

# **The Etiology of Public Support for the Designated Hitter Rule<sup>†</sup>**

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## **ABSTRACT**

Since its introduction in 1973, major league baseball's designated hitter (DH) rule has been the subject of continuing controversy. Here, we investigate the political and socio-demographic determinants of public opinion towards the DH rule, using data from a nationwide poll conducted during September, 1997. Our findings suggest that, while both self-proclaimed Democrats and Republicans are more likely to follow baseball than are political independents, it is Democrats, not Republicans, who tend to favor the DH. In addition, we find no effect for respondents' proximity to American or National League teams, though older respondents were consistently more likely to oppose the rule.

“Taylor took us to Mets games. Only the National League, he said. We don’t do DH. In his growing up in an academic family, there was a secular trinity: NBC, the National League, and the Democratic Party. Anything else was reactionary, racist, anti-intellectual.”

– Bharati Mukherjee, *Jasmine* (1989).

## Introduction

Baseball is “America’s pastime,” and then some; writer David Halberstam has called it “not so much the national sport as the binding national myth” (2002, Ch. 1). The sport, long associated with American tradition and culture, also has strong ties to politics: Presidents (and presidential candidates) since William Howard Taft have routinely thrown out the first pitch on opening day, baseball analogies abound in political conversation (e.g., getting a “softball question,” and “knocking it out of the park”), and the current president of the United States was once part-owner of major league baseball’s Texas Rangers. Additionally, by acts of the Supreme Court (cf. *Federal Baseball Club, Inc. v. National League of Professional Baseball Clubs* 1922; *Flood v. Kuhn* 1972; Duquette 1999) and Congress, baseball was for decades the only major sport exempted from federal labor laws.<sup>1</sup>

Arguably, the most important innovation in the game of baseball since the 1920s was the creation, in 1973, of the designated hitter (DH) in the American League (AL). Formally, the designated hitter rule states that “(A) hitter may be designated to bat for the starting pitcher and all subsequent pitchers in any game without otherwise affecting the status of the pitcher(s) in the game” (Official Rules, §6.10).<sup>2</sup> In nearly all circumstances, teams substitute pitchers – who, lacking the motivation to practice batting, are often notoriously poor hitters – with individuals who excel at the plate but who may be lacking in defensive skills. This means that, since 1973,

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<sup>1</sup>Arbitration and the *Kurt Flood Act* of 1998 put baseball on par with other major sports, with an exemption from antitrust laws in all of its dealings except with the players. For details on this fascinating history, see Johnson (1997, Ch. 8), Roberts (1991, Ch. 7), and Shugart (1997, Ch. 11). An especially creative take on the baseball/politics connection can be found by navigating to Oyez Baseball (2006).

<sup>2</sup>The entirety of Rule 6.10 is reprinted in Appendix A.

teams in the American League have sent roughly 12.5% more “true hitters” to the plate (Freeman 2004, 94).

Since its adoption by the American League in 1973, the designated hitter rule has been a source of ongoing and often heated controversy (cf. Caldwell 1998).<sup>3</sup> Disagreement over the DH has eclipsed that of all other reforms during the same era, including the lowering of the pitcher’s mound, the addition of expansion teams, and the introduction of artificial turf. Talk of eliminating the rule arises every few years, most recently with the league realignment and the introduction of interleague play in 1997 (Newhan 1997). Beyond baseball’s sacrosanctity in American life, the reasons for that controversy are, at some level, political, at least to the extent that they touch on values common to political discourse. In particular, debate about the rule often turns on notions of personal responsibility, tradition, egalitarianism, and other concepts which form the basis for individuals’ beliefs about what constitutes good public policy.

Here, we argue that the common attitudinal roots of Americans’ partisan and ideological predilections and their opinions about the DH will induce a relationship between those two phenomena, such that the former will, to a significant degree, drive the latter. More specifically, we outline and examine empirically a theory linking attitudes towards the designated hitter rule to individual-level political beliefs and identities. We do so mindful of the fact that, to the disbelief of many, a substantial segment of American society knows and/or cares very little about the sport, and that patterns of attention to baseball are likely to be influenced by factors similar to those which drive attitudes towards the DH. Our findings put the lie to Mukherjee’s fictional Taylor: it is Democrats, in fact, who are more likely to support the rule, though Republicans are no less likely to favor it than are political independents. Along the way, we also uncover unsurprising

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<sup>3</sup>Interestingly, the rule’s almost-universal application outside of the major leagues appears to have generated little controversy. The DH is an accepted part of nearly every other organized baseball league in the world, from American Little League, to the NCAA, to the minor leagues (Class A teams all use the DH; Class AA and AAA leagues vary, but in general pitchers only bat when both teams are National League affiliates). Further abroad, The Mexican League uniformly uses the DH, while Japan’s professional leagues mirror those in the U.S., with the Pacific League adopting the DH rule in 1975 while the Central League did not do so until the advent of interleague play in 2005.

generational influences on those opinions, as well as evidence that partisans of both stripes tend to take their baseball more seriously than do political independents.

