Ethnic Cleavage Structures,
Permanent Exclusion and Democratic Stability

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Summary

In multi-ethnic democracies, majority rule can be a form of alien rule for ethnic minorities. Thus, Serbs in Croatia preferred a state of their own to life under a Croat-dominated government, as did Tamils in Sri Lanka, Whites in South Africa, and Kurds in Iraq, to cite only a the many examples of minorities who have protested, and sought safeguards against, the spectre of majority domination.

All multi-ethnic democracies, however, are not believed to be equally prone to the possibility of permanent exclusion of minorities by majorities. According to a classic argument in empirical democratic theory, the tendency towards permanent exclusion is likely to be weaker in multi-ethnic democracies with "multipolar" rather than "bipolar" or "majority-dominant" structures of ethnic division, and in countries with "cross-cutting" rather than "coinciding" structures.

This paper argues that the classic theories linking ethnic divisions with permanent exclusion are based on erroneous assumptions about the nature of ethnic groups. They assume that ethnic groups are fixed and exogenous to democratic politics – for if ethnic groups themselves are impermanent, then the exclusion of these groups need not be permanent. These "primordialist" assumptions have been discredited by three decades of "constructivist" research – in political science, history, anthropology, sociology, literature and cultural studies – which shows that individuals have multiple ethnic identities, and the identity which they treat as salient can change endogenously in the course of democratic politics (Brass 1974, Kasfir 1979, Andersen 1983, Waters 1990, Waters 1999, Nobles 2000, Dirks 2001, Chandra 2004, Posner 2005). Constructivist insights have undermined the foundations of our knowledge of the relationship between ethnic diversity and democratic stability. We cannot know what relationship to expect, and what institutional prescriptions to propose, until we have rebuilt this classic theory on constructivist foundations.

We try here to reimagine the relationship between the structure of ethnic diversity and democracy from a constructivist perspective. What, we ask, can we say about the relationship between the structure of ethnic divisions and the likelihood of permanent exclusion once we take the possibility for ethnic identity change into account? We model the way in which ethnic identities change in electoral politics (although not necessarily in other social and political contexts) as a process of recombination of basic elements – what we call "attributes" – into new identity categories. Thus, in order to identify structures of ethnic division that are likely to produce permanent exclusion in the short term given the possibility of ethnic identity change, we need to identify those structures in which some proportion of individuals cannot obtain membership in a majority category no matter how they combine and recombine their attribute-repertoires to fashion new identities.

Our expectation, suggested by early work on this subject, including our own, was that the introduction of a constructivist perspective should reverse our pessimism about the relationship between ethnic diversity and democratic stability (Chandra 2001, Chandra forthcoming, Jung 2000). But we find that incorporating constructivist assumptions, at least in the form that we specify them in this paper, does not reverse our pessimism in the short term – it qualifies and quantifies it. We still have reason to expect multi-ethnic democracies to produce permanent exclusion more often, on average, in the short term, than democracies in which other types of identities are salient. But the threat of such exclusion is small, and when it occurs, it is concentrated disproportionately in very specific distributions of attribute-repertoires, which cannot be described using the traditional

dichotomies between multipolar and bipolar cleavage structures, and cross-cutting and coinciding cleavages. Further, since "exclusive" distributions of attribute-repertoires are themselves not natural but endogenous to institutional structure, they may be altered over the longer duration by institutional restructuring. In the conclusion, we speculate about the kinds of institutional designs that might reduce the odds of permanent exclusion over the longer term.

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Democracy will evoke generalized compliance, it will be self-enforcing, when all the relevant political forces have some specific minimum probability of doing well under the particular system of institutions.

Adam Przeworski, <u>Democracy and the Market</u>, 30-31.

The potential for instability exists when any significant group of people ends up as permanent losers.

Lani Guinier, <u>Tyranny of the Majority</u>, 8.

According to a classic argument in empirical democratic theory, a democracy must not permanently exclude any significant group from power if it is to survive. (Madison 1992, Dahl 1971, Przeworski 1991). But democracies in which ethnic divisions are politically salient, the argument goes, are especially likely to produce the permanent exclusion of some group from power. Consequently, they are especially likely to be unstable (Horowitz 1985, 1991, Guinier 1994, Dahl 1971, Rabushka and Shepsle 1972). The <u>fact</u> of permanent exclusion can decrease the odds of democratic stability, since it gives excluded groups little incentive to support the system. This is one interpretation of developments in Sri Lanka, where the Tamil minority, repeatedly excluded from power by Sinhala majority parties, eventually resorted to violence. But the <u>fear</u> of such exclusion may also have an equivalent effect, by giving the minority an incentive to engage in preemptive violence (Fearon 1998). This is one interpretation of developments in the former Yugoslavia, where the Krajina Serbs were more willing to risk war than minority status in a Croat dominated state.

All structures of ethnic division, however, are not judged to be equally malign. A "multipolar" structure of ethnic divisions – that is, a structure of ethnic divisions in which all ethnic categories constitute a minority of the population -- is believed to be less threatening than a "bipolar" structure – that is, a structure with two ethnic categories, one a majority and the other a minority -- or a "majority-dominant" structure – that is, a structure with a majority and one or more minorities (Geertz 1973). In a majority rule system in which each category is in a minority, the argument goes, none has the power to exclude the other (Dahl 1971). Similarly, a "cross-cutting" structure of ethnic divisions – that is, a structure of ethnic divisions in which individuals in the same group on one dimension of cleavage are in different groups on another dimension -- is believed to be less threatening than a structure in which ethnic divisions coincide (for a summary of this view, see Rae and Taylor 1970). When ethnic divisions are cross-cutting, a group that has minority status on one dimension may well be a majority on another dimension. Permanent exclusion, therefore, is less likely.

But this classic theory and the institutional prescriptions derived from it are both based on erroneous assumptions about the nature of ethnic groups. They assume that ethnic groups are

fixed and exogenous to democratic politics – for if ethnic groups themselves are impermanent, then the exclusion of these groups need not be permanent. These "primordialist" assumptions have been discredited by three decades of "constructivist" research – in political science, history, anthropology, sociology, literature and cultural studies – which shows that individuals have multiple ethnic identities, and the identity which they treat as salient can change endogenously in the course of democratic politics (Brass 1974, Kasfir 1979, Andersen 1983, Waters 1990, Waters 1999, Nobles 2000, Dirks 2001, Chandra 2004, Posner 2005). Constructivist insights have undermined the foundations of our knowledge of the relationship between ethnic diversity and democratic stability. We cannot know what relationship to expect, and what institutional prescriptions to propose, until we have rebuilt this classic theory on constructivist foundations.

The goal of this paper is to reimagine a theory of the relationship between ethnic diversity and democracy from a constructivist perspective. What, we ask, can we say about the relationship between ethnic diversity and democracy once we take the possibility for ethnic identity change into account? Does a constructivist perspective eliminate the threat to democracy associated with ethnic diversity? Are multi-ethnic democracies, in other words, indistinguishable from democracies in which other types of identities are politically salient? Does a constructivist perspective redefine the threat? That is, should we continue to expect multi-ethnic democracies to be unstable, but for different reasons than those proposed in our classic theory? Or does it confirm the old predictions, albeit on a rebuilt theoretical foundation? That is, should the possibility of ethnic identity change make no difference to the threat of destabilization of multi-ethnic democracies? Following the literature to which we respond, we are concerned only with identifying the structural possibilities for permanent exclusion. We do not provide a theory of agency that indicates when such possibilities are activated.

We model the way in which ethnic identities change in electoral politics (although not necessarily in other social and political contexts) as a process of recombination from a fixed set of elements. This fixed set of elements refers to an initial distribution of "attribute-repertoires" generated by taking into account the pattern of intersection between the socially salient ethnic identity dimensions and the groups arrayed on those dimensions in a society at some initial moment. This distribution of attribute-repertoires is itself a product of institutions such as the census, the legal system and the educational system that "construct" an initial pattern of diversity by imposing a rule of interpretation on an otherwise unorganized pattern of social heterogeneity. (Andersen 1983, Dirks 2001, Pandey 1990, Nobles 2000, Posner 2005, Laitin 1986). But once produced, it can be taken to be fixed in the short term, since the institutions which control our interpretive frameworks are typically slow to change. Political entrepreneurs and voters, therefore, attempt to manipulate ethnic identities for electoral gain in the short term by combining and recombining attribute-repertoires into new ethnic identity categories within the constraints of this underlying distribution. Thus, in order to identify structures of ethnic division that are likely to produce permanent exclusion in the short term given the possibility of ethnic identity change, we need to identify those structures in which some proportion of individuals cannot obtain membership in a majority category no matter how they combine and recombine their attribute-repertoires to fashion new identities. In the long term, however, we should expect changes in the underlying distribution of attribute-repertoires, sometimes initiated by short-term losers, to alter the possibilities of such exclusion.

Our expectation, suggested by early work on this subject, including our own, was that the introduction of a constructivist perspective should reverse our pessimism about the relationship

between ethnic diversity and democratic stability (Chandra 2001, Chandra forthcoming, Jung 2000). But we find that incorporating constructivist assumptions, at least in the form that we specify them in this paper, does not reverse our pessimism in the short term – it qualifies and quantifies it. We still have reason to expect multi-ethnic democracies to produce permanent exclusion more often, on average, in the short term, than democracies in which other types of identities are salient. But the threat of such exclusion is small, and when it occurs, it is concentrated disproportionately in very specific distributions of attribute-repertoires, which cannot be described using the traditional dichotomies between multipolar and bipolar cleavage structures, and cross-cutting and coinciding cleavages. Further, the prognosis for democracy in multi-ethnic societies is more optimistic over the longer term. Since "exclusive" distributions of attribute-repertoires are themselves not natural but endogenous to institutional structure, high odds of democratic destabilization in the short term may be altered over the longer duration by institutional restructuring.

Section 1 outlines the problems with the classic theories linking structures of ethnic division with permanent exclusion from a constructivist perspective. Section 2 describes our combinatorial approach to ethnic identity change. Section 3 introduces a conceptual vocabulary for representing the combinatorial approach to ethnic identity change outlined above. Section 4 uses this vocabulary to introduce a model of the link between distributions of attribute-repertoires and permanent exclusion. Section 5 discusses the patterns of permanent exclusion associated with different types of distributions. Section 6 concludes by summarizing the argument and identifying the institutional designs most likely to support multi-ethnic democracy in the short and long term.

Throughout, we define a democracy as a system of sovereign, territorialized, institutionalized rule in which key decision makers are chosen in elections marked by freedom of contestation and participation. A democratic regime breaks down when any of these five features – sovereignty, territoriality, institutionalization, freedom of contestation, freedom of participation -- break down. A stable democracy is one in which the odds of breakdown are low. An unstable democracy is one in which the odds of breakdown are high. By permanent exclusion, we mean a situation in which some proportion of the population is excluded from membership in every possible winning category.

Note that, although the literature we follow treats the existence of permanent majorities and permanent minorities as two sides of the same coin, this need not always be the case. Although the existence of a permanent majority always implies the permanent exclusion of the minority, the reverse is not true -- a permanent minority can imply either permanent or changing majorities. Suppose, for instance, that a population has four groups: Group A which constitutes 40% of the population, Group B which constitutes 25%, Group C which constitutes 20% and Group D which constitutes 20%. Suppose, further, that the governing majorities in this population alternate between only two possibilities - a combination of Groups A and B, which constitutes 65% of the population, or a combination of Groups A and C, which constitutes 60% of the population. In this scenario, Group D, with 10% of the population will be permanently excluded despite the existence of alternating majorities. Our main focus in this paper is to identify those structures of division that can produce permanent minorities despite the existence of fluid majorities. However, the conceptual framework that we introduce here can also be used to identify the size and composition of multiple majorities where they exist, whether or not they are accompanied by permanent exclusion.

