strategy is straightforward; for each member of the Court, I determine how often that justice joined a majority



Figure 4. Impact of Birth Order on Support for Judicial Review (How often does a justice vote with the majority?)

coalition that invalidated a federal or state law.<sup>11</sup> Since this decision represents a challenge to the status quo, firstborn justices should be reluctant to join their colleagues in making such policies, while laterborns should have fewer misgivings about defying the establishment. For the purposes of comparison, I begin by assuming that birth order will not affect the decision to join the majority when the use of judicial review is not present. In other words, when the Court is not invalidating a law, the rate at which justice's vote with the majority should be fairly consistent across different cohorts of birth order. The data in Figure 4 confirm this expectation. Firstborn, middleborn, and lastborn justices join the majority with comparable frequency-between 82 and 84 percent of the time-when doing so does not involve the use of judicial review. With these data serving as controls, one can then gauge how those frequencies compare to the cases in which a law is struck down. If the effects of childhood socialization work as expected, then there should be clear differences across birth order cohorts in support for overturning challenged legislation: firstborns should adhere to the norm of deference and join the majority less often, while laterborn justices should have fewer reservations about defying elected officials and display more activist tendencies. Conversely, if there are no birth order effects, then the justices should vote with the majority at the same rate within each place in the birth lineup.

Figure 4 provides clear support for the birth order hypothesis. Unlike the control category (i.e., nonjudicial review cases) in which voting records are substantially the same, the justices vote

<sup>&</sup>lt;sup>11</sup> These data were obtained from the U.S. Supreme Court Judicial Database.

in systematically different ways across the categories of birth order when the Court's majority votes to strike down legislation;<sup>12</sup> as expected, eldestborn justices are relatively hesitant to overturn elected officials, and laterborn justices display a marked readiness to invoke the power of judicial review. These results suggest that, as children, the justices adapted to their microenvironment in predictable ways.

Members of the Court who are firstborns and only children, having been socialized into following established rules, show a reluctance to join their colleagues in uprooting existing federal and state laws. In cases where the Court does not exercise the power of judicial review, these justices support the majority decision nearly 85 percent of the time. That support, however, drops to roughly 70 percent when the majority invokes its authority to invalidate popular decision makers. This difference is not trivial; a paired *t*-test, testing the hypothesis that the difference between each justice's voting across these two categories is equal to zero, is easily rejected (t = 4.37).

By contrast, laterborn justices appear to be greater risktakers, and, thus, their willingness to vote with the majority is unaffected by the Court's decision to engage in judicial activism. Middleborns, for example, join their colleagues in exercising judicial review at a somewhat higher rate (76 percent), one that does not differ significantly from the frequency with which those justices join the majority otherwise (82 percent, t = 1.26). Lastborns, moreover, vote to invalidate laws at the highest rate (85 percent), joining the majority precisely as often as they do in other decisions (84 percent, t = -0.37). Whatever factors affect a lastborn justice's decision to support the outcome in a case, the use of judicial review is evidently not among them.

Like much research on birth order, these results suggest that the most important differentiation exists between firstborns and laterborns (see Freese, Powell and Steelman 1999; Sulloway 1996). Unlike the eldest siblings who place a premium on authority, middleborns and lastborns must seek niches within the family that are unoccupied by firstborn children. Driven by the need to distinguish themselves, they display greater openness to alternatives. Consequently, they have the less regard for power and authority. Similarly, they have fewer misgivings about altering the rules. As justices, these individuals consider a wider range of decisional possibilities (i.e., they assume a more activist judicial role) and are therefore perfectly willing to question the decisions of elected officials.

<sup>&</sup>lt;sup>12</sup> An analysis of variance confirms that support for judicial review differs significantly by birth order (F = 3.93, p = 0.029), while the control category shows no such differences (F = 0.33, p = 0.72).