More broadly, we believe our investigation offers insights into the relationship between core values and measures of political attitudes. Historically, this has been a difficult linkage to observe in American politics, with researchers generally relying on easily obtained data from political figures, public administrators, or journalistic sources. In contrast, we believe we can learn a great deal by examining recorded attitudes of average citizens on a change that impacts core values, and how that change relates to standard political measures like party and ideology. In this light, the designated hitter rule serves as an observable marker for understanding the relationship between latent core values and the political choices (such as partisanship) that Americans make.

## **The Politics of the Designated Hitter**

It will come as no shock, given the significance of the topic among baseball's cognoscenti, that the designated hitter rule has been the subject of extensive empirical analysis. Most prominent among these is Goff et al.'s (1997, 1998) studies of the moral hazard problem raised by the DH rule: pitchers who are no longer required to bat do not face the possibility of (personal, physical) retribution for hitting the opposing team's batters, thus lowering the relative costs of doing so. Goff et al. support this contention with data on the significant increase in hit batters in the AL, but not the NL, following the 1973 implementation of the rule. In doing so, they sparked a minor tempest of controversy, even eliciting a look at the effect in Japanese leagues (Kawaura and La Croix 2002). In particular, Levitt (1998) and Trandel et al. (1998) challenged this claim, countering that the data better support the hypothesis that such differences are attributable to the increase in AL power hitters that resulted and the increased motivation for hitting them and accepting an on-base that way rather than something more costly. Somewhat less famously, Domazlicky and Kerr's (1990) analysis of attendance following adoption of the designated hitter rule found that the rule did in fact increase AL attendance by a little more than 2,000 fans per

game. And recent work in the field of operations research has developed algorithms for optimizing pinch-hitting strategies in the presence of a DH rule (Hirotsu and Wright 2003).<sup>4</sup>

Yet, perhaps surprisingly, to date no one has examined public perceptions of the rule itself.<sup>5</sup> Here, we outline our theoretical expectations regarding the link between general attitudes – and, specifically, political attitudes – and support for the DH. We go on to specify a number of other likely influences on opinions towards the rule, before turning to our empirical analysis.

## **Ideology, Political Party, and the DH**

The concrete ramifications of the DH rule are clear to even the greenest student of the game. Defensively, designated hitters take away the fielding team's ability to "pitch around" batters late in the order, particularly with runners on base and/or two outs. The offensive implications of this are equally clear: replacing a weak batter with a strong one yields more offense, particularly more extra-base hits and home runs. More generally, the DH also allows pitchers to concentrate – some would say fixate – on pitching, and at the same time enables strong (and often older) batters with weak fielding and/or baserunning skills to remain on teams' rosters.

More philosophically, the DH rule embodies a number of key concepts. Perhaps the most significant of these is *change*: as we noted above, no more monumental alternation of the rules of the game had taken place before it, and none has since. Related to this is the nature of that change: the DH rule was, and is, a radical departure from the game's formerly-fundamental principal that every player should both come to bat and play a position in the field. By allowing pitchers to stay away from the plate, and (some) batters to avoid the field, the DH rule in effect creates two classes of players: those who "play both sides of the ball," and those who do not.

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<sup>4</sup>More generally, a large body of work has examined other social-scientific aspects of the nation's pastime. For example, a series of studies has examined the phenomenon of racial discrimination in the market for baseball cards; the most recent of these, by McGarrity et al. (1999), finds little evidence of such discrimination.

<sup>5</sup>In fact, in the mid-1980's, baseball commissioner Peter Ueberroth suggested doing just that, and was roundly criticized in certain circles (see below).

Finally, there are the rule's tertiary externalities. For example, as Goff et al. note, in nearly every season since its introduction, the AL has led the NL in the number of batters hit by pitches.<sup>6</sup> The DH has also allowed power-hitters to stay active longer, and has arguably increased the abilities of pitchers by allowing them to specialize to an even greater extent than before.

In light of the multifarious changes worked upon the game by the DH rule, the parallels between arguments over the DH and broader political and ideological debates grows clear. The most basic of these is the tension between tradition and change. Social-psychological studies of political conservatism note that one of the central principals of that philosophy is reverence for tradition and a corresponding resistance to change.<sup>7</sup> Conversely, those on the political left are typically more accepting – even welcoming – of change, particularly when those changes can be shown (or are believed) to yield tangible benefits. This line of reasoning suggests that those on the political right will be less likely to favor the DH rule, while those on the left will be more likely to support it.