1. Problems With Classic Theories
Viewed from a constructivist perspective, there are three problems with the arguments linking ethnic cleavage structures with permanent exclusion: (1) There is no reason to expect, given the possibility of ethnic identity change, that multipolar or cross-cutting cleavage structures should prevent permanent exclusion. (2) We have no basis for comparing the likelihood of permanent exclusion associated with different types of cleavage structures. (3) We are not able to represent structures of ethnic cleavage with more than two dimensions and therefore link these more complex structures with probabilities of permanent exclusion. We discuss each below.

1.1 Why, given the possibility of ethnic identity change, should multipolar or cross-cutting cleavage structures prevent permanent exclusion?
Consider first the proposition that multipolar cleavage structures are less likely, on balance, to prevent permanent exclusion than majority-dominant cleavage structures. Although arguments about multipolar cleavage structures typically assume a mutually exclusive array of ethnic categories on a single dimension, multipolar "segments" may also be produced by the intersection of groups on multiple dimensions. (Dahl 1971, Lijphart 1977).

In a world in which identities can be reconstituted, what prevents two or more minority ethnic categories in a multipolar structure from coalescing to form a new majority ethnic category and excluding the rest? Indeed, this is exactly what happened in Sri Lanka. At the time of independence, Sri Lanka had a multipolar structure of ethnic division, with five significant ethnic categories: the Low Country Sinhalese (42%), the Kandyan Sinhalese (27%), the Indian Tamils (12%), the Ceylon Tamils (11%) and the Ceylon Moors (6%). But over repeated elections, the Low Country and the Kandyan Sinhalese coalesced into a new identity category – an undifferentiated Sinhalese majority corresponding to roughly 70% of the Sri Lankan population – and excluded the Tamil minority. (Tambiah 1986, Rajasingham-Senanayeke 1999)

By the same logic, what prevents a bipolar or majority dominant structure from being reconstituted as a multipolar structure? This is what happened in the Indian state of UP in the 1990s, when an initially bipolar structure of ethnic division, with a "Backward-Caste" majority and an "Upper-caste" minority gave way in three short years to a structure with at least six principal categories, none of which constituted a majority: the "Forward Castes," the "Backward among Forward Castes," the "Forward among Backward Castes," the "Backward Castes," the "Most Backward Castes," and the "Scheduled Castes." (Chandra forthcoming).

In a world in which multipolar cleavage structures can be transformed into bipolar ones, and bipolar structures into multipolar ones, it is not clear what we can say about the relationship between a given cleavage structure and the likelihood of democratic stability.

The proposition that cross-cutting cleavages can prevent permanent exclusion does take the possibility of ethnic identity change into account, by allowing individuals to switch from an ethnic identity category on one dimension to an ethnic identity category on another. But this incorporation of constructivist assumptions is only partial. The logic of the cross-cutting cleavages argument requires <u>alternation</u> between the majority on one dimension and the majority on another dimension. As long as the two dimensions are even partially cross-cutting, alternation will produce the inclusion of some minorities on the new dimension which were excluded on the old one.

But what prevents individuals who are in the majority group on both dimensions from coalescing into a smaller, two-dimensional category and excluding the rest? One example of this phenomenon comes from the case of Uganda in the immediate aftermath of independence. Uganda had at least two cross-cutting ethnic divisions, based on region and religion. The Baganda were the largest group on the dimension of region. There were three dominant groups on the dimension of religion: the Catholics, the Protestants and the Muslims. But competitive politics in Uganda was not characterized by alternation between majorities based on region and majorities based on religion. Instead, it produced a two-dimensional category -- the Baganda Protestants -- and a corresponding coalescence among those left out, especially the non-Baganda Catholics, with each attempting to exclude the other (Young 1976, Kasfir 1976).

Given the possibility of such coalescence, are there still conditions under which cross-cutting cleavages will decrease the likelihood of permanent exclusion? We don't know.

1.2 How might we compare the effect of different types of cleavage structures on democratic stability?

The distinction between multi-polar and bipolar structures and cross-cutting and coinciding cleavage structures are dichotomous ones. But how might we distinguish between the effect of different types of structures within and outside these broad labels?

Take first the case of a "multipolar" structure. Is a multipolar structure with many groups of different sizes (e.g. .4, .25, .15, .05, .05, .05, .05) better or worse for democracy than a multipolar structure with a small number of groups of equal size (e.g. .25, .25, .25, .25)? We have no criteria to help us decide.

The problem is compounded when we move from single to multiple dimensions. Is a democracy that has 6 ethnic categories of equal size on one dimension more or less likely to be stable than one with 3 categories of equal size on each of two dimensions?

Similarly, how do we compare the effect of different types of cross-cutting structures? We have an index, proposed by Rae and Taylor, that measures the degree to which two dimensions of cleavage cut across each other (Rae and Taylor 1970, 92-97). But this index is not informative about the probability of permanent exclusion. We cannot tell, for instance, whether a country with a value of .4 on this index has a higher or lower probability of permanent exclusion than a country with a value of .8.

Finally, how do we predict the effect of cleavage structures that do not fit into these dichotomous classifications on the likelihood of permanent exclusion and therefore democratic stability? Take the case of "nested" cleavage structures -- multidimensional cleavage structures in which ethnic categories on one dimension "nest" within categories on another dimension. Thus, the tribal category Bemba is nested within the linguistic category of Bemba-speaker in Zambia, the tribal category Zulu is nested within the racial category of Black in South Africa and the caste category Brahmin is nested within the religious category of Hindu in India (Posner forthcoming, Ferree 2004, Chandra 1999). Nested cleavage structures are an important type, characterizing almost all countries in Africa (Mozaffar and Scarritt 2002), among others. What effect might nested structures have on permanent exclusion?

Similarly, how might we determine the propensity of other types of cleavage structures – ranked and unranked, or "centrally-focused and dispersed" (Horowitz 1971, 1985) – to produce permanent exclusion? This remains an open question.

1.3 How do we represent cleavage structures in multiple dimensions?
Constructivism highlights the existence of multiple dimensions of ethnic identity in a single country, which can intersect with others in complex ways. In order to theorize about the relationship between structures of ethnic cleavage and the likelihood of permanent exclusion in general, we must first find a way of representing such relationships between dimensions.

Rae and Taylor's index of "cross-cuttingness," described above, is one simple device by which these relationships can be represented. Lijphart's classification of cleavage structures according to the angles at which different lines of cleavage intersect is another (Lijphart 1977, 75-81). The "Ethnic Identity Matrix" proposed by Posner (forthcoming) is a third. And a fourth way is to use elementary set theory to represent intersections in group memberships across dimensions (Chandra, forthcoming).

The problem with these devices, however, is that they are best suited to representing a world with only two dimensions of ethnic cleavage. They break down when we try to imagine structures of ethnic division that entail more than two dimensions of cleavage.[1] But many countries have complex structures of ethnic division that include three or more salient dimensions, including India, in which region, language, caste, religion and tribe are salient, the U.S, in which race, religion, language, region, and nationality are salient, and Malaysia, in which race, language, region, religion and tribe are salient. In order to theorize about the link between cleavage structures and the possibility of permanent exclusion, we must find a way to represent these more complex structures.

2. A Combinatorial Approach to Ethnic Identity Change

The first step in rebuilding a theory of multi-ethnic democracy on constructivist foundations is to specify what those foundations are. "Constructivism" is a word that covers a wide spectrum of approaches to ethnic identity change, each with different implications for democratic theory (Chandra 2001a, Chandra 2001b). At one end of the spectrum lie variants of constructivism that describe the process by which ethnic identities change as a "punctuated equilibrium," with periods of flux at critical junctures followed by long periods of stability. These variants locate the source of ethnic identity change in structural transformations such as industrialization, the introduction of print-capitalism, the introduction of colonial rule, or state collapse (Andersen 1983, Gellner 1983, Laitin 1986, Laitin 1998). They imply that it is perfectly reasonable to take ethnic groups as fixed and exogenous in a theory of democracy, since ethnic identities change only rarely, and then not in response to electoral politics. At the other end lie variants that describe ethnic identities as occupying a "zone of occult instability," (Bhabha 1994, quoting Fanon, 35) – that is, changing from moment to moment in unpredictable ways. The source of such disequilibrium lies in the ambiguities supposedly inherent in the nature of identity itself, so that it is not possible to "name" an identity

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[1] Rae and Taylor's index can in principle be extended to cover multiple dimensions. However, the authors do not attempt such an extension themselves. Further any such extension requires a conceptual decision about how to think cross-cuttingness in more than two dimensions and the criteria for making such a decision are not clear.

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without simultaneously displacing its meaning. Since the simple act of naming ethnic categories in the electoral arena should introduce changes in their boundaries and content we cannot take ethnic identity to be fixed and exogenous to democratic politics even in the short term.

This paper takes an approach to ethnic identity change that lies midway between these two extremes. It argues that ethnic identities do change in response to electoral politics – but makes a distinction between the mechanisms and speed by which such changes take place the short-term and long-term. Short term changes in ethnic identity in response to electoral politics can occur rapidly and in predictable, or at least patterned, ways. These short term processes, in turn, trigger long term changes that take place slowly and less predictably.

In the short term, ethnic identities change in the course of electoral politics primarily through <u>a process of recombination from a fixed set of elements.</u> This fixed set of elements is the distribution of ethnic "attributes" such as skin colour, last name, language that defines a population. An ethnic category is constructed by imposing a rule of classification on these attributes (Chandra 2005a). For example, one way of defining the category "Hindu" in electoral politics in India is as a classification that includes those with the last names Yadav or Saini or Gupta, but not those with the last names Sayyid, or Mohammad or Mathew. A rule of classification, in turn, can be expressed simply as a <u>combination</u> of attributes. Thus, the rule of classification defining membership in the category Hindu can be expressed as the combination {Yadav or Saini or Gupta or Mishra …..}, or as the "Not" Combination {~ Sayyid and ~Mohammad and ~Mathew}. Politicians can induce changes in ethnic identities simply by employing new rules of classification on the underlying distribution of attributes – that is, by <u>recombining</u> them. For instance, political parties in India which stand to lose if most of the population identifies itself as Hindu have floated new categories such as "Bahujan" or "OBC" defined as the combination {Yadav or Saini or Ahirwar or Mohammad or Mathew…}, or as the "Not" Combination {~Gupta and ~ Mishra and …}. A voter with the last name Yadav, then, might switch from activating membership in the category Hindu to activating membership in the category "Bahujan" or "OBC." Such changes can occur rapidly because they require simply a reclassification of existing attributes such as last name, but not a change in the last name itself, or a change in the sense of self and history that often accompanies the name. And they can be predictable, or at least vary within some predictable range, because they are constrained by the underlying distribution of attributes (Chandra 2005a).

In the short term, then, theorizing about the relationship between ethnic diversity and permanent exclusion is a matter, first, of mapping the range of combinations that can be generated from an underlying distribution of attributes, treating each of these combinations as a possible identity category, and identifying the conditions under which we should see permanent exclusion <u>even when the combinatorial possibilities are taken into account</u>.

