

TRANSLATING SOCIAL CLEAVAGES INTO PARTY SYSTEMS

The Significance of New Democracies

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I. INTRODUCTION

PARTY systems in Eastern Europe's new democracies frequently undergo a period of organizational fragmentation. In country after country we see a large number of political parties competing in the first several elections but failing to secure sizable electoral support. Although such fragmentation is widely seen as undesirable, the general expectation is that over time these party systems will consolidate. Consequently, the period of organizational confusion is frequently perceived as a temporary phenomenon lacking any wider theoretical significance. If stable political parties are going to emerge sooner or later, then the chaotic competition between personalistic protoparties that lack organizational stability and ideological cohesion is perhaps unfortunate but not particularly interesting, at least not for the purpose of addressing larger theoretical issues. Contrary to this perception, I argue that party systems in these new democracies are in fact theoretically significant in that they suggest two distinct questions about the translation of social cleavages into political oppositions—a kernel of contemporary theorizing about political parties and party systems.

The first question concerns the translation of preexisting social conflicts into durable axes of political contestation. The problem can be stated as follows. Imagine a new democracy with a history of conflict on two issues, say, ethnicity and religion. It is possible that as the new party system in the country consolidates, both conflicts will become politicized and thus will be established as long-term bases of electoral competition. It is also possible, however, that only one of these conflicts will become politicized because politicians find it beneficial to de-emphasize the political salience of the other. In short, a single structure

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of social conflict can give rise to various structures of political contestation. This possibility raises the question of whether the evolution of a new party system affects the translation of social cleavages into political oppositions. More specifically, does the reduction in the number of political parties during the early rounds of electoral competition influence the long-term bases of political contestation? If the answer is yes, then we can ascribe considerable relevance to the period of initial fragmentation. That is, if the axes of political competition can diverge from the underlying social conflicts and if the character of this divergence is determined during the early rounds of electoral competition, then new party systems are pivotal. Indeed, they are the founding moments when political actors determine which cleavages to depoliticize and which to establish as the permanent axes of political competition.

The second question focuses on the politicization of new social cleavages, that is, cleavages that emerge once a party system is already frozen. If a social cleavage emerges after a new party system consolidates, will it become politicized or will it remain politically dormant? This question is particularly interesting in the context of Eastern Europe, where the cleavage between capital and labor is likely to emerge only after the party systems consolidate. As is well known, communist states, in abolishing the legal right to own large-scale property, were remarkably successful in destroying property-owning classes. Consequently, when democracy came to Eastern Europe, these countries did not have entrenched classes of property owners akin to those that existed in Western European countries when they became democratic. To be sure, Eastern Europe's current commitment to property rights will eventually re-create a class of wealthy individuals and so lead to a clear separation between owners and laborers. The key point, however, is that competitive elections and political parties predate the emergence of this class. This is in stark contrast to Western Europe, where the historical sequence of events was reversed and the cleavage between capital and labor emerged before democracy. In fact, the contention between owners and laborers in the secondary economy led to the creation of powerful socialist parties and so turned economic class into a fundamental basis of political contestation. The likely reversal of this historical sequence in Eastern Europe prompts students of the region to consider not only the translation of preexisting cleavages into political oppositions but also the translation of new cleavages that emerge after party systems freeze. More specifically, if the freezing of East European party systems predates the emergence of class conflict, will class conflict acquire the degree of political salience that it enjoys in the established de-

mocracies of Western Europe? If the answer is no, then East European party systems will differ from their West European counterparts. Indeed, with regard to the political salience of class, they will resemble the party system in the United States, where class conflict clearly exists but where its political salience is decisively muted. The legacy of communism may therefore turn out to be functionally equivalent to the pre-industrial origins of American democracy.

The article is organized as follows. Section II identifies two important issues that are unresolved in the original formulation of social cleavage theory. The theory is ambiguous in particular about the possibility of some preexisting social cleavages not becoming politically significant. Moreover, the theory is silent about the prospects for politicizing new social cleavages. To clarify these two issues, Section III develops a formalization of social cleavage theory and derives two propositions. The first proposition identifies conditions under which preexisting social cleavages do not become politicized. The second proposition identifies conditions needed to politicize a new social cleavage under a frozen party system. To complement these results, Section IV uses game theory to develop a micromechanism of party system consolidation. The main result is that new party systems freeze when politicians resolve a coordination problem with regard to entry into electoral competition. Section V pools these three results to argue that the reduction in the number of political parties is central to the politicization of preexisting cleavages and that the conflict between capital and labor is likely to remain politically dormant in Eastern Europe. Section VI concludes.

II. CLEAVAGE THEORY AND TRANSITIONAL PARTY SYSTEMS

Scholars working within the social cleavage tradition stress that the translation of social cleavages into political oppositions is not automatic. Lipset and Rokkan,¹ for instance, are emphatic that “cleavages do not translate themselves into party oppositions as a matter of course,” and they argue that a “crucial point in the discussion of the translation of the cleavage structures into party systems [concerns] the costs and the pay-offs of mergers, alliances, and coalitions.”² The authors never precisely state, however, whether the “considerations of organizational and electoral strategy . . . the weighting of pay-offs of

¹ Seymour Martin Lipset and Stein Rokkan, *Party Systems and Voter Alignments: Cross-National Perspective* (New York: Free Press, 1967), 112.

² *Ibid.*, 117.

alliance against the losses through split-offs”³ shape the final outcome of translation. This ambiguity was pointed out already by Sartori:⁴

The problem is not only that “cleavages do not translate themselves into party oppositions as a matter of course.” The problem is also that some cleavages are not translated at all. Furthermore, the importance of the notion of translation lies in the implication that translation calls for translators, thereby focusing attention on translation handling and/or mishandling. The old-style sociology took for granted that cleavages are reflected in and not produced by the political system itself. As a result, there is very little that we really know concerning the extent to which conflicts and cleavages may either be channeled, deflected, and repressed, or vice versa activated and reinforced precisely by the operations and operators of the political system. But now we are required to wonder whether “translation mishandling” may largely contribute to the cleavage structure that one finds in the polities characterized by low coincidence of opinions.

In short, at the heart of social cleavage theory lies an important ambiguity: can the formation of mergers, alliances, and coalitions seriously affect the translation of cleavages into oppositions? While all agree that the process of translation is not mechanical, there is not yet a theoretical consensus as to whether mergers can influence the final outcome of this process. As a result, we do not know whether Sartori’s conjecture is in fact correct and whether coalition making can lead to a situation in which an important social cleavage is not politicized.

Broadly speaking, there are two options. We could maintain that coalition making does not affect the final outcome of translation. Regardless of which coalitions are formed or whether coalitions are formed in the first place, all social cleavages become translated into political oppositions. Think of this view as the “strong” interpretation of social cleavage theory. It follows from this interpretation that there is no reason to study coalition formation because all relevant information is contained in the structure of social conflict. (Evans and Whitefield’s⁵ discussion of future political conflicts in Eastern Europe comes very close to this perspective.) Alternatively, we could maintain that coalition making influences the final outcome of translation because alliances lead to a depoliticization of some social cleavages. Think of this view as the “weak” interpretation of social cleavage theory. According to this interpretation, coalition making is a central component of the

³ Ibid., 112.

⁴ Giovanni Sartori, *Parties and Party Systems: A Framework for Analysis* (Cambridge: Cambridge University Press, 1976), 176.