Reinforcing our change-based rationale for the right's opposition to the DH rule is its effect – actual or perceived – on the culture of the game. Opponents of the designated hitter often make the claim that the practice seems to condone a lack of personal responsibility from the very players who play a pivotal (if not *the* pivotal) role in the game – pitchers and sluggers.<sup>8</sup> One of the bedrock Judeo-Christian values woven through American history and society, they argue, is the notion that individuals take responsibility for their own actions and fulfill their obligations to community and country. By allowing pitchers to avoid hitting, and some batters to avoid fielding, the DH rule is suggestive of a larger-scale decline in the culture of personal responsibility in America over the past several decades. To the extent that political conservatives are more likely

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<sup>6</sup>We would note that, while many of the rule's side-effects were undoubtedly anticipated by its creators, we sincerely doubt this one was.

<sup>7</sup>One line of research suggests that this resistance is a manifestation of deep-rooted insecurity and fear (Jost et al. 2003a,b; but see Greenberg and Jonas 2003 for an opposing view).

<sup>8</sup>Consider the following, from a die-hard opponent of the rule: “(W)hile I appreciate some of the older veterans hanging around the big leagues into their 40s, I think the DH rule insults the National League old-timer who keeps his roster spot as an everyday player or he hangs up his spikes for good” (Barry and Barry 2001).

than liberals to be receptive to this line of reasoning (cf. Feldman and Zaller 1992), it reinforces our expectation that it will be political conservatives – including individuals who identify with the Republican party<sup>9</sup> – who will most strongly oppose the rule.

A related issue is the impact of the rule on the play of the game. Critics of the DH often highlight what they perceive as its anticompetitive impact, particularly vis-a-vis coaching strategy. This condemnation is consistent with Lakoff's (2002) "Strict Father" morality, which he posits as the root of contemporary American conservatism. Lakoff asserts that "(C)ompetition is a crucial ingredient in such a moral system. It is through competition that we discover who is moral, that is, who has been properly self-disciplined and therefore deserves success." He goes on to note that "(C)ompetition is therefore moral... Correspondingly, constraints on competition are immoral; they inhibit the development and sustenance of the right kind of person" (2002, 68-9).

All of these sociopolitical dynamics suggest that, in general, support for the designated hitter should be low among political conservatives. And in fact, such conservatives have been among the most prominent critics of the rule.<sup>10</sup> Perhaps none has attained a higher profile in this regard than author and syndicated columnist George Will, whose two books on the subject of baseball (Will 1991, 1999) often blend commentary on baseball and politics. In the past, Will has roundly criticized the DH rule in his columns (all taken from Will 1999):

"(T)he rule is a middle-class entitlement program... and hence is partly to blame for the federal deficit."

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<sup>9</sup>The connection between ideology and political party is well-established in American politics. One recent authority, for example, notes that "(T)he Republican party is the party of nostalgia. It seeks to return America to a simpler, more innocent and moral past that never existed. The Democrats are utopians. They seek to create an America so fair and non-judgemental that life becomes an unbearable series of apologies" (Stewart et al. 2004).

<sup>10</sup>We should note, however, that conservative opposition to the rule is not monolithic; nor is support among left-leaning commentators uniform. Washington Post columnist David Broder, for example, is a long-time opponent of the rule, calling it "abominable" and "disastrous" (Broder 2001). However, a quick look at cyberspace shows a marked ideological cleavage over the issue, at times even falling along religious lines (e.g., Droleskey 2004).



“(Joe Cronin) is a defender of the American League’s sinister Bolshevism that already has inflicted the “designated hitter” on baseball and may, unless checked, produce even worse desecrations.”

“Peter Ueberroth must go. His reign as baseball commissioner is already six months old, and the wicked designated hitter rule has not been repealed. Worse – infinitely so – he is talking about taking an opinion poll on the subject. The mind reels. The thought occurs: ‘Death, where is thy sting?’.”<sup>11</sup>

## **Other Influences**

While we thus believe the case for political influences on attitudes towards the DH is, at least in theory, well-founded, such explanations are unlikely to exhaust the range of factors which contribute to peoples’ attitudes about the rule. Moreover, failing to account for such factors could lead us to inaccurate inferences about the true influence of the political considerations which are our main interest.<sup>12</sup> Accordingly, we outline a set of control variables which allow us more precisely to assess our main hypotheses.

### **Age**

At this writing, if the DH rule were a human being it would be a “thirtysomething.” Many Americans remember baseball before the advent of the DH, but an equally significant number do not. It would not be surprising, then, to uncover generational differences in opinion about the rule. We expect that younger respondents – many of whom have never known baseball without the DH – will be more likely to favor the rule, while older individuals will tend, all else equal, to oppose it.

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<sup>11</sup>More recently, however, Will appears to have mellowed somewhat in his assessment of the rule, suggesting that the rule “serves conservative values” by preserving decorum and ensuring that “only serious batters shall bat” (Will 1999, pp. 81-84).

<sup>12</sup>For example, failing to control for respondents’ age may yield dubious findings if – as we suspect is the case – older individuals are both more politically conservative and less likely to favor the rule.