In the long term, however, the underlying distribution of attributes that constrains the possibility of ethnic identity change in the short term is itself subject to change. To illustrate, imagine a hypothetical population, prior to the introduction of the modern state and its standardizing apparatus. Such a population is typically distinguished by two aspects: (1) It is characterized by an indeterminate pattern of heterogeneity. There are sure to be objective differences in skin colour, in names, in features, in language and so on, but individuals do not have uniform rules of selection and interpretation that tell them which of these differences are important, and how to characterize them. (2) Knowledge about this pattern, even in its raw, indeterminate form, is highly localized.

Individuals do not have the conceptual apparatus to imagine patterns of heterogeneity beyond their immediate environments. That, at any rate, is the standard portrait of pre-modern populations in the large and influential body of scholarship on the role played by the modern state in the construction of knowledge, (for instance, Andersen 1983, Dirks 2001, Posner 2005, Gellner 1983, Weber 1976).

The modern state, according to this body of work, transforms both aspects. It introduces a standardized scheme of interpretation which tells individuals which markers to pay attention to and how to interpret them. In the U.S., for instance, the census and the legal system influence both the weight that individuals place on skin colour relative to other markers, and the dichotomous interpretation of particular shades of skin colour, which might in principle be interpreted in many ways, as either "black" or "white." (Dominguez 1997, Nobles 2000) In India, by contrast, the census and the legal system direct individuals away from skin colour towards markers such as last name. And once such standardized patterns are created, they acquire the status of a commonsensical reality, helped along by country-wide administrative and educational systems that portray the interpretations crystallized in the census and maps as "objective" snapshots of the population. (Andersen 1983, Laitin 1986, Posner 2005).

Changing this common-sense reality, then, requires changes in census categories, in legal codes, in administrative policies, and in textbooks, among other things. But such changes are slow, piecemeal and not entirely deterministic. Consider the example of the emergence of a new religion. This might be the predictable consequence of losses in the electoral arena -- political entrepreneurs from a permanently excluded religious minority, for example, may have no choice but to create a larger following around new symbols. But new religions may also emerge out of less predictable social circumstances. Further, once a religious founder emerges, it typically takes a long time before a following is established, teachings codified, and an organization established. Even then, a new religion must be recognized as such by the census and in official policy before citizens country-wide become aware of it, and include it in their mental picture of the distribution of attributes in the population. And note, finally, that the inclusion of a new religion represents merely an incremental change in the distribution of attributes, not a wholesale transformation of that distribution.

Theorizing about the relationship between ethnic diversity and permanent exclusion in the long term, therefore, requires modeling changes in the underlying distribution of attributes over time, and incorporating a possible feedback effect between short term electoral politics and incremental changes in this underlying distribution.

Several important questions arise immediately from the approach identified above, and they are worth addressing before going further:

To some readers, the idea that change in ethnic identities can be conceptualized simply as a change in the combination of its constituent attributes may seem at first hard to accept. Aren't identities more than just combinations – don't they add up to some indivisible whole that is more than the sum of its parts? And doesn't identity change mean more than simply recombining attributes – doesn't it involve a fundamental change of self?

In many contexts, the answer to both these questions is yes -- identity categories acquire a resonance that has a life of its own, and changing identities can involve wrenching cultural and emotional changes. Being Jewish, for instance, is for many Americans a matter not simply of descent, but of a way of life. And switching out of, or diluting, that identity is not simply a matter of recombination, but can entail transformative decisions about how to live and whom to marry. But the decision about how to vote is very different from the decision about how to live. We wish to claim only that recombination is an important and recurrent form of change in the context of electoral politics, not that ethnic identity change takes place through recombination in all contexts. Above, we used the example of identity change through recombination in India, which is the motivating case for the approach defined in this paper. But consider other examples. One comes from electoral politics in Sri Lanka. The Sinhalese majority category that emerged in post-independence Sri Lanka politics was a combination of the Low-Country Sinhalese and the Kandyan Sinhalese (themselves a combination of attributes at lower levels) (Rajasingham 1999). In South Africa, similarly, politicians employed different combinations of attributes to define membership in the category Afrikaaner throughout the 20th century, driven by electoral considerations (Jung 2000). At the turn of the century, the category was defined by a single attribute: {Descent from Dutch colonizers}. In the 1920s, the National Party defined the category Afrikaaner to include a larger combination: {Descent from ancestors in France or Holland or Germany or England}. In the 1930s, reconstituted sections of the former National Party proposed a more restrictive combination, defining the category Afrikaaner as a combination of attributes on the dimension of language in addition to descent. Thus, Afrikaaner came to mean the combination {(Descent from ancestors in France or Holland or Germany) and (Afrikaans language)}. In the 1960s, the need to build a larger coalition led the National Party to propose new combination with a new name. This time, it mobilized the combination {Afrikaaner or English-speaker} under the common label of White (Jung 2000, 115-6).

Indeed, what we call "recombination" is a general term for processes that have long been recognized in the interdisciplinary literature on constructivism as "fission" and "fusion" or "supertribalization" (Horowitz 1971, Rudolph and Rudolph 1967, Van Den Berghe 1981, 57). The term "fission" is that form of recombination in which new groups are created by the disaggregation of larger ones. The term "fusion" refers to that form of recombination in which new groups are created through the amalgamation of smaller ones. And the term "supertribalization" describes the construction of large tribal identities by the fusion of smaller ones. The term "recombination" is useful not only because it is more general than these earlier terms (it covers all types of combinations, including those based on amalgamation and disaggregation) but also because of the avenues it opens up for modeling identity change in precise fashion. Once we see that fission, fusion, supertribalization and other such processes can all be described as instances of recombination, we can then use simple tools from combinatorial mathematics to map the possibilities for identity change in a population.

Second, is it not primordialist to impose a constraint on the possibilities for identity change? Doesn't constructivism imply that identities can be created and recreated without constraint?

Although this is a common portrayal of constructivism, it is hard to locate any constructivist texts that take the position that identities can be constructed out of thin air. Every text with which we are familiar identifies some constraint on the possibilities for ethnic identity change. (Young 1976, Mozaffar and Scaritt 2002, Van den Berghe 1981, Kasfir 1976). Even those who go farthest in

emphasizing the fluidity and instability of ethnic identities, describing identity as an "unsettled space" maintain nevertheless that "there are always conditions to identity which the subject cannot construct. Men and women make history but not under conditions of their own making. They are partly made by the histories that they make."(Hall 1996, 340). The disagreement is only over what these constraints are, and whether they are themselves the products of some process of construction.

This leads naturally to a third question – even if we accept the idea of constraints on the possibility of change, why is it reasonable to think of distributions of attributes as a constraint? Why should we expect changes in the distribution of attributes to occur more slowly than changes in the classifications that politicians and voters impose on those distributions? Aren't both instances of the same process -- just as politicians and voters impose rules of classification on the distribution of attributes they are confronted with, the modern state imposed a rule of classification on the initial pattern of heterogeneity that it was confronted with – and if so, should they not change at the same speed?

But in fact the two processes are not identical. The modern state does not, as politicians and voters do, impose a rule of classification on a pre-existing, countrywide, distribution of attributes which is already part of the common knowledge of all citizens. Rather, it creates that country-wide distribution, by replacing compartmentalized local worlds with a single, uniformly imagined community, and then <u>institutionalizes</u> it as common knowledge. Voters and politicians can then subsequently use attributes <u>within</u> this distribution to fashion new categories relatively easily – but they cannot change this distribution without altering the institutional structures. This explains why one process is more rapid than another: A change in classifications within an existing distribution of attributes occurs within an existing institutional framework. But a change in the distribution itself cannot occur without a change in the institutions that give that distribution the status of reality.

Finally, why is it reasonable to consider, for any distribution of attributes, the entire map of possible combinations? We know that some combinations are always more likely than others. Another example from South Africa illustrates this point well. In South Africa in the 1950s, two possible combinations generated by the underlying distribution of attributes included "Zulu", defined as a combination of clans: {Usuthu or Buthelezi or… } and "Natalian" defined as a combination of races living in Natal: {White + African + Colored}. The combination Zulu was accepted without comment. But the combination Natalian was implausible, even to those who might have wished otherwise (Mandela 1994, 235).[2] Thus, if we measure the potential for identity change in a population by considering all possible combinations instead of simply those which are plausible, we are certainly overestimating the potential for identity change.

This is an important point, and elsewhere, we and others have begun to theorize about the kinds of combinations that are more plausible than others in particular contexts (Ferree 2004, Van Der Veen and Laitin 2004, Petersen 2004, Wilkinson 2004, Chandra, Boulet and Ferree 2003, Chandra

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[2] Describing his trial for treason in South Africa, for instance, Nelson Mandela remarks at a white judge who apparently thought of himself as a "Natalian,"and shared a sense of regional pride at the achievements of Blacks from the region. "Natalians," writes Mandela, "are noted for their loyalty to their region, and these peculiar bonds can sometimes even transcend color. Indeed, many Natalians thought of themselves as white Zulus." (p. 235). The very fact that the judge's self-perception was thought to be so remarkable reveals how implausible this combination is in relation to others

and Boulet 2005). The plausibility of some combinations relative to others may be affected by institutionally imposed incentives, by historical paths, by the distance between attribute-values on a continuous scale (e.g. people may prefer combinations that include proximate rather than distant languages) by the degree of difference in economic interests (e.g. people may prefer combinations that include similar rather than conflicting economic interests), by the degree of visibility (e.g. people may prefer combinations that include easily identifiable attributes), by the degree of stickiness (e.g. people may prefer combinations that include attributes that are harder to change over attributes that are easier to change), by the degree of complexity (e.g. people may prefer simple combinations over complex ones), by the number of distinct attributes-repertoires, (e.g. people may prefer combinations with fewer attribute-repertoires), by the stigmas associated with some attributes, and so on.

But here, our purpose is simply to lay out the approach used in the paper in the most general terms. Considering the general case with all possible combinations is illuminating in two ways: (1) By giving us an <u>upper bound</u> on the possibilities for ethnic identity change, it should give us a <u>lower bound</u> on the amount of permanent exclusion associated with different kinds of distributions. In other words, if there are some structures that produce permanent exclusion even when all combinations are possible, then these structures should produce more permanent exclusion when we impose restrictions on the combinations that are plausible. (2) Mapping all possible combinations is a useful heuristic in theorizing about the restrictions that are most likely to be used. Once we identify the full range of possible combinations, we can begin asking and answering questions about why some are implausible through a process of elimination. But without knowing what the possibilities are to begin with, we cannot ask why they are not realized.

3. A Conceptual Vocabulary for Thinking About Ethnic Identity Change as Recombination

This section provides a conceptual vocabulary that allows us to represent multi-dimensional structures of ethnic division, and the possibility of ethnic identity change embedded in these structures.

3.1 A Particular Example: Oneland

Imagine Oneland, a country in which two dimensions of ethnic identity are salient, summarized below, with two types of individuals on each. By salient, we simply mean socially meaningful.

Skin colour: {Black (.65), White (.35)}
Place of Origin: {Foreign (.65), Native (.35)

The first dimension is skin colour, on which there are two mutually exclusive types of individuals: those with "black", skin, comprising 65% of the population, and those with "white" skin, comprising 35% of the population. The second dimension is "place of origin." Individuals of "foreign" origin constitute 65% of the population here, while those of "native" origin constitute 35% of the population. Throughout, we refer to these initial dimensions as <u>attribute-dimensions</u>, and these initial types of skin colour or place of origin as <u>attribute-values</u> in order to highlight the fact that they serve as attributes in the creation of other categories.

