There are two contending accounts of cross-national variation in voter turnout rates. One emphasizes the role of institutions and electoral attributes, whereas the other stresses cultural and historical factors. The authors evaluate the merits of these two arguments. They first apply the model developed by R. W. Jackman to turnout rates during the 1980s, expanding the sample of industrial states to include three newer democracies with recent authoritarian histories: Greece, Portugal, and Spain. They then examine the potential impact of cultural variables on voter turnout rates. The authors conclude that the institutional argument outperforms the cultural account of conventional political participation.

VOTER TURNOUT IN THE INDUSTRIAL DEMOCRACIES DURING THE 1980s

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Why are rates of political participation higher in some countries than they are in others? Two broad arguments provide rival accounts. One emphasizes long-term cultural and historical forces, whereas the other stresses the role of institutions and electoral attributes. Our purpose is to provide further evidence to judge the merits of these competing perspectives.

Almond and Verba (1963) remains the classic statement of linkages between enduring cultural values and participation, and Inglehart (1990) and Putnam (1993) exemplify the most recent variants. In participatory cultures,

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according to this interpretation, citizens are more politically satisfied with their institutions and therefore are more politically efficacious. Cultures that foster such values thereby enhance participation in general and voter turnout in particular. To the extent that they encourage more passive values, other political cultures inhibit participation.

The principal alternative to the cultural explanation of voter turnout stresses institutional factors. An early analysis in this genre was reported by Gosnell (1930). Among students of American politics, debate continues over the impact on turnout of legal factors such as residency requirements and registration procedures (see, e.g., Nagler, 1991; Teixeira, 1992; Wolfinger & Rosenstone, 1980). More generally, Powell (1986) and Jackman (1987) have concluded that variations in turnout rates across the industrial democracies during the 1960s and 1970s are largely a function of institutional arrangements embodied in electoral laws.

Our purpose is to evaluate the validity of these contending perspectives in two general ways. First, we examine the connections between the institutional factors discussed by Jackman and voter turnout rates in 22 democracies during the 1980s. Our analysis includes Greece, Portugal, and Spain, critical cases because their citizens have recently and directly experienced transitions from authoritarian regimes, a form that usually seeks to minimize mass political participation (see, e.g., Linz, 1975; Nelson, 1987; O'Donnell & Schmitter, 1986).[1] Indeed, because none were democracies for a majority of the years from 1960 to 1980, these three countries were not examined by Jackman. Second, we directly consider possible linkages between the cultural factors proposed by scholars since Almond and Verba and turnout during the 1980s. This part of the analysis draws on fresh data derived from Inglehart (1990).

INSTITUTIONS AND VOTER TURNOUT, 1981-1990

We begin by extending Jackman's (1987) analysis of the impact of institutional factors on turnout. Whereas that analysis centered on voter participation during the two decades between 1960 and 1980, we examine turnout from 1981 to 1990. Further, whereas Jackman examined 19 democracies, we expand the set of observations to include three new democracies: Greece, Portugal, and Spain. These additional cases are of crucial signifi-

1. Limited participation is central to Linz's (1975) definition of authoritarian regimes, and is one of the features said to distinguish them from totalitarian regimes (see also Linz 1978).

cance because they have all been taken to epitomize authoritarian political cultures typical of the European southern cone that one would expect to inhibit turnout (Giner, 1986). For example, the eligible electorate was a small segment of the population in Portugal, and participation (votes as a proportion of the total population) grew from a paltry 5.3% in 1934 to only 15.4% in 1973 (Schmitter, 1978, p. 147). Although the Greek military junta was relatively short-lived, authoritarianism persisted for approximately two generations in Portugal (1932-1974) and Spain (1939-1975). By 1980, all three were, at best, new democracies. Given the recency of their democratic transitions and of their authoritarian pasts, these countries are especially good cases for evaluating the relative merits of institutional and cultural explanations of political participation. The cultural argument would lead us to anticipate distinctively lower rates of participation in the new democracies than we would expect from the institutional perspective. We return to this issue later.

Jackman proceeded on the general assumption that political institutions shape the distribution of incentives for political actors, whether candidates for office or simply potential voters. More specifically, he argued that five institutional factors influence voter turnout, as follows.

Nationally Competitive Elections

Voter turnout should reflect the structure of political competition. Powell (1986) and Jackman (1987) addressed this question by evaluating the extent to which electoral districts are nationally competitive.[2] According to Powell, "With proportional representation from the nation as a whole or from large districts, parties have an incentive to mobilize everywhere. With single-member districts, some areas may be written off as hopeless" (p. 21). Both Powell and Jackman found that countries with more nationally competitive districts have higher rates of turnout. This is consistent with Gosnell's (1930) argument that the presence of such districts provides incentives for parties and candidates to mobilize voters everywhere, which increases turnout.

Electoral Proportionality

Whereas it is unlikely that any one vote will be decisive in shaping the overall outcome of an election,[3] some electoral systems raise the potential

2. Powell also examined the closeness of elections to check whether close elections give citizens more reason to vote and give parties more reason to mobilize voters. However, he found no evidence to support this expectation.

3. See Aldrich (1993) for an interesting discussion of the implications of this point.

decisiveness of the marginal vote. The degree of proportionality in the translation of votes into seats in the lower legislative house is central in this respect. Highly disproportional systems require minor parties to accumulate many more votes to achieve a given degree of legislative representation, thereby diminishing the benefits of voting for the supporters of those parties. The greater the disproportionality, then, the more likely the votes of minor party supporters are to be wasted. Disproportionality in the translation of votes into legislative seats should therefore lower voter turnout.

Number of Parties

By contrast, institutional arrangements that allow elections a more decisive role in government formation should increase voter turnout. The principal factor here is the number of political parties. As Downs (1957) has argued, voters in multiparty systems that produce coalitions face a fundamental problem: They do not directly select the government that will govern them. Instead, they vote for parties that select a government in the legislature so that "ambiguity and compromise are introduced on a secondary level whenever coalitions are formed" (p. 155). This indicates that elections play a less decisive role in government formation within multiparty systems. Where elections are less decisive in this sense, citizens have fewer incentives to vote. Multipartyism should therefore depress turnout.