## **Attitudes Toward Change in the Game**

As we noted above, a key aspect of the DH rule is the monumental change it represented in baseball. Beyond the political/ideological aspects of this change, it is also the case that individuals may differ in their attitudes toward changes in the game more generally. Baseball traditionalists – even if not political traditionalists – are likely to oppose any significant changes in the game’s rules, particularly those which are motivated by factors unrelated to the quality of the play on the field (e.g., increasing attendance and/or revenues). Fortunately, our data include two measures which tap this resistance to change. The first is an indicator of whether or not the respondent favors interleague play, a new development at the time of the survey. The second was whether or not s/he favored the geographic realignment of the leagues. In both cases, we would expect that, *ceteris paribus*, individuals who are more receptive to such changes would also be less likely to oppose the DH rule.

## **Race and Ethnicity**

At the outset, we submit that there is no strong theoretical reason to expect opinion on the designated hitter to vary systematically as a function of one’s race or ethnicity. However, interest in baseball is generally higher amongst hispanics than in the general population (Tygiel 2002), a fact at least partly attributable to the large proportion of Hispanic players in the league. In 2003, for example, 24% of the opening day rosters were born in Latin America or the Caribbean (Marcano and Fidler 2004), a figure which does not include American-born hispanics, and teams regularly acknowledge the significant Latino presence among their players and fans.<sup>13</sup> Conversely, Major League Baseball in 2005 had only one African-American manager (Ken Williams), and only 8.5% of the players were African-American, a substantial decline from the historical high of 27% in 1975 (Fish 2003) and a figure significantly less than either the NFL (69%) or the NBA (76%) (Lapchick 2005).

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<sup>13</sup>For example, the Baltimore Orioles routinely schedule an annual *Latino Night at Camden Yards* every September.

Accordingly, we expect sharply divergent results by race and ethnicity on individuals' attention to baseball, with Latinos having higher levels of interest and African-Americans lower levels. Additionally, we include racial variables in our model of support for the DH as well, both as general controls and to test the (admittedly impressionistic) hypothesis that African-Americans and/or Latinos tend to be more accepting of the rule. If there is an ideological basis for support, nuances by race may prove interesting.

## Geography

Ideological factors aside, fans are still fans, and will often forgive their favorite team(s) a myriad of sins. We suspect this is true for the DH as well: Even those individuals who may oppose the DH in principle might nonetheless accede to it if their season tickets are with the Red Sox or the Mariners. Likewise, we suspect that the strongest opinions against use of the DH will come from those individuals supporting National League teams.<sup>14</sup>

Ideally, then, our model would include a variable for the league to which each survey respondent's favorite team belongs. Unfortunately, we lack data on which – if any – team or teams are favored by our survey respondents. While one's city of residence is often an excellent proxy for team loyalty, that information is also unavailable, forcing us to adopt an even noisier measure: the state in which the respondent lived. Our expectation is that respondents from states with AL teams will, all else equal, be more likely to support the rule, while those from NL states will be less likely to do so.

## Data and Operationalization

Our data are drawn from a CBS monthly poll conducted September 18–20, 1997 (CBS News 1997).<sup>15</sup> The data are a national probability sample of adults, and provide the full range of

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<sup>14</sup>Of course, this is not to say that fans have a *choice* about whether their hometown team is an AL or NL team, except in the three largest cities.

<sup>15</sup>Data and commands necessary to replicate the analyses presented here are available at the author's website at <http://psblade.ucdavis.edu>.

standard political, economic, and demographic items, as well as an eclectic set of indicators on such varied topics as baseball, cyber-sex, and Armageddon. Five questions in the CBS survey focus on baseball. The first is a screening question, which asks: “How interested are you in watching or following major league baseball?” Respondents who answered “very interested” or “somewhat interested” were then asked a series of four follow-up questions relating to the sport; those who responded “not at all interested” were not asked any of the follow-up questions.<sup>16</sup> Of the 1051 total respondents to the survey, 440 (or 41.9 percent) expressed at least some interest in baseball, and received the follow-up questions.<sup>17</sup>

The measurement of greatest interest here is respondents’ answers to the question “How do you feel about the designated hitter, the DH rule? Do you approve or disapprove of it?”; respondents could answer “approve” or “disapprove.” Of the 440 respondents who answered this question, 217 (49.3 percent) approved, while 137 (31.1 percent) disapproved; the remaining 86 respondents (12.3 percent) didn’t know or failed to respond.

Our model covariates encompass measures of political party and ideology, as well as the control variables discussed above. We adopt a standard trichotomous party identification measure (**Democrat, Republican, and Independent**), which we disaggregate into three factors, omitting the latter for use as our reference category.<sup>18</sup> Similarly, the indicator we used to measure ideology (**Ideological Conservatism**) is coded as a three-point ordinal scale: liberal, moderate, and conservative; rather than treat this variable as a factor, we include it as a linear term. **Age** (in years) is included as an interval measure, while our measure for **Education** is a five-point ordinal scale: “Not a High School graduate,” “High School graduate,” “Some college,” “College graduate,” and “Post graduate work or degree (MA/MS, MBA, JD, Ph.D., etc.).”

