separate chambers of parliament. The ethnic classification was the basis of the "grand apartheid" system of setting up, and encouraging the eventual independence of, a series of ethnic homelands. As a result of this policy of artificially forcing people into racial and ethnic categories, it had become quite unclear what the true dividing lines in the society were. A few observers also argued that industrialization and urbanization had had a melting-pot effect and that South Africa was no longer a plural society and had become a "common" society. Moreover, the White government's insistence on African ethnic differences had the ironic effect of weakening ethnicity because the homelands policy was widely despised. The African National Congress regarded ethnicity as a White divide-and-rule policy, and denied its existence and political relevance.

How could these disagreements about the identity of the segments and about whether South Africa was a plural society or not be resolved? The consociationalists' answer was that these disagreements did not need to be resolved, because a power-sharing system could be designed on the basis of self-determined groups. The key element was PR in a relatively pure form. The beauty of PR is not just that it yields proportional results and permits minority representation--two important advantages from a consociational perspective–but also that it permits the segments to define themselves. Hence the adoption of PR in South Africa would obviate the need for any prior settlement of divergent claims about its segmental composition. PR elections could also provide an answer to the question of whether and to what extent South Africa was a plural society or not, because PR treats all groups–ethnic or non-ethnic, racial or non-racial, and so on--in a completely equal and even-handed way. On the basis of the proportional election results, a proportionally constituted grand coalition government could then be prescribed by requiring that the cabinet be composed of all parties of a specified minimum size in parliament.

The Progressive Federal Party adopted these two proposals in 1978. The Buthelezi Commission, of which I was a member, also endorsed them in its final report issued in 1982. And they became the cornerstones of the first democratic and multi-racial South African constitution that went into effect in 1994. The minimum proportion of seats entitling parties to participation in the cabinet was set at a low 5 percent, and the PR system that was used in 1994 and again in 1999 was the purest and most proportional PR system for national elections used anywhere in the world, with an effective threshold giving a seat to a party with as little as one-fourth of one percent of the total vote. The cabinet formed in 1994 was a grand coalition of the African National Congress, the National Party (the ruling party in the old apartheid system), and Buthelezi's Inkatha Freedom Party. Mandatory power-sharing in the cabinet was abandoned in the permanent constitution that went into effect in 1999, but the cabinet continued to be a broad coalition of the African National Congress and the Inkatha Freedom Party. This system of self-determined groups has worked very well so far.

In South Africa, the legacy of apartheid made it impossible for a successful consociation to be built on any other basis than self-determination of groups. But the general proposition and recommendation that can be derived from the South African and Lebanese cases is that, because ethnic identities are very often unclear, fluid, and flexible, self-determination can always be expected to work better than predetermination. This constructivist-based proposition has significantly enhanced the explanatory and prescriptive value of consociational theory.

The Implications of Constructivism for Constructing Ethnic Fractionalization Indices

David Laitin, *Stanford University*
dlaitin@stanford.edu
Daniel Posner, *UCLA*
dposner@polisci.ucla.edu

In recent years, ethnic fractionalization has emerged as a central variable in quantitative analyses of outcomes ranging from economic growth rates (Easterly and Levine 1997) and the quality of governance (La Porta et al 1999) to the frequency of coups d'etat (Londregan and Poole 1990). Almost all such analyses employ, either alone or in combination with other measures, the same measure of ethnic fractionalization. This index, called ELF (for Ethno-Linguistic Fractionalization), is available for 129 countries – indeed, its broad coverage is the principal reason for its widespread adoption – and reflects the likelihood that two people chosen at random will be from different ethnic groups. It is calculated using the Herfindahl concentration formula from data compiled in a global survey of ethnic groups pub-

lished in the *Atlas Narodov Mira* (1964) and subsequently included in Taylor and Hudson (1972).

Users of the ELF index have analyzed their results, to their peril, without any regard to the constructivist findings in the literature on ethnicity. Constructivist findings would make the standard ELF index suspect for four different reasons. First, the users of the ELF index assume that a country's degree of ethnic fractionalization is fixed, analogous to its topography or its distance from the equator. To the extent that a country's boundaries do not change, it is assumed, its ELF score should remain constant. Constructivist theories of ethnicity, however, would compel us to challenge this assumption. They would lead us to expect changes in the level of ethnic fractionalization over time, as people over generations assimilate, differentiate, amalgamate, break-apart, immigrate and emigrate.

Take the case of Somalia. At independence, Isaaqs (from former British Somaliland) and Hawiyes (from former Italian Somalia) insisted they spoke the same language, and any survey of linguistic diversity undertaken at the time would have reflected this. In recent years, however, Isaaqs have begun consciously differentiating their speech forms from those of the Hawiyes as part of an attempt to justify recognition for their secessionist republic–much as Croat and Serb intellectuals and linguists have done over the past fifteen years in the Balkans (Greenberg 2000). A linguistic survey conducted today would thus produce a quite different accounting of linguistic divisions in both former Yugoslavia and former Somalia.