We assume that all individuals in a population possess one value on each attribute-dimension: i.e.. every person has some skin colour and every person has some hair type. Individuals in Oneland,

therefore, can have one of four possible repertoires of attributes: BF = {black, foreign}, BN = {black, native}; WF = {white, foreign}; WN = {white, native}.

Suppose that those with the repertoire BF, BN, WF and WN constitute 40%, 25%, 25% and 10% of the population of Oneland respectively. We can represent the distribution of attribute-repertoires in Oneland in the following way, where a, b, c, and d represent the proportion of individuals with each distinct attribute repertoire.

Distribution of Attribute-Repertoires in Oneland

	B	W	
F	a (.4)	b (.25)	a+b (.65)
N	c (.25)	d (.1)	.5 (.35)
	a+c (.65)	b+d (.35)	

3.2 A Generic Example of a Distribution of Attribute-Repertoires: Someland

We develop the model throughout with a generic example of a distribution of attribute-repertoires derived from 2 attribute-dimensions and 2 attribute-values, dubbed Someland, of which Oneland was a particular case. We can then represent the proportion of individuals with the each repertoire in Someland in the following way:

Distribution of Attribute-Repertoires in Someland

	B	W	
F	a	b	a+b
N	c	d	c+d
	a+c	b+d	

In the 2*2 case, there can be as many distinct populations as there are values of a, b, c and d, subject to the restriction that a+b+c+d = 1. Each time we give specific numerical values to a, b, c and d, we will give this generic population a particular name (Oneland, Twoland, Threeland, Fourland and so on).

We rely on a simple 2*2 example for the purpose of exposition. But the number of attribute-dimensions and the values on each vary across populations, and the advantage of using this representation of the distribution of attribute-values over other methods is most evident when the number of attribute-dimensions and/or the number of attribute-values is larger, and when there is variation in the number of attribute-dimensions and attribute-values across populations.

Consider the example of a population with three attribute-dimensions with two values each. Skin colour: {black (B), white (W)}; Origin: {foreign (F), native (N)}; Height: {tall (T), short(S)} This population repertoire will generate 8 individual repertoires, each with a string of three attribute-values, of sizes a, b, c, d, e, f, g and h respectively: BFT, BFS, WFT, WFS, BNT, BNS, WNT, WNS. There can be as many distinct populations in this case are there are values of a, b, c, d, e, f, g and h, subject to the restriction that a + b + c + d + e + f + g + h = 1. In general, where we have j

attribute-dimensions and n_i values for attribute dimension A_i, the total number of distinct repertoires is $n_1n_2\ldots n_j$. Further the greater the number of salient dimensions in a population, the longer the string of attribute-values included in an individual repertoire of attributes. Where we have j attribute-dimensions, each individual repertoire of attributes will be composed of j attribute-values.

3.3 Reducing All Types of Cleavage Structures to the Number and Size of Attribute-Repertoires

We can now reduce the different cleavage structures to a single metric -- the number of distinct attribute-repertoires and their sizes – i.e. the proportion of the population that possesses each repertoire.

Consider the example of Twoland, which has a bipolar cleavage structure, with a majority and a minority on a single dimension. We can represent this as a single attribute-dimension (skin colour) in which the population is distributed across two attribute-values (Black and White).

Twoland: A Bipolar
Structure

B	W	
.61	.39	1.0

No of Repertoires of
Attributes: 2
B, W
Sizes:
.61, .39

This produces a distribution of two attribute repertoires, each with only a single element, of sizes .61 and .39. Any bipolar structure will produce two single-element attribute-repertoires, although their sizes will differ.

Consider now Threeland, an example of a multipolar cleavage structure with four groups. We represent this as a single attribute-dimension of skin colour in which the population is distributed across four values (Black, Grey, Yellow, White).

Threeland: A Multipolar Structure

B	G	Y	W
.41	.20	.20	.19

No. of Repertoires of Attributes: 4
BF, BN, WF, WN
Sizes:
.41, .20, .20, .19

Threeland thus can be reduced to a distribution with four attribute repertoires, each with only one element, of sizes .41, .20, .20, .19.

Consider now "Fourland," an example of a coinciding cleavage structure with two dimensions. In Fourland, all those who are Black on the attribute-dimension of skin colour are Foreign on the attribute-dimension of place of origin, and all those who are White on the attribute-dimension of skin colour are Native on the attribute-dimension of place of origin.

Fourland: A Coinciding Structure

	B	W	
F	.61	0	.61
N	.0	.39	.39
	.61	.39	

No of Repertoires of
Attributes: 2
BF, WN
Sizes:
.61, .39

This structure of division can be reduced to a distribution of two attribute-repertoires, of sizes .61 and .39. Note that this distribution of attribute-repertoires is identical to that produced by the bipolar structure, although the composition of the attribute-repertoires is different – the attribute-repertoires in the bipolar structure have only one element, whereas those in the coinciding structure have two.

Fiveland has a cross-cutting structure of division, because individuals who have the same value on one attribute-dimension (e.g. Black) can have different values on the second attribute-dimension (e.g. one can be Foreign and another Native).

Fiveland: A Cross-Cutting Structure

	B	W	
F	.41	.20	.61
N	.2	.19	.39
	.61	.39	

No. of Repertoires of
Attributes: 4
BF, BN, WF, WN
Sizes:
.41, .20, .20, .19

This structure can be reduced to a distribution with four distinct attribute repertoires, of sizes.41, .20, .20, and .19. Note that again, this distribution is identical to the distribution produced by the multipolar structure, although the composition of the attribute-repertoires is different – the attribute-repertoires in multipolar structure have only one element, whereas those in the cross-cutting structure have two.

We can use this language to represent not only the dichotomous classifications above, but any type of cleavage structure. Consider the example of Sevenland, a "nested" cleavage structure, in which values on one attribute-dimension are nested within values on another (Chandra, Boulet and Ferree 2004):

Sevenland

F (.61)   N(.39)

B (.41)   G (.2) Y(.2)   W (.19)
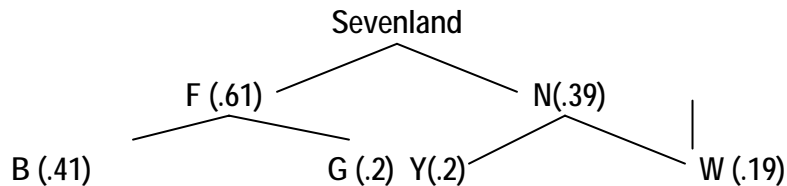
In Sevenland, you can have the attribute-values Black (B) or Gray (G on the dimension of skin colour only if you have the attribute-value Foreign (F) on the attribute-dimension of place of origin. And you can have the attribute-values Yellow (Y) or White (W) on the dimension of skin colour only if you have the attribute-value Native (N) on the attribute-dimension of place of origin. Sevenland has a distribution of attribute-repertoires that looks as follows:

Sevenland: A Nested Structure

	B	G	Y	W	
F	.41	.2	0	0	.61
N	0	0	.2	.19	.39
	.41	.2	.2	.19	

No of attribute-repertoires: 4

BF, GF, YN, WN

Sizes:

.41, .2, .2, .19

The key point here is that very different cleavage structures, with different numbers of attribute-dimensions, and attribute-values of different sizes on each, can end up producing identical distributions of attribute-values. The composition of these attribute-repertoires will undoubtedly be different depending on the cleavage structure. But the number and size of attribute-repertoires is not directly related to the type of cleavage structure. This point has important implications for the relationship of these cleavage structures with permanent exclusion, and we will return to it in the section that follows.

3.4 The Repertoire of <u>Potential</u> Categories Across Populations

We conceptualize the repertoire of potential identity categories for a population as a set of combinations that can be generated from its distribution of attribute-repertoires. The <u>upper bound</u> on the size of this repertoire is determined by the total number of combinations with a distinct membership that can be generated from a given distribution of attributes.

In general, n distinct repertoires of attributes in a population can generate a maximum of 2^n possible categories (including the empty set and the entire population). In Someland, which has 4 distinct repertoires, this upper bound is $2^4 = 16$. The table below lists each of the 16 potential categories that can be activated in Someland, along with its size and membership:

Name of Category	Membership	Size
$\varnothing$	0	0
Black and Foreign	BF	a
Black and Native	BN	c
White and Foreign	WF	b
White and Native	WN	d
Black	BF, BN	a + c
White	WF, WN	b + d
Foreign	BF, WF	a + b
Native	BN, WN	c + d
Black or Foreign	BF, BN, WF	a + b + c
White or Foreign	BF, WF, WN	a + b + d
Black or Native	BF, BN, WN	a + c + d
White or Native	BN, WF, WN	b + c + d
(Black and Native) or (White and Foreign)	BN, WF	b + c
(Black and Foreign) or (White and Native)	BF, WN	a + d
Entire Population (Black or White; Foreign or Native)	BN, WN, BF, WF	a + b + c + d = 1

We can similarly identify the repertoire of potential identity categories for a population with any type of cleavage structure, once we have reduced it to a distribution of attribute-repertoires.

Note that what is unique to each category is its membership and size,<u> but not its name</u>. The same combination can be given many names. The category that we describe as Black or Foreign, for instance, might equally well be described as those who are not White Natives. This definition would capture exactly the same membership, with the same size. Although choosing one name (e.g. Black) over another (e.g. African) is an important way in which to assert an identity, the choice of name is likely to be endogenous to the process of electoral politics. In electoral politics, what matters is the size and membership of the coalition. If the size and membership of a combination is right, we assume that politicians will find a name for it. Indeed, many of names allotted to ethnic categories are barely disguised acronyms for an underlying combination. The name Pakistan, for instance, is composed of letters taken from the names of its constituent regions: that is, Punjab, Afghania [North-West Frontier Province], Kashmir, Iran, Sindh, Tukharistan, Afghanistan, and

Balochistan. Similarly, the name WASP is simply an acronym for the combination White + Anglo-Saxon + Protestant, and the name OBC an acronym for "Other Backward Caste."

## 3.5 Politically Activated Categories.

Of the potential ethnic identity categories contained in a repertoire, only some will be politically activated ethnic categories, by which we mean categories according to which individuals in the population condition their political behaviour. The same set of potential categories can generate several different politically "activated" ethnic demographies depending on which categories in that set are politically activated and which lie dormant. At the same time, it can also eliminate the possibility of others.