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<sup>16</sup>In an interesting sidenote, 4.6 percent of those uninterested in baseball believed that the world would end in 2000, compared to 1.5 percent of those who expressed at least some interest in the sport ( $\chi^2_1 = 7.45, p = 0.006, \gamma = -0.53$ ). Perhaps more tellingly, four of the five baseball-following Armageddonites in our sample favored the DH rule, though this latter relationship failed to attain statistical – if not metaphysical – significance.

<sup>17</sup>Interestingly, this percentage is almost identical to that reported in a similar survey from nearly fifty years earlier (Strunk 1951, 382).

<sup>18</sup>Unlike some notable academic surveys, CBS does not ask further questions to obtain the strength of individual party identification, leaving us unable to test for party strength effects.

We also include a set of three dichotomous variables for geographical effects. We code two indicator variables for whether (=1) or not (=0) each respondent resided in a state that, as of 1997, was home to an American or National League team; those respondents from New York, Florida, Ohio, Illinois, Missouri, and California received a score of one on both variables. A third variable captures whether (=1) or not (=0) the respondent resided in a state with any major league team; we use this variable as a control in our model of interest in baseball. We also include dichotomous indicator variables **Black** and **Hispanic**, thus implying a reference category of whites and Asians.<sup>19</sup> Our two questions regarding the respondents' attitudes towards change in baseball are measured as dichotomous indicators of whether (=1) or not (=0) they **Favor Realignment** of baseball's divisions along geographic lines, and whether or not they **Favor Interleague Play**.

Finally, we employ three dichotomous demographic variables: **Employed**, **Female**, and **Catholic**. Education is a difficult effect to anticipate with baseball, whereas some evidence indicates declining interest in other sports with increased schooling. While it may appear to feed a stereotype, the authors' own experience in major league ballparks leads us to anticipate that females will, on average, show less interest in the game than their male counterparts. Catholic status allows us to look a group that is often socially conservative but not so elsewhere, thus adding nuance to the ideology measures. We also anticipate that some component of urbanness can be picked up with this demographic. Summary statistics for these variables are presented in Table 1.

As we noted above, our primary response variable of interest is support for the designated hitter rule, suggesting the application of a standard dichotomous choice model. However, the presence of the screening question raises the issue that a number of respondents do not follow the game, and thus our sample of responses on the DH question may suffer from selection bias. The standard approach to dealing with such a data-generating process is the well-known Heckman (1979) selection model, where a second-stage response  $Y_{1i}$  is only observed if some first-stage

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<sup>19</sup>In recent years, there has been a high-profile but low percentage increase in Japanese baseball players in major league baseball. To date, however, no evidence exists to assert that this has increased the sport's Japanese-American fan base.

threshold  $Y_{2i}$  is crossed.<sup>20</sup> In the analyses below,  $Y_{1i}$  corresponds to the (latent) degree of support for the DH rule, while  $Y_{2i}$  indexes the respondent's attention to the game.

We specify our model of the influences on support for the designated hitter as discussed above. For the model predicting attention to the game, we include a set of variables which are likely to predict respondents' interest in and/or attention to the sport. These include our three political indicators (**Democrat**, **Republican**, and **Conservatism**), as well as a measure of **Age** and **Age**<sup>2</sup> (on the intuition that younger and older people may be more able to follow baseball than those in their working years), our aforementioned **Education** variable, and dichotomous indicators of being **Employed**, **Hispanic**, **Black**, **Female**, and **Catholic**, plus our three regional indicators.<sup>21</sup>

## Analysis and Results

Our findings regarding public opinion about the designated hitter rule are presented in Table 2. Our model for interest in baseball provides several intriguing insights. First, the data suggest that partisans tend to follow the game: those identifying themselves as either Republicans or Democrats are both about equally more likely to be interested in baseball than self-identified independents. This suggests that it is partisanship in general, rather than identification with a particular party, that is linked to interest in the game, perhaps in that traditionalist fashion that not only encompasses baseball as the national sport, but also sees parties as traditional vehicles for individual political participation.

The resulting model has several other statistically reliable findings. Perhaps not surprisingly, women are less likely to be interested in baseball than men, to a very substantial degree. Hispanics, Catholics, and those from states in which major league teams are located are also more likely to follow the game, as against other ethnic groups, non-Catholics and those from other locales.

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<sup>20</sup>A technical description of the selection model used here is presented in Appendix B.

<sup>21</sup>We are mindful that the question of which factors cause some individuals to fail to follow baseball could itself be the topic for a paper. Our goal here is less to specify the ideal model of interest in baseball than to incorporate a set of factors that might otherwise bias our findings vis-à-vis the designated hitter question.