⁵ Geoffrey Evans and Stephen Whitefield, “Identifying the Basis of Party Competition in Eastern Europe,” *British Journal of Political Science* 23 (1993).

overall theory. (Kitschelt's⁶ pioneering discussion of political conflicts in Eastern Europe constitutes a recent instance of this approach.)⁷

Although it might be tempting to dismiss the strong interpretation as a form of sociological determinism or, to use Sartori's phrase, as "old-style sociology," this version of the theory is in fact very attractive. If an important aim of social science is to construct parsimonious theories of complicated social phenomena, then the strong version of the theory meets the objective remarkably well. It allows us to make long-term predictions about the future axes of political conflict of entire party systems exclusively on the basis of our knowledge of past social conflicts. In particular, it makes it possible to cut through the chaotic politics of new party systems and generate testable projections about the future substance of political contestation. If a polity has a history of social conflict on issues x and y , then the strong version implies that its electoral politics will also center around these two issues. This indeed is why this version of the theory can be regarded as "strong."

In contrast, the weak interpretation is considerably more complicated. Here, the information about the structure of social conflict is necessary but not sufficient to account for the axes of political competition. We must also include information about coalition making. If social conflicts can be nonpoliticized, then a society with historical cleavages on issues x and y can evolve in four different ways: (1) both conflicts are translated, (2) only conflict on issue x is translated, (3) only conflict on issue y is translated, or (4) none of the conflicts are translated. The actual outcome is left to the interplay of political forces, and to pinpoint that outcome requires saying something about this interplay. Since the politics of new party systems is messy, this is a considerable complication. In terms of parsimony, therefore, the strong version of the theory is preferable.

So far the discussion has focused on the translation of preexisting social cleavages into political oppositions. This emphasis is consistent

⁶ Herbert Kitschelt, "The Formation of Party Systems in East-Central Europe," *Politics and Society* 20 (1992).

⁷ The classification of Kitschelt's argument as representing the weak version of social cleavage theory is not entirely correct. While consistent with the weak version, Kitschelt ascribes even more influence to political elites. He persuasively maintains that on occasion politicians enter into conflicts that do not reflect underlying social cleavages. This is an important insight. As an example of such conflicts, consider the Eastern European debates over the pace of economic reforms or the Russian debates over war against irridentist regions, or the Czech, Hungarian, and Polish debates over their entry into the European Union. All of these are instances of critical, "one-shot" decisions that may or may not map themselves onto underlying social cleavages. From the perspective of social cleavage theory, these decisions constitute exogenous shocks that temporarily perturb the political system. Over time, however, as these one-shot decisions are made (economic reforms are completed, wars are ended, accession treaties signed), the political salience of these issues subsides and the system reverts to its steady state, where political oppositions reflect underlying social tensions.

with the preponderant use of social cleavage theory in the literature, and it also corresponds to the original motivation in developing the theory—to explain the variance in the existing West European party systems, rather than to generate predictions about their future evolution. There is, however, no a priori reason to restrict the logic of the theory to preexisting social tensions. Because new social conflicts arise as societies evolve, it is natural to ask whether these new conflicts are likely to take on political significance or whether they will remain politically dormant. This question is particularly relevant in the new democracies in Eastern Europe,⁸ where party systems might freeze before the emergence of a significant social tension, namely, the conflict between capital and labor. Consequently, it is important to generate clear expectations about the prospects of turning this cleavage into a permanent axis of political conflict. To this end, however, we must extend the logic of social cleavage theory beyond its original scope.

III. A LOGICAL STRUCTURE OF SOCIAL CLEAVAGE THEORY

NOTATION AND DEFINITIONS

To discuss the translation of social cleavages, both new and old, as carefully as possible, consider the following formalization of social cleavage theory. Let $X = \{x_1, x_2, \dots, x_n\}$ be the set of issues, or sociocultural dimensions, on which people might differ. Let $G = \{g_1, g_2, \dots, g_{2^n}\}$, be the set of social groups, where a group is a set (potentially empty) of individuals who hold similar opinions on all issues. Let $\{-1, 1\}$ be the set of opinions that a group can have on an issue. Let $o: X \times G \rightarrow \{-1, 1\}$ be a function that describes the opinion held by each group on each issue. Finally, let $\langle X, G, o \rangle$ denote a structure of social conflict. Given this notation, we can define a social cleavage as follows:

Definition 1. A social cleavage exists on issue $x \in X$ if and only if there exist nonempty groups $g_i, g_j \in G$ such that $o(g_i, x) = 1$ and $o(g_j, x) = -1$.

This definition captures the intuitive notion of a social cleavage as a line that separates two groups of people who disagree on some issue. Thus, if all groups hold the same position on an issue, then there is no conflict and a social cleavage does not exist on that issue.

To give substantive meaning to these symbols, recall Lipset and Rokkan's⁹ discussion of social cleavages that characterized Western Eu-

⁸ This question should also interest scholars of Western Europe who study the politicization of the environmental cleavage.

⁹ Lipset and Rokkan (fn. 1), 101.

rope in the early twentieth century. They trace the emergence of these cleavages to the national and the industrial revolutions. The national revolution generated two conflicts: (1) “the conflict between the central, nation-building culture and the increasing resistance of the ethnically, linguistically, or religiously diverse subject populations in the provinces and the peripheries” and (2) “the conflict between the centralizing, standardizing, and mobilizing nation-state and the historically established corporate privileges of the Church.” The industrial revolution in turn led to two additional conflicts: (3) “the conflict between the landed interests and the rising class of industrial entrepreneurs” and (4) “the conflict between the owners and employers on the one side and the tenants, laborers, and workers on the other.” In the formal language introduced above, this proposition can be restated as an empirical claim that the set of sociocultural dimensions X on which Europeans differed at the end of the nineteenth century consisted of four elements: x_1 —the conflict between the subordinate and the dominant culture; x_2 —the opposition between the church and the government; x_3 —the division between workers and owners; and finally x_4 —the conflict between urban and rural economies.¹⁰

Now consider the definition of a party system. Let $X = \{x_1, x_2, \dots, x_n\}$ be the set of issues. Let $\Pi = \{\pi_1, \pi_2, \dots, \pi_m\}$ be the set of political parties. Let \mathfrak{R} be the set of positions that a given party can take on a given issue. Let $p : X \times \Pi \rightarrow \mathfrak{R}$ be a function that describes the position taken by each party on each issue. Finally, let $\langle X, \Pi, p \rangle$ be a party system. Notice an important difference between groups and political parties. On a given issue, a group can have one of two opinions, either a positive one or a negative one. By contrast, a political party can select from an entire range of policy positions, that is, from the set of all real numbers. This allows us, for example, to consider a situation where a political party represents several groups and must adopt compromise positions on a number of issues that divide these groups.

Since each political party can choose from a range of policy positions, political oppositions are not perfectly analogous to social cleavages. In the spirit of the previous definition, however, we can define political oppositions as follows:

¹⁰ In this context the definition of a group as a set of individuals who share similar opinions on all divisive issues is quite flexible. It allows us to construct larger political categories that consist of several groups. Thus, for example, we can think of a “religious camp” that includes Catholic landowners and Catholic peasants. While all members of this camp share a similar opinion about religion, they might differ in their views about other issues, for instance, about land reform.

Definition 2. A political opposition exists on issue $x \in X$ if and only if there exist parties $\pi_i, \pi_j \in \Pi$ such that $p(\pi_i, x) > 0$ and $p(\pi_j, x) < 0$ and for all parties $\pi_k \in \Pi$, $p(\pi_k, x) \neq 0$.

Analogously to the concept of social cleavage, political opposition denotes a line that separates two or more political parties that disagree on some issue.¹¹ The purest instance of this is when there are parties on both sides of an issue and no party in the center. The direct opposite of this scenario is when all political parties occupy the same position on a given issue. Should this happen, the party system exhibits a consensus, and we say that a political opposition does not exist.¹²

Since the core of social cleavage theory concerns the translation of sociocultural conflicts into political oppositions, we need to specify when a social cleavage is translated into a political opposition and when it is depoliticized. To this end, consider the following definition:

Definition 3. A social cleavage is politicized if and only if a social cleavage exists on issue $x \in X$ and a political opposition exists on that issue.