To illustrate, lets return to Oneland. Recall that the sizes of the attribute-repertoires there were as follows: BF (a = .4), WF = (b = .25) BN (c = .25), and WN (d = .1). Suppose individuals in Oneland condition their political behaviour on the categories "Black and Foreign," "Black and Native" and "White." The political activation of these three categories would produce an activated ethnic demography which looked like the following:

Oneland: Ethnic Demography #1

Black and Native 25%

Black and Foreign 40%

White 35%
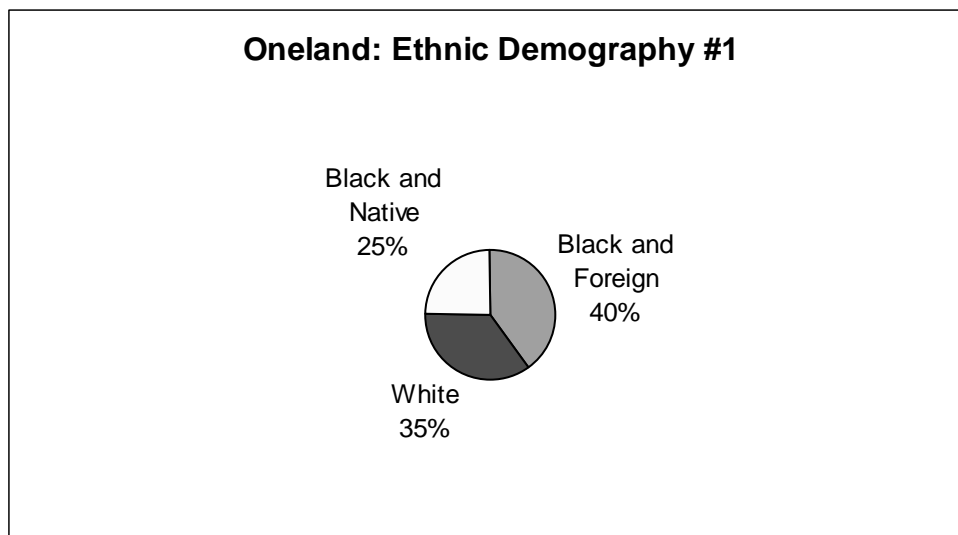
Alternatively, suppose that individuals in Oneland condition their political behaviour on the categories Black and White. This would produce a different activated ethnic demography, represented below:

Oneland: Ethnic Demography #2

White
35%

Black
65%
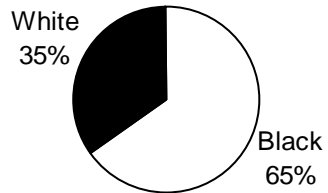
But note that there are ethnic demographies that <u>cannot</u> be activated on the basis of the distribution of attribute-repertoires in Oneland. For instance, no possible combination of attribute-repertoires in Oneland will produce the bipolar ethnic demography represented below.

Oneland: Impossible Ethnic Demography

White
20%

Black
80%
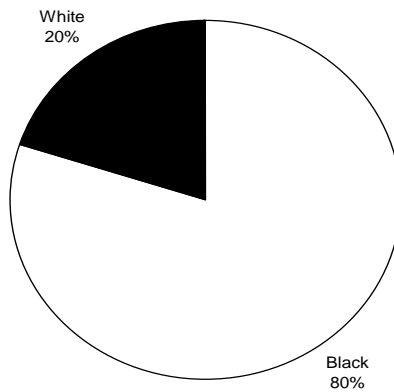
Thus, we can use this conceptual vocabulary to identify both the possible majorities that can be produced from a given distribution of attribute-values and the possible majorities which cannot. The section that follows identifies the conditions under which, notwithstanding the possibility of multiple majorities embedded in any given structure, it should produce the permanent exclusion of some minority.

4. The Conditions Under Which We Should See Permanent Exclusion

Assume a democratic system in which the winner of the elections is decided by majority rule, where the majority exceeds some size threshold k (.5 ≤ k < 1). All individuals in this system have to choose an identity category, and want to declare membership in a category that has a majority. But given a choice of membership in more than one majority category, they will choose one that is "irreducible" – i.e. its size is > k, and it does not contain any other possible category whose size is also > k. Assume further that all the salient attribute-dimensions in this society are ethnic and that voters have perfect information about the distribution of repertoires of salient attributes in the population. Our purpose here is not to explain the original salience of ethnic identities but only the likelihood of change through electoral politics, given this salience.

We can now define permanent exclusion as follows: An individual is permanently excluded when none of the categories in which she is eligible for membership are winning categories. The larger the number of individuals whose repertoire of potential identity categories does not include any winning categories, the greater the degree of permanent exclusion in a society.

4.1 Examples of Inclusive and Exclusive Distributions

Consider "Goodland," a population with an inclusive distribution of attribute-repertoires. The value of k – the winning threshold – in Goodland is 51%. That is, an identity category must be greater than 51% of the population in order to be a viable winner.

Goodland (k=.51): An "Inclusive" Distribution

	B	W	
F	.4	.2	.6
N	.2	.2	.4
	.6	.4	

There are four "irreducible" majority categories in Goodland: "Black," with membership BF and BN and size .6, "Foreign," with membership WF and BF and size .6, the complex category "White or Native," with membership WN, WF and BN and size .6, and the even more complex category (Black and Foreign) or (White and Native)," with membership BF and WN and size .6. Individuals with any of the four possible repertoires in this population have at least one irreducible majority category that they are eligible for. This is a population in which the distribution of attributes is such that we will not see permanent exclusion, even though all politics is ethnic.

But consider now the case of "Badland", represented below, with the same winning threshold.

Badland (k=.51): An "Exclusive" Distribution

	B	W	
F	.4	.26	.66
N	.26	.08	.34
	.66	.34	

Of the 16 combinations that can be generated by the multidimensional structure in Badland, there are three "irreducible" majorities, defined as the categories "Black", with membership BF and BN

and size .66, the category "Foreign" with membership BF and WF and size .66, and the complex category ((White and Foreign) or (Black and Native)) with membership WF and BN and size .52. But regardless of the presence of multiple majorities, there is also a permanent minority: individuals with the repertoire WN, who constitute 8% of the population. These individuals do not have any potential identity option which would place them in a winning position. All their identity options are either too small to cross the winning threshold, or too big, containing within themselves a smaller winning category. Badland, then, is an example of an exclusive distribution of attribute-repertoires.

4.2   General Condition for Permanent Exclusion

Given any distribution of individual repertoires $\{a_1, a_2, a_3 \ldots.. a_n\}$, where $a_1 \geq a_2 \geq a_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\geq$ a_n, we can define permanent exclusion formally as follows: If a_i is permanently excluded, then if a_i is in a winning coalition, there is a strict subset of that coalition which is winning without a_i .

To check if a_i is permanently excluded, take all the 2^{i-1} subsets of the set of repertoires $\{a_1, a_2, a_3 \ldots.. a_{i-1}\}$ and compute their sums. If there is no subset of repertoires with a partial sum P such that $(k - a_i) \leq P < k$, then a_i is permanently excluded. If there is any sum P such that $(k - a_i) \leq P < k$, then a_i is not permanently excluded. Note that this condition depends only on the number and the size of the individual repertoires, not on their content. (The proof is provided in the appendix).

To identify whether or not any particular distribution of attributes produces permanent exclusion, we need only to check if the smallest repertoire a_n is permanently excluded. And to identify the proportion of the population that is permanently excluded, we need to sum the sizes of every repertoire a_i that fulfils the condition above. We can use this condition, therefore, to calculate an Index of Permanent Exclusion (IPE), a continuous measure that indicates the percentage of the population permanently excluded for any given distribution of attribute-repertoires under a simple majority rule system when the potential for identity change is taken into account.

4.3 Identifying General Patterns

We can identify whether or not the distribution of attribute repertoires in any population produces permanent exclusion by examining whether or not it fits the condition above. But we want to know not only about individual distributions but about general patterns: once we take the possibility of identity change through recombination into account, can we identify types of distributions of attribute-repertoires that are more likely to sustain democracy than others? And if so, how do these distributions of attributes map on to the ethnic cleavage structures -- bipolar and multipolar, coinciding and cross-cutting -- that we believe are especially malign and especially benign for democracy?

One way to probe for general patterns would be to collect data on the distribution of attribute-repertoires across actual populations and calculate the Index of Permanent Exclusion for each of them. However, current cross-national datasets on ethnic diversity collect data on a single mutually exclusive array of ethnic categories that do not permit us to identify the underlying distribution of attribute-repertoires from which these categories were constructed. Sri Lanka, for instance, is coded in all the standard cross-national datasets as a population with a single dominant majority (Sinhala) that constitutes over 70% of the population (Fearon 2003, Alesina 2003, Atlas Narodov Mira).   Elsewhere, we discuss how data on the distributions of attribute-

repertoires across countries can be collected (Chandra 2005b). But here we must turn to other strategies to probe for general patterns.

We resort here to simulations, constructing a "dataset" of imaginary populations. Each observation in the dataset represents a distinct population with a particular distribution of attribute-values. We identify distinct distributions of attribute-values by considering all possible partitions of 100 subject to the restriction that the size of attribute-repertoires differ only in multiples of two. Thus, one partition in our dataset might have three attribute-repertoires of the following sizes: 20%, 40%, 40%, another might have five attribute-repertoires of different sizes (24%, 22%, 20%, 18%, 16%), and a third might have fifty repertoires of size 2% each (2%, 2%, 2%, ……………). This generated 204,226 distinct partitions, or 204,226 distinct "populations" with up to 50 attribute-repertoires. We then calculated the Index of Permanent Exclusion for each population in this "dataset."

We impose the restriction that the size of attribute-repertoires should differ only in multiples of two because of the computational cost of calculating the IPE for finer grained partitions. Imposing this restriction means that we eliminate attribute-repertoires that are less than 2% from our dataset altogether, and that we cannot take fine-grained differences between the proportions of those remaining into account. Thus, our dataset includes the population with four attribute-repertoires 44%, 36%, 14% and 6% but not a population with the attribute-repertoires 43.5%, 36.5%, 14.5%, 5.0% and .5%. We do not have reason to believe that the patterns we see in this dataset would differ for finer-grained partitions. But once we have identified these general patterns, we can explore this further through proof rather than simulations.

5. Patterns

This section presents the general patterns that emerge from the dataset above. It makes five points: (1) Even when we allow for unlimited combinations, constrained only by the initial distribution of attribute values, we still get a significant amount of permanent exclusion in multi-ethnic democracies. (2) Most cases of permanent exclusion are concentrated in "majority-dominant" distributions of attribute repertoires. (3) However, "minority-dominant" distributions also produce permanent exclusion (4) Among 'minority-dominant" distributions, permanent exclusion is most likely to occur when the number of attribute-repertoires is in an intermediate range (4-8). But distributions in which there are only 3 attribute-repertoires or more than 8 do not produce permanent exclusion. (5) There is no direct relationship between "exclusive" and "inclusive" distributions of attribute-repertoires and multipolar, cross-cutting, coinciding and nested cleavage structures.

5.1 Even when we allow for unlimited combinations, constrained only by the initial distribution of attribute-values, we still get a significant amount of permanent exclusion in multi-ethnic democracies.

Even when we allow for ethnic identity change through unrestricted recombination of attribute-repertoires, we get permanent exclusion 5% of the time. That is, in 10,249 out of 204226 partitions, some proportion of the population is excluded from membership in any winning category, no matter how they construct and reconstruct their identities.

At first glance, a world in which only 5% of all possible populations produce permanent exclusion appears to be a relatively benign. We might conclude then the introduction of a constructivist perspective makes it much more likely that multi-ethnic democracies will be as inclusive and therefore as stable as democracies in which non-ethnic divisions are salient.