The combination of the first two findings leads us to believe that the effect for Catholicism is not simply a proxy for Latino heritage. One possible explanation for this fact is Catholics' predominance in the urban areas most likely to field a team; one recent study notes that, of the 48 U.S. metropolitan areas with more than 1 million people, Catholics form the largest religious group in 37 (or 77 percent) of them (Jones et al. 2002).<sup>22</sup>

Turning to the results for the DH opinion itself, we find the two consistently reliable results from the model of primary interest are political party (specifically, **Democrat**) and age. Consistent with our expectations, self-identified Democratic Party members are more likely to support the designated hitter rule than are either independents or Republicans. This implies (we think) that the values that draw the respondents to the Democrats are linked to those associated with supporting the rule. At the same time, the reverse is not true: Republicans are no more or less likely to support the DH rule than are political independents. Nor are self-identified political conservatives, once the effects of party are accounted for, any more likely to express hostility toward the rule than are liberals.<sup>23</sup>

The substantive implications of these findings are illustrated in Figure 1, which plots two sets of predicted probabilities against one another.<sup>24</sup> The X-axis shows predicted probabilities of interest in baseball, while the Y-axis indicates the probability of favoring the DH rule, conditional on following baseball.<sup>25</sup> Six values are displayed, corresponding to all possible combinations of gender and party identification. The largest difference occurs between the genders, with women both less likely to follow baseball and, at the margin, more likely to support the designated hitter.

<sup>22</sup>Moreover, both variables remain important predictors of attention to the game in a model which controls for the respondent's location type (urban or rural); estimates for the effect of the latter variable are both small and imprecise, as are those for interactions of the urban/rural indicator with the **AL State** and **NL State** variables. We thank an anonymous reviewer for pointing out the connection between Catholic identification and urbanism.

<sup>23</sup>We also estimated a "reduced-form" model, omitting the two party identification variables, to assess the impact of political ideology; we found none.

<sup>24</sup>All predicted probabilities are for a median case: an employed, 44-year-old, ideologically moderate, nonblack, non-Catholic, non-Latino from an AL state who favors both realignment and interleague play.

<sup>25</sup>Formally, the X-axis plots  $\Pr(Y_2 = 1 | \tilde{\mathbf{X}}_2, \hat{\beta}_2) = \Phi(\tilde{\mathbf{X}}_2 \hat{\beta}_2)$ , while the Y-axis is  $\Pr(Y_1 = 1 | Y_2 = 1, \tilde{\mathbf{X}}_1, \hat{\beta}_1) = \frac{\Phi_2(\tilde{\mathbf{X}}_1 \hat{\beta}_1, \tilde{\mathbf{X}}_2 \hat{\beta}_2, \hat{\rho})}{\Phi(\tilde{\mathbf{X}}_2 \hat{\beta}_2)}$  (Greene 2003), where  $\tilde{\mathbf{X}}_1$  and  $\tilde{\mathbf{X}}_2$  are values of  $\mathbf{X}_1$  and  $\mathbf{X}_2$  for which predictions are desired.

Within gender groups, we see clear evidence of party effects: independents are consistently less likely to follow the game, while Democrats are equally consistently likely to support the rule.

At least three other findings deserve some mention. Our estimate for the effect of age is, as expected, negatively signed, implying that older respondents are less likely to support the designated hitter rule. Note again that this effect remains even after controlling for the (very slight) positive relationship between age and political conservatism. Perhaps older followers of baseball are more “traditional” and therefore find the designated hitter rule to be a less “pure” form of baseball. While estimated less precisely ( $p = 0.16$ , two-tailed), we also uncover less support for the rule among Latinos. We also fail to find support for either the general “change” argument or for geographical differences; the signs of the point estimates for the former variables are in the expected direction, but neither is estimated with any amount of precision, while those for the latter variables are both considerably smaller than their standard errors.

## Conclusion

The year 1973 was a tumultuous one in sports. All around was momentous change: the Miami Dolphins garnered the first undefeated NFL season with a win in Super Bowl VII, tennis brought us the “battle of the sexes” between Billie Jean King and Bobby Riggs, and George Steinbrenner acquired the Yankees from CBS. The introduction of the DH, however, was likely the sporting world’s most important and lasting legacy of that remarkable year, and the one which has sparked the most debate since.

Our goal here was simple: to elaborate and examine empirically the idea that attitudes about the DH rule are linked to Americans’ larger socio-political beliefs and attitudes. Our evidence to this effect, while not overwhelming, is nonetheless strongly suggestive: while political partisans on both sides of the aisle care more about baseball than their independent counterparts, it is Democrats alone who favor the rule more than others. The former findings fits nicely into the general understanding of baseball as a central part of American culture, including political



culture. As Dennis notes, conventional views of political partisanship considers partisans “the heroes of Lockean-style democracy, because of their high attentiveness, motivation, participation, and principled behavior. In contrast, Independents...(are) thus portrayed as the null case, the dismal residuum left in the wake of the more vigorous, well-directed Democrats and Republicans” (1992, 262). While we uncover no direct evidence for the liberalism/DH connection,<sup>26</sup> our findings with respect to Democrats and the DH rule square neatly with the theoretical expectations set forth above.