Of course, these data do not take account of the various other factors that might affect a justice's vote to invalidate legislation. To determine whether the effects of birth order persist in the face of competition from other explanatory variables, I construct a multivariate predictive model, one that relies on both the data and theoretical insights of Lindquist and Solberg's (2007) analysis of the justices' votes to exercise judicial review.<sup>13</sup> Lindquist and Solberg gathered data across the Burger and Rehnquist Courts for every case in which the justices examined the constitutional validity of a federal, state, or local law. Across the time period spanning 1969-2000, they identified some 796 cases in which the constitutionality of a law was at issue. Using the individual justice's vote as the unit of analysis, Lindquist and Solberg found that "the justices' ideological responses to the challenged statutes, the extent of amicus support for the statute, the support of the solicitor general, congressional preferences, and the existence of a civil liberties challenge to the statute are all significantly related to the justices' votes to invalidate or uphold statutes" (p. 71). Armed with their data, I can take account of these particular forces and compare their effects between firstborn and laterborn justices.

One approach might be to replicate Lindquist and Solberg's basic model and include a dummy variable to indicate whether, all else being equal, firstborns were significantly less likely than laterborns to vote to strike down challenged legislation. This approach, however, would assume that firstborn and laterborn justices evaluate all other explanatory variables in the same fashion, attaching the same weight to, say, their personal policy preferences, as well as the positions of the solicitor general and the Congress. But of course firstborn and laterborn members of the Court may well-exhibit important differences in their responses to these factors.

An effective way to facilitate those comparisons is to implement an interactive model, one that makes the effects of various predictors conditional on some intervening variable (Franzese and Kam 2007). Constructing this model is a straightforward matter: one creates a dummy variable for the intervening condition of interest (i.e., a variable that distinguishes firstborns justices from laterborn justices) and then interacts that dummy with all other regressors. Thus, in addition to a single birth order parameter, each independent variable appears in the model twice once on its own and once as an interaction with the measure of birth order.

<sup>&</sup>lt;sup>13</sup> I am especially grateful to Professors Stefanie A. Lindquist and Rorie Spill Solberg for kindly making their data available to me for this portion of the analysis.

Implementing this model with Lindquist and Solberg's data, I estimate the impact of their key variables-the justices' preferences, the position of the solicitor general, the preferences of Congress, amicus support for the statute, civil liberties challenges, and lower court treatment-on the vote of the individual justices to the strike the law under review. These measures are amply explained elsewhere (Lindquist and Solberg 2007: 77-79), so I only summarize them briefly here. Ideological support for a statute is assessed by the intensity of the justice's or Congress's ideological preference, relative to whether the law in question embodied a liberal or conservative policy. So, for example, larger positive values for a justice's or congressional support for a statute indicate more strongly liberal preferences when reviewing a liberal law (or, alternatively, more conservative preferences when reviewing a conservative law). Negative values, by contrast, signify increasing liberalness (or conservatism) when reviewing a conservative (or liberal) law, respectively.<sup>14</sup> Support by the solicitor general, as either a party or an amicus curiae, assumes a value of 1 if the federal government argued in support of the law, -1 if it argued against it, and 0 otherwise. Overall amicus support is operationalized as the number of amicus briefs filed in support of the law minus the number filed arguing for invalidation. A civil liberties challenge is coded as 1 if the case raised an issue of civil liberties or civil rights, 0 otherwise. Finally, I include Lindquist and Solberg's statistical control for the Court's propensity to review decisions it intends to reverse, measured by whether the lower court had already invalidated the statute (coded as 1, and 0 otherwise); if the Court's tendency is to reverse lower court decisions, then a lower court's exercise of judicial review should make a justice more likely to vote to uphold the law (and vice versa).

Interactive models are notoriously difficult to interpret. The task can be simplified considerably be utilizing the constitutive terms to calculate linear combinations of coefficients. Summing the estimated effects of a variable of interest and its interaction with the conditioning variable (i.e., firstborn justices) produces a conditional coefficient. These conditional estimates for firstborn

<sup>&</sup>lt;sup>14</sup> The ideological orientation of the statute is measured by the Supreme Court's vote on whether to strike the law, relative to the ideological direction of the Court's decision (e.g., when the justices voted to *strike down* a law and decided the case in a *liberal direction*, the law is presumed to have been *conservative*, while the law under review is coded as *liberal* if the law was *upheld* and the Court's decision was *liberal*). The ideology of the individual justices and the Congress, both measured at the time of the Court's decisions, are derived from the Judicial Common Space Scores (Epstein et al. 2007a). Data on the number of amicus briefs were derived from Lexis and Westlaw, and measures of a case's issue area and disposition are taken from the *U.S. Supreme Court Judicial Database* (see Lindquist and Solberg 2007: 77–79).