But small numbers can be large. After all, the current rate of outbreak of civil war is only 2.3 per year, but this indicates high levels of civil conflict worldwide (Fearon and Laitin 2003, p. 4). In order to interpret the significance of this number, therefore, we need something to compare it to.
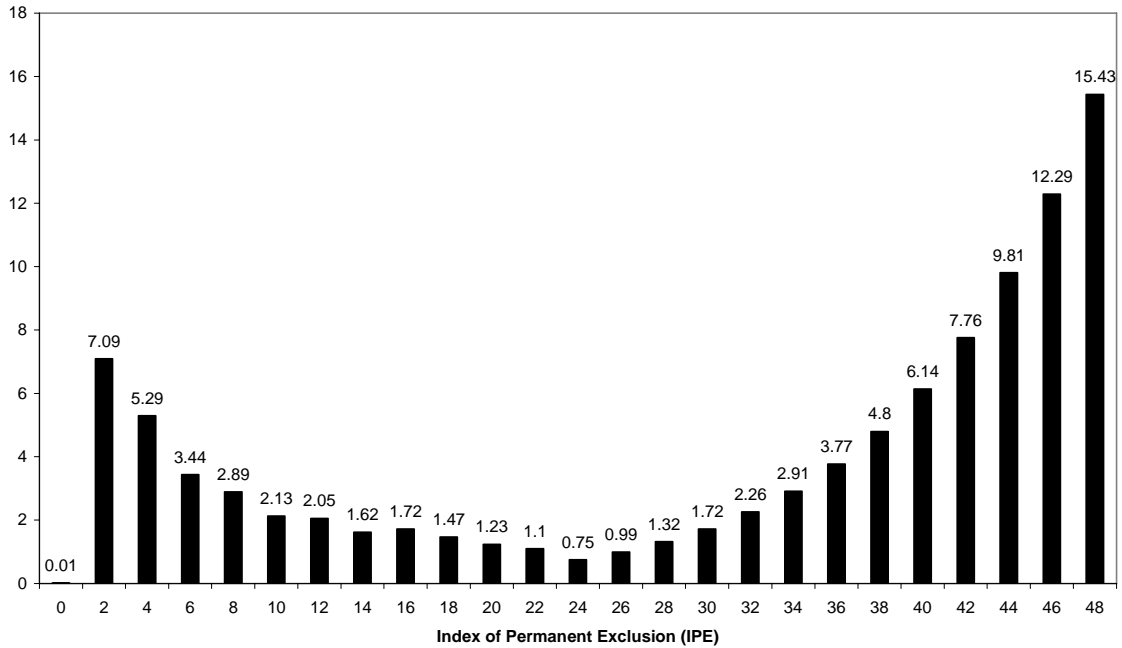
We do not have data on the likelihood of permanent exclusion in democracies in which non-ethnic identities are salient which we could use as a suitable yardstick. But, based on a conceptual distinction between ethnic and non-ethnic identities, we might reasonably suppose that there is no reason to expect permanent exclusion in democracies in which non-ethnic identities are salient.

One important difference between ethnic and non-ethnic identities is that, on average, change in ethnic identities in the short term is constrained by the stickiness of their qualifying attributes, whereas non-ethnic identities, on average, follow a pattern of unconstrained change. This argument is fully developed elsewhere (Chandra 2005a). But we can illustrate it here by example. When individuals who declare membership in non-ethnic identity categories are excluded from power, they can change or repackage their identity category rather quickly. For instance, an educationist who advocates high levels of public spending for schools could easily alter this position if it excluded her and others like her from power. She could switch to an identity that puts her on the winning side, perhaps calling herself an environmentalist instead of an educationist. Or, she could at least repackage her identity in a way that is more advantageous, describing herself as either "liberal" or "conservative." Her capacity to change non-ethnic identities is probably helped by the fact that she does not need to erase her old identity to assume a new one. Thus, we can expect non-ethnic identities to change, on average, in a relatively unconstrained way. In democracies in which non-ethnic divisions are salient, then, we should not expect permanent exclusion, on average, for the reason that there is little that prevents someone who is excluded from acquiring the attributes which would permit inclusion.

Compared to a probability of permanent exclusion close to zero in democracies in which non-ethnic divisions are salient, 5% appears to be high. It indicates that while we do not have reason to be as pessimistic about the health of multi-ethnic democracies as we have been (after all, 95% of the possible cases do not produce permanent exclusion), we nevertheless do have reason to be more pessimistic about ethnically heterogeneous democracies than about democracies in which politics is organized on lines other than ethnicity.

When it occurs, furthermore, the magnitude of such exclusion is significant. The chart below shows a frequency distribution of the proportion of individuals permanently excluded (measured using the Index of Permanent Exclusion) for all those cases in which exclusion occurs. As we see, the mode of this distribution lies at 48%: that is, in the most frequent incidence of exclusion, 48% of the population is excluded. And in the majority of cases, 25% or more of the population is permanently excluded.

Percentage of Population Permanently Excluded
(all cases)

Bar chart. X axis: Index of Permanent Exclusion (IPE), values from 0 to 48 in steps of 2. Y axis from 0 to 18. Bar values: 0: 0.01, 2: 7.09, 4: 5.29, 6: 3.44, 8: 2.89, 10: 2.13, 12: 2.05, 14: 1.62, 16: 1.72, 18: 1.47, 20: 1.23, 22: 1.1, 24: 0.75, 26: 0.99, 28: 1.32, 30: 1.72, 32: 2.26, 34: 2.91, 36: 3.77, 38: 4.8, 40: 6.14, 42: 7.76, 44: 9.81, 46: 12.29, 48: 15.43.

The instances of such exclusion are disproportionately concentrated in specific distributions of attribute-repertoires. The remainder of this section discusses those distributions.

5.2 "Majority-Dominant" Distributions of Attribute-Repertoires always produce permanent exclusion.

Anytime there is a majority-dominant distribution of attribute-repertoires (that is, the largest attribute-repertoire that comprises more than 50% of the population), we will see permanent exclusion. This is because anytime some individuals with a single attribute-repertoire constitute a winning majority, they have no incentive, according to the assumptions above, to coalesce with anyone else in the population regardless of the range of combinatorial possibilities. And no matter how the rest of the population constructs and reconstructs its identities through combination, it cannot put itself in winning position. Thus, those not in the majority-dominant repertoire will be permanently excluded. Most of the cases of permanent exclusion (3.6%) occur when there is a majority-dominant distribution.

The magnitude of permanent exclusion in majority-dominant distributions, summarized in the chart below, is significant. As above, the X axis depicts the size of the population permanently excluded, while the Y axis depicts the frequency of exclusion for each size.

Percentage of Population Permanently Excluded
(Majority-Dominant Distributions Only)
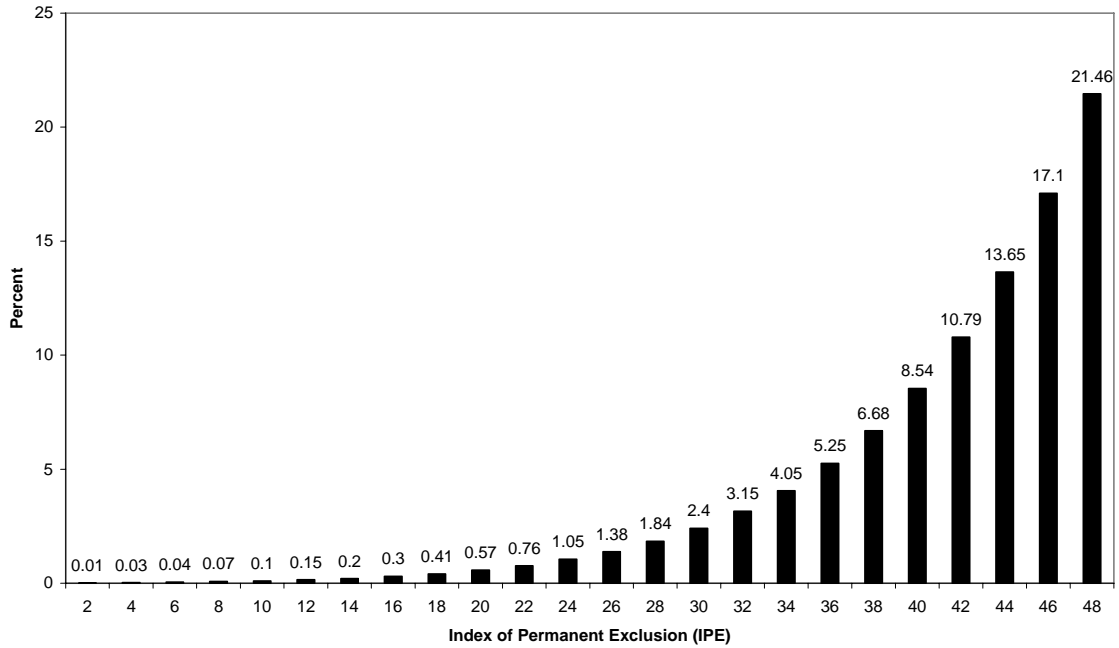
As the chart indicates, more than a quarter of the population is excluded most of the time when there is a majority-dominant distribution of attribute-repertoires, and the size of the most frequently excluded group is 48%.

5.3 But "Minority-dominant" distributions of attribute-repertoires also produce permanent exclusion.

Surprisingly, we also see permanent exclusion when there are minority-dominant distributions, produced by the coalescence of minority attribute-repertoires into a majority category that then excludes others. This captures the phenomenon we saw in Sri Lanka, with the coalescence of the Kandyan Sinhalese and the Low-Country Sinhalese into a single Sinhalese majority.

The likelihood of permanent exclusion drops sharply when we look only at "minority-dominant" attribute repertoires. When there is no majority-dominant attribute repertoire, the likelihood of permanent exclusion drops to 1.5% of the 196,988 partitions.

The magnitude of permanent exclusion in these cases also drops. The chart below shows a frequency distribution of the proportion of individuals permanently excluded for this restricted sample of cases.

Percentage of Population Permanently Excluded
(Attribute-Repertoires =<50% only)
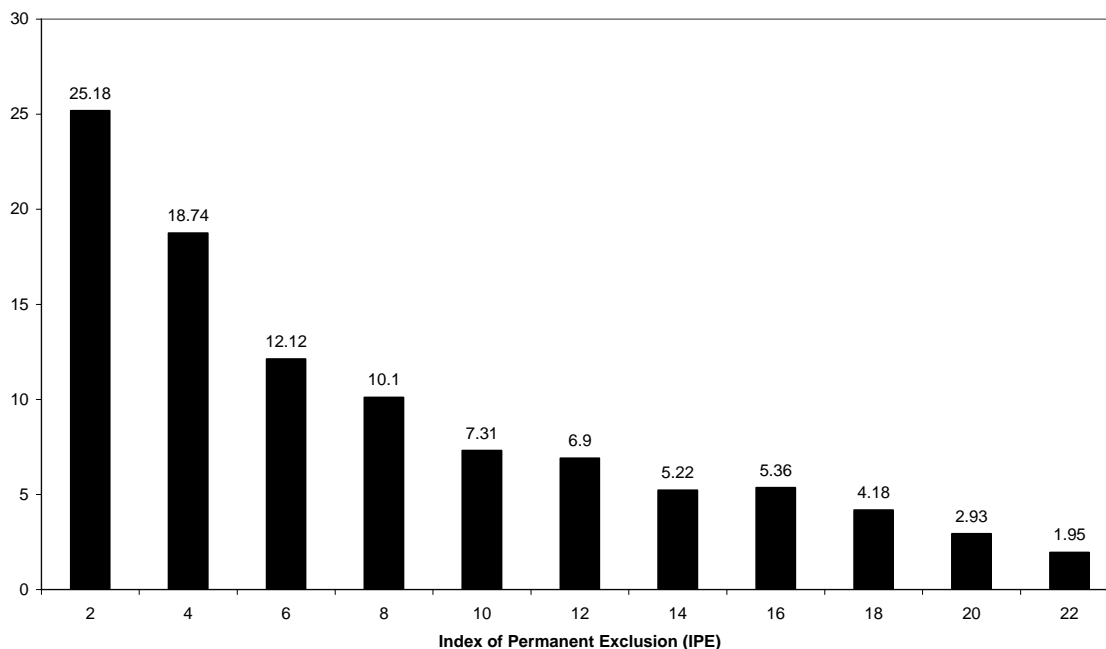
As we see, the mode of this distribution lies at the opposite end from the frequency distribution of IPE for majority-dominant repertoires. In the most frequent instance, only 2% of the population is permanently excluded (compared to 48% above). And less than 6% of the population is excluded in the majority of cases.