Clan distinctions in Somalia have undergone a similar metamorphosis. With the decline of the dictatorship of Mohammed Siyaad Barre in the late 1980s, what had previously been considered one of the most ethnically homogeneous countries in Africa became severely divided by inter-clan fractionalization, with a concomitant change in the level of aggregation that is considered appropriate by political analysts. Studies of Somalia in the 1960s that focused on clan-based divisions tended to concentrate their analysis at the highest level of division (the clan family), of which there are three. But amid the fractionalization caused by the civil war that broke the country apart a decade ago, more recent analyses have tended to emphasize distinctions among clans and even sub-clans. Thus, due to the civil war, a survey of ethnic fractionalization today would yield a substantially larger number of clans (and a correspondingly higher fractionalization index value) than one undertaken forty years ago. Contrary to the assumptions of most users of the ELF index, levels of ethnic fractionalization in Somalia have been dynamic over time, not stable givens of the landscape. Constructivist findings would thus seem to demand that fractionalization scores be provided over a time series to accommodate such changes.

A second reason that constructivists should be suspicious of the ELF measure as used today is that a single measure of ELF for a country misses the social reality that there are multiple dimensions of ethnic identity in all countries, and that polities have different levels of fractionalization on different dimensions. India's population, for example, can be divided along religious, linguistic, caste or even state lines. Which of these four bases of group division should be used to count the groups that we plug into our fractionalization formula? Our decision matters tremendously for the value we arrive at: defined in terms of religious differences, India's ethnic fractionalization index would be 0.31; defined in terms of language distinctions, it would be 0.79.[3] Calculations based on class and state cleavages would yield different values still. Constructivist findings would seem to require a list of all groups and a separate ELF calculation for each dimension of ethnic difference.

Even if we were to collect the data required to calculate multiple indices for each country and time period, this would still leave us with the question of which measure to use, since there is no way to know ex ante which line of ethnic cleavage is likely to be politically important, and thus no way to privilege one cut on the data–and one ELF value–over another. Indeed, constructivist approaches going back to the work of Lipset and Rokkan (1967) point out that although the political salience of ethnic cleavages becomes institutionalized in party systems, this salience is an historical but not a natural phenomenon. Thus quite apart from the fact that the roster of groups on each cleavage dimension can change over time, we also need to find a way to accommodate the fact that the particular dimension of ethnic cleavage that matters for the outcome we are interested in explaining varies too. This suggests a third reason for constructivists to doubt the validity of a single ELF measure.

To illustrate this point, suppose we are interested in investigating whether ethnic fractionalization is related to voting behavior

in European democracies. How would we code France? In the Third Republic, religious cleavages were quite salient, and this would suggest that we would need to count up the shares of Catholics, Protestants, seculars, Jews, Muslims, and other religious groups so we could plug these values into our concentration formula. Today, however, racial cleavages are taking on a new significance, and so presumably we would need to build our fractionalization index from a very different set of groups and population shares.

A focus on salience raises a related issue. Once we have established which dimension of ethnic cleavage is salient, we still need to decide which groups we should include in our count. The reason this is an important issue is because while ethnic groups may exist "as such" in anthropological categorization, they may not have constructed themselves "for such" as political actors. On every cleavage dimension, we are likely to find dozens of groups that are culturally distinct from their neighbors but that are irrelevant as political actors in their own right. In some cases, this is because these groups fold themselves into broader political coalitions when it comes to competing over resources and national-level policy outcomes: Tongas, Lenjes and Toka-Leyas in Zambia become "Southerners;" Puerto Ricans, Cubans and Dominicans in Miami become "Latinos." In other instances, it is because they simply do not participate in politics as distinct, recognizable groups. Whichever the reason, including such groups in the data from which the fractionalization index is calculated is problematic.

For example, suppose that, like Easterly and Levine (1997), we are interested in testing the effects of ethnic heterogeneity on economic growth rates. How would we code Kenya? Easterly and Levine's solution is to take the ELF value for Kenya off the shelf. This entails using a fractionalization index that was calculated from a count of twenty-one different ethnic groups. Yet, by their own account, the distorted macroeconomic policies that explain Kenya's low growth rate are generated by the competition between just three broad ethnic coalitions: the Kalenjin, the Luo and the Kikuyu, each of which is described as containing "a third of Kenya's population." If, as Easterly and Levine claim, it is the competition among these three groups that is affecting Kenya's rate of economic growth, then the appropriate fractionalization index should be calculated from the population shares of these three groups rather than from the relative sizes of the twenty-one**.** The point is that to capture the contribution that a country's ethnic heterogeneity makes to such a process requires an index of fractionalization that reflects the groups *that are actually doing the competing.* One of the most important problems with the ELF index is that, more often than not, it does not do this: as in the Kenya example, it includes dozens of groups that are irrelevant to the process that it is employed to capture.