More broadly, to the extent that political ideologies embody consistent perspectives on a range of issues in public life, we would be unsurprised to find similar linkages between them and opinions about other sports-related phenomena (e.g., the NCWO’s request that Augusta National golf course accept female members, or baseball’s ongoing controversy over steroid use). As with so many other issues of contemporary interest, such phenomena often take on a recognizably (if not explicitly) ideological and/or partisan quality; those qualities, in turn, reflect the core values that are expressed by such “routine” communications. At the end of the day, then, we believe that even the most apparently superficial opinions – including those about sports – embody and express citizens’ underlying values, and so can serve as useful barometers of social and political ideology.

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<sup>26</sup>One important caveat has to do with the nature of the survey instrument. Our argument regarding the DH is one which has the potential to divide social and economic conservatives, and it is possible that, had the survey instrument distinguished between social and economic conservatives, we may have uncovered the hypothesized relationship.

# Appendix A: The Designated Hitter Rule

## Official Rules of Major League Baseball

### Section 6.10

Any League may elect to use the Designated Hitter Rule. (a) In the event of inter league competition between clubs of Leagues using the Designated Hitter Rule and clubs of Leagues not using the Designated Hitter Rule, the rule will be used as follows: 1. In World Series or exhibition games, the rule will be used or not used as is the practice of the home team. 2. In All Star games, the rule will only be used if both teams and both Leagues so agree. (b) The Rule provides as follows: A hitter may be designated to bat for the starting pitcher and all subsequent pitchers in any game without otherwise affecting the status of the pitcher(s) in the game. A Designated Hitter for the pitcher must be selected prior to the game and must be included in the lineup cards presented to the Umpire in Chief. The designated hitter named in the starting lineup must come to bat at least one time, unless the opposing club changes pitchers. It is not mandatory that a club designate a hitter for the pitcher, but failure to do so prior to the game precludes the use of a Designated Hitter for that game. Pinch hitters for a Designated Hitter may be used. Any substitute hitter for a Designated Hitter becomes the Designated Hitter. A replaced Designated Hitter shall not re enter the game in any capacity. The Designated Hitter may be used defensively, continuing to bat in the same position in the batting order, but the pitcher must then bat in the place of the substituted defensive player, unless more than one substitution is made, and the manager then must designate their spots in the batting order. A runner may be substituted for the Designated Hitter and the runner assumes the role of Designated Hitter. A Designated Hitter may not pinch run. A Designated Hitter is "locked" into the batting order. No multiple substitutions may be made that will alter the batting rotation of the Designated Hitter. Once the game pitcher is switched from the mound to a defensive position this move shall terminate the Designated Hitter role for the remainder of the game. Once a pinch hitter bats for any player in the batting order and then enters the game to pitch, this move shall terminate the Designated Hitter role for the remainder of the game. Once the game pitcher bats for the Designated Hitter this move shall terminate the Designated Hitter role for the remainder of the game. (The game pitcher may only pinch hit for the Designated Hitter). Once a Designated Hitter assumes a defensive position this move shall terminate the Designated Hitter role for the remainder of the game. A substitute for the Designated Hitter need not be announced until it is the Designated Hitter's turn to bat.

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## Appendix B: A Binary-Response Selection Model

Heckman's (1979) model begins with two equations for each individual ( $i = 1, \dots, N$ ):

$$Y_{1i} = \mathbf{X}_{1i}\boldsymbol{\beta}_1 + \epsilon_{1i} \quad Y_{2i} = \mathbf{X}_{2i}\boldsymbol{\beta}_2 + \epsilon_{2i}$$

where  $\mathbf{X}_{1i}$  is a  $p$ -length vector of observed covariates,  $\mathbf{X}_{2i}$  is a  $q$ -length vector of covariates,  $\boldsymbol{\beta}_1$  and  $\boldsymbol{\beta}_2$  are the corresponding coefficients to be estimated. The error terms in these two equations are assumed to have the characteristics:

$$E[\epsilon_{1i}] = E[\epsilon_{2i}] = 0 \quad E[\epsilon_{1i}\epsilon_{2j}] = \begin{cases} \sigma_{ij}, & \text{for } i = j \\ 0, & \text{for } i \neq j \end{cases}$$