Thus, if a social cleavage cuts through a political party, we say that such cleavage is not politicized even though it might lead to considerable tensions within that party. The definition also highlights the meaning of political opposition as a political conflict anchored in a social cleavage.

The final step in the logical structure of social cleavage theory is the relationship between political parties and groups. A critical component of the theory is the claim that political parties represent specific social groups. Typically, this notion is taken to mean that the policy position adopted by a political party is influenced by the opinions of its groups. To formalize this correspondence, I adopt the convention that the policy position adopted by a political party on a given issue is the average of the opinions held on that issue by the groups represented by that

¹¹ Political opposition is not synonymous with any conflict among political parties. Rather, it denotes an intraparty conflict that mirrors an underlying social tension. To see the distinction, consider a party system that consists of three parties π_1, π_2, π_3 and imagine that on some issue x , these parties take positions $p(\pi_1, x) = -1/2$, $p(\pi_2, x) = 1/2$ and $p(\pi_3, x) = 1$. From definition 2, we get that a political opposition separates party π_1 from parties π_2 and π_3 . Notice, however, that there is no political opposition between parties π_2 and π_3 even though their positions on issue x are different. The substantive reason for this distinction flows from definition 3, which relates social cleavages to political oppositions and thus restricts the meaning of political opposition to a conflict rooted in a social tension.

¹² It is important to differentiate between political opposition and polarization understood as the distance that separates political parties on a given issue. To see the distinction, consider a party system that consists of two parties π_1 and π_2 and imagine that on some issue x these two parties take positions $p(\pi_1, x) = a$ and $p(\pi_2, x) = -a$ where $a > 0$. According to definition 2, a political opposition separates these two parties regardless of the value of a , that is, irrespective of the distance ($2a$) between the two parties. Yet the distance between them is important because it can be interpreted as the polarization or intensity of political conflict. For values of a close to 1, the conflict on issue x is highly polarized, while for values of a close to 0, the conflict becomes relatively attenuated.

party. More formally, if we let $K(\pi) = \{g_1, g_2, \dots, g_k\}$ denote the coalition of nonempty groups represented by political party π , then the position taken by that party on issue x is defined as follows:

$$p(\pi, x) = \frac{1}{k} \sum_{i=1}^k o(g_i, x) \quad (1)$$

This convention makes intuitive sense. If a political party represents only one group, for example, then its policy position on all issues is identical to the opinions held by that group. If, however, a political party represents two groups, then its position on issues where these two groups agree reflects this underlying consensus. Conversely, on issues where these two groups disagree, the party adopts a compromise position and takes a centrist stance. Finally, if a political party represents three or more groups, then on issues where the groups disagree, the party also adopts a compromise position. In this case, however, the compromise need not be centrist. Rather, it deviates from zero depending on the number of groups that favor one extreme over the other.

COALITIONS AND DEPOLITICIZATION

With the core concepts in place, we can now address the question of whether the emergence of coalitions that contain several groups can lead to a depoliticization of a sociocultural cleavage. The following proposition has the answer (see the appendix for the proof).

Proposition 1. For any structure of social conflict $\langle X, G, o \rangle$ with more than two nonempty social groups, there exists a party system $\langle X, \Pi, p \rangle$ with more than one party such that at least one social cleavage is not politicized.

To see the basic intuition behind this result, imagine a new democracy with a history of conflict between secular and religious movements and a division between urban and rural populations. Consider what happens in this setting if multigroup coalitions emerge, that is, if a single political party comes to represent several social groups. Imagine, for instance, that the urban seculars and urban clericals support a single party and that the same thing happens with the two agrarian groups. We then have a country with two political parties, each representing two different groups. The urban party represents the groups of urban seculars and urban clericals, while the agrarian party represents the groups of rural seculars and rural clericals. Now, recall that if a political party represents more than one group, then its policy position on a given issue depends on whether or not its groups agree on that issue. In par-

ticular, if the two groups agree, then the party's policy position on that issue reflects this consensus. If, to the contrary, the two groups disagree on some issue, then the party adopts a centrist position. This convention implies that the urban and rural parties adopt extreme positions on the urban-rural dimension and that both adopt a centrist position on the religious dimension. As a result, the urban-rural conflict translates into an opposition between an urban and a rural party, but the socio-cultural conflict between seculars and clericals does not. In fact, the cleavage ceases to exist as a political issue.

The contribution of proposition 1 is to clarify an important ambiguity in the original formulation of social cleavage theory. By showing that the emergence of coalitions of several groups can depoliticize social cleavages, the proposition implies that the strong version of social cleavage theory cannot be sustained. Social cleavages need not be translated into political oppositions. It turns out, then, that Sartori's conjecture is correct (at least as a matter of logical consistency): the "operators of the political system" can deflect and channel social conflicts in a way that destroys their political salience. As a result, we should focus on the weak version of the theory.

FROZEN PARTY SYSTEMS AND DEPOLITICIZATION

Now consider whether it is possible to politicize a social cleavage that emerges after a party system freezes. Broadly speaking, a party system can be regarded as frozen if the following two conditions hold. First, established political parties must persist over time. If, instead, parties come and go, then the party system is in a state of flux. Second, voting patterns must be stable, meaning that once voters come to support a political party, they continue to support that party over a sequence of several elections. If political sympathies fluctuate widely from one election to the next, the party system is clearly not consolidated. The following definition formally captures these two requirements.

Definition 4. A party system is frozen if and only if (a) $\Pi_n = \Pi_{n+1}$ and (b) $g_i \in K(\pi)$ implies that $g_i^1 \in K(\pi)$ and $g_i^{-1} \in K(\pi)$.

The first condition captures the persistence of political parties. Here Π_n is the set of political parties that exists before the new social cleavage emerges, and Π_{n+1} is the set of political parties that exists afterward. The first condition simply means that political parties persist over time, and so the set of political parties is the same before and after the new cleavage crystallizes. The second condition captures the stability of vot-

ing patterns. Here $K(\pi)$ is the set of all groups that vote for party π . Moreover, g_i^1 denotes all members of group g_i who have opinion 1 on the new issue, and g_i^{-1} denotes those members of g_i who have the opinion -1 on the new issue. The second condition states that if members of a group g_i voted for party π before the emergence of the new cleavage, that is, if $g_i \in K(\pi)$ then they continue to vote for this party afterward, and so $g_i^1 \in K(\pi)$ and $g_i^{-1} \in K(\pi)$.

Given this definition of a frozen party system, consider the conditions that must be met if a new social cleavage is to become politicized while the party system is frozen. The following proposition has the result (see the appendix for the proof).

Proposition 2. Given any structure of social conflict $\langle X_n, G, o \rangle$ with more than one nonempty group and given any frozen party system $\langle X_n, \Pi, p \rangle$ with more than one party, if the new social cleavage on issue x_{n+1} is to be politicized then it is necessary that each coalition $K(\pi_i)$ contains at least one nonempty group that is not partitioned by the new cleavage.

The contribution of proposition 2 lies in extending social cleavage theory to an issue that had not been considered in the original formulation of the theory but that is important to our understanding of party systems in postcommunist democracies. In particular, the proposition shows that while politicization of new social cleavages is possible, the necessary conditions are potentially very restrictive.¹³ To appreciate the force of these restrictions, consider a simple case of a democracy with a history of conflict between secular and religious movements. Imagine that the party system in that country is already frozen and that there are two political parties: a Christian party, sympathetic to the religious establishment, and a liberal party, favoring the secular perspective. In this case, we have two “degenerate” coalitions, the Christians and the liberals, each containing a single group. Now imagine that a new issue, say class conflict, emerges in this society. According to proposition 2, in order to become politicized while the party system is frozen, the new issue cannot cut across either the Christian or the liberal groups. If it does—that is, if either Christians, liberals, or both are split into workers and owners—then class conflict will not be politicized. In other words, the transformation of class conflict into a durable base of political contestation requires that the new issue leave both groups intact—Christians must become owners and liberals must become laborers, or

¹³ This result has an interesting implication for students of established democracies who study the politicization of the environmental cleavage because it implies that it is possible, albeit difficult, to politicize that cleavage without the formation of green parties.

the other way around. But if, for example, some Christians become workers and others become owners, then the new class cleavage will not be politicized while the party system is frozen. In this case, in fact, politicization requires that the new cleavage overlap perfectly with the old cleavage.