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))				

Table 2.	Conditional	Estimates	of Impact	of Birth	Order o	n Vote to	Strike
	Challenged	Statute/Or	dinance				

\*p < 0.05 or better, two-tailed test.

*Note*: N = 6,407. Dependent variable equals 1 if the justice voted to invalidate the statute, 0 if the justice voted to uphold the statute. Conditional effects are derived from a standard interaction model, one which includes predictors for (1) "firstborn justices" (coded as 1 for firstborns/only children, 0 otherwise), (2) the variables listed above, and (3) the interactions between the "firstborn justice" dummy and the above variables. The complete interaction model appears in the Appendix. Robust standard errors, which appear in parentheses, are calculated by clustering on individual justices.

and laterborn justices, along with their estimated s. e., are presented in Table 2.<sup>15</sup> (The interactive model from which these data are derived is presented in the Appendix.)

These estimates largely confirm Lindquist and Solberg's findings, even when tested under the constraints of a conditional model: every predictor (save congressional support for the statute) exercises a statistically significant effect on the vote to invalidate federal, state, and local laws for both sets of justices. Of course, my principal interest is not in the substantive influence of the independent variables themselves but whether and how their impact varies between firstborn justices and their laterborn counterparts. To illustrate birth order's conditional effect, Figure 5 presents estimates of the probability of voting to invalidate legislation for different values of the independent variables, distinguishing in each case between firstborn and laterborn justices.<sup>16</sup>

<sup>&</sup>lt;sup>15</sup> I generate these estimates using Stata's postestimation "lincom" command.

<sup>&</sup>lt;sup>16</sup> These estimates were generated by setting nonrelevant variables equal to their mean for the overall sample. In order to represent the specific conditions for continuous variables—that is, the variables measuring the preferences of the justices, Congress, and amici curiae—the estimates were generated by setting the variable of interest one s. d. above or below its mean value to reflect support or opposition. The variables measuring support (or opposition) from the solicitor general *as a party* were set at 1 (or -1), with the variables for the solicitor general's position *as an amicus curiae* simultaneously set to 0, since the solicitor generate the estimates for the amicus filings of the solicitor general, this calculation was reversed.



Figure 5. Impact of Birth Order on Vote to Strike Selected Categories of Challenged Statutes/Ordinances.

Overall, the justices are estimated to behave as the theory of niche-seeking among siblings would suggest: the laterborn risktakers who challenge the status quo are invariably more prone to strike laws than firstborns, their more rule-bound brethren. In addition, the data illustrate that birth order exercises its effects in highly intuitive ways. Regardless of birth order, for example, justices are more likely to strike laws that they find ideologically incompatible than those for which they have ideological sympathy. But, the impact of birth order is more dramatic in the former category than in the latter. This is precisely what one would expect to observe under the birth order hypothesis. After all, if a justice *agrees* with a challenged law, it should matter little whether she is a firstborn or laterborn; she will vote to uphold it. In this condition, a firstborn justice need not exercise restraint (because she *supports* the law) any more than a laterborn need challenge the status quo (again, because it is a status quo she regards as ideologically favorable). By contrast, ideological *disagreement* with a law promotes more marked differences in behavior. In this condition, all justices are naturally more inclined to strike the law, but actually voting to do so is clearly much easier for laterborns (or much more difficult for firstborns). When faced with a law that is equally disagreeable on ideological grounds, a laterborn justice is considerably more likely to vote to invalidate it than is a firstborn justice. Stated differently, the justices can be expected to act in ways that advance their policy goals, but the *means* by which they seek to achieve those goals are not consistent across

birth order cohorts. Those who are psychologically most averse to change are less likely to support it.