A final issue raised by the constructivist literature is the possibility of endogeneity. The ELF index is prized in econometric analyses in part because it is assumed to be exogenous to the outcomes it is used to explain. Yet as constructivist findings suggest, this is not always the case. To revisit our Somalia example, if the collapse of the dictatorship is what compelled Somalis to redefine their group boundaries, then using the ex post ethnic landscape that those boundaries now define to explain the earlier breakdown of the Somali state – as scholars might reasonably be tempted to do – would be a methodological error. Or take the example of the U.S., whose linguistic homogeneity can be explained in large part by the economic benefits of speaking English and the sense of security immigrants have that they will not be sent back unwillingly to their homelands. High rates of linguistic assimilation in the U.S. are a result of political stability and economic prosperity. Arguing that linguistic homogeneity explains the U.S.'s economic performance or stability would have the causal arrows going in the wrong direction.

In sum, constructivist theory demands that the ELF measure, ubiquitous in econometric accounts of economic growth, ethnic violence, political stability and other outcomes, should be disaggregated by time, by cleavage, and by salience, and that those who employ it consider the possibility of endogeneity. Economists would be incredulous if a scholar plugged in a single economic variable, say the rate of inflation in 1945, and thought that it was a good measure of a country's level of prosperity in 1990. They would be similarly incredulous if the scholar then used the measure to explain outcomes like democracy or political stability, which are often postulated as causes of economic prosperity. Constructivists should be equally nonplussed when a "one size fits all" measure of ethnic fractionalization, taken at a single point in time, on a single dimension, and with no attention to its

salience or its potential endogeneity, is used as an explanation for consequential political outcomes.

What Can Be Done?

The implications of this constructivist critique of the standard ELF index for data collection are immense. To start, we would need to construct a list, for each polity, of all of the ethnic cleavages understood by members of the population to be meaningful axes of social differentiation. Such a list would vary from country to country but would probably include language, tribe, clan structure, caste, race and religion. We would then need to identify, for each line of ethnic cleavage, both the categories into which people are divided and the percentage of people within each category. Thus if the dimension of ethnic cleavage is "world religions," we would need to know the percentage of Christians, Muslims, Hindus, Buddhists and Jews. Note, however, that many of these categories are themselves sub-dividable: within the "Christianity" category, a number of additional distinctions might be relevant – for example, among Eastern Orthodox, Roman Catholic, and a range of Protestant affiliations. Therefore religion might involve more than one dimension in a country. We would also need to know which of these categories is politically salient for different kinds of issues and different loci of competition. Indeed, we should emphasize that the politically salient dimension may be different within a sub-unit of a polity from the polity itself. For example, it may be the case that race is a consequential dimension in U.S. politics, but is not salient in Minnesota. An ethnic fractionalization score for Minnesota (in a study of the various U.S. states) might be computed on the basis of religious denomination while a cross-national study might compute fractionalization in the U.S. to be based on national origin or race. Finally, we would want periodic re-scoring of these fractionalization scores to build up a longitudinal dimension.

Many constructivists, while sympathetic to our call for greater appreciation of ethnic complexity, will bristle at the idea that ethnic identities could actually be measured in the way that the data collection program that we propose would require. They would argue that we have learned that ethnic identities are situational, driven by context, and that it is therefore impossible to divide a population into categories of identity in any time period. A saleswoman in a Kenyan market might present herself as a Luo to a customer speaking that language (as her mother was a Luo-speaker), as a Kikuyu to a customer in an expensive suit (as her father was a Kikuyu), and as a Swahili to her neighbor in the market (as Kiswahili is the lingua franca of East African tradespeople). An American social scientist who asked for her ethnic identity, might get "Kenyan" as a response. Our trader, when asked for her ethnic identity, might in different contexts answer with Luo, Kikuyu, Swahili, or Kenyan. Constructivists will point out that all of these answers are correct, at one and the same time, and that such complexity undermines any attempt to categorize a population ethnically.

We do not think these observations are damaging to our proposed data gathering exercise. There are usually clear rules for self-definition ethnically. If a patrilineal descent rule is practiced in Kenya, this market woman would be categorized as Kikuyu, despite her clever move to win a sale to a Luo customer by portraying herself as one of his kin. She may speak Swahili, but if pressed would hardly consider herself Swahili by ethnicity. This could be confirmed by further observation, for example watching as she is excluded from ethnic Swahili trade networks. And so, for tribal identity, we could code her correctly as Kikuyu, though we might also code her linguistically as a Swahili speaker.