That is, the errors are assumed to be mean-zero, homoscedastic, but potentially correlated within observations across the two equations. Here, we are centrally concerned with  $\boldsymbol{\beta}_1$ ; if  $\epsilon_{1i}$  and  $\epsilon_{2i}$  are independent, then the data on  $Y_{1i}$  are missing randomly and  $E[\epsilon_{1i}] = 0$ , thus permitting  $\boldsymbol{\beta}_1$  to be estimated without bias. Here, however, we have reason to believe that this latter condition does not hold; in particular, since values of  $Y_{1i}$  are not observed unless  $Y_{2i} \geq 0$  (where zero here is an arbitrary threshold obtained by normalization), failing to account for the factors influencing  $Y_{2i}$  will lead to a form of specification bias. Rearranging the above second equation and recognizing this dependence gives:

$$E(Y_{1i}|\mathbf{X}_{1i}, Y_{2i} \geq 0) = \mathbf{X}_{1i}\boldsymbol{\beta}_1 + E[\epsilon_{1i}|\epsilon_{2i} \geq -\mathbf{X}_{2i}\boldsymbol{\beta}_2].$$

This shows the bias resulting from ignoring the selection effect and thus allowing it to fall to the error term. Here, our model is slightly more complex, taking the form of a generalized linear model with a link function  $g(\cdot)$  appropriate to the dichotomous nature of  $Y_{1i}$  (cf. Van de Ven and Van Pragg 1981):

$$E(Y_{1i}|\mathbf{X}_{1i}, Y_{2i} \geq 0) = g^{-1}(\mathbf{X}_{1i}\boldsymbol{\beta}_1) + E[\epsilon_{1i}|\epsilon_{2i} \geq -\mathbf{X}_{2i}\boldsymbol{\beta}_2].$$

Despite these complexities, Heckman (1979) demonstrated that the likelihood function for this model is easily derived, and many statistical software packages provide this model in "canned" form. The estimates herein were obtained using Stata 9.1.

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Table 1: Summary Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
<b>Outcome Variables</b>				
Interest in Baseball	0.33	0.47	0	1
DH Approval*	0.60	0.49	0	1
<b>Covariates</b>				
Republican	0.30	0.46	0	1
Democrat	0.32	0.47	0	1
Ideological Conservatism	2.10	0.73	1	3
Age	44.3	15.7	18	93
Favor Realignment*	0.52	0.50	0	1
Favor Interleague Play*	0.83	0.38	0	1
Education	2.94	1.15	1	5
One or More MLB Teams in the State	0.62	0.49	0	1
AL State	0.52	0.50	0	1
NL State	0.47	0.50	0	1
Black	0.10	0.31	0	1
Hispanic	0.04	0.20	0	1
Employed	0.69	0.46	0	1
Female	0.53	0.50	0	1
Catholic	0.22	0.41	0	1

Note:  $N = 843$ , except for variables marked with an asterisk, where  $N = 275$ . See text for details regarding variables and their operationalizations.



Table 2: A Model of Support for the Designated Hitter Rule

	Coefficient Estimate	Robust S.E.	95% Confidence Interval	
<i>Determinants of Interest in Baseball</i>				
<b>(Constant)</b>	-0.820	0.344	[-1.495	-0.145]
<b>Republican</b>	0.279	0.096	[0.091	0.466]
<b>Democrat</b>	0.251	0.010	[0.056	0.446]
<b>Ideological Conservatism</b>	-0.023	0.053	[-0.127	0.080]
<b>Employed</b>	0.082	0.094	[-0.102	0.266]
<b>Age</b>	0.018	0.013	[-0.009	0.044]
<b>Age<sup>2</sup> / 100</b>	-0.017	0.014	[-0.045	0.010]
<b>Hispanic</b>	0.343	0.175	[0.001	0.685]
<b>Black</b>	-0.008	0.132	[-0.267	0.251]
<b>Female</b>	-0.826	0.083	[-0.989	-0.662]
<b>Catholic</b>	0.168	0.087	[-0.003	0.339]
<b>Education</b>	0.006	0.032	[-0.056	0.069]
<b>One or More MLB Teams in State</b>	0.200	0.079	[0.044	0.356]
<i>Determinants of Support for the Designated Hitter</i>				
<b>(Constant)</b>	-0.493	0.454	[-1.384	0.398]
<b>Democrat</b>	0.434	0.162	[0.116	0.752]
<b>Republican</b>	0.193	0.165	[-0.131	0.517]
<b>Ideological Conservatism</b>	0.037	0.093	[-0.144	0.219]
<b>Age</b>	-0.010	0.004	[-0.018	-0.001]
<b>Favor Realignment</b>	0.145	0.132	[-0.115	0.404]
<b>Favor Interleague Play</b>	0.198	0.174	[-0.142	0.540]
<b>Education</b>	-0.061	0.061	[-0.181	0.059]
<b>AL State</b>	0.082	0.144	[-0.200	0.365]
<b>NL State</b>	0.070	0.139	[-0.203	0.342]
<b>Black</b>	-0.109	0.217	[-0.534	0.316]
<b>Hispanic</b>	-0.408	0.295	[-0.986	0.170]
$\hat{\rho}$	0.761	0.135	[0.353	0.926]

Note:  $N = 843$ . Confidence intervals are two-tailed; see text for details regarding variables and their operationalizations.

Figure 1: Predicted Probabilities, by Gender and Party Identification