IV. THE SHAKEDOWN AND FREEZING OF PARTY SYSTEMS

If we follow proposition 1 and argue that coalitions can depoliticize social conflicts, then it is desirable to develop a clear micromechanism that relates the evolution of new party systems to the translation of social cleavages. All that proposition 1 says is that if coalitions emerge, then some cleavages may be depoliticized. While this is sufficient to establish that we should focus our attention on the weak interpretation of social cleavage theory, it tells us nothing about how or why such coalitions might emerge in new democracies. To tackle this problem, we need to develop an explicit mechanism that relates coalition making to the politicization of social cleavages. Without such a mechanism, an important component of the overall theory—the actual micrologic behind the translation of cleavages into oppositions—remains underdeveloped.

Likewise, if we follow proposition 2 and accept that it is difficult to politicize new social cleavages while party systems are frozen, we still have to consider the possibility that such cleavages might trigger the formation of new political parties. So far, the article has been silent on this issue. All that proposition 2 says is that politicization of new cleavages is difficult if a party system is frozen. The proposition does not address the possibility that a party system might thaw. To address this issue, it is desirable to propose an explicit micromechanism that can relate the emergence of new cleavages to the thawing of frozen party systems. Without this step, we are left with an incomplete understanding of the conditions under which new social cleavages can be politicized.

On both accounts, therefore, it is important to develop a microtheory of translation. Ideally, such a theory should in a single stroke generate insights about how the reduction in the number of political parties affects the translation of preexisting cleavages, as well as insights about how new cleavages influence the stability of frozen party systems. In the spirit of Lipset and Rokkan,¹⁴ who maintained that the electoral strategies pursued by political elites constitute the actual mechanism of translation, I concentrate on the strategic interactions among political

¹⁴ Lipset and Rokkan (fn. 1).

elites. In particular, I turn to game theory, which at present offers the most precise, though not always satisfactory, method of constructing theories of strategic behavior. What follows is a game-theoretic model of how political elites shape the consolidation of new party systems.

THE MODEL

Think of a democracy in explicitly dynamic terms as a system of repeated elections. Index each election by $t \in \{0, 1, 2, \dots\}$. Before each election, three politicians 1, 2, and 3 simultaneously decide whether to compete or to withdraw. Once these decisions are made, an election takes place. From the perspective of a politician, each election is a lottery that determines who wins and who loses in a given period. In particular, in each period the winner is selected at random from players who choose to compete in that period. Thus, for instance, if two politicians decide to compete, then each of them has a $1/2$ chance of winning. The winner gets $s - c$ where $s > 0$ represents the spoils of office and $c > 0$ denotes the costs of campaigning. Politicians who choose to compete but do not win get $-c$, and politicians who withdraw get 0. Moreover, a politician who withdraws leaves the game and in the next period is replaced by a new politician.¹⁵ Politicians maximize the discounted sum of per period payoffs with $\delta \in (0, 1)$ being the discount factor. (See the appendix for the formal definition of the game.)

Figure 1 contains the diagram of the game. Players are numbered 1, 2, and 3. The letter f stands for competing or fighting, and the letter q stands for withdrawing or quitting. The two horizontal dotted lines denote information sets signifying that the three players make their decisions simultaneously. When applicable, the letter E indicates that an election takes place and per period payoffs are distributed. Finally, the stars following E show that the game continues to the next period.

To give substantive meaning to this scenario, return to the example of a country with a history of conflict between secular and religious movements and between the urban and rural segments of the population. Imagine that the rural electorate is predominantly religious so that the secular-rural group is not politically viable. Consequently, the elec-

¹⁵ To be clear, the word "compete" denotes a decision to contest a given election. The word "withdraw" denotes a decision not to contest that election. In contrast, the phrases "leave the game" and "enter the game" denote the automatic replacement of politicians who choose to withdraw with new politicians who then make their own decisions.

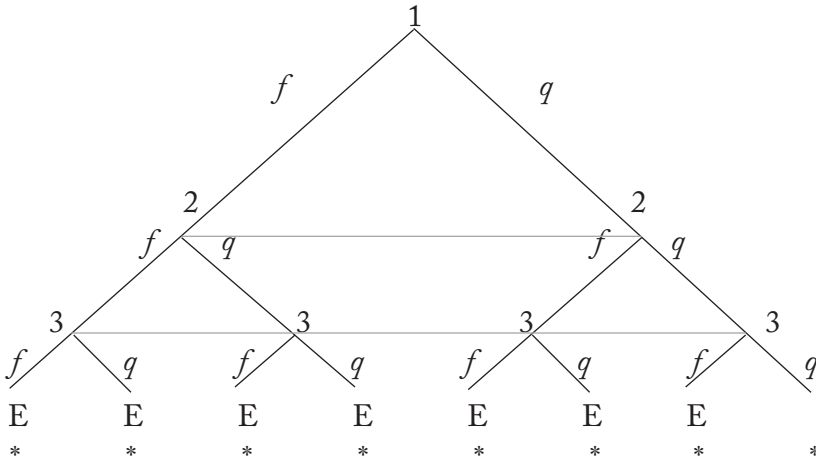


FIGURE 1
THE EXTENSIVE FORM OF THE PARTY SHAKEDOWN GAME

torate can be partitioned into three groups: social democrats, Christian democrats, and agrarians. In this context, it is natural to think of the three politicians 1, 2, and 3 as a social democrat, a Christian democrat, and an agrarian.

EQUILIBRIUM AND PREDICTION

As is frequently the case with formal models, this game has a number of equilibria. The focus here is on a subgame-perfect Nash equilibrium in mixed strategies. This equilibrium is appealing on empirical grounds because on the equilibrium path, the number of candidates who chose to compete decreases over time from three to two. Thus, as the party system matures, there is a shakedown among political parties that still leaves a competitive party system. The following proposition has the result. (See the appendix for the proof.)

Proposition 3. For $s \in (2c, 3c)$, the consolidation game has a subgame-perfect Nash equilibrium in mixed strategies. In this equilibrium politicians play as follows. If no politician has ever withdrawn, then in the current period each politician withdraws with a probability $p^* \in (0, 1)$. If ever some politicians withdraw, then politicians who compete in that period continue to compete for the rest of the game. If only one politician withdraws in a given period, then in the next period the new politician also withdraws. If several politicians withdraw in a given period, then in the next period the new politician with the lowest index withdraws, while the other new politicians compete.

On the equilibrium path the party system fragments with a positive probability $(1 - p^*)^3$ that all three politicians choose to compete. More generally, such three-way fragmentation persists through the first k elections with probability $(1 - p^*)^{3k}$. Consequently, the equilibrium generates the probabilistic prediction that during the early rounds of elections, politicians in new democracies choose to fragment their party system. Eventually, however, this fragmentation ends because one of the politicians decides to withdraw from electoral competition. As a result, a new party system undergoes a period of organizational fragmentation that ends in a reduction in the number of political parties and is followed by a period of organizational stability.