Quite apart from the justices' own policy predilections, majoritarian preferences, as measured by the views of the Congress and the executive branch, have a predictable influence on the justices. As a litigant, the executive branch increases or decreases the odds of voting to fell a law, depending on what position it takes. Congressional support for (or opposition to) legislation likewise governs how a justice will vote, but these effects differ across birth order groups. When either Congress or the President oppose a law, there is a strong chance that a justice will respond to that cue, but in both cases, firstborn justices remain more circumspect than laterborns.

The birth order of the justices also has important effects in relation to the impact of organized interests. Not surprisingly, the relative strength of organized interests moves the probability of a vote to exercise judicial review in the expected direction; when more amici favor a law, the probability of a vote to strike decreases, and when more amici oppose a law, the probability increases. Regardless of which side has greater outside support, though, laterborns reveal the expected proclivity for disregarding the existing legal structure; they have a strong disposition to invalidate laws that amici support (0.50) and an even stronger likelihood of striking laws that they oppose (0.57). Firstborn justices, defined by deference to the status quo, resist legal change and follow a course of restraint, no matter what pressures are brought to bear by organized interests; their probability of voting to strike down legislation is 0.40 when amici support the law and still only 0.45 when those oppose it.

One amicus curiae in particular, the solicitor general, consistently conveys important information to the Court (Black and Owens 2012), and cases involving judicial review are no exception. When the solicitor general advises the Court to invalidate a law, firstborn and laterborn justices vote to strike the law with about equal probability (roughly 0.70). Laterborn justices, however, are substantially more likely than firstborns to defy the federal government when it advises the Court to uphold the law. To be sure, all members of the Court are estimated to uphold a law that enjoys the support of the solicitor general, but the probability of voting to strike such a law is still markedly greater for laterborn justices (0.47) than it is for firstborns (0.30).

Collectively, the effects associated with the legislative and executive branches, as well as organized interests, generally suggest that childhood socialization has important consequences for the justices' orientations to the exercise of judicial review. Laterborns, who resist conformity, display greater activism and have fewer qualms about defying legislative majorities and nationwide interests. Firstborns, who were rewarded for adhering to rules, more often than not tend toward judicial restraint and are, thus, reluctant to challenge authority. Indeed, firstborn justices often have difficulty bringing themselves to support a change in the status quo, even when Congress, the President, and interest groups encourage them to do so.

The heightened scrutiny that typically makes legislation more vulnerable in cases involving civil liberties and rights is evident in the model, but even here the respect for the decisions of popular policy makers acts as a brake on the behavior of firstborn justices who, as children, had incentives to respect the authority of others. The probability of a firstborn supporting judicial review in civil liberties cases is only 0.45, compared with 0.55 for laterborns. Likewise, the Court's error-correction strategy manifests itself as one would expect. If the Court takes cases in which it doubts the lower court outcome, it makes sense that the likelihood of a vote to strike a law would be greater when the lower court upheld a law than when the lower court invalidated it. That likelihood is a good deal higher, however, for laterborns (0.58) than for firstborns (0.47).

Taken together, these statistical results support the idea that judges are subject to the same influences that affect other human beings (Baum 2006). To be sure, judges, like lawyers more generally, are strongly socialized through education and professional practice to defer to the decisions of elected officials and to avoid declaring their acts unconstitutional (Mertz 2007). Some evidently attach greater significance to this norm than others, however, and the degree of respect for this norm seems to be explained, at least in part, by the lingering but potent effects of childhood socialization. So, when deciding whether to exercise judicial review, the justices do not simply pursue their policy goals; rather, they do so in ways that fit their view of how judging should be done. In short, firstborns show a good deal of evidence of judicial restraint and laterborns appear more prone to judicial activism.

## Conclusions

Birth order is prominent in a number of different contexts within the social sciences, and it may be no less relevant to understanding political behavior. The theoretical account offered here suggests that the microenvironment of the family creates incentives for siblings to be adaptive and systematically to seek different niches. Applying that theory to the justices on the U.S. Supreme Court generates two empirical insights. First, the effects of niche-seeking can be seen in the development of the most important determinant of the justices' behavior—their policy preferences. Firstborns, who as children likely aligned themselves with the authority of their parents and were rewarded for their conformity, end up as political conservatives. By contrast, in their search for distinctive and unoccupied family roles, laterborns must remain open to life's nontraditional possibilities and are consequently less rule-bound. Aside from their willingness to challenge the status quo, laterborns are also prone to empathize with the disadvantaged, having themselves been dominated by older and stronger siblings. Not surprisingly, as justices these individuals adopt more liberal political attitudes.