As for her last answer (Kenyan), it is important to know the extent to which new national identities are forming, and becoming ethnicized. We would guess that a Kenyan ethnic identity would be evoked in some contexts, for example answering questions to a foreigner, or complaining about resources being spent on Somali refugees that are spent at the expense of "genuine Kenyans." To the extent that a Kenyan identity gets evoked in many contexts, we would begin to see, at least on one important measure, a reduction in the level of ethnic heterogeneity in Kenya, as occurred for example with the creation of Frenchmen in Third Republic France. If "Kenyan" vs. "foreigner" is a cleavage in Kenyan society, we should make sure this is one of the dimensions of ethnic division on which we collect data. Ethnicity may be situational, but there are rules in each society how best to code people, and these rules should become a basis for coding percentages in a revised set of fractionalization indices.

Theories that posit some eternal presence of ethnic groups will be satisfied with the ELF measures derived from the work of the Soviet geographers who assidu-

ously counted the world's ethnic groups for each country in the 1950s and 1960s. Constructivist theory teaches us that the assumption of eternal membership is flawed. If we want to build better models of the relationship between ethnic diversity and economic growth or political stability or the quality of governance, it is essential to commit ourselves, as a discipline, to the collection of data that validly represents the multiple dimensions of ethnic diversity found in each country, and does so over time. This is an immense challenge to our field. But it is more than justified by the cumulative findings of the last thirty years of work on ethnicity. This research undermines not just the external validity of the Soviet data, but the entire essentialist premise on which the data collection exercise was built. Econometric analyses that aim to test the effects of ethnic diversity will need to take regard of constructivist findings and seek better-conceived data on ethnic fractionalization than they are currently employing.

Constructivist Assumptions and Ethnic Violence

Steven I. Wilkinson
Duke University
swilkins@duke.edu

It is easy to get depressed about the implications of constructivist insights for the study of ethnic violence. If we accept some of the key constructivist ideas–that individuals have multiple ethnic identities, whose salience changes over time and in different contexts–then where does this leave the many theories of violence that assume that ethnic groups are easily measured and stable? Should we simply throw out those explanations that use a country's or a town's ethnic balance–whether measured through percentages or ethnic fractionalization indices–as a key explanatory variable? And what are we to do with "security dilemma" models of ethnic violence, if they are premised on the existence of solid and threatening ethnic groups in which we no longer believe?

One response–comforting to those of us who have invested a great deal of time and effort in data collection–is to claim that the constructivist critique is not so serious that we need to revise our basic measures of ethnic identities and ethnic violence, or the theories we have developed using these measures. Even if we grant that the constructivists are correct in pointing out that *some people* have multiple identities whose salience changes in response to economic incentives, violence, and institutional constraints, the overall proportion of such multidimensional "switchers" may be so small in practice that our basic census-derived measures of ethnic identity might still be reliable.

However, the proportion of those who switch among multiple identities is probably not small. The evidence suggests that even after instances of large-scale violence or state-sponsored polarization, a large number of people continue to have what Mary Waters terms "ethnic opions" (Waters 1990). In the mixed German/ Czech town of Budejovice, for example, one researcher has found that even after riots in the late 19th and early 20th centuries, 11% of the town's 40,000 "Czechs" could still switch and redefine themselves as "German" in the early 1940s. If we ignore both the multiplicity of ethnic identities that individuals can invoke and such periodic shifts, we will inevitably come to the wrong conclusions about what causes ethnic violence, and about what measures might prevent it.

Such changes in the salience of ethnic identities, furthermore, are seldom accidental. Provoking violence, and then ensuring it is labeled appropriately, is often the *means* by which political entrepreneurs try to mobilize constituents around one (politically advantageous) ethnic identity rather than another (Brass 1997). In 19th century Ireland, for example, Episcopalian Tory politicians provided financial and organizational support for Orange marches through Catholic neighborhoods in order to provoke a defensive reaction from Catholics that would help rally Methodist and Presbyterian voters to the Tory party, and therefore preserve Episcopalian dominance in politics. So to see these "Protestant-Catholic" riots purely as evidence of the strength of the 19th century Protestant-Catholic religious cleavage, and to explain them using such measures as the inter-religious population balance reported in the subsequent census, would be to confuse the theoretical cause of ethnic violence with its effect.

Consider the problems in Easterly's recent statistical study of ethnic violence since the 1960s, which concludes that "ethnic fragmentation has a significant and positive effect on the probability of genocide, while the interaction term between ethnic fragmentation and institutions has a negative effect." (Easterly 2000) Potentially these findings might be used to develop models showing why