To see the intuition behind this result, notice that politicians have a clear incentive to consolidate their party system by reducing the number of political parties. These incentives flow directly from the per period payoffs received by each candidate. While all three politicians compete, all three of them get $\frac{1}{3}s - c$, which is strictly less than 0. Consequently, all three of them are better off when one of them simply withdraws. (In this respect, the model is consistent with the very important line of research initiated by Duverger¹⁶ and most recently advanced by Cox¹⁷ that argues that electoral systems create incentives to reduce the number of political parties).¹⁸ At the same time, however, politicians have an incentive to temporarily postpone the consolidation of their party system because none of them wants to withdraw first. The candidate who withdraws gets 0, while the candidates who hold out get $\frac{1}{2}s - c$ in each subsequent period. In short, while they have a common interest in reducing the number of political parties, politicians in new democracies also have conflicting interests as to who is going to pay the costs of this reduction.

The main contribution of the model is to suggest a micromechanism behind the freezing of party systems. On the equilibrium path the game begins with a positive probability of a three-way competition. The three politicians are likely to fight against each other in the first few rounds of elections because they are unable to establish clear expectations about who is going to compete in these elections and thus they are unable to coordinate their decisions. Once some of them withdraw, however, all other politicians establish clear and self-enforcing expectations about who is going to compete in the rest of the game. In

¹⁶ Maurice Duverger, *Political Parties* (London: Methuen, 1954).

¹⁷ Cary Cox, *Making Votes Count: Strategic Coordination in the World's Electoral Systems* (Cambridge: Cambridge University Press, 1996).

¹⁸ In fact, Cox was the first one to suggest that fragmentation of party systems in Eastern Europe can be analyzed as a coordination problem.

particular, old politicians continue to compete because they expect that new politicians will withdraw. Under these expectations, competition is optimal. Conversely, new politicians continue to withdraw because they expect that old politicians will compete. Under these expectations, withdrawal is optimal, and the three-way competition is prevented. In short, the withdrawal of some of the candidates leads to a resolution of the coordination problem and the establishment of clear expectations about entry. As a result, the party system stabilizes into a steady state in which a small number of established political parties dominate electoral politics. To put it differently, party systems freeze because over time politicians learn how to coordinate their entry into electoral competition.

V. TRANSLATING SOCIAL CLEAVAGES

PREEXISTING CLEAVAGES AND THE SHAKEDOWN OF POLITICAL PARTIES

The contribution of the article, however, derives not from the model itself but from thinking of the model as a micromechanism of translation that relates the reduction in the number of political parties to the politicization of social cleavages. The easiest way to see this is to return to the substantive interpretation of the model and to think of politicians 1, 2, and 3 respectively as a social democrat, a Christian democrat, and an agrarian. From this perspective, the important thing is not that a withdrawal of one candidate reduces the number of established political parties but that such withdrawal affects the bases of political competition. In the model, while all three candidates compete, the party system has two axes of political conflict—urban-rural and secular-religious. Let us adopt, for example, the convention that the social democratic candidate scores 1 on the urban-rural dimension and 1 on the secular-clerical issue; the Christian democratic candidate scores 1 on the urban-rural dimension and -1 on the secular-clerical dimension; and the agrarian candidate scores -1 on the urban-rural issue and -1 on the secular-clerical dimension. Consequently, when all three candidates compete, there is a candidate on each side of each issue, and so the party system has two political oppositions that correspond to the two underlying social cleavages. In other words, while the party system is still in flux, it accurately translates social tensions into political conflicts.

Once one of the candidates withdraws, however, the number of politicized cleavages may be reduced. To see how, imagine the case in which the agrarian candidate decides to withdraw first. The social dem-

ocratic candidate retains his or her scores on both issues, but the Christian democratic candidate must adopt the centrist position on the urban-rural dimension. This is true because this candidate is now supported by a cross-cleavage coalition of urban and rural voters and so adopts the position of 0 on this issue. As a result, the socialist and the Christian candidates continue to disagree on the secular-clerical dimension, but the urban-rural cleavage is now blurred. Thus a reduction in the number of candidates may lead to a reduction in the number of political oppositions without a corresponding reduction in the number of social cleavages.¹⁹

Moreover, the outcome of party shakedown may influence which cleavages become depoliticized and which manage to retain their political salience. Imagine, for example, that the social democratic candidate withdraws first. The agrarian candidate retains his or her scores on both issues, but the Christian democratic candidate moderates his or her stance on religion. As a result, the secular-religious cleavage becomes blurred and the party system becomes politicized along the urban-rural dimension. In short, depending on which candidate drops out, the axis of political competition rotates by "90 degrees": if the agrarian candidate drops out, the remaining politicians compete along the secular-religious cleavage, but if the social democratic candidate drops out, the remaining politicians compete along the urban-rural cleavage.²⁰ The translation of cleavages into political oppositions is therefore fundamentally affected by what happens in the early rounds of electoral competition.

This conclusion has direct implications for the significance of new party systems. As explained above, party systems in new democracies are frequently perceived as temporary periods of organizational fragmentation that lack wider theoretical significance. Indeed, the early rounds of electoral competition among a large number of poorly organized and unstable parties are not particularly inspiring. The messy character of these elections is clearly different from the structured nature of elections in many established democracies, where long-standing and disciplined political parties compete for votes along well-defined,

¹⁹ To ground this hypothetical scenario in reality, consider the example of Poland. The country has a large farming population and an old agrarian party (PSL) that traces its roots to the late nineteenth century. Recent opinion polls suggest, however, that the party is only slightly above the 5 percent legal threshold necessary to gain parliamentary seats. Among other things, the party faces competition from parties that appeal to farmers on religious grounds. Should PSL be eliminated from electoral politics, Poland would continue to have a pronounced urban-rural cleavage, but this cleavage would no longer be politicized.

²⁰ Without additional assumptions, the elimination of the Christian democratic candidate can lead to an indeterminate outcome.

programmatic lines. However, the argument advanced in this article implies that the outcomes of the messy elections in new democracies, where the long-term bases of political contestation are still up for grabs, are in a sense more consequential than electoral outcomes in established democracies, where the bases of political contestation are already well defined. In new democracies the early rounds of electoral competition determine not only who wins or loses a particular election but also, and perhaps more importantly, which social cleavages will be depoliticized and which will be established as permanent bases of political conflict. As a result, party systems in new democracies should be seen as critical founding moments when political elites forge long-term political identities that define the party system for years to come. Once those political identities are established, the party system enters into the period of “normal” politics characteristic of mature democracies.

Consider briefly how the argument developed in this section can be taken to the data. So far the article has confined itself to brief, country-specific examples that serve as an empirical anchor or an illustration of the argument. However, the model generates a clear empirical hypothesis that can be systematically tested.

Hypotheses 1. Over time a decrease in the number of political parties should decrease the number of politicized cleavages.

While a variety of data, ranging from expert opinions to surveys, can be used to test this hypothesis, an interesting and thus far unexplored approach is to analyze roll-call votes cast in Eastern European parliaments. To this end, we focus on a given country and study roll-call votes from a sequence of successive parliaments (separated by elections). For each parliament, we compute NOMINATE scores (Poole and Rosenthal)²¹ and use these scores to estimate the number of dimensions of political conflict in that parliament. Moreover, for each parliament we compute the number of parliamentary parties. Repeating this procedure for several Eastern European parliaments yields a panel data set that allows us to study the relationship between the number of dimensions of political conflict and the number of parliamentary parties. If the argument advanced in this article is correct, then *ceteris paribus* as the number of parliamentary parties decreases over time, we should observe a corresponding decrease in the number of political oppositions.

²¹ Keith Poole and Howard Rosenthal, *Congress: A Political Economic History of Roll Call Voting* (New York: Oxford University Press, 1997).