Unicameralism

Beyond the issue of the decisiveness of elections in government formation is the question of the decisiveness of the governments that ensue.[4] Jackman suggested that the degree to which the first legislative body is constrained or checked by other institutions is the relevant quantity. That is, unicameralism is crucial to producing decisive governments. Where there is no second house, governments based on the first house do not have to compete and compromise with another legislative chamber. By contrast, where there is strong bicameralism, legislation can be produced only by compromise between members of the two houses. This means that elections for the lower house play a less decisive role in the production of legislation where bicameralism is strong. Unicameralism should therefore foster turnout.

4. We are hardly the first to address the role of electoral decisiveness. Most attention, however, has centered on the role of decisiveness in the process of government formation rather than on the decisiveness of the governments that ensue (e.g., Dahl, 1966; Rae, 1971a; Strom, 1990). And electoral decisiveness is seldom seen as part of the institutionally induced incentive structure that shapes the volume of electoral participation.

As Jackman (1987) pointed out, these four factors are somewhat interrelated, for the reasons advanced by Duverger (1963), Rae (1971b), and Lijphart (1990), among others. However, these interrelations are not overwhelming, and most democracies include mixtures of these four features. Thus their separate effects on voter turnout can be explored fruitfully.

Mandatory Voting Laws

Some democracies (Australia, Belgium, Italy, and, since the constitution of 1975, Greece) have laws that mandate voting. Such laws should increase turnout (Gosnell, 1930, pp. 184-185; Jackman, 1987; Tingsten, 1937). However, whereas the presence of mandatory voting laws does provide a disincentive for nonvoting that should increase turnout, the penalties for disobedience are neither uniform nor always severe, and there is thus no reason to expect universal compliance with these laws.

ANALYSIS

Our evaluation of the role of institutional factors examines voter turnout in the industrial democracies with populations over 1 million identified in Appendix A. As noted by both Powell and Jackman, 2 of these 22 democracies have atypical patterns of voter turnout: Switzerland and the United States. Our analyses here address the idiosyncratic features of Swiss and American politics.

Measures

The dependent variable is the average voter turnout, 1981-1990, expressed as a percentage of the eligible population. Note that the eligible population is not restricted to those registered to vote but includes all of those population members of voting age.[5] Note also that, with two exceptions, the turnout figures refer to elections for the first (or lower) legislative house. Following Powell and Jackman, the figures for France and the United States reflect average turnout in presidential elections. Total turnout figures are taken from Mackie and Rose (1991). The eligible voting population was calculated for each country from data reported by the United Nations (1984, 1990). Country

5. This procedure follows the treatments by Powell and Jackman. Others have employed the size of the registered electorate as the denominator (e.g., Blais & Carty, 1990), but discrepancies between the size of the electorate and that of the age-eligible population are themselves a function of legal and institutional arrangements.

values are listed in the first column of Appendix A, along with further details on the calculation of voting rates.

To gauge the degree to which there are nationally competitive districts, we employ Powell's figures. Countries with national elections by proportional representation or a national pool for some legislative districts or a simple national presidential vote are assigned a score of 4; those with proportional representation in large districts receive a score of 3; countries with proportional representation and three to five members per district are scored 2; and countries with single-member or winner-take-all districts receive the lowest score of 1. Values for this variable are listed by Powell (1986, p. 38).[6]

The measure of electoral disproportionality is an updated version of Lijphart's (1984, pp. 160-165) index of disproportionality. Lijphart's index takes the average vote-seat share deviation of the two largest parties during the years from 1945 to 1980, and we have modified the measure to include the years from 1945 to 1990, using information from Mackie and Rose (1991). The most proportional system during the period was Denmark with a score of 0.9, whereas the least proportional was France (Fifth Republic) with a score of 10.6. Country values are listed in Appendix A.[7]

Multipartyism is gauged with a measure of the effective number of political parties in the legislature developed by Laakso and Taagepera (1979): The higher the score, the greater the distance from a pure two-party system. Data are again an updated version of those in Lijphart (1984, Table 7.3) and are based on the figures in Mackie and Rose (1991) for the 1945-1990 period.[8] Scores range from 1.9 (New Zealand and the United States) to 5.0 (Finland and Switzerland) and are also listed in Appendix A.[9]

Unicameralism is measured using the criteria proposed by Lijphart (1984, pp. 212-213), who identifies two features as particularly important. First, he asks, is bicameralism asymmetrical in a manner that favors the lower house, or is it symmetrical (as in Belgium and Italy)? The more symmetrical, the stronger the bicameralism. Second, is bicameralism "congruent" in the sense

6. Our source on Greece for this variable is Featherstone (1987), from which we have assigned a score of 2 on this variable. Given the information in Mackie and Rose (1991, pp. 503-511), we have assigned Portugal a score of 3, which is the same as the score assigned to Spain by Powell.

7. Electoral disproportionality figures for Greece, Portugal, and Spain are based on elections held between 1981 and 1990.

8. In the case of France, Lijphart treats the Fourth and Fifth Republics separately. The measures of electoral disproportionality and multipartyism employed here refer to the Fifth Republic.

9. Multipartyism figures for Greece, Portugal, and Spain are based on the 1981-1990 elections.

that both houses are very similar in composition, or do the two houses reflect very different sets of interests? The more congruent, the weaker the bicameralism. Employing these criteria, Lijphart assigns the highest score of 4 for unicameral arrangements, 3 for congruent and very asymmetrical bicameralism, 2 for incongruent and very asymmetrical bicameralism, 1 for bicameralism, and 0 for strong bicameralism. Country scores are made on the basis of Lijphart's empirical classifications in his Tables 6.3 and 6.4 except that Sweden is scored 4 because that country adopted a unicameral legislature in 1970 (see Lijphart, 1984, p. 213, for the scoring system).[10]

Finally, compulsory voting laws are represented by a dummy variable that equals 1 where such laws are present and 0 otherwise. Four countries receive a score of 1 on this variable for the 1981-1990 period: Australia, Belgium, Greece, and Italy (Mackie & Rose, 1991, p. 509).