Numerically speaking, 2-6% of the population is not very large. But conflicts in multi-ethnic democracies often involve minority groups of this tiny size. The conflict in the Chittagong Hill tracts in Bangladesh, for instance, involves the Chakma minority which constitutes less than 2% of the population. Similarly, violent ethnic conflict in India, in Punjab or the North-East, has often involved minority groups that are 2% of the population or less. The exclusion of such a small percentage of the population can be destabilizing when the group in question is territorially concentrated but also when it is not. The majority of Tamils in Sri Lanka, for instance, and the majority of Muslims in India, do not live in an ethnically homogeneous territory. But this has not prevented riots involving Tamils and Sinhalese in Sri Lanka and Hindus and Muslims in India (Wilkinson 2004, Tambiah 1986), which are also destabilizing for a democracy, not because they threaten its territorial scope or sovereignty, but because they threaten the principle of the institutionalization of conflict. (Tambiah 1986, Wilkinson 2004).

As above, then, while our dataset gives us reason to expect ethnic divisions to pose a threat to democratic stability even when constructivist assumptions are taken into account, it puts a specific shape and size on that threat. It indicates that the threat is greatest when there is a majority-dominant distribution of attribute-repertoires. And when there is a minority-dominant attribute repertoire, the threat is substantially smaller but nevertheless significant.

5.4 Among minority-dominant distributions, distributions with 4-8 attribute-repertoires are especially malign. But distributions with 3 or more than 8 attribute-repertoires are especially benign.

Even among minority-dominant distributions of attribute-repertoires, we find that the probability of permanent exclusion is disproportionately clustered among some distributions and not others.

The chart below describes the frequency with which instances of permanent exclusion and instances of no permanent exclusion occur for distributions with different numbers of attribute repertoires. For each number of attribute-repertoires, the height of the black column refers to the proportion of populations in which there is permanent exclusion, while the height of the white column refers to the proportion of populations in which there is no permanent exclusion. (Recall that this chart refers only to those distributions of attribute-repertoires that are minority-dominant.).

Permanent Exclusion by Number of Attribute-Repertires
(Largest Attribute Repertoire =<50%)
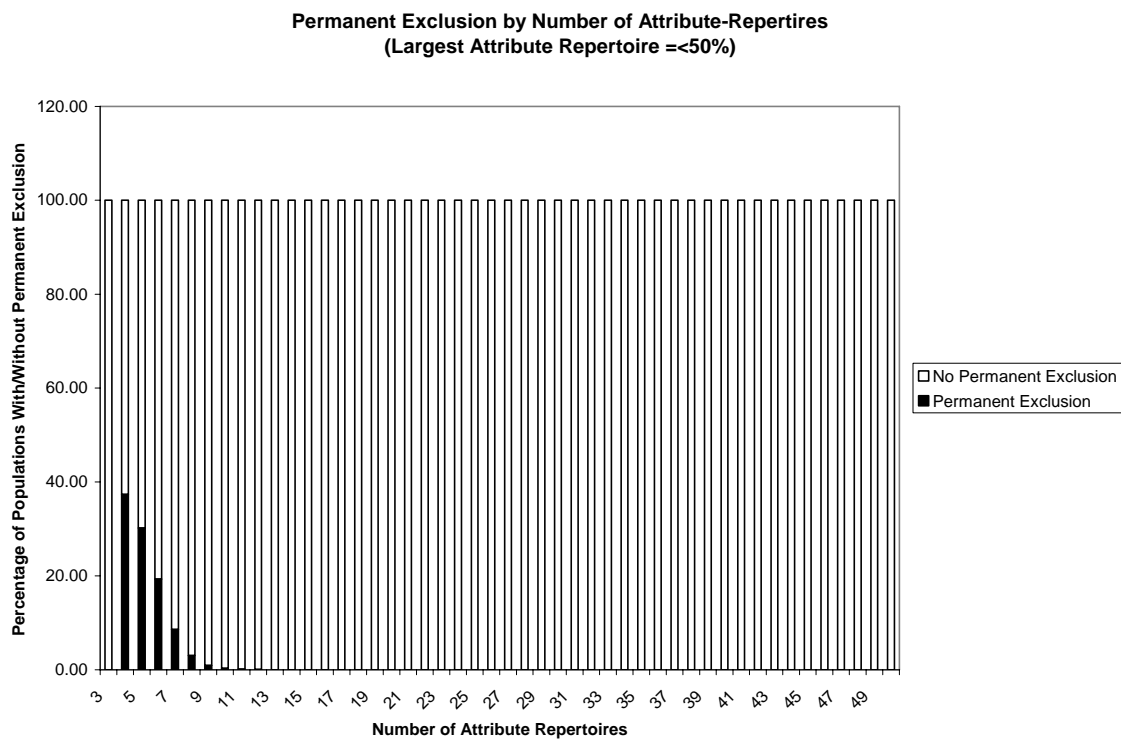
As the chart indicates, there is no permanent exclusion when there are 3 attribute-repertoires in a population and no single attribute-repertoire constitutes a majority of the population. No matter how politicians and voters might combine and recombine them, each attribute-repertoire is included in at least one winning category.

By contrast, we see disproportionately high probabilities of permanent exclusion in distributions with an intermediate (4-8) number of attribute-repertoires. Indeed, 93% of the cases of permanent exclusion among minority-dominant distributions lie in this range. With 4 attribute-repertoires, we see permanent exclusion in 37% of the cases. With 5 attribute-repertoires, we see permanent exclusion in 30% of cases. With 6, we see permanent exclusion in 19% of the cases. After 6

attribute-repertoires, the frequency of permanent exclusion tapers off, and once we reach 9 attribute-repertoires, we get permanent exclusion in less than 1% of cases.

The proposition that an intermediate number of attribute-repertoires may be disproportionably likely to produce permanent exclusion and so disproportionately bad for democratic stability conflicts with the supposition that "a society with relatively few segments, say three or four, constitutes a more favourable base for consociational democracy than one with relatively many segments, and a much more favourable base than a highly fractionalized society. The reason is that cooperation among groups becomes more difficult as the number participating in negotiations increases…. The optimal number of segments, therefore, remains about three or four." (Lijphart 1977, 56).

Our results point to a sharp discontinuity in the frequency and magnitude of permanent exclusion associated with 3 and 4 groups. As long as a democracy has 3 attribute-repertoires, Lijphart's claim appears to be supported. Distributions with 3 attribute-repertoires consistently produce inclusive structures of ethnic division while at the same time representing a moderate form of ethnic diversity. But once the number of attribute-repertoires enters the intermediate 4-8 range, the prospects for democratic stability appear to be much worse than in distributions with large numbers of attribute-repertoires, because the probability of constructing a dominant majority category that excludes others is much higher.

In the absence of data on the distribution of attribute-repertoires, we cannot demonstrate the plausibility of these patterns. But we can derive from them new interpretations of the pattern of breakdown that we see in many multi-ethnic democracies. Take for instance, the frequent cases of breakdown of multi-ethnic democracies in Africa, including Kenya, Nigeria, Zambia, and Uganda, among others. As far as it is possible to tell from existing data, these regimes have multipolar cleavage structures on most dimensions of ethnic identity considered separately. Thus, they are also likely to have minority-dominant distributions of attribute repertoires produced by the intersection of these dimensions taken together. From the viewpoint of the classic theory, the frequency of the breakdown of multi-ethnic democracies in Africa is puzzling. Since most of these democracies do not have a dominant ethnic majority, they should have been more successful in sustaining democratic government. It may well be that the breakdown of these democracies has nothing to do with ethnic diversity. But to the extent that ethnic diversity is a relevant variable, the argument of this paper suggests that the cause may lie in the possible existence of malign minority-dominant distributions of attribute-repertoires, which increase the likelihood of permanent exclusion.

5.5 There is no direct mapping from attribute-distributions to cleavage structures
There is no direct mapping from the distribution of attribute-repertoires that produce permanent exclusion and the type of cleavage structure. ""Exclusive" distributions of attributes – that is, majority dominant distributions, or minority-dominant distributions with 4-8 attribute-repertoires -- map onto multipolar, bipolar, cross-cutting and coinciding cleavage structures. And "inclusive" distributions of attribute repertoires also map onto multipolar, cross-cutting and coinciding cleavage structures (although not to bipolar ones). While we can say that bipolar structures are uniformly malign, therefore, we cannot say anything in general about multipolar, cross-cutting and coinciding cleavage structures. What matters is the particular distribution of attribute-repertoires that these structures generate.

Majority-dominant distributions, for instance, can be produced by bipolar structures, or cross-cutting cleavage structures with large majorities on each dimension, or by coinciding cleavage structures with a dominant majority, or by nested structures in which the overarching dimension has a majority category. Consider the example of "Badistan," a cross-cutting cleavage structure that looks as follows:
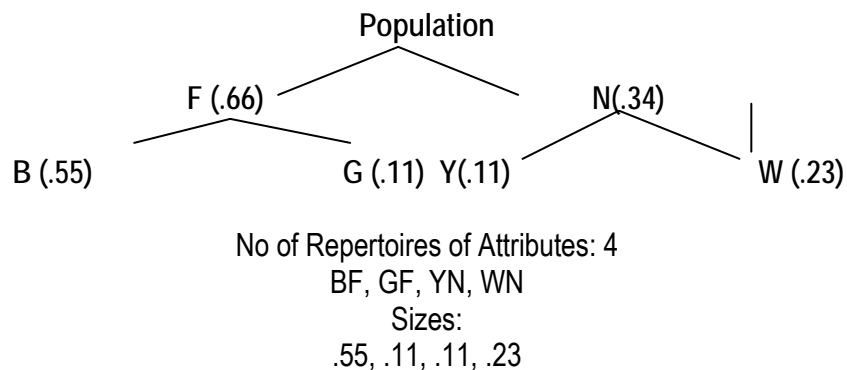

Badistan (k=.51): An "Exclusive" Distribution

	B	W	
F	.55	.11	.66
N	.11	.23	.34
	.66	.34	

Badistan has the kind of cross-cutting cleavage structure viewed as ideal for the preservation of a multi-ethnic democracy in a simple majority system (k = .51): two dimensions of cleavage, with a majority group on each and some overlap between the majority on one dimension and the minority on another. But note that Badistan produces a majority-dominant distribution of attribute-repertoires, with those with the repertoire BF (Black and Foreign) constituting a majority of the population. This cleavage structure, thus, could end up producing the exclusion of 45% of the population who are not Black and Foreign.