NEW CLEAVAGES AND THE THAWING OF PARTY SYSTEMS

Although proposition 2 establishes that a frozen party system makes the politicization of new social conflicts difficult, there is still the possibility that a new social cleavage will trigger a temporary thaw in the party system. After all, a political entrepreneur can exploit newly emergent social tensions in order to launch a new political party. Should this happen, the set of existing parties, as well as the voting patterns, will change. As a result, the assumptions behind proposition 2 will not be met, and the restrictions imposed by the proposition will no longer bind. The possibility of a thaw in a frozen party system must, therefore, be studied separately. To this end, return to the model of party shake-down. Focus on any time period after some of the candidates withdraw from electoral competition, when the party system is already frozen. Two things must happen for the new social cleavage to become politicized via a thaw. First, a political entrepreneur must launch a new political party. In the terminology of the model, a new politician must choose to compete rather than withdraw. Second, after the initial entry into electoral competition, that politician must continue to compete in order to win the war of attrition against one of the established candidates.

According to the model, of course, a frozen party system generates strong incentives against competition by new challengers. In order to compete, a candidate must believe that each of the two opponents competes with a probability no greater than $(1 - p^*)$ defined in proposition 3. Otherwise, the expected benefits of campaigning are less than the costs, so the incentives to compete disappear. Further, as explained above, a frozen party system is characterized by a common expectation that the two established candidates are certain to compete for the rest of the game. As a result, we observe on the equilibrium path that once a party system freezes, new politicians choose not to compete and thus leave the game. The model suggests, therefore, that once a party system freezes, political entrepreneurs are deterred from challenging the established candidates. It follows that the reemergence of the war of attrition among politicians is unlikely. This is precisely why a frozen party system remains frozen.

Notice, moreover, that even if a new challenger were to compete, perhaps because of informational asymmetries, that challenger would still have to win the war of attrition against one of the established parties. Otherwise, if an entrepreneur competes for a while but eventually drops out, the party system reconsolidates around the old parties. As a

result, after a temporary politicization, the new social conflict becomes depoliticized. Notice that according to the model, the outcome of the war of attrition is indeterminate. In fact, if we loosely presume that once a new challenger enters, then all three politicians behave in accordance with the Nash equilibrium in mixed strategies described in proposition 3, then the new entrant has exactly two-thirds chance of winning and displacing one of the established candidates. In short, while a victory in the war of attrition is clearly possible, it is by no means automatic, and so even if an entry takes place and the new cleavage triggers the formation of a new political party, permanent politicization might still be elusive.

WILL CLASS CONFLICT BE POLITICIZED?

It is important to stress that the argument advanced in this section allows for the politicization of new social conflicts. New cleavages can be politicized, as can be seen in the rise of environmental parties in Western Europe (Kitschelt).²² Politicization of such cleavages cannot be taken for granted, however, because the conditions that allow this to happen are restrictive. It is difficult to politicize a new cleavage under a frozen party system, and it is difficult to thaw such a system and win the war of attrition against established parties. In the context of Eastern Europe these difficulties imply that class conflict might not become politicized. If party systems in Eastern Europe freeze before property-owning classes become entrenched, then the politicization of the capital-labor cleavage will be difficult. In this important respect, therefore, the party systems in postcommunist Europe are likely to differ from their West European counterparts.

Indeed, we can formulate the following hypothesis, which can be tested against empirical data.

Hypotheses 2. On average, class conflict in Eastern Europe should be less politicized than it is in Western Europe.

An interesting way of testing this hypothesis is to perform a content analysis of electoral platforms adopted by political parties during campaigns. We can thereby develop a fairly direct measure of the salience of class conflict in each country. Klingemann, Hofferbert, and Budge,²³ for example, have performed an extensive analysis of party platforms in Western Europe, and their methodology can be extended to Eastern

²² Herbert Kitschelt, *The Logics of Party Formation* (Ithaca, N.Y.: Cornell University Press, 1989).

²³ Hans-Dieter Klingeman, Richard Hofferbert, and Ian Budge, *Parties, Policies, and Democracy* (Boulder, Colo.: Westview Press, 1994).

Europe. Such data allow us to estimate the variance in the political salience of class conflict across these two regions. If the argument advanced in this section is correct, then *ceteris paribus* the political salience of class conflict in Eastern Europe should be relatively muted. In fact, it is worthwhile to speculate that party systems in Eastern Europe are likely to resemble the party system in the United States, where, for completely different reasons, competitive elections and political parties predated the emergence of industrial capital and labor and where the political salience of economic class is relatively low (Lipset and Marks).²⁴ In this respect the Eastern European party systems are likely to differ as well from party systems in new democracies that emerge in the wake of right-wing dictatorships that preserved property rights.

VI. CONCLUSION

This article discusses party systems in the new democracies of Eastern Europe, and it addresses two questions about the translation of social cleavages into political oppositions. The first question concerns the translation of preexisting social cleavages into political conflicts and focuses on the relation between the process of translation and the evolution of new party systems. In brief, it addresses the question of whether the reduction in the number of political parties affects the translation of social cleavages into political oppositions. The argument developed in this article suggests that the answer is yes. The politicization of preexisting cleavages hinges on which parties manage to survive the early, chaotic periods of electoral competition. An important consequence of this argument is to reassess our interpretation of new party systems. Rather than thinking of party shakedown as an uninteresting period of organizational confusion, we should regard it as an important founding moment that affects the long-term bases of political conflict in new democracies. The second question centers on the translation of new cleavages, that is, cleavages that emerge once a party system is already frozen. In particular, if a social cleavage emerges after a party system freezes, will it become politicized? Here, the answer is qualified. While new cleavages can be politicized, politicization is not inevitable. On the contrary, it is possible that a new cleavage will remain politically dormant. In the context of Eastern Europe, this answer implies that class conflict need not assume the degree of political salience that it enjoys in Western Europe.

²⁴ Seymour Martin Lipset and Gary Marks, *It Did Not Happen Here: Why Socialism Failed in the United States* (New York: Norton, 2000).

In order to think through these two issues as carefully as possible, the article proposes a formalization of social cleavage theory. Using this formalism, it speaks to an important ambiguity in the current formulation of that theory, namely, the possibility that coalition making might lead to a depoliticization of a significant social cleavage. Equally important, the article uses the formalism to extend the scope of social cleavage theory to a consideration of the question of whether it is possible to politicize social cleavages that emerge after a party system freezes. In addition, the article proposes a game-theoretic model of party shakedown and uses the model to study how strategic interaction among political elites affects the politicization of old and new social cleavages. By relating game theory to social cleavage theory, the article highlights an important affinity between the line of theory advanced by Lipset and Rokkan and the body of scholarship inspired by Duverger. The hope in doing this is to take a step toward bridging the gap that occasionally separates these two intellectual traditions.

APPENDIX

PROOF OF PROPOSITION 1

The strong version of social cleavage theory can be criticized as follows: given any structure of social conflict, the emergence of the universal coalition of all groups leads to a depoliticization of all social cleavages. Consequently, we must accept the weak version of social cleavage theory. While strictly speaking correct, this argument does not constitute a persuasive critique of the strong version of the theory. On the contrary, if the emergence of the universal coalition were the only way to depoliticize social cleavages, then the strong version would appear robust because in most instances, the emergence of the universal coalition is implausible. It follows that a persuasive critique of the strong version of social cleavage theory should not rely on the emergence of the universal coalition.

The proof is by construction and proceeds as follows. First, I introduce some additional notation. Second, I describe a recursive algorithm that takes any $\langle X, G, \sigma \rangle$ with at least three nonempty groups and constructs a set M of $k > 1$ pairs of groups that disagree on issue x_1 but agree on as “many issues as possible.” (Since issues can be renamed, the focus on x_1 is without a loss of generality.) Finally, I show that for any one-to-one mapping from the set M to a set Π of k political parties, the cleavage on issue x_1 must be depoliticized. This proof does not require the emergence of the universal coalition.