Table 1 displays the summary statistics for all variables. Average turnout during the 1980s ranged from 41% (Switzerland) to 93% (Italy), with a mean of 77.2% and a standard deviation of 11.6%. As is evident in Appendix A, Switzerland and the United States have extreme (low) turnout values. With these two cases removed, the minimum turnout score is 69% (Canada), the mean is a slightly higher 80.3%, and the standard deviation is halved (to 5.8%). Thus, as is clear from the first column of Appendix A, Switzerland and the United States are responsible for a good portion of the observed variance in turnout across the 22 democracies. Removing these two cases has no comparable impact on the summary statistics for the explanatory variables in Table 1, which is evidence that the distinctively low turnout rates of Switzerland and the United States are not due to the institutional factors listed in Table 1. We address this issue directly in the following.

Coefficient Estimates

Table 2 presents the coefficients for three separate tests. The first column shows the estimates for turnout, 1981-1990. Column 2 displays the corresponding estimates for the 1970s reported by Jackman (1987, Table 2, column 2). Overall, the striking feature of the figures in column 1 is their similarity to those reported in column 2. All coefficient estimates have the expected sign, and each is more than twice the size of its standard error. With the exception of the Switzerland and U.S. dummy variables, all the coefficients are slightly smaller than the coefficients reported in column 2. But none

10. Both Greece and Portugal have unicameral legislatures (Crewe, 1981, Table 10.2) and hence receive scores of 4. Spain has a bicameral legislature, and we have assigned it a score of 1 in light of the discussion in Donaghy and Newton (1987, chap. 4).

Table 1
Summary Statistics for All Variables (N = 22)

Variable	Minimum	Maximum	Mean	Standard Deviation
Voter turnout	41.0	93.0	77.18	11.62
Nationally competitive districts	1.0	4.0	2.68	1.13
Electoral disproportionality	0.9	10.6	3.93	2.81
Multipartyism	1.9	5.1	3.28	1.04
Unicameralism	0.0	4.0	2.18	1.56
Compulsory voting	0.0	1.0	0.18	0.39

Table 2
Effects of Institutional Characteristics on Voter Turnout in the Industrial Democracies, 1981-1990, and Corresponding Estimates for 1971-1980

	1[a]	2[b]	3[c]
Nationally competitive districts	2.94	3.56	2.36
	(3.7)	(3.7)	(3.2)
Electoral disproportionality	–0.72	–0.79	–0.70
	(2.7)	(2.5)	(2.5)
Multipartyism	–1.94	–2.99	–1.76
	(2.1)	(2.5)	(1.6)
Unicameralism	1.12	1.69	1.04
	(2.5)	(2.4)	(2.2)
Compulsory voting	12.19	13.09	11.87
	(7.4)	(4.9)	(6.9)
Switzerland dummy	–33.11	–29.62	–33.17
	(9.8)	(6.4)	(8.9)
United States dummy	–20.49	–17.62	–20.42
	(6.5)	(4.3)	(6.1)
Constant	76.28	78.37	75.81
	(20.8)	(17.7)	(19.0)
R^2	.97	.96	.96
N	22	19	22

Note. All *t* ratios are in parentheses below coefficients.
a. In this column, the measure of multipartyism is based on the Laakso-Taagepera (1979) formulation.
b. These estimates are for 1971-1980 and are from Jackman (1987, Table 2, column 1).
c. In this column, the measure of multipartyism is based on Molinar's (1991) formulation.

of these shifts is pronounced, and the differences across the two columns in each of the first five coefficients is well under one standard error.

This is the case even though the estimates for the 1980s are based on updated measures of electoral disproportionality and the effective number of

political parties and include three more cases: Greece, Portugal, and Spain. The figures in the first column of Table 2 therefore establish that turnout in the three new European democracies responds to the same factors that influence participation in their more established counterparts, despite the recency of their authoritarian histories. Further, the differences across decades in these five coefficient estimates carry no substantive weight, whereas the two country dummy variables are almost identical. Inclusion of these dummies means, of course, that Switzerland and the United States have effectively been removed from the analysis. Thus the same estimates and t ratios for the five explanatory variables are obtained with these two cases excluded ($N = 17$), and the R^2 is reduced to .820 (F ratio = 9.99).[11]

However, the estimates in the first column of Table 2 are based on a relatively small set of cases even though that set exhausts the relevant population of industrial democracies in existence since the mid-1970s. It is therefore important to gauge the robustness of the estimates to ensure that they do not stem from quirks in the data. We do this in four ways.

First, our measure of multipartyism in column 1, which employs the procedure proposed by Laakso and Taagepera (1979), has recently come under criticism. Molinar (1991) argues that, in certain instances, this measure overstates the size of the largest party. He proposes an alternative approach to the number of parties, which he claims outperforms the Laakso-Taagepera index under particular conditions. Consequently, one way in which we can evaluate the robustness of our results is to reestimate the model substituting Molinar's index for that of Laakso and Taagepera.[12] The estimates so obtained are reported in the third column of Table 2. Comparing columns 1 and 3 in this table indicates that the substitution of Molinar's measure of multipartyism leads to no sign reversals and has no pronounced effect on the size of the coefficients. True, the coefficient for multipartyism is 10% smaller in the third column, and its t ratio drops from 2.1 to 1.6 (the latter ratio has a p value that is slightly less than .07 using a one-tailed test). But these are minor differences. Overall, one is led to the same substantive conclusions about the impact of institutional arrangements on voter turnout with either of the two measures of multipartyism.

11. By contrast, the country dummies for the 1960s reported by Jackman (1987, Table 3) were –43 for Switzerland and –8 for the United States. The larger negative coefficient for Switzerland during the 1960s reflects the fact that women were not enfranchised until 1971. The smaller negative country estimate for the United States reflects the decline in turnout that began after 1960 but which was most pronounced between 1968 and 1972 (see Teixeira, 1992).

12. To ensure comparability with the earlier figures, we have employed Molinar's procedure to calculate the effective number of parties over the years from 1945 to 1990.