Consider now Alsobadistan, a nested structure that looks as follows:

Alsobadistan: A Nested Cleavage Structure

Population

F (.66)   N(.34)

B (.55)   G (.11) Y(.11)   W (.23)

No of Repertoires of Attributes: 4
BF, GF, YN, WN
Sizes:
.55, .11, .11, .23

As we see, Alsobadistan has a nested cleavage structure that produces a distribution of attributes exactly identical to the cross-cutting structure of Badistan. It should therefore produce an equivalent outcome. In both Badistan and Alsobadistan, the White Natives, the Black Natives and the White Foreigns should all be excluded.

Similarly, exclusive minority dominant distributions of attribute-repertoires -- typically those with between 4-8 attribute-repertoires -- can also be produced by many different types of cleavage structures. To illustrate, consider a distribution with four attribute repertoires of sizes (.4, .26, .26,

.08). This is an "exclusive" distribution, in which the smallest attribute-repertoire, with 8% of the population, is permanently excluded.

As our old example of "Badland," reproduced below shows, this distribution can be produced by a cross-cutting cleavage structure. Badland has four attribute-repertoires: BF, BN, WF and WN, of sizes .4, .26, .26 and .08.

Badland (k=.51): An "Exclusive" Distribution

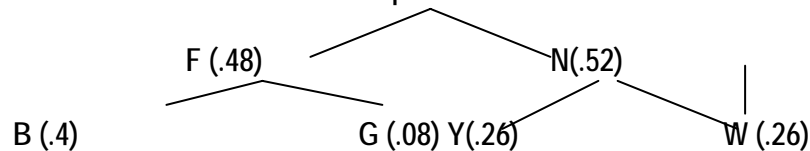|	B	W	
F	.4	.26	.66
N	.26	.08	.34
	.66	.34	

But Justasbadland, a multipolar structure produces an identical distribution.

Justasbadland: A Multipolar Structure

B	G	Y	W
.4	.26	.26	.08

So does Alsobadland, with a nested cleavage structure.

Alsobadland: A Nested Cleavage Structure

Population

F (.48)   N(.52)

B (.4)   G (.08) Y(.26)   W (.26)

No of Repertoires of Attributes: 4
BF, GF, YN, WN
Sizes:
.4, .08, .26, .26

And consider, finally, Equallybadland, with a coinciding cleavage structure. Equallybadland has two attribute-dimensions with four attribute-values on each. On the dimension of skin colour, it has the values Black, Gray, Yellow and White. And on the dimension of place of origin, it has the values European, Asian, African and Native. The distribution of attribute-repertoires in Equallybadland, described follows, is identical to the distribution in the cases above:

<div align="center">

Equallybadland: A
Coinciding Structure

	B	G	Y	W
E	.4	0	0	0
As	0	0	0	.26
Af	0	0	.26	0
N	0	.08	0	0

No. of Repertoires of
Attributes: 4
BE, GN, YAf, Was
Sizes:
.4, .08, .26, .26

</div>

In each case, the identity of those permanently excluded is different: In Badland, the White Natives are excluded, in Justasbadland, it is simply the Whites, in Alsobadland, it is the Gray Foreigns, and in Equallybadland, it is the Gray Natives. But the magnitude of permanent exclusion is the same.

By the same logic, "inclusive" distributions, with either 3 or more than 8 attribute-repertoires can also be produced by all three types of cleavage structures. Rather than talk about the effect of different categorical types of cleavage structures on democratic stability, therefore, we should simply talk about distributions of attribute-repertoires, stipulating that, with the exception of bipolar structures, which are uniformly malign, there is no particular affinity or repulsion between particular cleavage structures and the likelihood of permanent exclusion.

### 6. Summary and Directions for Further Research

This paper has identified, in general terms, those structures of ethnic division, expressed as distributions of attribute-repertoires, that can produce permanent exclusion even when all possibilities for ethnic identity are taken into account, and those distributions of attribute-repertoires that need not produce permanent exclusion when these possibilities are taken into account. Based on the framework in the paper, we can now identify, for any distribution of attributes, the size and identity of the excluded groups, as well as the size and identity of the majority or majorities.

In other ongoing work, we propose a model of political agency that tells us when the possibilities for exclusion or inclusion embedded in some cleavage structure will actually be realized in politics and when not. We start from the position that of the possible combinations embedded in different structures of ethnic division, political entrepreneurs and voters are likely to consider combinations of attributes that are both sticky and visible (Chandra 2004, Van der Veen and Laitin 2004). The likelihood of activating the possibilities for alternation between majorities and minorities composed of sticky and visible attributes depends upon the nature of party and electoral systems – what we call "institutions of competition". Electoral, party and electoral systems that, by allotting predetermined quotas to parties or groups, or by imposing high thresholds for party formation or representation, impose restrictions on the coalitions and parties that can form should make such

fluidity less likely than electoral systems such as AV and FPTP systems, which allow majorities to be self-defining (Horowitz 1991), and party systems with low thresholds for party formation and representation.

Once we have identified whether a given distribution is "exclusive" or "inclusive," then, we can assess the probability of permanent exclusion in practice by considering the nature of institutions of competition. We should see permanent exclusion in practice either when the distribution of attributes is "exclusive" or when the structure of competitive institutions is restrictive. And we should see political inclusion in practice when the distribution of attributes is "inclusive" and the institutions of competition are allow majorities to be self-defining.   In the short term variations in the likelihood of permanent exclusion is driven, therefore, by variation in initial distributions of attributes combined with variations in the nature of competitive institutions. This argument is summarized in the diagram below.
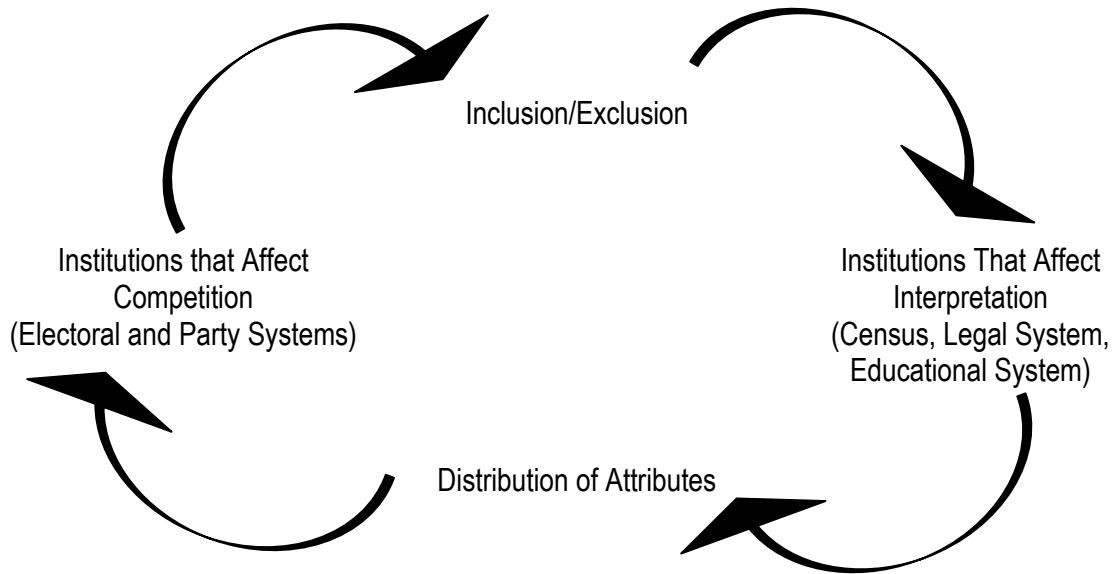
<u>Short Term Model of Ethnic Diversity and Probability of Permanent Exclusion</u>

Distribution of Attributes → Institutions that affect Competition (Electoral and Party Systems) → Inclusion/Exclusion
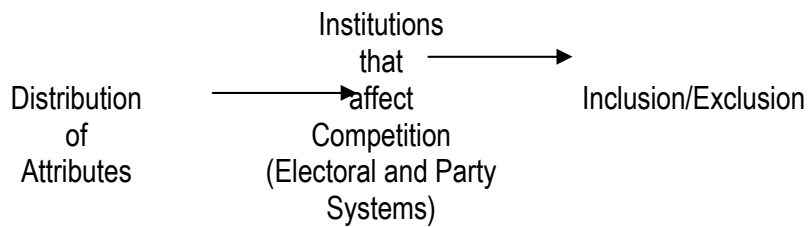
These short term probabilities, however, are subject to change through institutional evolution in the longer term. "Inclusive" or "exclusive" distributions of attributes, we argued earlier, are themselves the product of institutions that impose rules of interpretation on social realities. There is no objective reason, as far as we can tell, why particular rules of interpretation are imposed at the outset on particular populations. Consider, for instance, Crawford Young's observations about the differences in the construction of the ethnic cleavage structure inTanzania and Uganda: "It is frequently asserted that the secret to integrative success in Tanzania is the large number of small identity groups which compose the population. In fact, the difference between Tanzania and Uganda on this criterion is less clear than might be imagined. The largest identity group in Tanzania are the Sukuma, who are approximately 12 percent of the population. We referred in an earlier chapter to the process of emergence of Sukuma identity and the lack of clear demarcation with the Nyamwezi group; both labels date from the colonial period and were applied by others to these linguistically related peoples. In the course of time, the labels have acquired subjective meaning. However, it is sheer accident that Sukuma and Nyamwezi are now considered to be separate groups; they might well have acquired a common label. Had this occurred, the two together would number 17 percent, as against only 16 percent for Ganda." (Young 1976, 222). If these initial structures are simply accidents of the systems of categorization imposed by colonial institutions, then they should be subject to change over the longer term, as a result of conscious institutional design.

Theorizing about the probability of permanent exclusion over the long term, then, calls for a more complex causal model, represented in the diagram below.

Long Term Model of Ethnic Diversity and Permanent Exclusion

Inclusion/Exclusion

Institutions that Affect
Competition
(Electoral and Party Systems)

Institutions That Affect
Interpretation
(Census, Legal System,
Educational System)

Distribution of Attributes

The argument has counter-intuitive implications for institutional design for multi-ethnic democracies. It implies, in contrast to the classic prescriptions, that the best way to prevent majority domination in multi-ethnic democracies is not to prevent the emergence of a majority, or to weaken it, but to balance one majority by strengthening others. Given an inclusive structure of ethnic divisions, we should design institutions of competition in the short term that encourage the production of multiple ethnic majorities. Examples of such institutions, as indicated above, include electoral systems such as AV and FPTP, which permit fluidity in ethnic self-definitions in the political sphere, or, at a minimum, do not impose fixity, and the absence of fixed group quotas in parties and governments. We should also preserve the institutions of interpretation that sustain inclusive structures of division.[3] Given an exclusive cleavage structure, however, we should attempt to restructure institutions of interpretation to produce an inclusive one. Examples of interpretive institutions most likely to sustain or produce inclusive cleavage structures include (1) Differentiated systems of ethnic categorization across public policy contexts (e.g. education, employment and health) and across levels in government (e.g. local, regional and national) and (2) National censuses that collect and disseminate information on multiple forms of self-identification. From this perspective, the introduction of a multi-racial category in the US census, which enables individuals to define themselves according to a large number of combinations of ethnic identities, may be an innovation especially worth considering.

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[3] An early version of prescription, which does not make an explicit distinction between institutions of competition and institutions of interpretation, is outlined in my article "Ethnic Parties and Democratic Stability," forthcoming in *Perspectives in Politics.*

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