NOTATION

Let $G^* \subseteq G$ denote a subset of G . Let $X^* \subseteq X$ be a subset of X , and let $X^*_i = \{x_1, \dots, x_i\}$. Let $P = \{(g_1, g_2), (g_1, g_3), \dots, (g_2''_{-1}, g_2'')\}$ be the set of all pairs of groups, and let $P^* \subseteq P$ be a subset of P . A pair $(g, g') \in P^*$ is "complete" if neither g nor g' is an empty set. A pair is "incomplete" if either g or g' (but not both) is an empty set. (Pairs where both groups are empty sets are not relevant to the proof.)

Let ρ^c be a logical operator that takes set X^* and set G^* and returns a potentially empty set P^* of all complete pairs such that the two groups in each pair are members of G^* and disagree on all issues in X^* and agree on all issues in X/X^* . Formally,

$$\rho^c(X^* \parallel G^*) = \{(g, g') \mid g, g' \in G^*; g, g' \neq \{0\}; \forall x \in X^*, o(g, x) \neq o(g', x); \forall x \in X/X^*, o(g, x) = o(g', x)\}$$

Let ρ^i be a logical operator that takes set G^* and returns a set of incomplete pairs such that each nonempty group $g \in G^*$ is matched with an empty set. Formally,

$$\rho^i(G^*) = \{(g, \{0\}) \mid g \in G^*; g \neq \{0\}\}$$

Let $\phi(P^*)$ be a logical operator that takes set P^* and returns a set of groups such that these groups form the pairs in P^* . Formally,

$$\phi(P^*) = \{g, g' \mid (g, g') \in P^*\}$$

Let $i \in \{1, 2, \dots, n-1\}$ and $j \in \{i+1, \dots, n\}$ be two indexes. Finally, let $M^*(X^*_i \cup \{x_j\})$ and $G^*(X^*_i \cup \{x_j\})$ denote the respective sets as a function of $X^*_i \cup \{x_j\} = \{x_1, \dots, x_i, x_j\}$.

THE RECURSIVE ALGORITHM

1. $M^*(X^*_1 \cup \{x_1\}) = \rho^c(x_1 \mid G)$
2. $G^*(X^*_1 \cup \{x_1\}) = G - \phi(\rho^c(x_1 \mid G))$
3. $i = 1, j = 2$
4. $M^*(X^*_i \cup \{x_j\}) = M^*(X^*_i \cup \{x_{j-1}\}) + \rho^c(X^*_i \cup \{x_j\} \parallel G^*(X^*_i \cup \{x_{j-1}\}))$
5. $G^*(X^*_i \cup \{x_j\}) = G^*(X^*_i \cup \{x_{j-1}\}) - \phi(\rho^c(X^*_i \cup \{x_j\} \parallel G^*(X^*_i \cup \{x_{j-1}\})))$
6. If $j < n$, then: (a) keep i constant; (b) increase j by one; (c) proceed to step 4.
7. If $j = n$, and $i < n-1$ then: (a) increase i by one, (b) set $j = i+1$, (c) proceed to step 4.
8. If $j = n$, and $i = n-1$, then finish the algorithm by setting $M = M^*(X^*_i \cup \{x_j\}) + \rho^i(G^*(X^*_i \cup \{x_j\}))$
9. $M^*(X^*_i \cup \{x_{j-1}\}) = M^*(X^*_{i-1} \cup \{x_n\})$
10. $G^*(X^*_i \cup \{x_{j-1}\}) = G^*(X^*_{i-1} \cup \{x_n\})$
11. Proceed to step 4.

Steps 1, 2, and 3 set the initial values for the algorithm.

Step 4 is recursive and constructs the set $M^*(X^*_i \cup \{x_j\})$ of complete pairs of groups that disagree at most on issues $\{x_1, \dots, x_i, x_{i+1}\}$ by adding

the set $\rho^c(X_i^* \cup \{x_j\} \parallel G^*(X_i^* \cup \{x_{j-1}\}))$ of complete pairs of groups that disagree on issues $\{x_1, \dots, x_i, x_{i+1}\}$ to the set $M^*(X_i^* \cup \{x_{j-1}\})$ of complete pairs of groups that disagree at most in issues $\{x_1, x_2, \dots, x_i\}$. Note that the set $\rho^c(\cdot)$ is constructed using only groups from $G^*(X_i^* \cup \{x_{j-1}\})$.

Step 5 is recursive and constructs the set $G^*(X_i^* \cup \{x_j\})$ of groups from which pairs are formed by subtracting from the set $G^*(X_i^* \cup \{x_{j-1}\})$ the set $\phi(\rho^c(X_i^* \cup \{x_j\} \parallel G^*(X_i^* \cup \{x_{j-1}\})))$ of all groups used to construct the set $M^*(X_i^* \cup \{x_j\})$ in step 4.

Step 6 updates the indexes i and j . Once both indexes reach their maximum value, then this step constructs the final set M by adding to the set $M^*(X_{n-1}^* \cup \{x_n\})$ the set of all incomplete pairs $\rho^i(G^*(X_{n-1}^* \cup \{x_n\}))$.

Steps 7 and 8 rearrange the indexing of sets $M^*(\cdot)$ and $G^*(\cdot)$ to make them conformable to another reiteration.

THE ARGUMENT

Lemma 1. For all social structures that contain at least three nonempty groups, the set M contains at least two elements.

The algorithm creates complete pairs via ρ^c in steps 1 and 4 and incomplete pairs via ρ^i in step 7. Three nonempty groups must yield either two pairs (one complete and one incomplete) or three pairs (all of them incomplete). Consequently, there must be at least two pairs in M .

Lemma 2. For all complete pairs in M , the groups in each pair disagree on issue x_1 .

The algorithm constructs complete pairs via ρ^c in steps 1 and 4. Since ρ^c always operates on X_i^* which contains x_1 , it follows that for each complete pair in M , the groups in that pair must disagree on x_1 .

Lemma 3. For all incomplete pairs in M , the nonempty groups in each pair have the same opinion on x_1 .

Through the recursive application of ρ^c , the algorithm attempts to pair each nonempty group with another nonempty group that has the opposing opinion on x_1 . If this process leaves more than one nonempty group, it is because all other nonempty groups have the same opinion on x_1 and thus could not be paired via ρ^c . In step 7 the operator ρ^i uses these nonempty groups to create incomplete pairs. Consequently, all nonempty groups in incomplete pairs have the same opinion on x_1 .

Let k denote the number of elements in M , and let Π be a set of political parties with k parties. From lemma 1, we know that $k \geq 2$.

Consequently, Π must contain at least two parties. Now consider any one-to-one mapping from M to Π . From lemma 2 and equation 1 we know that all parties that represent complete pairs take the position 0 on x_1 . From lemma 3 and equation 1 we know that all parties that represent incomplete pairs take the same nonzero position on x_1 . From definition 2 we get that there is no political opposition on issue x_1 even though cleavage on issue x_1 exists. It follows from definition 3 that the social cleavage on issue x_1 is depoliticized. This completes the proof.

PROOF OF PROPOSITION 2

To prove the proposition, assume to the contrary that there exists at least one coalition such that all nonempty groups in that coalition are split on the new issue. Let $K(\pi, n) = \{g_1, g_2, \dots, g_k\}$ be the set of nonempty groups in that coalition before the new issue emerges, and let $K(\pi, n + 1) = \{g_1^1, g_1^{-1}, \dots, g_k^1, g_k^{-1}\}$ be the set of nonempty groups in that coalition once the new issue x_{n+1} emerges. Since all nonempty groups are split, it follows that for every nonempty group in $K(\pi, n + 1)$ that has the opinion of 1 on the new issue, there always exists another nonempty group in $K(\pi, n + 1)$ that has the opinion of -1 on that issue. Consequently, the average opinion across all groups in $K(\pi, n + 1)$ is equal to 0, and so the party π takes a centrist position on the issue. Definition 2 implies that there is no political opposition on the new issue, and definition 3 implies that the new issue is depoliticized. Thus if a new cleavage is to be politicized under a frozen party system, then all coalitions must contain at least one nonempty group that is not split by the new cleavage. This completes the proof.