Table 3
Effects of Institutional Characteristics on Voter Turnout Using Random Numbers (three different trials) for the Three New Cases (Switzerland and United States excluded; N = *20)*

	1	2	3
Nationally competitive districts	–0.09	2.61	1.16
	(0.1)	(2.1)	(0.9)
Electoral disproportionality	–0.83	–0.25	–0.80
	(1.8)	(0.5)	(1.6)
Multipartyism	0.15	–1.57	–1.57
	(0.1)	(1.0)	(1.0)
Unicameralism	0.34	1.52	1.43
	(0.4)	(1.7)	(1.6)
Compulsory voting	6.83	9.60	9.34
	(2.1)	(3.2)	(3.3)
Constant	81.88	73.93	80.69
	(12.9)	(10.9)	(12.4)
R^2	.44	.53	.56

Note. All *t* ratios are in parentheses below coefficients.

Second, we checked the possibility that these estimates could have been obtained with the addition of *any* three cases to the original 19 cases. To do this, we replaced values for the three new democracies with three sets of randomly generated observations on all the explanatory variables. Table 3 displays the results.[13] Comparing across columns, it is apparent that all coefficient estimates (including those for the constant) fluctuate wildly when randomly generated data are substituted for the observed information from Greece, Portugal, and Spain. Moreover, none of the sets of estimates in Table 3 is consistent with those in the preceding two tables, and none would warrant the inferences drawn from the earlier tables. Thus the parallels between the coefficients in Table 2 are manifestly not due to chance. Instead, they reflect a similar structure among the observed variables in the three new democracies.

As a third check on the robustness of the results in Table 2, we examined regression diagnostics (on which, see, e.g., Belsley, Kuh, & Welsch, 1980; Bollen & Jackman, 1990). Specifically, we checked for the presence of possibly influential data points that could be either driving or distorting the coefficient estimates. Inspection of Cook's measure of distance (Cook's *D*) identified two cases (Greece and New Zealand) as potential problems al-

13. The only constraint that we placed on the randomly generated numbers for the right-hand-side variables was that they fall within the ranges for the corresponding variables reported in Table 1. For ease of presentation, we have directly excluded Switzerland and the United States from the calculations in Table 4. Note also the precipitous decline in the coefficients of determination in Table 4 over the baseline figure of .820 for $N = 17$ reported previously.

though the partial leverage regression plots appeared reasonable.[14] Further analyses omitting these two cases singly and jointly show that they are neither driving nor distorting the estimates in any fundamental manner. Additionally, reestimating both models in Table 2 (first and third columns) with a robust regression estimator (on which, e.g., see Berk, 1990) produced figures that are substantively quite similar to the ordinary least squares (OLS) estimates reported.

Finally, following Powell and Jackman, we have aggregated the data by decade. It could be argued that such an aggregation is arbitrary in general and ignores temporal fluctuations in turnout in particular. For example, Radcliff (1992) has claimed that economic conditions systematically affect temporal fluctuations in turnout during the years since 1960. To investigate the sensitivity of our estimates to the 10-year aggregation we employed, we reorganized the data so that the unit of analysis is a country election and estimated a pseudo-pooled model.[15] The results of this procedure, detailed in Appendix B, indicate that the effects of the institutional factors we have identified persist with the movement away from the aggregation by decade to a pooled approach that covers the 30 years starting with 1960.[16]

In all, these four different evaluations indicate that the principal coefficient estimates in the first column of Table 2 are quite robust.

IS A CULTURAL INTERPRETATION OF TURNOUT SUPERIOR?

Our analysis to this point suggests that the institutional model provides a reasonable explanation for variations across democracies in turnout and that this is the case even for the new democracies. We now need to assess the ability of the cultural perspective to account for the same political outcome.

To address this question, we need to be clear about the characteristic features of the cultural interpretation of political participation. Inglehart (1990) offers a straightforward statement:

14. Greece and New Zealand are not the only cases with large outliers (i.e., residuals). In fact, the largest outlier is estimated for Japan. This underscores the point that influential points are a special kind of outlier, and therefore not all outliers are influential data points that exert undue leverage on the estimates (on this, see Bollen & Jackman, 1990; Chatterjee & Price, 1991).

15. We describe this as a pseudo-pooled design because the time between elections typically varies both within and across countries.

16. The estimates in Appendix B also undermine Radcliff's suggestion that economic growth rates have a *positive* effect on turnout.

> The political culture approach is distinctive in arguing that (1) people's responses to their situations are shaped by subjective orientations, which vary cross-culturally and within subcultures; *and* (2) these variations in subjective orientations reflect differences in one's socialization experience, with early learning conditioning later learning, making the former more difficult to undo. Consequently, action can *not* be interpreted as simply the result of external situations: Enduring differences in cultural learning also play an important part in shaping what people think and do. (p. 19; emphasis in original)

Thus described, the distinguishing elements of cultural accounts are their emphases on the *durability* of norms arising from early socialization and on the limited impact of "external situations."

This durability was, of course, central to earlier treatments of political culture. Verba (1965), for example, stressed the role of socialization and direct experience in the formation of political culture, but continued:

> One must look beyond the direct political experiences of the individual. The political memories passed from generation to generation and the way these memories are formed are crucial. One is forced to consider the historical experiences of a nation from the point of view of their impact on political beliefs. (p. 554)

Although somewhat more critical of cultural explanations on the grounds that they are inordinately conservative, Moore (1966) made the same point:

> Common observation is enough to show that human beings individually and collectively do not react to an "objective" situation in the same way as one chemical reacts to another when they are put together in a test tube. . . . There is always an intervening variable, a filter, one might say, between people and an "objective" situation, made up from all sorts of wants, expectations, and other ideas derived from the past. This intervening variable, which it is convenient to call culture, screens out certain parts of the objective situation and emphasizes other parts. There are limits to the amount of variations in perception and human behavior that can come from this source. Still the residue of truth in the cultural explanation is that what looks like an opportunity or a temptation to one group of people will not necessarily seem so to another group with a different historical experience and living in a different form of society. (p. 485)

In these accounts, deep-seated configurations of norms inhibit people from adapting to changes in broader political conditions, labeled "objective" and "external" situations by Moore and Inglehart, respectively. Consequently, arguments couched in terms of political culture are obviously at variance with social choice arguments, as Inglehart and others have pointed out.[17]

17. This is the case even though Inglehart's suggestion that social-choice arguments are concerned solely with the maximization of *economic* utility is wrong. On this point, see Aldrich (1993), Jackman (1993), and Riker (1990).