Second, quite apart from its impact on the justices' political preferences, birth order also seems to condition how the members of the Court understand their role as judicial policy makers. Birth order affects one's propensity to defer to (or, alternatively, to defy) established rules, a fact reflected in the justices' varying degrees of readiness to challenge laws laid down by legislative majorities. After all, statutes codify the established order, and whether an existing legislative regime should be replaced with an alternative vision crafted by the Court should be driven, at least in part, by a justice's openness to alternatives. Motivated by a commitment to the established order, firstborns vote to strike down popular majorities less often, while laterborns have fewer reservations about upending existing laws.

These results should be of particular interest to scholars who are interested in the relevance of judicial role orientations. The search for empirical indicators of role orientations has often been elusive. Indeed, some have concluded that, when justices invoke these judicial norms, it is a mere mask for a decision grounded in policy preferences (see, e.g., Segal and Spaeth 2002). The impact of birth order, and the theory of niche-seeking that undergirds it, suggest that the influence of the judicial role may be quite genuine, inasmuch as birth order appears to condition the justices' willingness to strike down the actions of majoritarian decision makers, even after the justices' policy preferences are held constant.

It would be easy to dismiss any one of these findings as idiosyncratic, but the evidence taken as a whole provides substantial reason to think that the effects of birth order are real and operate in predictable ways on the choices the justices make. Across these analytic tests, the results confirm the niche-seeking hypothesis, suggesting that the members of the Court are not unlike the public more generally: older siblings display an unwillingness to deviate from the status quo, and younger siblings are less constrained by existing norms. Social background models are not as fashionable as they once were in judicial politics. To the extent that social attributes were simply serving as proxies for other unmeasured variables, the decline of such models is quite understandable. Yet the decision to abandon the study of background characteristics may have come at a cost. Scholars of the Court may need to think more carefully about how these characteristics might measure the socialization of justices early in life. They may be overlooking an important force that structures how the justices respond to the prospects of legal change.

# Appendix

# Probit Model of Impact of Birth Order on Vote to Strike Challenged Statute/Ordinance

Variable	Coefficient/s.e.
Firstborn justice	-0.28(0.17)
Justice's ideological support for statute	$-1.20(0.05)^{*}$
Solicitor general support for statute as a party	-0.53(0.05)*
Congressional support for statute	-0.37(0.25)
Amicus curiae support for statute	-0.028(0.010)*
Solicitor general support for statute as an amicus	-0.31(0.08)*
Civil liberties challenge	0.22 (0.07)*
Lower court invalidated statute	-0.29(0.05)*
Firstborn $\times$ Justice's ideological support for statute	0.19 (0.09)*
Firstborn $\times$ Solicitor general support for statute as a party	0.15(0.13)
Firstborn $\times$ Congressional support for statute	-0.12(0.47)
Firstborn $\times$ Amicus curiae support for statute	0.003 (0.013)
Firstborn $\times$ Solicitor general support for statute as an amicus	-0.15(0.09)
Firstborn $\times$ Civil liberties challenge	0.01 (0.09)
Firstborn $\times$ Lower court invalidated statute	0.14 (0.06)*
Intercept	-0.12(0.08)
Log likelihood	-3,818.72
Wald $\chi^2$	$4,743.07 \ (p < 0.001)$
% correctly classified	66.7
Proportional Reduction of Error	31.4

\*p < 0.05 or better, two-tailed test.

 $\hat{N} = 6,407$ . Dependent variable equals 1 if the justice voted to invalidate the statute, 0 if the justice voted to uphold the statute. Firstborn justice is coded as 1 if the justice was a firstborn or only child, 0 if the justice was a laterborn. Remaining variables are interacted with the firstborn justice dummy variable. All coefficients are probit estimates. Robust standard errors, which appear in parentheses, are calculated by clustering on individual justices.

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