PROOF OF PROPOSITION 3

FORMAL DEFINITION OF THE GAME

Consider an infinite game with complete but imperfect information. Index each period by $t \in \{1, 2, \dots\}$. Let $I_t = \{1_d, 2_d, 3_d\}$ be the set of players in period t , where $d \leq t$ denotes the period when a player $i_d \in I_t$ entered the game. Let $A = \{f, q\}$ be the set of actions available to each player during each period. Here, f stands for competing or fighting and q for withdrawing or quitting. During each period players simultaneously select an action from A . Once the actions are chosen, a player is selected at random from among players who chose to compete. Thus, if there are $n > 0$ competitors, then each competitor has a $1/n$ chance of being selected. The selected player gets $s - c$, where $s > 0$ represents the spoils of office, and $c > 0$ represents the costs of campaigning. Players

who chose to compete but were not selected get $-c$, and players who chose to withdraw get 0. Moreover, players who withdraw leave the game; that is, in all subsequent periods they choose a null action and receive 0. If player i_d leaves the game in period t , then at the beginning of the next period, a new player $i_{d'}$ enters the game ($d' = t + 1$). Finally, players maximize the discounted sum of their per period payoffs with $\delta \in (0, 1)$ being the discount factor.

To define a player's strategy, let $a_t \in \times_i A$ be an action profile selected in period t , and let $v_t \in I_t \cup \{0\}$ be the winner of election t . Let h_τ be the history of the game up to but not including period τ . A history of the game is a sequence of per period action profiles and winners: $h_\tau = \{(a_t, v_t)\}_{t=0}^\tau$. Finally, let H_τ be the set of all such histories. Since a player's strategy specifies an action after every history of the game, a pure strategy for player $i_d \in I_t$ is an infinite sequence of maps $\sigma_i: H_t \rightarrow A$. (Players who are not in the game always choose a null action.) A behavioral strategy for a player is an infinite sequence of maps $\sigma_i: H_t \rightarrow \Sigma$ where Σ is the set of all probability measures defined over A . Let Γ be the consolidation game so defined.

THE PROOF

The objective of the proof is to establish that the strategy profile described in proposition 3 constitutes a subgame-perfect Nash equilibrium. Begin with any subgame immediately following a period where at least one player withdrew. The strategy profile prescribes that players who did not withdraw, if there are any, continue to compete for the rest of the game. Moreover, if only one politician withdraws in a given period, then in the next period the new politician also withdraws. If several politicians withdraw in a given period, then in the next period the new politician with the lowest index withdraws, while the other new politicians compete. Consequently, there are exactly two players who choose to compete in each period of this subgame. The competitors expect to receive $\frac{1}{2}s - c$ in each period. Since this is strictly greater than 0, these players have no incentive to "one-shot" deviate. All other players expect that competition will bring them $\frac{1}{3}s - c$ in each period, which is strictly less than 0, and thus they too have no incentive to "one-shot" deviate.

Now consider any subgame such that no player has withdrawn in the past. Here, the strategy profile prescribes that each player withdraws with probability p^* and fights with probability $(1 - p^*)$. (To reduce the clutter, I replace p^* with p .) In order to play this behavioral strategy, player i must be indifferent between quitting in the current period and

quitting in the next period if no one has quit in the current period. By quitting now, a player gets 0. By fighting now, player i confronts the following lottery. With probability $(1 - p)^2$, the two opponents choose to fight, and player i gets $\frac{1}{3}s - c$ now and 0 in the next period. With probability $2(1 - p)p$, one of the opponents fights and the other quits, and player i gets $\frac{1}{2}s - c$ now and $\frac{1}{2}s - c$ in each subsequent period. Finally, with probability p^2 , two opponents quit, and player i gets $s - c$ now and $\frac{1}{2}s - c$ in each subsequent period. The requirement of indifference implies the following condition which must hold in equilibrium.

$$0 = (1 - p)^2\left(\frac{1}{3}s - c\right) + 2(1 - p)p\left(\frac{1}{2}s - c + \frac{\delta}{1 + \delta}\left(\frac{1}{2}s - c\right)\right) + p^2\left(s - c + \frac{\delta}{1 - \delta}\left(\frac{1}{2}s - c\right)\right)$$

The objective of the rest of the proof is to show that for $s \in (2c, 3c)$ and for $\delta \in (0, 1)$, there exists p that solves the above equation and that this p is unique, meaning that other solutions, if there are any, lie outside of the zero-one interval.

There are several ways of proceeding. Here, I choose an approach that seems to be highly intuitive, especially when rendered graphically. To this end, let $C = \frac{1}{3}s - c$, $A = \frac{1}{2}s - c + \delta/(1 - \delta)(\frac{1}{2}s - c)$ and $B = s - c + \delta/(1 - \delta)(\frac{1}{2}s - c)$ (Note that for $s \in (2c, 3c)$, $B > A > 0 > C$). Substituting and rearranging, we get the following equation:

$$2(1 - p)pA + p^2B = -(1 - p)^2C$$

Let $g(p) = 2(1 - p)pA + p^2B$ and $f(p) = -(1 - p)^2C$. Notice that $g(p)$ is a continuous function of p that equals 0 for $p_1 = 0$ and for $p_2 = -2A/(B - 2A)$. Moreover, the first derivative of $g(p)$ equals 0 for $p_m = -A/(B - 2A)$. In particular, for $B - 2A \neq 0$, $g(p)$ has a unique global extremum (either a maximum or a minimum depending on whether $B - 2A$ is greater or smaller than 0) at $(g(p_m), p_m)$. Likewise notice that $f(p)$ is a continuous function of p that equals 0 for $p_n = 1$. Moreover, the first derivative of $f(p)$ is equal to 0 for $p_n = 1$, and so $f(p)$ has a unique global minimum at $(f(p_n), p_n)$. Now consider the following three cases.

Case 1 where $B - 2A < 0$. This implies that $p_2 > 1$, and that $(g(p_m), p_m)$ is the unique maximum of $g(p)$. Thus we get that $g(p) > 0$ for $p \in (0, p_2)$. Since $p_2 > 1$, we also have that $p(1) > 0$. Since $f(p)$ is decreasing for $p < 1$ and since $f(1) = 0$, it follows that $f(0) > 0$. In short, we have that (a) $f(0) > g(0)$, (b) $f(1) < g(1)$, and (c) $p_2 > 1$. Jointly, these conditions imply that $g(p)$ and $f(p)$ intersect only once for $p^* \in (0, 1)$. (The fact that $p_2 > 1$ prevents double-crossing.)

Case 2, where $B - 2A > 0$. This implies that $p_2 < 0$ and that $(g(p_m), p_m)$ is the unique minimum of $g(p)$. Thus we get that $g(p) > 0$ for $p \in (0, 1]$ and that $g(0) = 0$. Since $f(p)$ is decreasing for $p < 1$ and since $f(1) = 0$ it follows that $f(0) > 0$. In short, we have that (a) $f(0) > g(0)$, (b) $f(1) < g(1)$, (c) $f(p)$ is decreasing for $p \in (0, 1)$, (d) $g(p)$ is increasing for $p \in (0, 1)$. Jointly, these conditions imply that $g(p)$ and $f(p)$ intersect only once for $p^* \in (0, 1)$,

Case 3, where $B - 2A = 0$. Here $g(p)$ reduces to $2Ap$, which equals 0 for $p = 0$ and is strictly increasing for all values of p . The rest of the argument is identical to case 2, and so $g(p)$ and $f(p)$ cross only once for $p^* \in (0, 1)$. This completes the proof.