Our analyses of the three new democracies in the preceding section bears directly on the cultural perspective because the democratic transitions in these three countries were all very recent, as of 1980. Further, as we have already stressed, these were transitions from authoritarian regimes that had sought to minimize and contain political participation (Linz, 1975; Nelson, 1987). Greece, Portugal, and Spain have all often been said to have political cultures that inhibit participation. For example, in his appraisal of Greek politics, Diamandouros (1983) refers to "the quasi-universal attitudes of extreme suspicion, profound alienation, and moral ambivalence toward the state" (p. 53), all of which result in a "subject" as opposed to a "participant" political culture, thereby strengthening its "authoritarian elements" (p. 58). Similarly, Wiarda (1989) concludes that Spain and Portugal

> have moved away from a "subject" political culture toward democracy, but they have yet to develop a participatory and "civic" political culture. The democratic political culture is still thin; it does not reach down deeply into the society. Spain and Portugal are still governed strongly by considerations of rank, hierarchy, and social status. (p. 9)

Finally, writing about the transitions to democracy in southern Europe, Giner (1986) admonishes us that

> it would . . . be foolish to assume that these varied and *practically timeless* features of traditional southern cultural anthropology have had little or no effect upon the troubled history of despotism and democracy in Mediterranean Europe. *Nor are they likely to change in the near future.* (p. 35; emphasis added)

If cultural differences represent enduring values of the particular type just described, they should have (a) generated much lower rates of voter participation than those observed in Greece, Portugal, and Spain, and (b) undermined the linkages between institutions and turnout we have reported. They did neither.

The recency of the three transitions raises a related matter. As we have already emphasized, the ideas that participatory norms are durable and take considerable time to develop are central tenets of the political culture perspective. Cultural change is thus seen as a relatively slow process that evolves through generational replacement (e.g., Conradt, 1989, pp. 225, 257; Inglehart, 1990). This reasoning implies at most a slow, monotonic increase in the volume of turnout in the three new democracies as younger cohorts, unencumbered by the legacy of authoritarianism, enter the electorate and begin to replace their predecessors. Such a trend should be most pronounced in Portugal and Spain, where authoritarian regimes lasted the longest.

To evaluate this possibility, we regressed turnout by election on time separately for all three countries, controlling for reductions in the age of the eligible voting population. The estimates indicate no secular change in voter turnout in Greece or Spain. In Portugal, there has actually been a secular *decline* in turnout in elections since 1975.[18] These patterns are clearly at variance with the predictions of the political culture approach. In conjunction with the differences in levels of voter turnout reported in Appendix A, these patterns also underscore the variety of these three cases, a variety that contrasts with allusions to a distinctively authoritarian culture endemic to the southern European cone.[19] Instead, our results indicate that people adapt rather quickly to the transition to new political regimes and that this adaptation is influenced more by institutions currently in place than it is by cultural remnants of an authoritarian past.

The data reported by Inglehart (1990) allow an alternative evaluation of the cultural account. Although political culture is typically taken to include a variety of norms, from Almond and Verba to Inglehart, three have received special emphasis: satisfaction with one's life, levels of trust in others, and rates of political discussion. The cultural thesis implies that these norms should be systematically related to turnout. Table 4 displays the applicable estimates with average turnout (1981-1990) regressed on each of the three measures of political culture.[20] These estimates include controls for the

18. The regression coefficients for each country (with *t* ratios in parentheses) are as follows:

Country	Year	Voting Age
Greece	0.22 (1.16)	2.71 (1.21)
Portugal	–0.01 (6.10)	n.a.
Spain	–0.36 (–.53)	2.78 (0.37)

The voting age variable is a dummy variable that equals 1 after the minimum voting age was reduced to 18 years. The minimum voting age in Portugal has been 18 since the democratic restoration.

19. A similar test was done using the 1960-1990 series for Germany, Italy, and Japan. Again, we found no evidence of a secular trend (positive or negative) in turnout despite the earlier experiences of these countries with authoritarian regimes. Coupled with the variation in levels of turnout, our failure to find general temporal trends in turnout bears on another argument. O'Donnell and Schmitter (1986, pp. 61-64) assert that founding elections after transitions from authoritarianism to democracy are "moments of great drama" accompanied by high levels of "civic enthusiasm" and that turnout in such elections is therefore "very high" (presumably declining thereafter). We find no general evidence for this claim.

20. Data on levels of satisfaction "with one's life as a whole" by nation are reported by Inglehart (1990, p. 32, Figure 1.2); figures on national levels of interpersonal trust are from his Figure 1.4 (p. 37); national political discussion rates are from his Figure 10.1 (p. 343). Data are missing for some of the 22 countries we have analyzed: those countries are identified in Table 4. We

Table 4
Effects of Political Culture on Voter Turnout, 1981-1990

	1	2	3
Life satisfaction rates	0.82		
	(0.5)		
Levels of trust in people		0.09	
		(0.8)	
Political discussion rates			0.12
			(1.3)
Compulsory voting	9.28	10.82	12.46
	(3.3)	(3.7)	(4.3)
Switzerland dummy	–37.79		–37.79
	(5.3)		(7.9)
United States dummy	–27.46	–26.31	–26.05
	(5.1)	(5.4)	(4.6)
Constant	72.26	73.59	69.48
	(11.5)	(13.6)	(11.6)
R^2	.87	.78	.91
Bivariate R^2 (cultural variable only)	.02	.01	.02
N	20[a]	18[b]	17[c]

Note. All t ratios are in parentheses below coefficients.
a. Excludes Israel and New Zealand.
b. Excludes Austria, Israel, New Zealand, and Switzerland.
c. Excludes Austria, Israel, New Zealand, Norway, and Sweden.

presence of compulsory voting, to which allusion is often made in culturalist accounts of political participation.[21] They also include the country dummy variables for Switzerland and the United States, the two cases that our own

report three separate regressions because, although they are all positive, the correlations among these three variables are not overwhelming. The correlations (with the number of cases on which they are based above the diagonal) are

	1	2	3
1. Life satisfaction rates	—	18	17
2. Levels of trust in people	.57	—	15
3. Political discussion rates	.54	.60	—

21. For example, in his discussion of Italy, LaPalombara (1965) wrote that the Italian "is not . . . a meaningfully participating citizen. The fact that he votes should not be misinterpreted to mean the existence of strong support for the political system, for it is the mildly compulsory voting laws which impel him to the ballot box" (p. 282). Similarly, Inglehart (1990) writes that turnout rates can be "extremely misleading" indicators of political activity: "In Italy and Belgium, for example, voting is legally required of all citizens, producing extremely high rates of turnout, but . . . the Belgian and Italian publics show much lower rates of political involvement than do most Western publics" (p. 342). Our control for compulsory voting allows for an evaluation of such claims and in fact indicates that those claims are misplaced.

analysis does not interpret. If the cultural argument accounts for these cases, we would expect these country coefficients to approach zero.

From the estimates in Table 4, it is clear that none of the cultural factors affects turnout. True, the coefficients in each of the three columns are positive, but two of them are smaller than their standard errors, and the third is barely larger than its standard error. The estimates show that there is no bivariate association between the cultural variables and turnout and, further, that the presence of mandatory voting laws is not masking any such association despite claims to the contrary by some observers. Not only are the cultural coefficients low, but the country dummy variables are large in all columns, indicating that political culture as defined in these three measures is no more successful in accounting for turnout in Switzerland and the United States than it is in the democracies more generally.

THE AMERICAN AND SWISS EXCEPTIONS

To this point, we have treated the United States and Switzerland as exceptions. We have shown, on the one hand, that the cultural interpretation is of limited use in understanding the distinctively low patterns of turnout in these instances. Yet it is equally clear that the specific institutional determinants of participation identified in Table 2 are also insufficient as accounts for these two cases. Does this mean that the United States and Switzerland are *sui generis*?

It is obviously difficult to provide a systematic evaluation of this question given that only two cases are involved. Moreover, Switzerland and the United States differ from each other on a number of key institutional dimensions, all of which are plausibly linked to turnout. Voter registration in the United States is voluntary, for example, whereas in Switzerland it is not.[22] Similarly, although both are federal systems, power is especially decentralized in Switzerland. Finally, the significance of elections in the process of government formation at the federal level is singularly limited in Switzerland, where the current governing coalition has been in place continuously since 1959.

Bearing this in mind, what the two countries *do* share is a distinctively high frequency of elections compared to the other countries we have examined. There are, on average, five elections and referenda in Switzerland *each year* (Austen, Butler, & Ranney, 1987). Switzerland is an outlier in this regard: By May 1992, for instance, fully 391 national referenda had occurred;

22. Teixeira (1992, chap. 4) estimates that reform of voter registration procedures in the United States would increase turnout in federal elections by approximately 8%.

Australia, in a distant second place, had held only 43 (Kobach, 1993; see also Lijphart, 1984, chap. 12). Moreover, Swiss referenda typically include multiple ballots on a variety of issues. For example, on April 1, 1990, federal referenda were held on six different issues ranging from preventing further highway construction to revising wine import standards and the federal judiciary law. Ballots were cast again on September 23, 1990, centering on questions of nuclear energy and the approved width of trucks (Kobach, 1993).

Referenda are not, of course, held at the federal level in the United States. Even so, ballots for federal elections typically reflect elections for multiple offices. Combined with other statewide races, primary elections, local elections, and the increased use of the initiative process in many states, elections are thus much more demanding and frequent in the United States than they are in other democracies. This led Crewe (1981) to remark that

> no country can approach the United States in the frequency and variety of elections, and thus the amount of electoral participation to which its citizens have a right. No other country elects its lower house as often as every two years, or its president as frequently as every four years. No other country popularly elects its state governors *and* town mayors; no other has as wide a variety of nonrepresentative offices (judges, sheriffs, attorneys general, city treasurers, and so on) subject to election. (p. 232)

Further, the available evidence indicates that election calendars, off-year statewide races, and statewide primaries systematically influence turnout levels in just the manner anticipated by the voter fatigue argument (Boyd, 1986, 1989).

These considerations lead us to suggest that the high frequency of elections in Switzerland and the United States depresses turnout by encouraging voter fatigue. Whereas the number of elections in the two countries is manifested in somewhat different ways (referenda vs. elections for a variety of offices), we think that the distinctively high volume of elections is itself the critical factor. Of course, it is difficult to obtain a precise quantitative estimate of the magnitude of this turnout-inhibiting effect given that only two cases are involved. Yet the voter fatigue argument seems more consistent with the available evidence and therefore more plausible than any of the common alternative explanations.

CONCLUSIONS

Our analyses show that political institutions and electoral laws continued to provide an important incentive structure for voter turnout throughout the

1980s, in the same way as they had during the preceding two decades. More importantly, our analyses indicate that the basic model continues to fit well when three new democracies are considered.

Consistent with Powell's and Jackman's earlier studies, our results challenge the view that national differences in voter turnout reflect enduring and distinctive national political cultures. For example, Powell's (1986) cross-national survey analyses suggest that although Americans have the edge in participatory attitude structures, such attitude structures are not, in turn, systematically linked to turnout rates. Crewe (1981, p. 260) had noted previously that, if anything, cultural norms appear to be inversely related to voter turnout, although his conclusion was based on only four cases (Germany, Italy, the United Kingdom, and the United States). Sidjanski (1979, p. 107) has likewise noted that general political activism during the early 1970s was higher in Switzerland and the United States than it was in six other European democracies studied. We have provided further and more direct evidence that undermines the cultural account of participation.[23]

Rather than reflecting cultural norms, levels of voter turnout are a function of institutional and electoral procedures. This is clear from the fact that the basic model works well when applied to three recent democracies with new institutional arrangements. It was also evident in Jackman's original analysis, which showed that the abolition of compulsory voting in the Netherlands in 1970 was followed by a drop in turnout, whereas the elimination of the upper legislative house in Sweden (again in 1970) led to an increase in electoral participation. We have obviously relied on aggregated data that cannot be used to address micro issues directly. Nonetheless, the patterns we have reported are broadly consistent with the view that citizens respond rationally to the arrangements (or "external situations") they face, and they adapt to changes in these arrangements in remarkably short order.

23. It might be countered that institutions are themselves a function of political culture. A full discussion on this point is beyond the scope of this article, but we note the following. First, if political culture is defined and measured as we have done in our analyses, we have found no evidence to suggest that political culture influences the institutional factors that in turn influence turnout. If political culture is defined in broader terms, it becomes a rather blunt analytic instrument. Second, we have provided evidence that turnout responds rather quickly to institutional change in settings where cultural factors reflect norms that are typically described as more enduring. Third, on general grounds, we are more inclined to regard political institutions as the outcome of political conflict and power differentials within political systems for the reasons well articulated by Knight (1992).

Appendix A: Turnout During the 1980s and Values for Selected Independent Variables

Country	Turnout 1981-1990	Electoral Disproportionality	Number of Parties
Australia	83 (4)	6.1	2.5
Austria	85 (3)	1.8	2.3
Belgium	87 (3)	2.2	4.4
Canada	69 (2)	8.9	2.3
Denmark	84 (5)	0.9	4.5
Finland	78 (2)	1.7	5.0
France	77 (3)	10.6	3.3
Greece	87 (5)	5.6	2.2
West Germany	79 (2)	1.8	2.7
Ireland	76 (5)	2.4	2.8
Israel	82 (3)	1.4	4.5
Italy	93 (2)	2.2	3.6
Japan	71 (3)	4.2	3.1
Netherlands	81 (3)	1.2	5.0
New Zealand	80 (4)	6.4	1.9
Norway	82 (3)	3.1	3.3
Portugal	78 (3)	3.6	3.0
Spain	75 (3)	7.3	2.7
Sweden	85 (3)	1.2	3.2
Switzerland	41 (2)	1.6	5.1
United Kingdom	74 (2)	6.9	2.1
United States	51 (4)	5.5	1.9

Figures in the first column are average turnout levels for 1981-1990, and entries in parentheses indicate the number of elections on which the averages are based. Turnout levels reflect total turnout divided by the size of the population of voting age.

Total turnout figures are from Mackie and Rose (1991) and, with two exceptions, are for national elections to the lower legislative house. For France and the United States, total turnout figures are for presidential elections. For France, first- and second-round presidential elections are treated as separate elections. Estimates of the size of the population of voting age are based on figures published by the United Nations (1984, 1990). Information on voting age requirements is from Mackie and Rose (1991). Other restrictions on voter eligibility not based on age are not reflected in the denominator.

Two further points are relevant. First, the U.N. population size tables by age report population by age *groups* and, in the age range relevant here, those groups consist of 5-year aggregations: 15-19 years, 20-24 years, and so forth. We have assumed that each 5-year age group consists of five equally sized annual age groups. Thus, for example, to obtain the size of a population aged 21 or more, we have subtracted from

continued

Appendix A continued

the total national population all those aged 0-19 plus one fifth of those aged 20-24. Second, the U.N. tables do not list annual figures. To determine the size of the voting age population in a given election year, we have therefore interpolated from the available data. The interpolations are based on estimates of annual population growth rates assuming logarithmic patterns of growth (for the rationale and procedures used, see Barclay, 1958).

Appendix B: Voter Turnout From a Pooled Cross-Section/Time-Series Framework

This appendix checks the sensitivity of our estimates to the 10-year aggregation employed in the main part of the article and in Powell (1986) and Jackman (1987) by respecifying the argument in a pooled framework suggested by Radcliff (1992). Radcliff (personal communication) informs us that he has misplaced his data, so we have attempted to match his specification as closely as possible.

To maximize comparability with Radcliff (1992), the data set covers all national elections discussed in the body of the text for the 22 industrial democracies from 1960 to 1988. Because of the recency of the transitions to democracy in Greece, Portugal, and Spain, data for those cases refer to 1974-1988, 1975-1988, and 1977-1988, respectively.

Because the data cover elections across time and space, it is necessary to control for temporal and spatial effects. Given our interest in modeling the effects of changing economic and institutional features *over time*, we consider two types of models.

In the first model, following Stimson (1985) and Radcliff (1992), we control for spatial effects using a least-squares dummy variable (LSDV) model, which includes a variable for all but one of the countries in the data set. To control for time trends, we include lagged turnout (i.e., turnout in the previous election). In addition, to capture any effects of reductions in the voting age (from 21 to 19 and from 19 to 18), we include two dummy variables indicating such shifts. Finally, in light of Radcliff (1992), we include a measure of economic growth in the year before the election. In equation form, we estimate

$$\text{Turnout} = b_0 + b_1(\text{turnout}_{t-1}) + b_2(\text{eligible}_1) + b_3(\text{eligible}_2) + b_4(\text{income}) + b_5(\text{nation}_2),\ldots,b_{25}(\text{nation}_{22}) + e_1 \quad (1)$$

where turnout is the proportion of eligible voters who voted in the election that year, turnout_{t-1} is turnout in the previous election, eligible_1 and eligible_2 control for changes in the age-eligible population, income indicates economic growth in the year prior to the election, and nation_2 through nation_{22} are the country dummies.

In the second model, we substitute the five institutional features employed in the body of the article for the country dummies. As indicated in the analyses discussed earlier, institutional factors account for a great deal of the cross-sectional variation in

turnout levels. Moreover, unlike the country dummy variables, which control for spatial differences with a *time-invariant* measure (i.e., the dummy variable either equals 1 or 0 and therefore the predicted effect is the same across time), the institutional variables are *time varying*. For example, in Model 1, the dummy variable for the Netherlands is unable to account for the drop in turnout levels following the abolition of compulsory voting laws in 1970. With the exception of the substitution mentioned previously, in equation form, Model 2 is identical to Model 1:

$$\begin{aligned}\text{Turnout} = b_0 + b_1(\text{turnout}_{t-1}) + b_2(\text{eligible}_1) + b_3(\text{eligible}_2) + \\ b_4(\text{income}) + b_5(\text{districts}) + b_6(\text{disproportionality}) + \\ b_7(\text{multipartyism}) + b_8(\text{unicameralism}) + b_9(\text{compulsory}) + e_2\end{aligned} \quad (2)$$

where the first four right-hand variables are as in Model 1 and b_5 through b_9 represent the coefficients on the institutional variables included in the analyses presented in the main part of our article.

Measures

The dependent variable is the *percentage turnout* in each national election. Turnout rates are calculated as before (total votes divided by age-eligible population) using the sources cited in the body of the text and in Jackman (1987). Turnout in the *previous election* is obtained by lagging the dependent variable by one election. To preserve the temporal domain of the study (1960-1988), we include turnout for the election prior to the first election during the 1960s.

Changes in the *age-eligible* population are indicated by two dummy variables. Eligible$_1$ equals 0 when no change has occurred in the franchise and 1 when the franchise was extended to persons 19 years or older during the period 1960-1988. Eligible$_2$ is used to indicate the extension of the franchise to persons 18 years or older during the period 1960-1988. Information on eligibility is from Mackie and Rose (1991).

Income is measured by the election year growth rate of per capita real gross domestic product. (Following Radcliff, 1992, if the election occurred prior to June 1, we use the growth rate in the year prior to the election.) Information on growth rates is from Summers and Heston (1991).

The measures for the various *institutional features* are from Jackman (1987) and Powell (1986) for the 1960s and 1970s and are updated for elections during the 1980s as described in the main body of the text using information from Mackie and Rose (1991).

Coefficient Estimates

The first column of Table A1 displays the estimates of the country dummy variable Model 1, whereas the second column of the table shows the figures for the institutional

continued

Appendix B continued

Table A1
Turnout From 1960 to 1988 Using Pooled Data (N = *180)*

Variable	Model 1[a]		Model 2	
Turnout (*t*–1)	0.30	(4.1)	0.52	(8.6)
Economic growth (*t*–1)	–13.37	(1.6)	–9.76	(1.2)
Eligible (20)	–0.82	(1.4)	–0.17	(0.0)
Eligible (18)	–0.38	(0.4)	0.36	(0.4)
Austria	3.34	(2.2)		
Belgium	2.22	(1.6)		
Canada	–10.64	(6.2)		
Denmark	1.77	(1.3)		
Finland	–0.78	(0.5)		
France	–7.10	(4.3)		
Germany	–1.71	(1.2)		
Greece	0.55	(0.3)		
Ireland	–5.31	(3.4)		
Israel	–1.22	(0.8)		
Italy	6.96	(4.2)		
Japan	–8.94	(5.3)		
Netherlands	–0.39	(0.3)		
New Zealand	–0.51	(0.3)		
Norway	–0.80	(0.5)		
Portugal	–2.72	(1.7)		
Spain	–6.08	(2.8)		
Sweden	1.69	(1.2)		
Switzerland	–32.92	(8.5)		
United Kingdom	–6.47	(4.0)		
United States	–19.53	(8.1)		
Nationally competitive districts			1.33	(3.5)
Electoral disproportionality			–0.54	(4.0)
Multipartyism			–1.30	(2.8)
Unicameralism			0.72	(3.0)
Compulsory voting			5.74	(5.4)
F ratio	91.57		184.42	
R^2	.94		.92	

Note. All *t* ratios are in parentheses to the right of coefficients.
a. Country dummy variable for Australia is excluded; other country dummy variable estimates are thus deviations from the Australian case.

Model 2. These estimates were produced using OLS regression, but estimates obtained using generalized least squares are indistinguishable from those reported.

Comparing the two columns suggests that each provides a similar fit to the data. However, the *F* ratio for Model 2 is twice the size of that for Model 1, which indicates

that Model 2 is superior to Model 1 simply because it is more parsimonious. These estimates have the following general implications.

1. The figures from Model 2 are consistent with the 10-year aggregation used in the main body of the article. Given our control for lagged turnout, we would expect the coefficients for the institutional variables in Model 2 to be smaller than those in column 1 of Table 2, and indeed they are. However, the signs of all coefficients are in the expected direction and each is statistically significant, leading us to draw the same substantive conclusions that we drew earlier.
2. We controlled for changes in the age-eligible population because we would expect lower rates of turnout among newly enfranchised young potential voters. It is interesting that neither of the coefficients reflecting age extensions of the franchise is statistically significant. This is further evidence that people respond rapidly to changes in their institutional environment.
3. Although we have attempted to duplicate Radcliff's (1992, Table 1) procedure as closely as possible, we are unable to replicate his results. Whereas Radcliff reports a statistically significant positive relationship between economic growth and turnout, our estimates have the opposite sign but are not statistically significant. Contrary to Radcliff, we would expect aggregate economic growth to have a negative effect on turnout (for the reasons given, e.g., by Filer, Kenny, & Morton, 1993). Although the negative effect in Table A1 is not statistically significant, substituting an alternative lag that reflects average turnout in the previous *two* elections (as does Radcliff) produces a significant negative economic growth effect. We report the single lag estimates because there is no compelling theoretical rationale for the two-election lag.
4. A more general conclusion comparing the models concerns the limits of LSDV. Although the use of dummy variables to control for cross-sectional unit effects is a common approach to pooled data sets, we think the specification used in Model 2 is preferable to that used in Model 1 for the following reasons. First, as we have already noted, it is more parsimonious. Second, the unit dummies reflect ignorance: "They are inserted merely for the purpose of measuring shifts in the regression line arising from *unknown variables*" (Kennedy, 1992, p. 222). It is, however, always preferable to include substantively meaningful, as opposed to unknown, variables. Moreover, unlike the institutional variables in Model 2, the country dummies are time invariant and are thus insensitive to changes in institutional conditions. As the coefficients for changes in age eligibility suggest, people are not slow to respond to changes in their institutional environment.

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